

Los Osos Valley Road/US 101 Interchange Improvements Project

San Luis Obispo County, California

05-SLO-101-PM 25.5-26.3

05-0000-0082

05-0H7300

SCH# 2008061098

Initial Study with Mitigated Negative Declaration



Photo simulation of proposed roadway

Prepared by the
State of California Department of Transportation

August 2011



General Information About This Document

What's in this document?

This document contains a Mitigated Negative Declaration, which examines the environmental effects of a proposed project on US 101 in San Luis Obispo County.

The Initial Study with proposed Mitigated Negative Declaration was circulated for public review and comment from June 18, 2008 to July 18, 2008. Responses to the circulated document are shown in the Comments and Responses section of this document (Appendix D), which has been added since the draft. Elsewhere throughout this document, a line in the margin indicates where changes have been made since the draft document was circulated.

What happens after this?

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, the California Department of Transportation can design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Jason Wilkinson, 50 Higuera Street, San Luis Obispo, CA 93401; (805) 542-4663 Voice, or use the California Relay Service TTY number at (805) 549-3259.

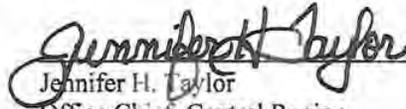
Los Osos Valley Road/US 101 Interchange Improvements Project

**INITIAL STUDY
with Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation

12/28/09
Date of Approval


Jennifer H. Taylor
Office Chief, Central Region
Environmental South
California Department of Transportation

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to improve the Los Osos Valley Road/US 101 interchange in the City and County of San Luis Obispo. The project would correct operational deficiencies and improve safety. The project would widen the Los Osos Valley Road overcrossing and widen the adjacent bridge crossing San Luis Obispo Creek. Alternative 3 was selected by Caltrans on September 26, 2008.

Determination

Caltrans has adopted a Mitigated Negative Declaration for this project. This determination has been made based on comments received by interested agencies and the public during circulation of the Initial Study.

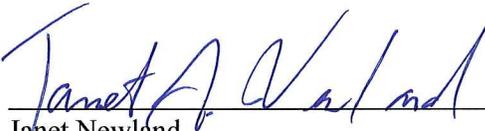
Caltrans has prepared an Initial Study for this project and has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons: The proposed project would have no effect on land use and planning, mineral resources, population and housing, or recreation. In addition, the proposed project would have no significant effect on agricultural resources, utilities, or service systems.

In addition, the proposed project would have no significantly adverse effect on aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation/traffic, or mandatory findings of significance because the following mitigation and minimization measures would reduce potential effects to insignificance:

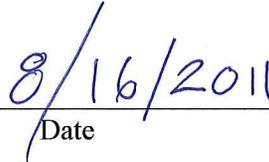
- Impacts on aesthetics would be mitigated by Mitigation Measures V-1 through V-4. The proposed project would implement a landscape plan, a revegetation plan, and a lighting plan.
- Air quality impacts would be mitigated by Minimization Measures AQ-1 through AQ-3. The proposed project would implement a dust control plan, measures for construction emissions, and toxic control measures for naturally occurring asbestos. In addition the proposed project would utilize Best Management Practices.
- Impacts to biological resources would be mitigated by Mitigation Measures BIO-1 through BIO-27. The project would implement conservation measures, environmentally sensitive area fencing, Biological Opinion minimization measures, construction season restrictions, and Best Management Practices.
- Impacts to cultural resources would be mitigated by Mitigation Measures CR-1 through CR-3. The proposed project would stop work if cultural resources are found and notify the county coroner and Caltrans District 5.
- Impacts to paleontological resources would be mitigated by Mitigation Measure PALEO-1. The project would stop construction activities if buried paleontological materials are inadvertently discovered.
- The potential for hazardous waste impacts would be minimized by Minimization Measures HW-1 through HW-8. The proposed project would determine the status of remediation, perform a preliminary aerially deposited lead investigation, conduct a lead-based paint survey, test yellow stripe and pavement marking material, conduct asbestos and naturally occurring asbestos surveys, and test leaking transformers. The project would also follow Caltrans standards if unknown hazards are discovered.
- Water quality impacts would be mitigated and minimized by Mitigation/Minimization Measures BIO-5, BIO-18, BIO-23, BIO-24 and WQ-1 through WQ-3. The project would

implement a storm water pollution prevention plan with measures to control erosion and turbidity. The project would also implement a spill prevention and control program and would design and implement a detention basin for storm water runoff.

- Noise impacts would be minimized by Minimization Measures NOI-1 through NOI-3. The project would include construction sound control measures, provide contact information for noise complaints, and limit night work to the extent feasible.
- Traffic impacts would be minimized by Minimization Measures TRA-1. The proposed project would prepare a traffic control plan.



Janet Newland
Acting Office Chief, Central Region
Environmental South
California Department of Transportation



Date

Summary

The California Department of Transportation (Caltrans) proposes to improve the Los Osos Valley Road/US 101 interchange in the City and County of San Luis Obispo. The project would correct operational deficiencies and improve safety by widening the Los Osos Valley Road overcrossing and an adjacent bridge crossing San Luis Obispo Creek. The project could also potentially relocate and reconfigure the freeway ramps, depending on the alternative chosen.

Two build alternatives—Alternative 3 and Alternative 6—and a No-Build Alternative are being considered. The estimated construction cost of the build alternatives ranges from \$20 million to \$29 million. Alternative 3 has been identified by the City of San Luis Obispo as the locally preferred alternative.

The build alternatives differ in the method used to provide additional travel lanes on Los Osos Valley Road at the US 101 overcrossing. Alternative 3 would use the existing structure to carry the westbound lanes and would construct a separate but adjacent overcrossing structure to carry the eastbound lanes. Alternative 6 would replace the existing structure with a new, wider structure that would accommodate both the westbound and eastbound lanes. Other differences include type and location of the southbound on- and off-ramps and the configuration of the northbound on- and off-ramp intersection with Los Osos Valley Road.

Below is a summary of the major potential environmental impacts, both beneficial and adverse, for the project. At the end is a table showing the impacts for each alternative.

Impacts to Biological Resources

Sensitive biological resources within the project area include anadromous fish and the California red-legged frog. Both Prefumo and San Luis Obispo creeks contain habitat suitable for the southwestern pond turtle, southern steelhead trout, the California red-legged frog, and the two-striped garter snake. Froom Creek may also provide habitat for sensitive aquatic species during the wet season. The vegetation existing within both riparian (streamside) corridors provides habitat for nesting birds, including Cooper's hawk, the northern harrier, the white-tailed kite, the western burrowing owl, and other migratory birds and raptors. The existing rangeland extending into the hillsides west of US 101 presents suitable habitat for the burrowing owl. Implementation of the proposed project may result in potentially substantial impacts to these species during the construction phase of the project, including temporary loss of habitat, degradation from increased creek turbidity and the potential for fuel or oil spills, and increased human activity within habitat areas.

Rectifying existing hydrologic conditions is intended to improve the in-stream channel conditions. To avoid sediment discharge into the channel during removal of piles and from construction of bridge abutments and piles, temporary sedimentation and erosion control mitigation measures would be required during construction.

Impacts to Visual Quality

Visual impacts from the project are considered generally positive based on construction or replacement of existing structures using enhanced engineering architecture and aesthetic treatment and more distinctive and modern features that would improve the gateway nature of the project setting. Loss of mature vegetation within the project site and along the approaches is likely considered a substantial change, but would be mitigated by the replacement of vegetation and trees conforming to the City's policy.

Summary of Major Potential Impacts from Alternatives

Potential Impact		Alternative 3	Alternative 6	No-Build Alternative
Land Use	Consistency with the City of San Luis Obispo General Plan	Yes: The project is consistent with the City’s Land Use Element, and requires minor right-of-way sliver takes.	Yes: The project is consistent with the City’s Land Use Element, and requires minor right-of-way sliver takes.	Projected roadway level of service is inconsistent with City’s Circulation Element.
	Consistency with the San Luis Obispo County General Plan	Yes: The project is consistent with the County’s Land Use Element and General Plan.	Yes: The project is consistent with the County’s Land Use Element and General Plan.	Projected roadway level of service is inconsistent with County Circulation Element.
Growth		No adverse impact. The project would not affect the location, distribution, density, or growth rate of the population within the area of the proposed project.	No adverse impact. The project would not affect the location, distribution, density, or growth rate of the population within the area of the proposed project.	Projected roadway level of service is inconsistent with City’s Circulation Element.
Utilities/Emergency Services		Alternative 3 would require utility coordination and relocation of MCI, AT&T, PG&E, SBC, Southern California Gas, City of San Luis Obispo, Carter Communications, and TOSCO.	Alternative 6 would require utility coordination and relocation of PG&E, SBC, Southern California Gas, City of San Luis Obispo, and Charter Communications.	No impact.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		No Impact	No Impact	Congestion under the no-build would increase.
Visual/Aesthetics		Long-term impact considered neutral. Some short-term impacts from loss of mature vegetation.	Long-term impact considered neutral. Some short-term impacts from loss of mature vegetation.	No change from current views.
Hydrology and Floodplain		No Impact	No Impact	Existing culvert capacity is deficient and occasionally overtops US 101. No-Build Alternative will maintain existing deficient conditions unable to pass the 25-year design flow.
Water Quality and Stormwater Runoff		Alternative 3 would result in a small increase in surface runoff from the proposed project, but would not result in flows exceeding the capacity of existing or planned storm drainage facilities.	Alternative 6 would result in a small increase in surface runoff from the proposed project, but would not result in flows exceeding the capacity of existing or planned storm drainage facilities.	No impact.

Summary

Potential Impact	Alternative 3	Alternative 6	No-Build Alternative
Geology/Soils/ Seismic/Topography	Portions of the project site are situated on soils with moderate expansion potential, and the proposed project is located within, or in close proximity to, the Los Osos fault zone.	Portions of the project site are situated on soils with moderate expansion potential, and the proposed project is located within, or in close proximity to, the Los Osos fault zone.	No impact.
Paleontology	Alternative 3 would not likely result in the discovery or degradation of paleontological resources.	Construction of Alternative 6 could have potential impacts to unique paleontological resources.	No impact.
Hazardous Waste/Materials	There are several areas of concern for hazardous waste during construction, including potential lead paint, aerial deposited lead, and potential asbestos-containing materials associated with construction of this alternative. Soil and/or groundwater contamination may exist at 3 properties in the project area.	There are several areas of concern for hazardous waste during construction, including potential lead paint, aerial deposited lead, and potential asbestos-containing materials associated with construction of this alternative. Soil and/or groundwater contamination may exist at 3 properties in the project area.	No impact.
Natural Communities	No Impacts.	No Impacts.	No impact.
Wetlands and other Waters	The study area supports seasonal wetland, freshwater marsh, seasonal drainage, and perennial drainage. These would receive minor temporary and permanent impacts. Alternative 3 has a smaller footprint than the other build alternative with forecast impacts (temporary plus permanent) listed below. <i>Alternative 3 Impacts</i> 1. Seasonal wetland/ freshwater marsh (0.20 acre) 2. Seasonal drainage (0.04 acre) 3. Perennial drainage (0.26 acre)	The study area supports seasonal wetland, freshwater marsh, seasonal drainage, and perennial drainage. These would receive minor temporary and permanent impacts. Alternative 6 has a larger footprint than the other build alternative with forecast impacts (temporary plus permanent) listed below. <i>Alternative 6 Impacts</i> 1. Seasonal wetland/ freshwater marsh (0.19 acre) 2. Seasonal drainage (0.07 acre) 3. Perennial drainage (0.26 acre)	No impact.
Biological Resources	Field investigations found that 57 sensitive plant species and 17 sensitive wildlife (and fish) species have the potential to occur in the project region.	Field investigations found that 57 sensitive plant species and 17 sensitive wildlife (and fish) species have the potential to occur in the project region.	No impact.
Cumulative Impacts	No impact	No Impact	No impact.

Table of Contents

Mitigated Negative Declaration	i
Summary	iii
List of Figures	vii
List of Abbreviated Terms	ix
Chapter 1. Proposed Project.....	1
1.1. Introduction	1
1.2. Purpose and Need.....	4
1.2.1. Purpose	4
1.2.2. Need	4
1.3. Alternatives	7
1.3.1. Build Alternatives	8
1.3.2. No-Build Alternative.....	23
1.3.3. Comparison of Alternatives	23
1.3.4. Identification of a Preferred Alternative	24
1.3.5. Alternatives Considered but Eliminated From Further Discussion	24
1.4. Permits and Approvals Needed	27
Chapter 2. Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures.....	28
2.1. Human Environment	29
2.1.1. Land Use	29
2.1.1.1. Existing and Future Land Use.....	29
2.1.1.2. Consistency with State, Regional, and Local Plans	29
2.1.2. Farmlands	30
2.1.3. Real Property Aquisition.....	30
2.1.4. Utilities/Emergency Services	31
2.1.5. Traffic and Transportation/Pedestrian and Bicycle Facilities	33
2.1.6. Visual/Aesthetics.....	36
2.2. Physical Environment	43
2.2.1. Hydrology and Floodplain	43
2.2.2. Water Quality and Storm Water Runoff	44
2.2.3. Geology/Soils/Seismic/Topography.....	49
2.2.4. Paleontology.....	51
2.2.5. Hazardous Waste or Materials	51
2.2.6. Air Quality.....	54
2.3. Biological Environment	57
2.3.1. Natural Communities	57
2.3.2. Wetlands and Other Waters.....	65
2.3.3. Animal Species.....	75
2.3.4. Threatened and Endangered Species.....	84
2.4. Construction Impacts.....	94
2.5. Cumulative Impacts.....	101
2.6. Climate Change under the California Environmental Quality Act	102
Chapter 3. Comments and Coordination.....	114
Chapter 4. List of Preparers	117
Chapter 5. References	120

Appendix A	California Environmental Quality Act Checklist	124
Appendix B	Title VI Policy Statement	134
Appendix C	Minimization and/or Mitigation Summary	135
Appendix D	Public Comments and Responses.....	167
	List of Technical Studies that are Bound Separately	30625

List of Figures

Figure 1.1-1: Project Location	2
Figure 1.3-1: Alternative 3 – Engineering Features.....	12
Figure 1.3-2: Alternative 3 – Engineering Overview	14
Figure 1.3-3: Alternative 6 – Engineering Features.....	19
Figure 1.3-4: Alternative 6 – Engineering Overview	21
Figure 2.1-1: Photo Simulation 1, View South of Traveler on US 101	39
Figure 2.1-2: Photo Simulation 2, View North of Traveler on US 101.....	40
Figure 2.1-3: Photo Simulation 4. The Project Alternatives as Seen From Los Osos Valley Road, View West of Traveler on Los Osos Valley Road over US 101	41
Figure 2.3-1: Biological Resources – Alternative 3.....	59
Figure 2.3-2: Biological Resources – Alternative 6.....	61
Figure 2.6-1 California Greenhouse Gas Inventory	104
Figure 2.6-2: Fleet Carbon Dioxide (CO ₂) Emissions vs. Speed (Highways).....	106
Figure 2.6-3: Outcome of Strategic Growth Plan	109

List of Tables

Summary of Major Potential Impacts from Alternatives.....	iv
Table 1.2-1: Existing and Projected Level of Service (LOS)	4
Table 1.2-2: Design Year (2035) Intersection Level of Service Summary - No-Build Alternative	5
Table 1.2-3: Design Year (2035) Peak-Hour Level of Service for Alternative 3 and Alternative 6 with and without Prado Interchange.....	5
Table 1.2-4: Summary of Collision Rate Data.....	7
Table 1.3-1: Preferred Alternative Selection Criteria	24
Table 1.4-1: Permits, Reviews, and Approvals Required for Project Construction	27
Table 2.1-1: Proposed Utility Relocations.....	32
Table 2.1-2: Opening Year (2015) Intersection Levels of Service	34
Table 2.1-3: Design Year (2035) Intersection Level of Service Summary	35
Table 2.2-1 Potential Hazardous Waste Sites	52
Table 2.2-2: Air Quality Standards	56
Table 2.3-1: Impacts to Wetlands and Other Waters of the U.S.....	69
Table 2.3-2: Sensitive Wildlife and Fish Species Potentially Occurring in the Study Area	76
Table 2.3-3 Impacts to Habitat for Special-Status Animals	79
Table 2.3-4: Threatened Species Potentially Occurring in the Study Area	85
Table 2.3-5 Impacts to Habitat for Threatened Species.....	87
Table 2.4-1: Level of Construction Activity Requiring Mitigation	96
Table 2.4-2: Construction Emission Estimates in pounds/day	97
Table 2.4-3 Construction Control Measures	99
Table 2.4-4 Typical Construction Equipment Noise Levels.....	100
Table 2.6-1: Design Year (2015) Intersection Level of Service Summary	106
Table 2.6-2: Design Year (2035) Intersection Level of Service Summary	107
Table 2.6-3: Improving Transportation System Efficiency	111

List of Abbreviated Terms

Caltrans
CEQA
PM

California Department of Transportation
California Environmental Quality Act
post mile

Chapter 1. Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to improve the Los Osos Valley Road/US 101 interchange in the City and County of San Luis Obispo. The project lies in the City of San Luis Obispo at the edge of the Los Osos Valley, against the Irish Hills (see Figure 1.1).

The existing Los Osos Valley Road/US 101 interchange is a diamond interchange, except for a loop ramp in the southeast quadrant. The Los Osos Valley Road overcrossing was constructed in 1962 to carry two lanes of traffic. It was widened in 1987 to carry three lanes of traffic. The two-lane US 101 alignment was constructed in 1933 and was widened to four lanes in 1954. This portion of US 101 is used mostly by local commuters, although interregional traffic also uses it.

The project setting includes both natural resource features and a developed, urban environment. The interchange vicinity also has San Luis Obispo Creek, Prefumo Creek, and Froom Creek stream crossings within the project area. Riparian vegetation, sycamore, and annual grasslands comprise the primary vegetation resources within the interchange area and host several species and habitats of special concern. Land uses in the area include vacant, residential, commercial, light industrial, and agricultural activity.

The existing Los Osos Valley Road Bridge (Bridge No. 49 0185) is a four-span structure about 300.5 feet long and 55 feet wide. The on-ramp to southbound US 101 is accessed from Calle Joaquin south and not directly from Los Osos Valley Road. The southbound US 101 off-ramp intersects Los Osos Valley Road at the Los Osos Valley Road/Calle Joaquin south intersection. Calle Joaquin north intersects Los Osos Valley Road approximately 300 feet west of the southbound US 101 off-ramp/Calle Joaquin south intersection. This portion of US 101 is a four-lane freeway with 12-foot lanes, 8-foot right shoulders, and a median width of 40 feet.

The project would correct operational deficiencies and improve safety; it would widen the Los Osos Valley Road overcrossing and an adjacent bridge crossing San Luis Obispo Creek. The project could also potentially relocate and reconfigure the freeway ramps, depending on the alternative chosen.

Both build alternatives are compatible with the design concept and are included in the adopted Regional Transportation Plan, Vision 2025—a Regional Transportation Plan and adopted Transportation Improvement Program, 2007 Transportation Improvement Program. The proposed project is identified in Appendix 1 of the Regional Transportation Plan as Metropolitan Planning Organization ID: 222300000081, Los Osos Valley Road Interchange Project.

San Luis Obispo Council of Government's Transportation Improvement Program identifies the proposed project as Transportation Improvement Program ID: Metropolitan Planning Organization ID: 222300000081, Los Osos Valley Road Interchange Project.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to improve traffic operations and safety on Los Osos Valley Road and the Los Osos Valley Road/US 101 interchange.

1.2.2 Need

The project is needed to respond to projected increases in regional and local traffic demand on the state and local roadway systems at the Los Osos Valley Road/US 101 interchange. The area’s current lack of alternative routes and presence of non-standard existing roadway design combine with increased traffic to escalate congestion and reduce traffic safety for vehicle, bicycle, and pedestrian travel.

The following features do not meet current Caltrans design standards: the current intersection spacing between Calle Joaquin and the southbound ramps, the vertical clearance provided by the Los Osos Valley Road overcrossing, the deceleration lane lengths for the northbound and southbound off-ramps, and the acceleration lane lengths for the northbound and southbound on-ramps. The Circulation Element (San Luis Obispo 1994) of the General Plan identifies this segment of Los Osos Valley Road as an arterial street. The Circulation Element states that outside the downtown core, arterial streets should include bicycle lanes and can include two to four travel lanes, a maximum Level of Service of D, and maximum speeds of 40 miles per hour.

Table 1.2-1 summarizes the current and projected Level of Service. According to the Transportation Research Board’s Highway Capacity Manual (2000), Level of Service is a quality measure describing operational conditions within a traffic stream or intersection, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Level of Service is measured on a scale of A through F, with “A” being optimum conditions and “F” being worst conditions.

Table 1.2-1: Existing and Projected Level of Service (LOS)

Intersection	Existing (2005)		2035 Projected (No Build)	
	AM LOS	PM LOS	AM LOS	PM LOS
Los Osos Valley Road US 101 Southbound Off-ramp/Calle Joaquin	E	D	F	F
Calle Joaquin/Southbound On-ramp	A	A	F	F
Los Osos Valley Road /US 101 Northbound Ramps	E	F	F	F

The traffic demand on the Los Osos Valley Road corridor will increase as the area continues to develop. New commercial uses have recently been built on Los Osos Valley Road west of the interchange at US 101. Home Depot and Costco stores have recently opened west of the interchange. Two new hotels have been proposed for development on Calle Joaquin (south). The traffic from these developments as well as other potential new development in the area has

increased and will continue to increase traffic volumes at the Los Osos Valley Road/US 101 interchange. The current interchange design is not adequate to serve the increased traffic demand.

Projected Travel Demand (No Project) – As Table 1.2-2 indicates, three of the four study intersections associated with the Los Osos Valley Road/US 101 interchange will experience Level of Service E or F conditions during both peak hours. Without the proposed improvements, the capacity of the existing interchange will be exceeded, resulting in severe congestion.

Table 1.2-2: Design Year (2035) Intersection Level of Service Summary - No-Build Alternative

Location	Traffic Control	Level of Service and Average Delay (seconds per vehicle)	
		AM	PM
Los Osos Valley Road/Auto Park Way	Signal	F (163)	E (77)
Los Osos Valley Road/Calle Joaquin	Signal	F (134)	F (84)
Los Osos Valley Road/US 101 Southbound Ramps	Signal	F (>200)	F (>200)
Los Osos Valley Road/US 101 Northbound Ramps	Signal	F (>200)	F (>200)
Los Osos Valley Road/Los Verdes Drive	Side Street Stop Control	F (182)	F (>200)
Los Osos Valley Road/South Higuera Street	Signal	C (30)	F (>200)
South Higuera Street/Vachell Lane	Side Street Stop Control	F (58)	F (>200)

Notes: (1) Average delay reported in seconds per vehicle for intersections with traffic signals. For side-street stop-controlled intersections, the work movement delay is reported in seconds per vehicle; bold font indicates deficient study locations based on analysis criteria. (Traffic Analysis, 2006)

An additional analysis was conducted to show operational condition of the Los Osos Valley Road interchange if the Prado Road interchange is not completed by design year 2035. Peak hour traffic volumes are summarized below in Table 1.2-3. While the US 101 mainline volumes would not be significantly affected, an analysis of the US 101/Los Osos Valley Road ramp intersections indicates that these are projected to operate at unacceptable levels (LOS E or F) if a full Prado Road interchange is not built under design year conditions.

Table 1.2-3: Design Year (2035) Peak-Hour Level of Service for Alternative 3 and Alternative 6 with and without Prado Interchange

Intersection	2035 Projected Alt 3		2035 Projected Alt 6		2035 Projected Alt 3 No Prado		2035 Projected Alt 6 No Prado	
	AM LOS	PM LOS	AM LOS	PM LOS	AM LOS	PM LOS	AM LOS	PM LOS
Los Osos Valley Road and Calle Joaquin (Southbound Ramps Alternative 6)	A	A	C	C	C	C	E	F
US 101 Los Osos Valley Road Southbound Ramps	B	C	N/A	N/A	D	E	N/A	N/A
Los Osos Valley Road /US 101 Northbound Ramps	C	C	B	B	F	D	D	C

The additional traffic results in a decreased Level of Service at the northbound on- and off-ramps, though that Level of Service remains within required levels. However, the higher traffic count also decreases the Level of Service at the intersection of Los Osos Valley Road and Calle Joaquin, which exceeds capacity with Level of Service E in the morning and Level of Service F in the afternoon.

Future planned development and general regional growth will increase traffic volumes to the degree that all intersections in the vicinity of the Los Osos Valley Road/US 101 interchange would operate with severe congestion during both the morning and afternoon peak hours. This would result in congestion on US 101 from backups at the off-ramp intersections. This congestion would negatively affect both local traffic on Los Osos Valley Road and regional traffic on US 101, by degrading future Level of Service conditions.

Collision Rates

Data for freeway collisions near the Los Osos Valley Road/US 101 interchange were studied for the three-year period from January 2003 to December 2005. The data indicated that a total of 75 collisions occurred on the US 101 mainline, and 48 collisions occurred near the ramp merge and diverge locations. For both sets of data, nearly 60 percent of the collisions occurred in the southbound direction near the interchange.

Freeway Mainline Collisions

Freeway Mainline incidents occurred throughout the day. The highest total during any one-hour was 14 collisions, occurring between 5:00 p.m. and 6:00 p.m. Approximately 60 percent of the collisions occurred on Tuesday, Friday, or Saturday. June, November, and December were the months with the highest proportion of collisions; the remaining months had fewer than 10 percent each of the collision total. Over the 36-month period, a total of two fatalities and 30 injured persons were reported from mainline collisions.

Speeding and improper lane changes were the factors representing the highest proportion of mainline collisions at roughly 31 percent and 24 percent, respectively. Approximately 45 percent of vehicles hit an object, and 31 percent of the accidents involved a rear-end collision. Of those that hit an object, 20 hit a barrier or guardrail, while others hit dikes or curbs, cut slope or embankments, and fences. Factors such as the weather, roadway conditions, or lighting did not appear to contribute substantially to the reported collisions.

Ramp Junction Collisions

Collisions at the ramp junctions occurred throughout most of the day; however, no incidents were reported between 11:00 p.m. and 1:00 a.m. during the three-year period. Of the 48 reported collisions, 63 percent occurred in May, September, October, and December, with May and October having the highest proportion. The highest percentage of collisions occurred on Tuesdays and Fridays, with approximately 17 percent and 29 percent of the total, respectively.

Speeding and failure to yield were the main collision factors, representing 59 percent of the total, and rear-end collisions were the most frequent type of collision at nearly 52 percent. Most of the collisions occurred on clear days during daylight with dry pavement conditions. Of note is the number of collisions (37 or nearly 77 percent) that occurred on the ramp near the adjacent local intersection. No other factors such as weather, roadway conditions, or lighting appeared to contribute substantially to the reported ramp junction collisions.

Collision rates and total collisions are shown in Table 1.2-4. Collision data came from the Caltrans Traffic Accident Surveillance and Analysis System for the 36-month period from January 1, 2003 to December 31, 2005.

Table 1.2-4: Summary of Collision Rate Data

Ramp/US 101 Segment	Post Mile	Total Accidents	Actual Collision Rates			Average Collision Rates		
			Fatal	Fatal +Injury	Total Rates	Fatal	Fatal +Injury	Total Rates
US 101 Mainline	25.0-26.6	75	0.019	0.23	0.70	0.011	0.37	1.02
Northbound Off-ramp to Los Osos Valley Road	25.6	10	0.000	0.29	1.43	0.006	0.33	0.90
Northbound On-ramp from Los Osos Valley Road	25.8	15	0.000	1.29	3.86	0.001	0.24	0.70
Southbound On-ramp to Los Osos Valley Road	25.9	6	0.000	0.00	0.86	0.002	0.32	0.80
Southbound Off-ramp from Los Osos Valley Road	26.1	17	0.000	1.23	2.99	0.005	0.61	1.50

The data show two fatalities at the mainline segments and no fatalities at the ramps during the three-year analysis period. While the mainline rate is below the statewide average, all of the ramp locations have higher than average rates. The actual rate for the northbound on-ramp from Los Osos Valley Road is about five times the statewide average, and the rate for the southbound off-ramp to Los Osos Valley Road is about twice the statewide average. Based on the summary data, no specific cause of collisions at any of the study locations could be identified.

To address the issue of rear-end collisions, the project would add lanes and capacity for both off-ramps. To improve sight distance and reduce broadside collisions, the preferred alternative would also include improvements to the southbound ramp intersection with Los Osos Valley Road.

1.3 Alternatives

This section describes the proposed action and the design alternatives that were developed by a multi-disciplinary team to achieve the project purpose and need while avoiding or minimizing environmental impacts. Two build alternatives—Alternative 3 and Alternative 6—and a No-Build Alternative are under consideration. Major features used for comparison of project alternatives include project cost, level of service and other traffic data, and specific environmental impacts. This section discusses the build alternatives, the No-Build Alternative, and previously eliminated alternatives.

Caltrans proposes to improve the Los Osos Valley Road/US 101 interchange located in the City and County of San Luis Obispo. The project would correct operational deficiencies, relieve congestion, and improve safety.

1.3.1 Build Alternatives

Two build alternatives (Alternative 3 and Alternative 6) have been identified to satisfy the purpose and need for the project. Alternative 3 has been identified by the City of San Luis Obispo as the locally preferred alternative. Alternative 3 and Alternative 6 are described below.

Common Design Features of the Build Alternatives

This project is intended to accommodate current and future travel demands. Calle Joaquin Road south of Los Osos Valley Road has been realigned so that the existing T-intersection of Los Osos Valley Road and Calle Joaquin Road north of Los Osos Valley Road has been converted to a four-way intersection. The Calle Joaquin Road realignment was developed and completed by the Costco Wholesale Corporation as a condition of approval and mitigation measure for traffic impacts.

The project limits extend 0.52 mile along Los Osos Valley Road between Auto Park Way to the west and South Higuera Street to the east. Along US 101, project limits extend about 2,500 feet south and 4,300 feet north of the Los Osos Valley Road overcrossing.

With Alternative 3 and Alternative 6, the San Luis Obispo Creek arch culvert would be changed. Built in 1986, the existing large three-barrel structural steel-plate arch culvert carries Los Osos Valley Road over San Luis Obispo Creek. This project would widen and raise the roadway. These roadway changes require lengthening the culvert with a new but matching structural steel arch and increasing the loading on the existing culvert. To determine the feasibility of this increased loading, a structural analysis was conducted. The analysis showed that the existing culvert can easily carry the additional loading, making this a viable option.

To comply with the Americans with Disabilities Act, all project-related local streets would receive, on both sides of each street, sidewalks with grades and curb. To help non-motorized transportation such as pedestrians and bicyclists cross the intersections, the project would limit use of free-slip ramps, include single-lane ramps, and review the southwest corner of the US 101 northbound off-ramp and Los Osos Valley Road to determine if a widened area is needed to create a bigger “landing” area.

A portion of the proposed Bob Jones City-to-Sea Bike Trail passes through the project, providing bikeway access to connect to Los Osos Valley Road at the northbound on- and off-ramp intersection. Project design would not preclude connection of the Prefumo Creek trail extension to the future Bob Jones City-to-Sea Bike Trail, including possible extension of the trail under or over Los Osos Valley Road. Each build alternative would provide 6.5-foot-wide Class II bicycle lanes throughout the project on both sides of Los Osos Valley Road. These lanes would connect to the existing 6-foot-wide sidewalks in front of the Los Verdes Parks I and II developments.

Sidewalks on both sides of the San Luis Obispo Creek bridge would be widened to accommodate Class I bicycle trails. Safety device placement, striping, and Class I trail signs would be completed once the location and alignment of the Bob Jones City-to-Sea Bike Trail is determined south of the interchange. Any at-grade crossings of the Los Osos Valley Road by the Bob Jones City-to-Sea Bike Trail would use appropriate and safe design guidelines for visibility and signal operations. Bicycle detector loops (subsurface

wiring connected to the traffic signals) would be placed at all intersections that have traffic signals. Project design would remain consistent with the Bob Jones City-to-Sea Bike Trail Project Master Plan and the City of San Luis Obispo Bicycle Transportation Plan.

The following are included in Alternative 3 and Alternative 6:

Widen Los Osos Valley Road to four lanes from South Higuera Street to 600 feet west of Calle Joaquin to meet the existing four-lane section west of Calle Joaquin.

1. Extend the existing San Luis Obispo Creek culvert crossing to handle widened Los Osos Valley Road
2. Construct retaining walls to avoid Prefumo Creek and business impacts at Los Osos Valley Road and the US 101 southbound ramps
3. Construct sidewalks and Class II bike lanes along both sides of Los Osos Valley Road.
4. Change the existing signals at the Los Osos Valley Road and US 101 ramp intersections
5. Widen and rebuild the US 101 northbound off-ramp and build a retaining wall to avoid impacts to San Luis Obispo Creek
6. Change the landscaping and sidewalks along Los Osos Valley Road at Los Verdes Parks I and II
7. Change the striping, medians, and lane widths along Los Osos Valley Road at Los Verdes Parks I and II
8. Restripe South Higuera Street to optimize the capacity of the South Higuera Street and Los Osos Valley Road intersection (given the widening of Los Osos Valley Road)
9. Include pedestrian crossing controls at all intersections that have traffic signals (unless determined unsafe or detrimental to traffic conditions)
10. Further widen San Luis Obispo Creek bridge to accommodate a future Class I bicycle trail on each shoulder of the structure
11. Use concrete paving at off-ramp ends
12. Use street print (stamped/imprinted asphalt or concrete) through crosswalks for increased visibility
13. Use rubberized asphalt concrete, as a project feature, on Los Osos Valley Road in front of the Los Verdes Parks I and II
14. Restripe Los Osos Valley Road from two to four lanes in front of the Los Verdes Parks I and II driveways to assist with access
15. Plant native landscaping within the intersections and ramps where appropriate

Unique Features of Build Alternatives

Alternative 3—Minimum Build

Alternative 3, the locally preferred alternative, is the minimum build alternative for this project. This alternative would widen Los Osos Valley Road to four lanes between the recently-constructed Calle Joaquin intersection with Los Osos Valley Road west of US 101 and the Los Verdes Park community east of US-101; construct a new two-lane structure next to the existing Los Osos Valley Road Overcrossing; and widening San Luis Obispo Creek culvert crossing.

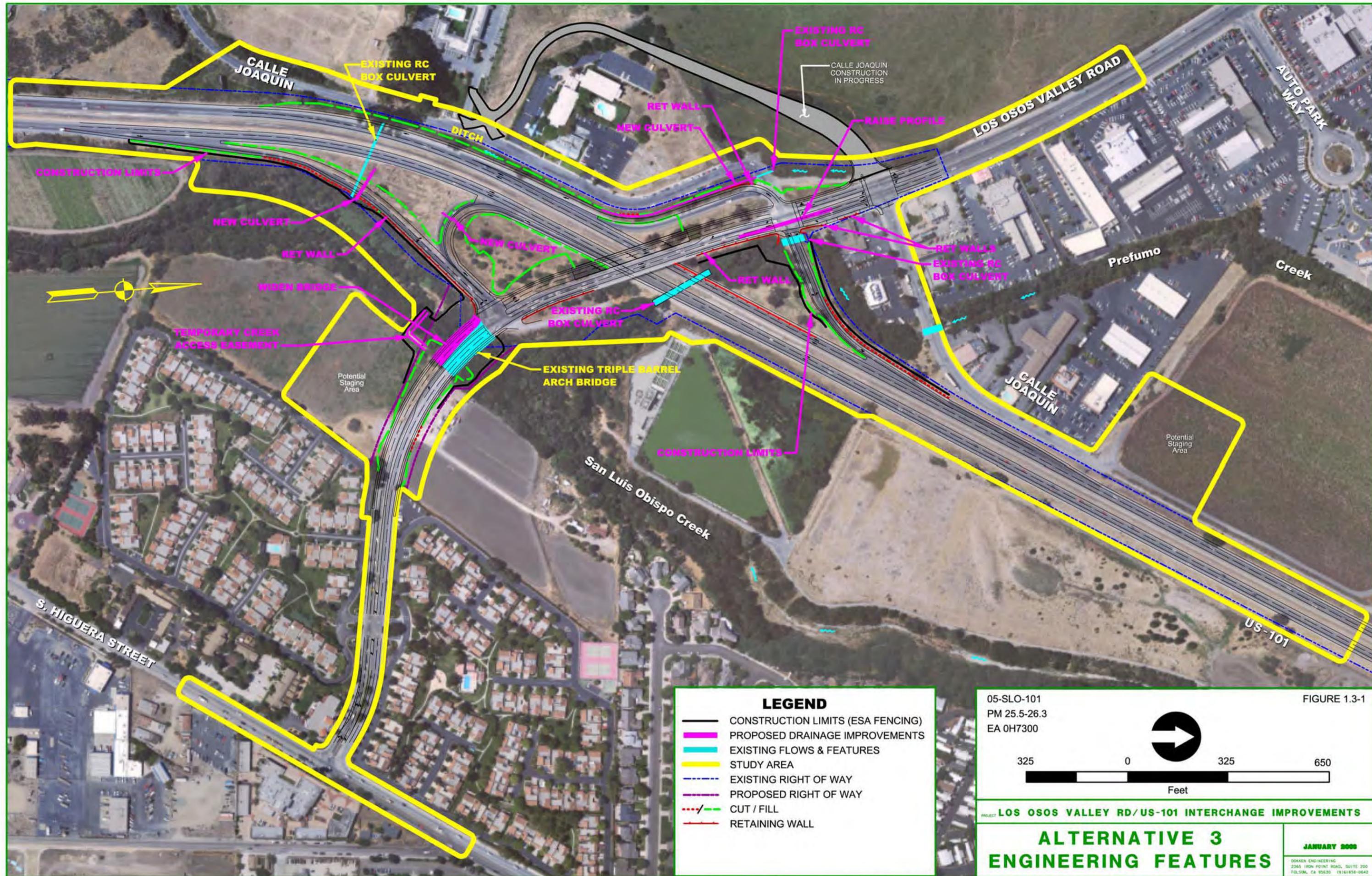
The following is the actual project work to be done:

1. Widen Los Osos Valley Road to four lanes from South Higuera Street to the existing four-lane section west of Calle Joaquin
2. Extend the existing San Luis Obispo Creek culvert crossing to accommodate widened Los Osos Valley Road.
3. Construct retaining walls to avoid Prefumo Creek and impacts to business at Los Osos Valley Road and the US 101 southbound ramps.
4. Construct sidewalks and Class II bicycle lanes along both sides of Los Osos Valley Road
5. Change the existing signals at the Los Osos Valley Road and US 101 ramp intersections
6. Widen and rebuild the US 101 northbound off-ramp and build a retaining wall to avoid impacts to San Luis Obispo Creek
7. Change the landscaping and sidewalks along Los Osos Valley Road at Los Verdes Parks I and II
8. Change the striping, medians, and lane widths along Los Osos Valley Road at Los Verdes
9. Restripe South Higuera Street to optimize the capacity of the South Higuera Street and Los Osos Valley Road intersection (given the widening of Los Osos Valley Road)
10. Pavement sections for ramps and Los Osos Valley Road would be 0.2-foot-thick rubberized asphalt concrete over 0.3-foot-thick hot-mix asphalt over 1.67-foot-thick aggregate, based on the Life Cycle Pavement Cost Analysis findings. Concrete paving would be used at both off-ramp ends
11. Use street print (stamped/imprinted asphalt or concrete) for crosswalks to increase visibility
12. Use open-grade or rubberized asphalt on Los Osos Valley Road in front of the Los Verdes Parks I and II
13. Plant native landscaping within the intersections and ramps where appropriate.
14. Construct retaining walls to avoid impacts to San Luis Obispo Creek
15. Construct a separated US 101 overcrossing to carry the two eastbound lanes

16. Raise the intersection of Los Osos Valley Road at the US 101 southbound ramps
17. Construct new street lighting along Los Osos Valley Road
18. Raise headwalls on the Prefumo Creek box culvert under the southbound off-ramp to allow for ramp raising and widening
19. Widen the US 101 southbound off-ramp and construct retaining walls
20. Change the storm drain system along Los Osos Valley Road to handle widening and profile changes
21. Construct a standard acceleration lane from the southbound on-ramp

Changes to Work to be Performed Resulting from Value Analysis and Public Comment

22. Include pedestrian crossing controls at all signalized intersections unless specific movements are determined unsafe or detrimental to traffic conditions
23. Further widen San Luis Obispo Creek Bridge to handle a future Class I bicycle trail on either shoulder of the structure.
24. Restripe Los Osos Valley Road from two to four lanes in front of the Los Verdes Parks I and II driveways to assist with access.
25. Construct a right-turn lane from eastbound Los Osos Valley Road to the northbound US 101 on-ramp.
26. Use concrete paving at end of off-ramps.
27. Outside of state right-of-way, use imprinted asphalt concrete for crosswalks for increased visibility within project limits.
28. Place bicycle detector loops (subsurface connected to traffic signals) at signalized intersections



LEGEND

- CONSTRUCTION LIMITS (ESA FENCING)
- PROPOSED DRAINAGE IMPROVEMENTS
- EXISTING FLOWS & FEATURES
- STUDY AREA
- - - EXISTING RIGHT OF WAY
- - - PROPOSED RIGHT OF WAY
- · - · - CUT / FILL
- RETAINING WALL

05-SLO-101
PM 25.5-26.3
EA 0H7300

FIGURE 1.3-1

Feet

PROJECT **LOS OSOS VALLEY RD/US-101 INTERCHANGE IMPROVEMENTS**

ALTERNATIVE 3

ENGINEERING FEATURES

JANUARY 2008

DHAKEN ENGINEERING
2365 IRON POINT ROAD, SUITE 200
FOLSOM, CA 95630 9161958-0642



LEGEND

	WORK LIMITS
	EXISTING OVERCROSSING
	PROPOSED BRIDGE
	BOX CULVERT EXTENSION
	SLO CREEK BRIDGE WIDENING
	PROPOSED RETAINING WALL

FIGURE 1.3-2

DOKKEN
ENGINEERING

2365 Iron Point Rd Suite 200
Folsom, CA, 95630 (916) 858-0642

PROJECT: **LOS OSOS VALLEY RD/US-101 INTERCHANGE IMPROVEMENTS**

ALTERNATIVE 3 ENGINEERING OVERVIEW

05-SLO-101 PM 25.5-26.3 EA 0H7300

DATE: JANUARY 2008 SCALE: NO SCALE

Alternative 6—Moderate Build, Near Full Standard

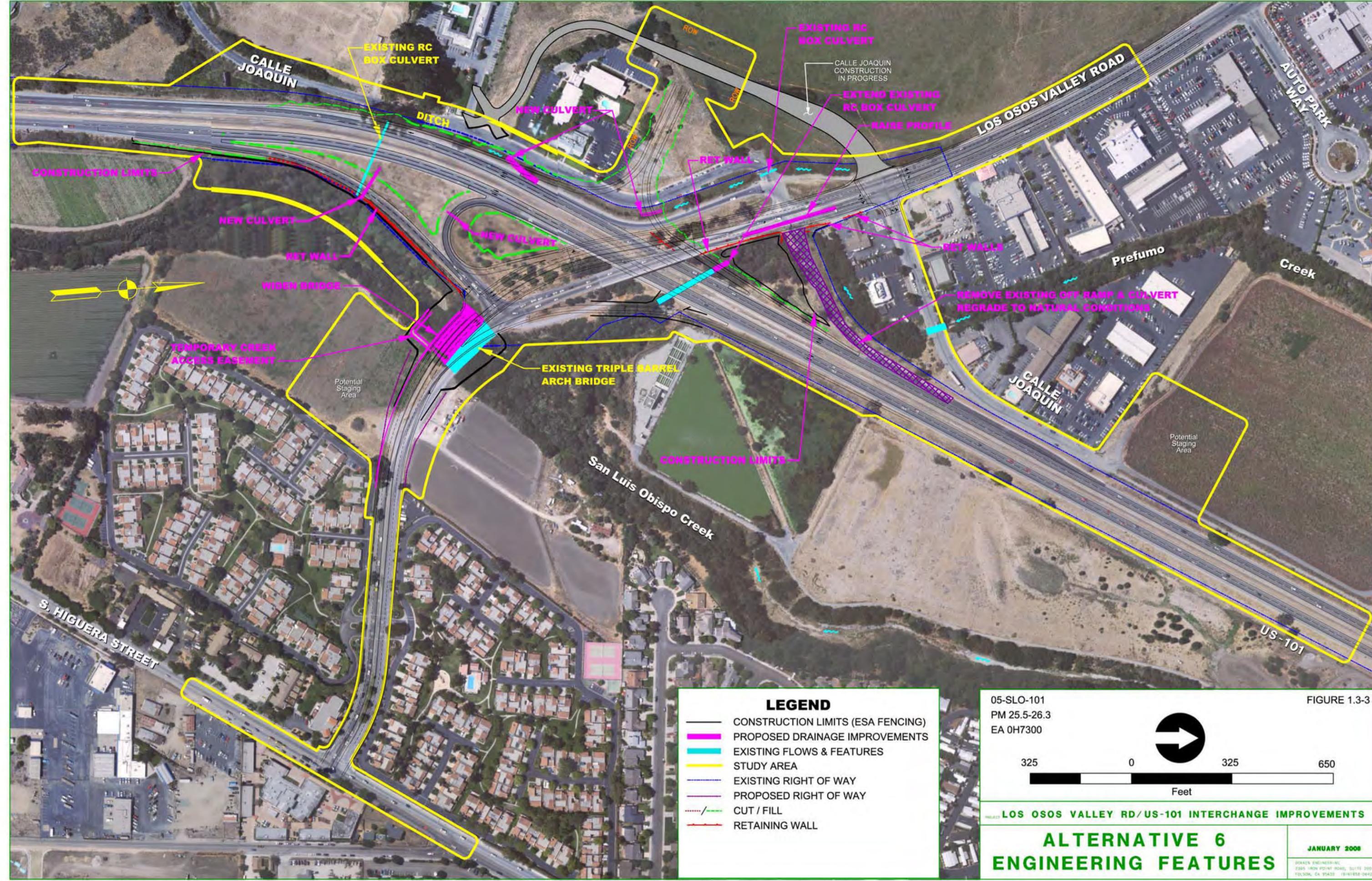
West of US 101 to east of US 101, this alternative proposes to widen Los Osos Valley Road between Calle Joaquin and the Los Verdes communities (see Figures 1.3-3 and 1.3-4). The existing Los Osos Valley Road overcrossing would be replaced to improve the profile, vertical clearance, and space required for the southbound hook off-ramp.

In addition, the existing northbound loop on-ramp to US 101 would be reconstructed, and the northbound off-ramp would be widened. A new northbound diagonal on-ramp to US 101 may be added in the northeast quadrant of the interchange as a phased improvement. An auxiliary lane would be added to northbound US 101 from the end of the northbound loop on-ramp to 1,000 feet beyond the end of the northbound diagonal on-ramp. The northbound diagonal on-ramp would be supported by retaining walls and an additional bridge over Perfumo Creek. The existing US 101 southbound on- and off-ramps would be removed. South of Los Osos Valley Road, new or relocated US 101 southbound on- and off-ramps would be constructed in a hook-ramp configuration. Calle Joaquin south of Los Osos Valley Road is being realigned to handle the realigned southbound US 101 ramps. The realign will create a US 101 and Calle Joaquin four-way intersection north of Los Osos Valley Road.

The following is actual project work to be done:

1. Widen Los Osos Valley Road to four lanes from South Higuera Street to 600 feet north of Calle Joaquin
2. Extend or reconstruct existing San Luis Obispo Creek culvert crossing to allow for the widened Los Osos Valley Road
3. Replace the overcrossing at the Los Osos Valley Road and US 101 intersection
4. Relocate and reconstruct the southbound US 101 ramps
5. Reconstruct the northbound US 101 loop on-ramp
6. Construct the northbound US 101 slip on-ramp and merge lane to US-101
7. Construct the northbound US 101 on-ramp bridge and retaining walls at Perfumo Creek
8. Construct the signalized intersection of US 101 southbound ramps and Calle Joaquin
9. Construct sidewalks and combined bicycle lane/shoulder along Los Osos Valley Road
10. Construct new street lighting along Los Osos Valley Road and Calle Joaquin
11. Modify existing signals at the Los Osos Valley Road and US 101 northbound off-ramp intersection
12. Remove the existing southbound US 101 ramps and Perfumo Creek box culvert
13. Widen the US 101 northbound off-ramp and construct a retaining wall
14. Extend the Perfumo Creek box culvert under US 101 for the new southbound off-ramp
15. Construct storm drain systems for Los Osos Valley Road and reconstruct ramps

16. Modify landscaping and sidewalks along Los Osos Valley Road at Los Verdes Parks I and II
17. Restripe South Higuera Street



CONSTRUCTION LIMITS

NEW CULVERT

RET WALL

WIDEN BRIDGE

TEMPORARY CREEK ACCESS EASEMENT

Potential Staging Area

EXISTING TRIPLE BARREL ARCH BRIDGE

San Luis Obispo Creek

CONSTRUCTION LIMITS

EXISTING RC BOX CULVERT

CALLE JOAQUIN CONSTRUCTION IN PROGRESS

EXTEND EXISTING RC BOX CULVERT

RAISE PROFILE

RET WALL

RET WALLS

REMOVE EXISTING OFF RAMP & CULVERT REGRADE TO NATURAL CONDITIONS

Prefumo

Creek

CALLE JOAQUIN

Potential Staging Area

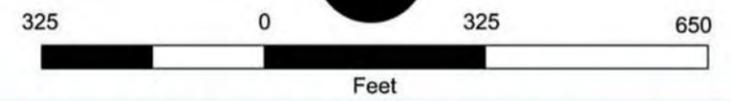
US-101

LEGEND

- CONSTRUCTION LIMITS (ESA FENCING)
- PROPOSED DRAINAGE IMPROVEMENTS
- EXISTING FLOWS & FEATURES
- STUDY AREA
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- / — CUT / FILL
- RETAINING WALL

05-SLO-101
PM 25.5-26.3
EA 0H7300

FIGURE 1.3-3

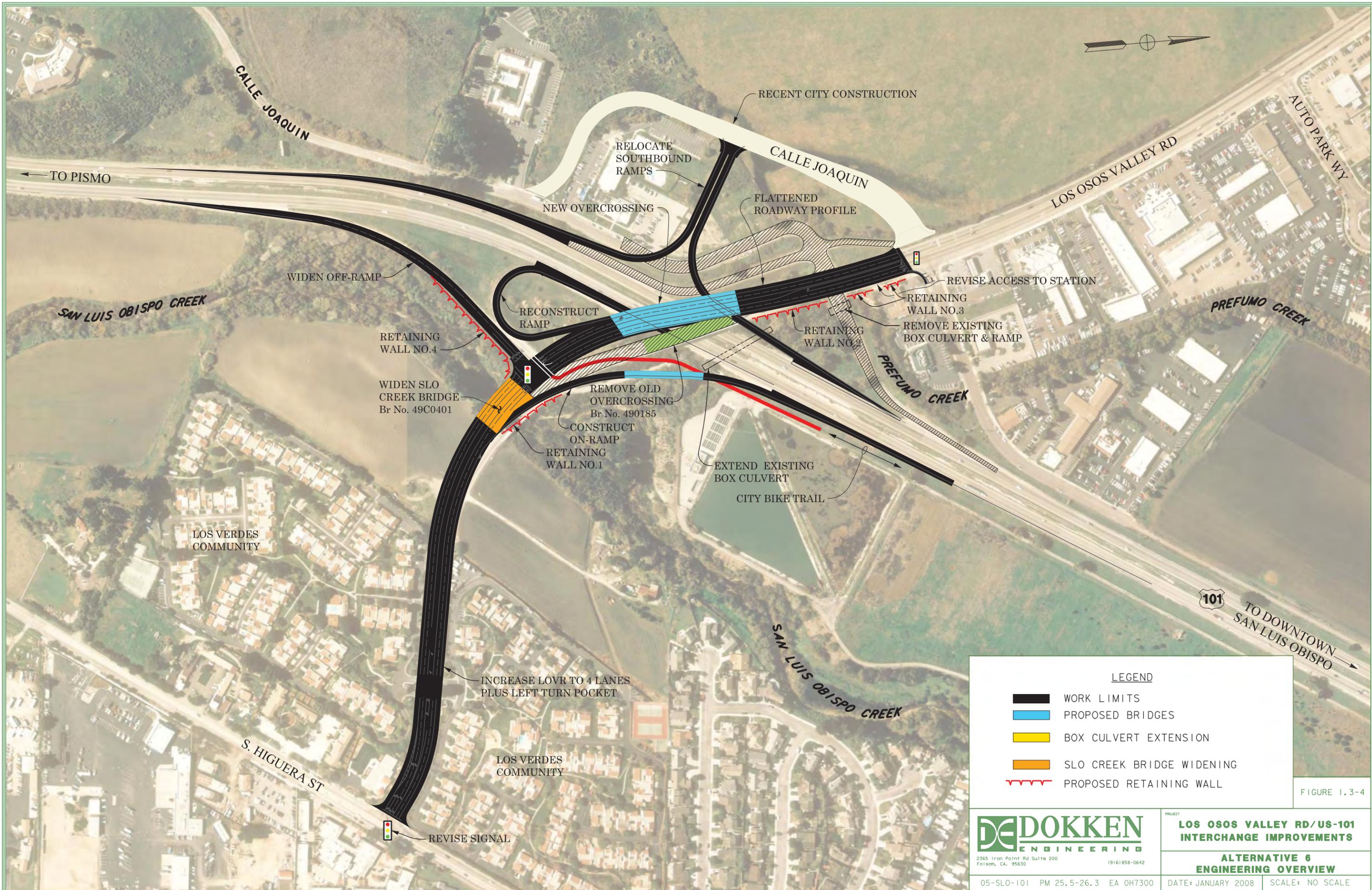


LOS OSOS VALLEY RD/US-101 INTERCHANGE IMPROVEMENTS

**ALTERNATIVE 6
ENGINEERING FEATURES**

JANUARY 2008

DOAKS ENGINEERING
2505 HIGHWAY 101, SUITE 300
FOLSOM, CA 95632 (916) 955-1940



LEGEND

	WORK LIMITS
	PROPOSED BRIDGES
	BOX CULVERT EXTENSION
	SLO CREEK BRIDGE WIDENING
	PROPOSED RETAINING WALL

FIGURE 1.3-4

DOKKEN
ENGINEERING

2365 Iron Point Rd Suite 200
Folsom, CA, 95630 (916) 858-0642

PROJECT: **LOS OSOS VALLEY RD/US-101 INTERCHANGE IMPROVEMENTS**

ALTERNATIVE 6 ENGINEERING OVERVIEW

05-SLO-101 PM 25.5-26.3 EA 0H7300

DATE: JANUARY 2008 SCALE: NO SCALE

Transportation Systems Management and Transportation Demand Management Alternatives

Transportation Systems Management, Transportation Demand Management, and modal alternatives might be seen as reasonable alternatives, but they are not being considered as viable alternatives for this project because they do not meet the safety component of the project's purpose and need.

Furthermore, ramp metering is not proposed for the northbound or southbound on-ramps as part of this project. The northbound on-ramp junction would operate at Level of Service C in 2015, similar to that of the mainline, also C. The southbound on-ramp would be metered in effect by the stop-controlled intersection at Calle Joaquin for Alternative 6. That intersection would remain stop-controlled through design year 2035. The southbound on-ramp junction would operate at Level of Service B/D, also similar to the mainline at Level of Service B/D. Ramp metering could be considered in the future as an option to widening US 101.

1.3.2 No-Build Alternative

Environmental review must consider the effects of not building the proposed project. The No-Build Alternative provides a baseline for comparing the impacts of all alternatives.

Effects of the No-Build Alternative include a deteriorating level of service, impacts to air quality, and continuing safety conditions. Unless operational improvements are made, future planned development and general regional growth would increase traffic volumes to a degree that all intersections in the vicinity of the Los Osos Valley Road and US 101 interchange would operate with severe congestion during both the morning and afternoon peak hours. This would result in congestion on US 101 from backups at the off-ramp intersections. This congestion would affect both local traffic on Los Osos Valley Road and regional traffic on US 101. Decreasing operational efficiency may negatively affect air quality and would likely affect existing safety

1.3.3 Comparison of Alternatives

The difference between Alternative 3 and Alternative 6 is the method used to add travel lanes on Los Osos Valley Road at the US 101 overcrossing. Alternative 3 would use the existing structure to carry the westbound lanes and would construct a separate but adjacent structure to carry the eastbound lanes over US 101. Alternative 6 would replace the existing structure with a new, wider structure that would accommodate both the westbound and eastbound lanes. These alternatives also differ in the type and location of the southbound on- and off-ramps and the configuration of the northbound on- and off-ramp intersection with Los Osos Valley Road, which results in a larger ultimate project footprint for Alternative 6 (refer to Figures 1.3-1 through 1.3-4). The estimated construction cost of these alternatives is \$16 million for Alternative 3 and \$23.5 million for Alternative 6.

Environmental impacts for the build alternatives are very similar in magnitude although Alternative 3 would result in slightly less ground and creek disturbance than Alternative 6. Under Alternative 6, therefore, the project would result in slightly more vegetation removal and impacts to biological resources (refer to Section 2.3). Alternative 6 would also construct deeper footings, which have the potential to affect paleontological resources. Table 1.3-1 includes a summary of the criteria used to select a preferred alternative.

Table 1.3-1: Preferred Alternative Selection Criteria

Selection Criteria	Alternative 3	Alternative 6
Purpose and Need		
Meets project purpose and need	Preferred	-
Design Features		
Method used to add travel lanes on Los Osos Valley Road at the US 101 overcrossing	Preferred	-
Location of the southbound on- and off-ramps	Preferred	-
Configuration of the northbound on- and off-ramp intersection with Los Osos Valley Road	Preferred	-
Costs		
The estimated construction cost	Preferred	-
Estimated right-of-way cost	Preferred	-
Environmental		
Amount of ground and creek disturbance	Preferred	-
Amount of vegetation removal and impacts to biological resources	Preferred	-
Depth of footings construction and impacts on paleontological resources	Preferred	-
Public Input		
Public input on preferred alternative	Preferred	-

1.3.4 Identification of a Preferred Alternative

After public review and comment, input from stakeholders and the Caltrans project development team, and a comparison of the benefits and impacts of the alternatives, Alternative 3 was selected by Caltrans as the preferred alternative and as the least environmentally damaging practicable alternative (please refer to Table 1.3-1 for selection criteria). The City of San Luis Obispo (the local project proponent) also identified Alternative 3 as the locally preferred alternative.

Alternative 3:

- Meets the project’s purpose and need to the greatest extent of the viable alternatives.
- Has the smallest environmental footprint of the viable alternatives.
- Fully accommodates future highway widening.
- Is the most feasible and attainable solution.

1.3.5 Alternatives Considered but Eliminated From Further Discussion

This section explains why certain alternatives in the early development process were not considered further.

Alternative 1

Alternative 1 proposed to replace the Los Osos Valley Road overcrossing on the current alignment to achieve standard vertical clearance over US 101. The profile of Los Osos Valley Road approaching the overcrossing would be flattened to meet stopping-sight distance standards. The San Luis Obispo Creek culvert crossing would be replaced with a bridge. The southbound

on- and off-ramps from US 101 would be realigned to move the intersection with Los Osos Valley Road west, toward US 101, to achieve standard intersection spacing. Calle Joaquin south of Los Osos Valley Road would be realigned so that the existing “T” intersection of Los Osos Valley Road and Calle Joaquin north of Los Osos Valley Road would be converted to a four-way intersection. This alternative was rejected because of its similarity to Alternative 3, which provides the same functionality while preserving existing infrastructure and minimizing cost.

Alternative 2

Alternative 2, known as the Los Verdes Bypass to South Higuera alternative, proposed to realign Los Osos Valley Road from Calle Joaquin west of US 101 to a new intersection with South Higuera Street, south of the Los Verdes neighborhood. The existing Los Osos Valley Road overcrossing and the San Luis Obispo Creek culvert crossing would be completely replaced. The severed portion of Los Osos Valley Road that provides access to Los Verdes would be either extended to intersect Los Osos Valley Road 410 feet west of the northbound ramps intersection or converted to a cul-de-sac. The northbound on- and off-ramps from US 101 would be realigned as hook ramps to cross San Luis Obispo Creek with a bridge and intersect Los Osos Valley Road. The southbound on- and off-ramps from US 101 could either intersect Los Osos Valley Road or Calle Joaquin.

This alternative had the greatest environmental impacts and highest cost of all the alternatives studied. Alternative 2 would cost approximately twice as much as Alternative 3. Operationally, the layout directed more traffic to the Higuera/US 101 interchange. While the alternative addressed some regional circulation issues, those are not a specific part of the project’s defined need and purpose to increase capacity of the Los Osos Valley Road interchange. This alternative was rejected from further consideration because of its higher environmental impacts and high cost.

Alternative 4

This alternative proposed southbound ramps between Los Osos Valley Road and Prado Road. The drawbacks of this alternative were the adverse traffic operations associated with moving the southbound on-ramp a great distance north of Los Osos Valley Road and the conversion of prime farmland (land use) for the ramp relocations. This alternative would require southbound motorists to drive nearly a half-mile from the interchange and would require the acquisition of a large piece of farmland for ramp runoffs and the Calle Joaquin extension. So, based on traffic evaluations, land use planning, and public input, this alternative was rejected from further consideration.

Alternative 5

Alternative 5, with a roundabout, proposed to widen Los Osos Valley Road between the southbound on- and off-ramps from US 101 and the Los Verdes neighborhood east of US 101. Calle Joaquin north and south of Los Osos Valley Road and the southbound US 101 ramps would be realigned to create one intersection with Los Osos Valley Road in the form of a roundabout with six access points. This alternative was rejected based on heavy public opposition, traffic operational concerns with six points of access, and severe business impacts.

Alternative 7

Alternative 7 was presented as a full standard alternative with respect to Caltrans design standards. It proposed to replace the Los Osos Valley Road overcrossing on the current alignment to achieve standard vertical clearance over US 101. The profile of Los Osos Valley Road approaching the overcrossing would be flattened to meet stopping-sight distance standards. Los Osos Valley Road would be widened between Calle Joaquin west of US 101 and the Los Verdes neighborhood east of US 101. The US 101 ramps would be realigned in a standard diamond configuration to achieve standard design speeds, sight distance, and super-elevation transitions.

Calle Joaquin would be moved west of its current connection to Los Osos Valley Road to achieve the standard intersection spacing. This alternative had high right-of-way costs for business relocation, purchase, and cleanup. It was rejected based on environmental concerns: greater negative impact to wetland, farmland, and riparian habitat; the relocation of Calle Joaquin onto delineated wetland; greater impact to migratory bird habitat; and the impact to open space and conservation areas. This alternative did not meet U.S. Army Corps of Engineers criteria for Least Environmentally Damaging Practicable Alternative and is not a viable alternative from a community impacts or cost standpoint.

1.4 Permits and Approvals Needed

Table 1.4-1: Permits, Reviews, and Approvals Required for Project Construction

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Biological Opinion was obtained from U.S. Fish and Wildlife Service on August 8, 2008
National Oceanic and Atmospheric Administration	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Biological Opinion was obtained from the National Oceanic and Atmospheric Administration on July 14, 2009
U.S. Army Corps of Engineers	Section 404 Permit for filling or dredging Waters of the United States	Application for Section 404 permit anticipated after distribution of the final environmental document
California Department of Fish and Game	Section 1602 Agreement for Lake or Streambed Alteration	Application for 1602 permit anticipated after distribution of the final environmental document
Central Coast Regional Water Quality Control Board	Water Quality Certification	Application for Section 401 permit anticipated after distribution of the final environmental document
State Water Resources Control Board	Notice of Intent to comply with the National Pollution Discharge Elimination System Permit	Application for Section 402 permit anticipated after distribution of the final environmental document

Chapter 2. Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

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:

- **Growth**—The improvements proposed for the existing interchange at Los Osos Valley Road and US 101 consist of only operational improvements to correct existing and projected deficiencies in the level of service for current traffic volumes (Traffic Study 2007).
- **Community Impacts**—The interchange is an existing feature. Because no residential relocations would occur, implementation of either build alternative would not divide or directly affect any identified neighborhood or community. Impacts relating to relocations would include only partial acquisition or temporary acquisitions for construction easements related to either build alternative or the No-Build Alternative.
- **Cultural Resources**—No historic properties were identified within or immediately adjacent to the project area of potential effect. The project would not have an adverse effect on any cultural resources. However, if previously unidentified cultural materials were unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist could assess the significance of the find. A Historic Property Survey Report regarding cultural resources was completed in 2008. No cultural resources were identified.
- **Noise and Vibration**—A Noise Impact Analysis was prepared that modeled sensitive land uses in the project vicinity. Based on results of the noise modeling for traffic conditions in the existing, future no-build, Alternative 3 and Alternative 6 scenarios, it is clear that Caltrans federal noise thresholds have not been exceeded. With respect to the California Environmental Quality Act, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact. However, the project would use alternative paving technologies, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

The project area is an existing roadway corridor and is identified in the Land Use Element and Circulation Element of the San Luis Obispo General Plan (revised 2006). Adjacent to the Los Osos Valley Road corridor are two residential communities named Los Verdes on both sides of Los Osos Valley Road. These residences are between South Higuera and agricultural land before the San Luis Obispo Creek. North of the San Luis Obispo Creek is the interchange and US 101 followed by some commercial properties until the end of the project at Calle Joaquin. North of Calle Joaquin and the project area has been designated as a Vehicle Sales Area. The agricultural land between Los Verdes and the creek is planned to be developed in the near future, but is currently zoned as agriculture in the City's Land Use Element. Portions of the existing and widened Los Osos Valley Road are also located within the 100-year floodplains and within the urban reserve creeks of the City.

Environmental Consequences

Current or future land uses surrounding the interchange would not change as a result of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required because the project does not cause adverse impacts with respect to existing or future land use.

2.1.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

The proposed project would improve an existing intersection in the City of San Luis Obispo and partially within the unincorporated county. The project is currently listed in both the City and County of San Luis Obispo's General Plan Circulation Elements.

Environmental Consequences

Because the proposed project does not change land use, but rather increases functionality of the existing interchange, the interchange improvements would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required. The project is consistent with state, regional, and local plans and does not cause adverse impacts with respect to this aspect of land use.

2.1.2 Farmlands

Regulatory Setting

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural 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.

Affected Environment

The vacant parcels east of San Luis Obispo Creek (Assessor Parcel Number 053-161-014 and 053-141-013) are identified as prime farmland in the City Conservation and Open Space Element (Figure 10: 2006). Based on information from the San Luis Obispo County Tax Assessor's Office, neither parcel is subject to a Williamson Act contract. The future plan for these parcels is currently unknown. These parcels are currently being farmed on an inconsistent basis.

Environmental Consequences

Impacts to prime farmland for Alternative 3 involve a 1.4-acre easement for channel silt removal southwest of the interchange and 0.23 acre of fill associated with the widened Los Osos Valley Road on a parcel (Assessor Parcel Number 053-161-014). Impacts to prime farmland for Alternative 6 include the 1.4-acre easement and 0.28 acre of fill associated with the widened Los Osos Valley Road on the same parcel south of Los Osos Valley Road (Assessor Parcel Number 053-161-014). None of this land is under a Williamson Act contract.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required. The project is consistent with state, regional, and local plans and does not cause adverse impacts with respect to farmland.

2.1.3 Real Property Acquisition

Affected Environment

The three parcels that would be partially or temporarily affected by the two build alternatives are identified as Assessor Parcel Numbers (APN) 053-161-014, 053-141-013, and 053-151-016. APN 053-161-014 and 053-141-013 are identified as prime farmland in the City Conservation and Open Space Element and are discussed in the Section 2.1.2 Farmlands. APN 053-151-016 is owned by ARCO gas station, and a temporary construction easement would be required (to make changes to its driveway). Temporary closure of this business could occur during construction for both alternatives. If closures occur, displacement assistance would take place. These would not cause disproportionately high and adverse effects on the health and environment of minority and low-income populations.

Environmental Consequences

Current or future real property acquisition surrounding the interchange would not permanently change as a result of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required because the project does not cause adverse impacts with respect to existing or future real property acquisition.

2.1.4 Utilities/Emergency Services

Affected Environment

The City of San Luis Obispo uses a multi-source water supply strategy, obtaining water from three sources: Salinas Reservoir (Santa Margarita Lake), Whale Rock Reservoir, and ground water.

The City of San Luis Obispo's wastewater collection system consists of 130 miles of sewer pipe (at an average depth of six feet), more than 2,500 manholes, and eight sewage pump stations. This system conveys about 4.5 million gallons of wastewater per day to the city's water reclamation facility, which is responsible for treating all of the wastewater (sewage) within the city, at Cal Poly, and at the county airport.

The artificial ponds upstream of the project area along San Luis Obispo Creek were part of an earlier city water treatment facility that is now closed. The ponds currently serve as informal natural habitat for wildlife and the City is considering various options for improvement in this capacity. Regional landfills in the area include Cold Canyon and the Chicago Grade Landfill.

The City of San Luis Obispo Fire Department provides fire protection and emergency services in the project area. The department has four fire stations in San Luis Obispo. The station that serves the project area is Fire Station Four at 1395 Madonna Road at the intersection of Madonna and Los Osos Valley roads. The City of San Luis Obispo Police Department provides police protection services in the project area. The department consists of 87 employees, 61 of which are sworn police officers.

Environmental Consequences

Implementation of the proposed project would not result in the need for additional water supply or sewer services, nor would it generate any wastewater or require new water supplies. The project would relocate electric, telephone, gas, or other public utilities with minimal disruption to service. Utility companies that are involved with the project influence area include: PG&E, SBC, City of San Luis Obispo, County of San Luis Obispo, Southern California Gas Company (Distribution and Transmission), Charter Communications, AT&T, MCI, and TOSCO. Details regarding utility relocation may be modified and refined during the PS&E phase of design.

Proposed utility relocations at this time are as follows:

Table 2.1-1: Proposed Utility Relocations

Alternative 3		Alternative 6	
Utility Relocation	Utility Company	Utility Relocation	Utility Company
Relocate communication line	MCI and AT&T	Relocate communication line	MCI and AT&T
Relocate joint utility and electric facilities	PG&E	Relocate joint utility and electric facilities	PG&E
Relocate telephone facilities	SBC	Relocate telephone facilities	SBC
Relocate 16" high pressure gas line	Southern California Gas	Relocate 16" high pressure gas line	Southern California Gas
Adjust manhole cover and water valve cover	City of San Luis Obispo Sewer	Adjust manhole covers and water valve cover	City of San Luis Obispo Sewer
Relocate cable TV facilities	Charter Communications - Cable TV	Relocate cable TV facilities	Charter Communications - Cable TV
Relocate 6" gas line	TOSCO	Adjust water valve covers and relocate fire hydrants	City of San Luis Obispo Water

The project would also include minor changes to existing storm drainage facilities connecting with the existing drainage system. Implementation of the proposed project would minimally increase the amount of impermeable surfaces in the project area on the revised road alignment and widened overcrossing. This small increase in surface area would result in a minimal increase in storm water runoff, but would not require new storm water drainage infrastructure or facilities beyond that proposed to bring existing interchange drainage facilities closer to current design standards.

Project construction would generate a small amount of solid waste through the removal of earthen material from the channel bottom during construction of support infrastructure for the bridge, and general debris from project construction. Upon completion, the expanded bridge would not generate any solid waste. It is expected that the small amount of solid waste generated by project construction would be disposed of at an appropriate landfill that can easily accommodate the small volume of solid waste.

Construction could temporarily affect police and fire emergency access during lane closures needed to complete the improvements proposed under Alternatives 3 and 6. Completion of construction would increase operational efficiency of the roadway and would ultimately improve emergency access through the area.

Avoidance, Minimization, and/or Mitigation Measures

Utilities that are negatively disrupted due to construction of the proposed project would be relocated, by the City. Utility companies would be coordinated with to avoid any unnecessary disruption to utility services. Temporary interruption of service to utility customers during relocation for construction may occur; permanent interruptions would not occur. No interruption of emergency services is anticipated. Emergency service providers would be notified one month before construction begins and provided with a transportation coordination plan identifying road closures and construction schedules.

2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities

The traffic section discusses the project's impacts on traffic and circulation, both during construction (construction impacts) and after completion of the project (long-term impacts).

Regulatory Setting

Caltrans directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects. The special needs of the elderly and the disabled must be considered in all 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 carrying out the 1990 Americans with Disabilities Act 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.

Affected Environment

The US 101/Los Osos Valley Road interchange proposed for improvements is currently configured as a diamond interchange, except for a loop ramp in the southeast quadrant. The Los Osos Valley Road overcrossing was built in 1962 to carry two lanes of traffic. It was widened in 1987, maintaining two lanes, and restriped in 2007 to carry three lanes of traffic. The existing bridge is a four-span structure about 300.5 feet long and 55 feet wide. The on-ramp to southbound US 101 is accessed from Calle Joaquin South and not directly from Los Osos Valley Road. The southbound US 101 off-ramp intersects Los Osos Valley Road at the Los Osos Valley Road/Calle Joaquin South intersection. Calle Joaquin North intersects Los Osos Valley Road about 300 feet west of the southbound US 101 off-ramp/Calle Joaquin-South intersection.

This portion of US 101 is a four-lane freeway with 12-foot lanes, 8-foot right shoulders, and a median width of 40 feet. Local commuter traffic is the primary user of this portion of US 101, but a large percentage of travel through the study area is interregional. US 101 is one of the main interregional north-south travel routes in California, connecting the San Francisco Bay Area with the Los Angeles area. The 2001 Transportation Concept Report recommends that US 101 be expanded to a six-lane freeway through this segment. Widening US 101 is not part of this project, but intersection improvements would not preclude future widening of US 101.

A Traffic Operations Report has been prepared to develop forecast traffic volumes and operational analysis in the project area (2007). The traffic volume forecasts were generated using the City of San Luis Obispo Citywide Traffic Model (SLOCTM); General Plan build-out conditions are reflected in the Design Year (2035) forecasts. Information from the Traffic Operations Report is summarized below. Current and forecast Level of Service and average delay for opening year 2015 and for the design year 2035 are shown in Tables 2.1-2 and 2.1-3 below.

Table 2.1-2: Opening Year (2015) Intersection Levels of Service

Intersection	Peak Hour ¹	No-Build Alternative		Alternative 3		Alternative 6	
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³
Los Osos Valley Road/Auto Park Way	AM	77.1	E	22.1	C	23.6	C
	PM	89.9	F	23.4	C	25.9	C
Los Osos Valley Road/Calle Joaquin	AM	126.6	F	15.3	B	28.5	C
	PM	144.3	F	29.2	C	32.7	C
Los Osos Valley Road/US 101 Southbound Off-Ramp-Calle Joaquin (South)	AM	> 200	F	19.1	B	Intersection eliminated with alternative	
	PM	> 200	F	18.2	B		
Calle Joaquin (South)/US 101 Southbound On-Ramp (intersection without signals)	AM	Intersection eliminated with alternative				26.2	D
	PM	Intersection eliminated with alternative				31.3	D
Los Osos Valley Road/US 101 Northbound Ramps	AM	> 200	F	23.9	C	19.6	B
	PM	> 200	F	25.2	C	14.7	B
Los Osos Valley Road/Los Verdes Drive (intersection without signals) ³	AM	> 200	F	67.4	F	55.7	F
	PM	26.7	D	16.1	C	17.4	C
Los Osos Valley Road/South Higuera Street	AM	29.7	C	26.8	C	27.3	C
	PM	35.3	D	28.5	C	29.3	C
South Higuera Street/Vachell Lane (intersection without signals)	AM	> 200	F	> 200	F	> 200	F
	PM	> 200	F	> 200	F	> 200	F

Notes: ¹ AM = Morning peak-hour, PM = Evening peak-hour.

² Average delay reported in seconds per vehicle for signalized intersections. The worst movement/approach delay is reported in seconds per vehicle for side-street, stop-controlled intersections.

³ LOS = Level of service

Bold font indicates unacceptable intersection operations (LOS E or worse).

Source: Traffic Operation Report, 2007.

Table 2.1-3: Design Year (2035) Intersection Level of Service Summary

Intersection	Peak Hour ¹	No-Build Alternative		Alternative 3		Alternative 6	
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³
Los Osos Valley Road/Auto Park Way	AM	162.7	F	26.0	C	28.2	C
	PM	77.1	E	31.2	C	50.3	D
Los Osos Valley Road/Calle Joaquin (North)	AM	134.3	F	15.1	B	27.9	C
	PM	83.6	F	34.9	C	39.6	D
Los Osos Valley Road/US 101 Southbound Off-Ramp-Calle Joaquin (South)	AM	> 200	F	15.9	B	Intersection does not exist with alternative	
	PM	> 200	F	23.7	C		
Calle Joaquin (South)/US 101 Southbound On-Ramp (intersection without signals)	AM	Intersection does not exist with alternative				19.3	C
	PM	Intersection does not exist with alternative				49.8⁴	E
Los Osos Valley Road/US 101 Northbound Ramps	AM	> 200	F	34.2	C	18.5	B
	PM	> 200	F	26.9	C	14.6	B
Los Osos Valley Road/Los Verdes Drive (intersection without signals)	AM	181.8	F	36.0	E	37.7	E
	PM	> 200	F	150.3	F	110.3	F
Los Osos Valley Road/South Higuera Street	AM	30.0	C	28.8	C	28.9	C
	PM	> 200	F	63.4	E	72.4	E
South Higuera Street/Vachell Lane (intersection without signals)	AM	58.2⁵	F	65.2⁵	F	79.6⁵	F
	PM	> 200 ⁵	F	74.5⁵	F	103.7⁵	F

Notes: ¹ AM = Morning peak-hour, PM = Evening peak-hour.

² Average delay reported in seconds per vehicle for signalized intersections. The worst movement/approach delay is reported in seconds per vehicle for side-street, stop-controlled intersections.

³ LOS = Level of service

⁴ Westbound left turn delay.

⁵ The uncontrolled southbound left-turn delay is greater than the side-street stop-controlled delay because the southbound queue extends north from Los Osos Valley Road and blocks the southbound left-turn pocket.

Bold font indicates unacceptable intersection operations (LOS E or worse).

Source: Traffic Operation Report, 2007.

These tables show that projected Level of Service and average stop delay times at each intersection (except South Higuera Street at Vachell Lane) for Alternatives 3 and 6 improve over future no-build conditions. Conditions improve for both morning and afternoon peak-hour traffic. Delays at South Higuera Street and Vachell Lane are similar to the No-Build Alternative in 2015. In 2035, the morning peak-hour traffic has a longer delay with Alternative 3 or 6 than with the No-Build Alternative, but the afternoon delay for either build alternative is less than for the No-Build Alternative at this intersection.

Environmental Consequences

The proposed project would not increase traffic, but would instead improve traffic operations and safety on Los Osos Valley Road and at the Los Osos Valley Road/US 101 interchange. Because completion of either build alternative improves rather than worsens traffic operations and brings the City closer to General Plan operational efficiency goals, both build alternatives alleviate existing and project traffic congestion and provide new/improved pedestrian/bicycle facilities for safety. Three-year mainline collision data for the project area was provided by Caltrans for analysis and review of collisions near the Los Osos Valley Road/US 101 interchange to determine

appropriate safety improvements for the interchange. Expected project safety improvements are discussed in Section 1.2.2. The acceptable Caltrans Level of Service for the proposed project is Level of Service D on surface streets and Level of Service C/D cusp for US 101 at year 2035. The C/D cusp is the transition point between Level of Service C and D. Project alternatives provide additional travel lanes on Los Osos Valley Road over US 101 and through the ramp intersections that would better serve the needs of local and regional traffic (including bicycle and pedestrian traffic). The project is to be designed so that it would not preclude the planned future widening of US 101 or future interchange improvements.

During the demolition and construction phases of the proposed project, auto traffic, bicyclists and pedestrians would be diverted around construction areas, which would likely result in a temporary change in emergency access.

Avoidance, Minimization, and/or Mitigation Measures

See Section 2.4 Construction Impacts for measures to control traffic during construction.

2.1.6 Visual/Aesthetics

Regulatory Setting

The California Environmental Quality Act 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.” [California Public Resources Code Section 21001(b)]

Affected Environment

The following descriptions of the affected visual environment, anticipated impacts, and proposed avoidance and minimization measures are summarized from the Scenic Resources Evaluation (2007).

Regionally, the project area lies within the Coast Ranges. This area has varied slopes on and next to the project site, including the Irish Hills and Los Osos Valley, and even greater variability beyond the project, specifically in the Cuesta Ridge of the Santa Lucia Mountains, within view of the interchange. The interchange sits at the edge of the Los Osos Valley, against the Irish Hills. Three creeks run through the project area: San Luis Obispo Creek, Prefumo Creek, and Froom Creek. The San Luis Obispo and Prefumo creeks are heavily vegetated, however, and are generally not visible even from the Irish Hills, except as bands of riparian vegetation.

The slopes and valley west of the interchange have historically been used for ranching by the Madonna family. East of the interchange, agricultural fields and industrial uses have dominated. Vegetation on the valley floor includes stands of native sycamore, cottonwood, Arroyo Willow, annual grassland, and also non-native ornamentals associated with the developed land within the project area (Natural Environment Study Report 2008). The adjacent hills remain largely unchanged, with open California annual grassland and oak woodland.

The project setting includes both natural resource features and a developed, urban environment. Natural resource features include the Irish Hills, Cuesta Ridge, and Los Osos Valley. Developed features include Froom Ranch, which was determined eligible for the National Register of Historic Places in connection with a local commercial development project, and a variety of recent construction, including hotels, large-scale shopping centers, and residential developments. Riparian vegetation, sycamore, and annual grasslands compose the primary vegetation resources within the interchange area.

US 101 within the project area is not a designated scenic roadway, but is an eligible scenic roadway by the California Department of Transportation. The City of San Luis Obispo 2006 Conservation and Open Space Element, however, identifies US 101 and the portion of Los Osos

Valley Road north of the interchange in the Scenic Roadways section and gives these roadways a designation of high scenic value through the project area.

The City's scenic designation for the interchange location is based on the visual quality of the landscape in the project area. The high visual quality of the Los Osos Valley Road and US 101 corridors is generally defined by two factors: the unobstructed views of the adjacent hillsides and the rural character of the valley floor. This high visual quality rating for the project area is moderated in areas where views to the hillsides are reduced by the existing interchange or where the visual integrity of the rural open space has been compromised with existing transportation elements.

The Los Osos Valley Road interchange is also defined in the City of San Luis Obispo 1994 Circulation Element and the April 4, 2006 amendment (Resolution No. 9785) as an entryway to the community of San Luis Obispo. The Traffic Management section states that "segments of these routes leading into San Luis Obispo should include landscaped medians and roadside areas to better define them as community entryways." Additionally, the Scenic Roadways section establishes a policy to "preserve and improve views of important scenic resources from streets and roads."

The following policies from the 2006 Conservation and Open Space Element and 1994 Circulation Element address the scenic importance of designated local roads, such as Los Osos Valley Road:

- Policy 9.1.4.D – Streetscapes and major roadways. Encourage the use of water-conserving landscaping, street furniture, decorative lighting and paving, arcaded walkways, public art, and other pedestrian-oriented features to enhance the streetscape appearance, comfort, and safety. (Conservation and Open Space Element)
- Policy 9.2.1.B – Views to and from public places, including scenic roadways. Utilities, traffic signals, and public and private signs and lights shall not intrude on or clutter views, consistent with safety needs. (Conservation and Open Space Element)
- Policy 15.1 – The City will participate with Caltrans, the county and other cities to establish a program for enhancing the visual character of the Highway 101 corridor. (Circulation Element)

The existing visual quality of the project setting is moderate. Views of the general project vicinity from the main viewing corridors, Los Osos Valley Road and US 101, look mainly toward open space and the scenic backdrop of the Irish Hills and Cuesta Ridge. Views from drivers on the eastern and western sides of the Los Osos Valley Road/US 101 interchange, however, are sometimes obstructed by the existing Los Osos Valley Road interchange, which from some locations blocks background views. The rural character of that location is also diminished somewhat by the presence of the development nearby and the auto dealerships, commercial, and residential areas to the southeast. In spite of the increasing development and changing foreground appearance, the Irish Hills and Cuesta Ridge continue to provide a visually dominant scenic backdrop as seen from most of the Los Osos Valley Road interchange.

Environmental Consequences

There are no scenic vistas in the project area, and the overall regional view would not change substantively because the project changes an existing interchange rather than builds a new facility where none previously existed.

The proposed build alternatives would not substantially degrade the existing visual character or quality of the site and its surroundings because an interchange already exists on the project site. Modification of the interchange would not create new obstructions of middle-ground or

background views. Photos of existing and photo simulation of future conditions are included in Figure 2.1-1 through 2.1-3.

Figure 2.1-1: Photo Simulation 1, View South of Traveler on US 101
Existing Conditions Above, Alternative 3 Center, Alternative 6 Below



Figure 2.1-2: Photo Simulation 2, View North of Traveler on US 101
Existing Conditions Above, Alternative 3 Center, Alternative 6 Bottom



Figure 2.1-3: Photo Simulation 4. The Project Alternatives as Seen From Los Osos Valley Road, View West of Traveler on Los Osos Valley Road over US 101

Existing Conditions Above, Alternative 3 center, Alternative 6 Bottom



As seen from US 101, Alternative 3 would be as visible as the current interchange is from the north and the south. Views of the ramps under Alternative 6 are more visible from the southerly view with the addition of the northbound on-ramp, but remain largely unchanged from the northerly view. The minimal increase in structure height under both Alternatives 3 and 6 would not substantially increase or block current views of the Irish Hills or Cuesta Ridge backdrops. Lighting would be added to the bridge under both Alternatives 3 and 6; lighting would increase the visibility of the structure. Removal of overhead utility lines would take away the break in the tree line that currently exists from the southern view and would help to declutter the overall interchange appearance under both Alternatives 3 and 6. Removal of vegetation would temporarily increase visibility of concrete and retaining walls rather than natural vegetation.

Views for travelers on Los Osos Valley Road would remain largely unchanged under Alternatives 3 and 6. Broad background views of the Irish Hills and Cuesta Ridge may be slightly improved with removal of some large vegetation and increased height of the new bridge structures. The inclusion of lighting on the bridge would add a visual element to the setting.

Impacts are considered neutral because 1) similarities exist between the current structure and the proposed new/parallel structure, 2) views of the surrounding areas would be improved from some perspectives and remain unchanged in others, and 3) loss of mature vegetation would result in a short-term impact to viewer groups because more concrete would be visible than is currently visible. Temporary impacts include increased visibility of concrete due to vegetation removal during construction.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure V-1: Screening of increased concrete visibility. The landscape plan would include a planting screen along exposures of bridge abutments and at some proposed retaining wall locations, where appropriate. The planting would complement the naturally appearing form of the interchange and not look like a formal, manicured landscape. The design would avoid a linear planting along the wall locations. The landscape plan would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way, as well as with the City's Architectural Review Committee and City staff. A Caltrans maintenance plan would be developed during the Plans, Specifications, and Estimate phase of the project to ensure that plantings within the state right-of-way establish to sufficiently reduce the identified impact.

Mitigation Measure V-2: Replace vegetation lost because of construction. This mitigation would result in a naturalized condition comparable to the density, spacing, and species variety of the existing conditions. The site would be replanted with similar species to those that were affected by the project. Replacement plants would be sized to reach the existing plant sizes within the minimal time feasible. Maintenance and monitoring would be required to assure plant survival so the existing conditions are closely replicated within the determined timeframe. The revegetation plan would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way, as well as with the City's Architectural Review Committee and City staff.

Mitigation Measure V-3: Consideration of aesthetic features for the bridge structure and interchange setting. Implementation of architectural features, developed with Caltrans and City aesthetic standards, would be considered to meet the desired goals as defined in the Conservation and Open Space Element of the City's General Plan. The aesthetic features would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with the City's Architectural Review Committee and City staff.

Mitigation Measure V-4: Develop Lighting Plan. A lighting plan would be developed that requires project lighting to be appropriately shielded. Project lighting design would be consistent with all Caltrans and City lighting guidelines and standards and would be developed with Caltrans and City aesthetic standards. The lighting plan would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way, as well as with the City's Architectural Review Committee and City staff.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. Requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

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 affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

The bridges and culverts associated with the Los Osos Valley Road/US 101 Interchange Project lie in the San Luis Obispo Creek watershed and are described in the Location Hydraulic Study Report (2010). The total watershed is about 84 square miles, with the area of watershed influencing the project site equaling about 49 square miles.

San Luis Obispo Creek begins about nine miles upstream of the site. Prefumo Creek and Froom Creek are both tributaries to San Luis Obispo Creek. Prefumo Creek begins at Laguna Lake, one mile upstream of the project. Froom Creek begins 3.4 miles upstream of the project. Confluence of San Luis Obispo Creek and Prefumo Creek occurs about 390 feet upstream of where Los Osos Valley Road crosses San Luis Obispo Creek. The Froom Creek confluence occurs about 1,200 feet downstream of the Los Osos Valley Road crossing of San Luis Obispo Creek.

San Luis Obispo Creek flows north to south on the project site. It bends sharply upstream of the Los Osos Valley Road overcrossing. Except for the widening done immediately upstream of the Prefumo Creek confluence in 1978, San Luis Obispo Creek is natural through this section. Prefumo Creek also flows north to south in the project area. Froom Creek is a relatively small creek that flows west to east, with a drainage area of about 1.7 square miles.

Flooding within the San Luis Obispo Creek system is generally caused by intense Pacific storm systems from December to March. The San Luis Obispo Creek system responds quickly to short, high-intensity rainfall bursts, which tend to result in high-volume, brief floods. According to the 2008 Federal Emergency Management Agency Flood Insurance Study, Effective August 28, 2008, seven damaging floods have occurred in the San Luis Obispo Creek drainage area between 1884 and 1973. The most serious of those floods were in January 1969 and February 1973, causing \$1.5 million and \$4.5 million damage, respectively.

The San Luis Obispo County Flood Insurance Rate Map (FIRM), Panel 1331, August 28, 2008, indicates that most of the project site is classified as Zone A (inundated by the 100-year flood); some areas are classified as Zone AE (an area inundated by 100-year flooding, for which Base Flood Elevations have been determined), Zone B (between Zone A and the limits of the 500-year floodplain), and Zone C (areas of minimal flooding).

Natural and beneficial values of these floodplains include, but are not limited to: fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge.

A Location Hydraulics Study (2010) was prepared for this project, as the widening would encroach on the 100-year floodplain of the San Luis Obispo Creek and Prefumo Creek. Existing Prefumo Creek culverts have insufficient capacity to pass design flows greater than a 25-year event. The US 101 mainline culvert has flow capacity less than the 10-year design flow rate for Prefumo Creek, and the US 101 southbound off-ramp culvert has a flow capacity between 10-year and 25-year design flow rates for Prefumo Creek. Even without the backwater effect from the San Luis Obispo Creek, the existing Prefumo Creek culverts have insufficient capacity to convey the 100-year flow downstream.

Environmental Consequences

Implementation of the project would increase the area of impervious surface on the widened bridge and approach roadway segments by a small amount. This would result in a small increase in surface runoff from the proposed project, but would not result in substantially increased surface flows exceeding the capacity of existing or planned storm drainage facilities.

The widening of the Los Osos Valley Road bridge would increase the backwater effect upstream and would also increase the water surface elevations upstream of the Los Osos Valley Road bridge. This would, however, only impact the design water surface elevations of San Luis Obispo Creek and Prefumo Creek between the Los Osos Valley Road bridge and the US 101 cross culvert. Overall, the proposed project would not have a significant impact on the overall floodplain within the project limits.

The following are identified short-term impacts to the natural and beneficial floodplain values: 1) temporary loss of vegetation; 2) potential effects to endangered species or their habitats (within the project site) during maintenance and management activities; and 3) the potential removal of bank aquatic habitats during construction. The proposed project would minimize impacts to the extent practicable. Construction must avoid fish migration season.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure BIO-17, 21, and 23. Construction must avoid fish migration season. Typically, spawning gravel ranges from 10 to 50 millimeters. The proposed project would minimize impacts to the extent practicable. Please refer to the Biological Resources section for greater measure detail.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board when the project requires a Clean Water Act Section 404 permit. Section 404 of the Clean Water Act requires a permit from the U.S. Army Corps of Engineers to discharge dredged or fill material into waters of the United States.

Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine Regional Water Quality Control Boards. The State Water Resources Control Board and Regional Water Quality Control Boards also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The State Water Resources Control Board has developed and issued a statewide National Pollutant Discharge Elimination System Permit to regulate storm water discharges from all Caltrans activities on its highways and facilities. Caltrans construction projects are regulated under the statewide permit, and projects performed by other entities on Caltrans right-of-way (encroachments) are regulated by the State Water Resources Control Board's Statewide General Construction Permit. All construction projects over 1 acre require a Storm Water Pollution Prevention Plan to be prepared and implemented during construction. Caltrans activities of less than 1 acre require a Water Pollution Control Program.

Affected Environment

The project area is located in the San Luis Obispo Creek watershed, which is about 84 square miles. The area of watershed influencing the project site is about 49 square miles. San Luis Obispo Creek originates about 9 miles upstream of the project site. Prefumo Creek and Froom Creek are both tributaries to San Luis Obispo Creek. Prefumo Creek begins at Laguna Lake about 1 mile upstream of the project site. Froom Creek begins 3.4 miles upstream of the project site. The confluence of San Luis Obispo Creek and Prefumo Creek occurs about 390 feet upstream of the Los Osos Valley Road crossing with San Luis Obispo Creek. The Froom Creek confluence with San Luis Obispo Creek occurs about 1,200 feet downstream of the Los Osos Valley Road crossing with San Luis Obispo Creek. The bridges and culverts associated with the Los Osos Valley Road/US 101 Interchange Project lie in the San Luis Obispo Creek watershed and are described in the 2010 Location Hydraulic Study Report. A Water Quality Assessment Report was prepared to analyze the difference between the existing conditions and the project build conditions with respect to water quality impacts and considered the following issues:

- Application of best management practices (number of best management practices, new technologies, effectiveness)
- Discharges into impaired waters (listed per Section 303[d] of the Clean Water Act or subject to a Total Maximum Daily Load)
- Pollutant levels (change in land use)
- Impervious area and relation to amount of runoff (increase or decrease)

Clean Water Act Section 303(d) establishes the total maximum daily load process to assist in guiding the application of state water quality standards; it requires states to identify streams

whose water quality is “impaired” (affected by the presence of pollutants or contaminants) and to establish the total maximum daily load or the maximum quantity of a particular contaminant that a water body can assimilate without experiencing adverse effects. San Luis Obispo Creek within the project area is listed on the 303(d) list for pathogens and total fecal coliform (State Water Resources Control Board 2006a). Other pollutants are also present in elevated amounts that are of concern for San Luis Obispo Creek (nitrates and nutrients) and Prefumo Creek (nitrates), but total maximum daily loads have yet to be established for these pollutants in these two streams (State Water Resources Control Board 2006b).

Beneficial Uses for Surface Waters

The designated beneficial uses for San Luis Obispo Creek, Froom Creek, and Prefumo Creek are as follows: Municipal and Domestic Supply, Water Contact Recreation, Non-Contact Water Recreation, Wildlife Habitat, and Commercial and Sport Fishing.

In addition to the beneficial uses listed above, San Luis Obispo Creek and Prefumo Creek have the following designated uses: Agricultural Supply, Ground Water Recharge, Cold Fresh Water Habitat, Migration of Aquatic Organisms, Spawning, Reproduction, and/or Early Development, and Freshwater Replenishment.

San Luis Obispo Creek is also designated for the following beneficial use: Warm Fresh Water Habitat.

Froom and Prefumo creeks’ beneficial uses are also listed for the following: Rare, Threatened, or Endangered Species.

Environmental Consequences

No appreciable difference in long-term water quality impacts has been identified between either build alternative. However, construction of either alternative would increase runoff from hardscape areas and would require altering sections of San Luis Obispo Creek. The existing project creates 25.5 total acres of impervious surface.

The project would disturb 16 acres of state right-of-way for Alternative 3 and 18.2 acres of state right-of-way for Alternative 6. Alternative 3 improvements would produce an additional 0.8 acre of impervious surface within the state right-of-way (2 total acres of impervious surface). Alternative 6 would produce a larger footprint and would add 2.5 acres of impervious surface within the state right-of-way (3.4 total acres of impervious surface). During the design phase of this project the amount of disturbed soil area and impervious surface may change. Minimizing impervious surface and disturbed soil area is a design goal of this project.

Anticipated increase in pollutant levels would occur temporarily during the construction phase of the project. Because the project consists of a permanent increase in impervious surface under either build alternative, there remains potential for a permanent increase in runoff and pollutant levels without implementation of construction, design, and treatment best management practices.

The proposed project would not substantially deplete groundwater resources or interfere with groundwater recharge. While the increase in new impervious surface on the widened overcrossing would intercept some rainfall, which serves to recharge local aquifers, the runoff would be allowed to infiltrate into the soils through biofiltration swales and strips and would discharge to the creeks during large storms; therefore, existing recharge functions would be minimally affected.

Construction activities would disturb soil. If the soil were not contained and were directly exposed to rain, soil erosion and sediment could flow into the creeks, potentially degrading water quality. Construction-related runoff could also contain other pollutants that could contribute to reduced water quality in San Luis Obispo Creek, Prefumo Creek, and Froom Creek. Construction

equipment would use toxic chemicals (such as gasoline, oils, grease, lubricants, and other petroleum-based products) that could be released accidentally. Additionally, excavation activities could reach shallow groundwater levels, potentially requiring dewatering. During Departmental runoff characterization studies, nitrogen was found to be discharging with a load or concentration that commonly exceeds allowable standards; however, based on currently available Department-approved Treatment Best Management Practices, it is considered treatable. This determination classifies nitrogen as a Targeted Design Constituent within the project area (which is a statewide guidance criterion used by Caltrans for addressing “Primary Pollutants of Concern”).

Avoidance, Minimization, and/or Mitigation Measures

Several treatment Best Management Practices (detention devices, media filters and multi-chambered treatment trains) are proposed to ensure that water quality impacts are not adverse. With incorporation of these measures, impacts to water quality would actually be improved over current conditions since at present no treatment Best Management Practices are installed. Water quality impacts overlap other impacts for the project because special-status species inhabit the stream and surrounding environs. So, while the following measures focus on Water Quality Minimization Measures, Biological Mitigation Measures 5, 18, 23, and 24 discussed in the biology section also pertain to water quality issues. (Please refer to Section 3.2.)

Three Caltrans-approved temporary construction-related restrictions and permanent measures consisting of design and treatment best management practices ensure that there would be no adverse impacts to water quality under either build alternative.

Because the project would involve more than 1 acre of disturbance, the City would submit a Notice of Intent to the State Water Resources Control Board and comply with the terms of the Caltrans-specific National Pollutant Discharge Elimination System Permit (No. CAS000003).

Minimization Measure WQ-1: Implement Erosion-Control Measures During Project Construction. According to Caltrans standard practice, to minimize the movement of sediment to adjacent water bodies, the following erosion- and sediment-control measures would be included in the Storm Water Pollution Prevention Plan, to be included in the construction specifications.

Measures include:

- Cover or apply nontoxic soil stabilizers to inactive construction areas that could contribute sediment to waterways within 48 hours of a predicted rainfall event.
- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.
- Contain soil and filter runoff from disturbed areas by using berms, vegetated filters, silt fencing, fiber rolls, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
- Prohibit the placement of earth or organic material where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water.
- Prohibit the following types of materials from being rinsed or washed into streets, shoulder areas, or gutters: concrete, solvents and adhesives, fuels, dirt, gasoline, asphalt, and concrete saw slurry.
- Conduct dewatering activities according to the provisions of the Storm Water Pollution Prevention Plan. Prohibit placement of dewatered materials in local water bodies or in storm drains leading to such bodies without implementation of proper construction water quality control measures.

Minimization Measure WQ-2: Implement Measures to Control Turbidity. If water is flowing in the streams during construction, the City of San Luis Obispo or its contractor(s) would control the release of sediment to the creeks during construction by installing a sheet-pile cofferdam or other method that would control turbidity (murky water) to the specifications given below. This would ensure that activities result in a minimal increase in turbidity or suspended solids in the channel.

During installation of the cofferdam, the City or its contractor would monitor turbidity and suspended solids during the installation of the cofferdam, construction, and removal of the cofferdam. If levels exceed the Central Coast Regional Water Quality Control Board Basin Plan standards, the City or its contractor would stop work until levels are within Basin Plan limits.

Basin plan standards for turbidity state that project activities would not cause an increase in ambient river turbidity by more than 20 percent above background turbidity where the natural turbidity is between 0 and 50 Jackson Turbidity Units, or an increase by more than 10 percent where natural turbidity is over 100 Jackson Turbidity Units (Central Coast Regional Water Quality Control Board 1998).

During the first week of construction, turbidity measurements would be taken upstream of the project construction area and at a distance of 200 feet downstream of the project construction area (or far enough downstream where applicable mixing has occurred) to provide baseline comparison conditions. During the construction period, measurements would be taken two times per day and would be taken where the water flow pattern is similar to the relative water flow pattern around the construction zone, so the sample represents the water quality affected by construction. If turbidity limits are exceeded above the applicable turbidity level, operations would stop and the Regional Water Quality Control Board would be notified. Investigation of the cause of the significant turbidity increase would be conducted and corrections made in construction operations where applicable.

This minimization may be modified in coordination with the Regional Water Quality Control Board and/or other regulatory entities, provided that in no case would turbidity levels be allowed to increase as a result of the project such that beneficial uses of the streams become substantially degraded or impaired.

Minimization Measure WQ-3: Implement a Spill Prevention and Control Program. The City of San Luis Obispo and/or its contractor(s) would develop and implement a spill prevention and control program to minimize the potential for and effects from spills of hazardous, toxic, or petroleum substances during project construction.

The federal reportable spill quantity for petroleum products, as defined by the Environmental Protection Agency (40 Code of Federal Regulations 110) is any oil spill that 1) violates applicable water quality standards, 2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or 3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines. If a spill were reportable, the contractor's superintendent would notify the relevant San Luis Obispo County officials, which have spill response and clean-up ordinances to govern emergency spill response.

A written description of reportable releases must be submitted to the Central Coast Regional Water Quality Control Board. This submittal must include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases must be documented on a spill report form.

If an appreciable spill occurs and results determine that project activities have adversely affected groundwater quality, a detailed analysis would be performed by a Registered Environmental

Assessor to identify the likely cause of contamination. This analysis would conform to American Society for Testing and Materials standards and would include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, the City and/or its contractors would select and implement measures to control contamination, with a performance standard that groundwater quality must be returned to baseline conditions. These measures would be subject to City approval.

At least three permanent treatment best management practices would also be used to ensure that no adverse impacts occur to water quality due to future project operation:

Minimization Measure WQ-4: Where Possible Use San Luis Obispo Creek Waterway Management Plan Design Criteria. Although the project is a transportation project and best management practices must meet Caltrans standards, all treatment best management practices should also meet local standards, established in the San Luis Obispo Creek Waterway Management Plan, when these local specifications do not conflict with Caltrans guidance.

Minimization Measure WQ-5: Permanent Treatment Best Management Practices. Appropriate permanent treatment best management practices would be implemented during final design. Proposed best management practices may include infiltration or detention devices, media filters, and multi-chambered treatment trains.

2.2.3 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also 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 from young faults in and near California. The Maximum Credible Earthquake is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

Affected Environment

The proposed project lies in the San Luis Range, in the Coast Ranges’ Physiographic Province of California. The San Luis Range sits between the Pacific Ocean to the west and the Sacramento-San Joaquin Valley to the east. The Coast Ranges trend northwesterly along the California coast for about 600 miles between Santa Maria and the Oregon border.

Based on published geologic literature, the project site is mostly underlain by Holocene (less than 11,000 years before present) alluvial deposits. These alluvial deposits typically consist of sands, gravels, silts, and clays. In addition to the Holocene alluvium, Terrace Deposits and Melange Franciscan Assemblage deposits may be present to the west approaching the Irish Hills.

The project sits within or close to the Los Osos fault zone, as defined in the Safety Element of the General Plan. This fault zone is separated into four segments: the Estero Bay segment, Irish Hills segment, Lopez Reservoir segment, and Newsom Ridge segment. Of the four segments, both the Estero Bay segment and the Irish Hills segment are considered active by state standards. The California Geological Survey and the State Geologist have established a Special Studies Zone (Alquist-Priolo Act, as amended) along the portion of the Irish Hills segment immediately west of San Luis Obispo city limits.

Data from the communities of Los Osos and Baywood Park, along the Irish Hills segment of this fault, indicate that strands of the Los Osos fault in these communities may be active and that Special Studies Zones may also be appropriate in these areas. The project site is near the southeasterly end of the Irish Hills segment near where the Los Osos fault zone transitions from active to inactive by state standards (established for fault rupture hazards under the Alquist-Priolo Act, as amended).

The project lies within a “low liquefaction potential” area, with the confluence of San Luis Obispo and Prefumo creeks. Based on the nearly level topography in the immediate and surrounding area, the potential for a landslide in or near the project area is minimal. On moderately to steeply sloping areas within the Irish Hills southwest of the project area, the landslide risk is moderate.

The Natural Resources Conservation Service has defined the project area soils as Salinas silty clay loam, Cropley clay, Los Osos-Diablo complex, and Xerents-Xerolls Urban land complex. These soil types have a low to high shrink-swell potential, and are low to moderately erodible. The Caltrans Log of Test Borings for the existing Los Osos Valley Road/US 101 overcrossing constructed in 1962 and reported on in the Preliminary Geotechnical Report (2002) is consistent with this.

The subsoils in the general project area are expected to consist of alluvial deposits (silty clays, sandy silts, and silty sands above layers of sand and gravel) overlying bedrock, which was recorded as weathered shale or sandstone. Groundwater was encountered in the Log of Test Borings at depths ranging between about 6 feet to 10 feet below ground (about elevation 94 feet to 90 feet).

Environmental Consequences

There is some varying potential in the project location for rupture of known faults, strong seismic ground shaking, seismic-related ground failure, and landslides.

The underlying soils have low to moderate erosion potential. Despite the low erosion characteristic, there is a potential for erosion to occur during all site-disturbing phases of the project, resulting in sedimentation entering the creek bed.

In regard to “liquefaction potential,” the project is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.

Portions of the project site are situated on soils with moderate expansion potential. If improperly designed, the interchange improvements could be subject to damage related to shrink-swell movement.

Avoidance, Minimization, and/or Mitigation Measures

Design and construction of the proposed project would conform with all applicable stipulations of the most recent Caltrans standard specifications, the Caltrans Bridge Design standards, and the American Association of State Highway and Transportation Officials standards for bridge design. Project design and construction would also conform with all applicable stipulations regarding the use of appropriate backfill materials in the most recent Caltrans standard specifications.

Construction activity would include standard construction best management practices, a Storm Water Pollution Prevention Plan, and applicable local erosion and sediment control plan, along with Mitigation Measure WQ-1 outlined in the water quality section.

2.2.4 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects (such as the Antiquities Act of 1906 [16 United States Code 431-433], Federal-Aid Highway Act of 1935 [20 United States Code 78]). Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Administrative Code, Title 14, Section 4306 et seq., and Public Resources Code Section 5097.5.

Affected Environment

A fossil site search, using the University of California Museum of Paleontology online database, was performed in 2007. Based on the database search and field efforts, no fossils have been found in the project area. The central region of California, however, is considered to be a sensitive area for paleontological resources.

The geologic formations within the area of potential effects include Younger Alluvium, Terrace Deposits, and Melange Franciscan Assemblage. Younger Alluvium deposits are not likely to produce paleontological resources since these soils are more recent than the fossils.

An adjacent Preliminary Environmental Analysis Report (2003) noted that the Terrace Deposit formations have a high likelihood to produce paleontological material and have produced important fossils in San Luis Obispo County, including mastodons, mammoths, horse, elk, bison, American lion, short-faced bear, deer, and beaver.

The Melange Franciscan Assemblage in this area of San Luis Obispo County has unknown paleontological significance. This formation has produced significant fossils in parts of San Luis Obispo County, including a plesiosaur; however, most fossil finds have been deformed beyond recognition due to metamorphic activity.

Environmental Consequences

Construction of Alternative 3 would affect Young Alluvium deposits and is not likely to result in the discovery or degradation of paleontological resources. Construction of Alternative 6 would affect Young Alluvium, Terrace Deposits, and the Melange Franciscan Assemblage. Potential impacts to unique paleontological resources could occur as a result of this alternative.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure PALEO-1: Stop Work if Buried Paleontological Materials Are Inadvertently Discovered. If paleontological materials were discovered during construction, the City of San Luis Obispo and/or its contractor(s) would be responsible for diverting all earth-moving activity within and around the immediate discovery area a qualified paleontologist could assess the nature and significance of the find.

2.2.5 Hazardous Waste or Materials

Regulatory Setting

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 main federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of this latter act, often referred to as Superfund, is to clean up

contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, Executive Order 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 mainly under the authority of the federal Resource Conservation and Recovery Act of 1976 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 project construction.

Affected Environment

Field review, database searches, literature review, and interviews with various regulatory agency personnel were done and reported in the 2008 Hazardous Waste Initial Site Assessment, as summarized below. The Initial Site Assessment detailed the presence of suspected hazardous waste.

The case files of the closed leaky Underground Storage Tank sites, (Chevron Station #94453, Kimball Motor Company, and Sunset Honda) will be reviewed for potential residual contamination remaining after site closure and documented within the phase II site assessment report. No incidences of spillage or illegal dumping of hazardous materials have been recorded within the project limits, but some areas of concern for hazardous waste remain:

Potential impacts due to soil and/or groundwater contamination may exist at the ARCO Station and former Texaco gas stations sites and the Perry Ford car dealership property due to leaking underground fuel tanks (sites and locations shown in Table 2.2-1).

Table 2.2-1 Potential Hazardous Waste Sites

Location	Potential Hazardous Waste Sites
12424 Los Osos Valley Road	ARCO Station #6038 (aka Ed’s ARCO Service)

12398 Los Osos Valley Road	Former Texaco Service Station
12200 Los Osos Valley Road	Perry Ford

A phase II site assessment within the city and state rights-of-way is recommended during the next phase of the project for the above active remediation sites. This assessment would verify possible soil and groundwater contamination within the footprint of the chosen project alternative and document it in a phase II site assessment report. The phase II study would occur after environmental document approval and during the Plans, Specifications, and Estimate phase of the project.

Environmental Consequences

- There may be potential impacts due to groundwater contamination from the perchloroethylene/trichloroethylene plume emanating from historical up-gradient dry cleaning businesses in the City of San Luis Obispo.
- Elevated levels of aeriually deposited lead may be encountered in areas of exposed soil within 50 feet of the roadway.
- Painted areas on the existing bridge structure may also be of concern due to the possible use of lead-based paint.
- Yellow traffic stripe and pavement marking materials might need to be removed and these materials may exceed hazardous waste criteria requiring disposal in a Class I disposal site.
- Asbestos-containing materials have also been documented in the rail shim sheet packing, bearing pads, support piers, and expansion joint material of bridges and could be present in the interchange structures.
- Naturally occurring asbestos has not been mapped as occurring within the project limits, nor was naturally occurring asbestos encountered during the preliminary geotechnical investigation. But there remains a possibility that serpentine parent material may be incorporated into the existing road base.
- Pole-mounted electrical transformers within the planned construction area may contain polychlorinated biphenyl.
- The use of materials considered hazardous would be limited to the fuels, oils, and solvents contained in construction vehicles.
- All materials stored or stockpiled in the staging area would be inert and are not considered hazardous.
- There may be potential impacts due to soil and/or groundwater contamination from the ARCO gas station site, former Texaco gas station sites, and the Perry Ford car dealership property due to leaking underground fuel tanks.

Avoidance, Minimization, and/or Mitigation Measures

Minimization Measure HW-1: Determine the Current Status of Remediation. The City of San Luis Obispo shall perform a case file review and conduct interviews with owners/managers of the ARCO gas station, former Texaco gas station site, and Perry Ford car dealership to determine the current status of remediation at these sites. The proposed project alignment would

not require acquisition of any of these properties; therefore, verification of completed remediation of these properties is not necessary.

Minimization Measure HW-2: Perform a Preliminary Aerially Deposited Lead Investigation. In areas of exposed soil within 50 feet of the paved surfaces of US 101, the City of San Luis Obispo shall conduct a survey to determine the possible presence and levels of aerially deposited lead from motor vehicle exhaust emissions. Ensure that all necessary soil management and disposal procedures are followed and disposed of at an appropriate Class I facility.

Minimization Measure HW-3: Conduct Lead-Based Paint Survey. The City of San Luis Obispo shall use a certified consultant to determine the absence or presence of lead-based paint before any modification or demolition of the existing Los Osos Valley Road bridges in the study area. The presence of lead shall require abatement and/or special construction worker health and safety procedures during demolition activities. Lead-based paint removed from the site shall be disposed of at an approved facility.

Minimization Measure HW-4: Test Yellow Stripe and Pavement Marking Materials. The City of San Luis Obispo shall conduct tests and follow removal requirements for yellow striping and pavement marking materials in accordance with Caltrans Construction Program Procedure Bulletin 99-2 (CPB 99-2).

Minimization Measure HW-5: Conduct Asbestos Survey. The City of San Luis Obispo shall use a certified consultant to determine the absence or presence of asbestos before any modification or demolition of the Los Osos Valley Road bridges. The presence of asbestos shall require abatement and/or special construction worker health and safety procedures during demolition activities. Asbestos removed from the site shall be disposed of at an approved facility.

Minimization Measure HW-6: Conduct Naturally Occurring Asbestos Survey. The City of San Luis Obispo shall use a certified consultant to determine the absence or presence of naturally occurring asbestos in the existing road base materials in areas where the road base materials would be removed or disturbed. The presence of asbestos shall require abatement and/or special construction worker health and safety procedures during demolition activities. If it is determined that asbestos is present, the asbestos to be removed by a certified contractor. Additional suspect asbestos containing material may be discovered during the demolition process. In this event, work will be stopped, and sampling for asbestos will begin. A specification for “Removal of Asbestos and Hazardous Substances” shall be included in the Plans, Specifications and Estimate phase of the project.

Minimization Measure HW-7: Test Leaking Transformers for PCBs if Disturbed. The City of San Luis Obispo and/or its contractor(s) shall consider any leaking transformers observed during the course of the project a potential polychlorinated biphenyl hazard unless tested and should be handled accordingly. The contractor shall follow Unknown Hazards Procedures for Construction as outlined by Caltrans in the current Construction Manual.

Minimization Measure HW-8: Follow Caltrans Standards if Unknown Hazards are Inadvertently Discovered. For any previously unknown hazardous waste/material encountered during construction, the contractor would follow Unknown Hazards Procedures for Construction as outlined by Caltrans in the current Construction Manual.

2.2.6 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the concentration of pollutants that can be in the air. At the federal level, these standards are called

National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and, second, at the project level. The proposed project must conform at both levels to be approved.

Regional-level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide, nitrogen dioxide, ozone, and particulate matter. At the regional level, Regional Transportation Plans are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the Regional Transportation Plan, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as the San Luis Obispo Council of Government for San Luis Obispo County and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the Regional Transportation Plan is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the Regional Transportation Plan, then the proposed project is deemed to meet regional conformity requirements for purposes of the project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is in “non-attainment” or “maintenance” for carbon monoxide and/or particulate matter. A region is a “non-attainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas, but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act and California Environmental Quality Act purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in “non-attainment” areas, the project must not cause any increase in the number and severity of violations. If a known carbon monoxide 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.

Affected Environment

An Air Quality Technical Report (2007) examining project-related impacts to air quality was prepared for the project. Regional conditions, long-term impacts, and construction-related impacts, considered in that document, are summarized here.

The region generally has good air quality, as it is attainment or unclassified for all National Ambient Air Quality Standards. Also, air quality measurements indicate that San Luis Obispo County is in attainment for all State Air Quality Standards, with the exception of particulate matter (PM₁₀) and 1-hour ozone. The San Luis Obispo County Air Pollution Control District is required to monitor air pollutant levels to assure that federal and state air quality standards are being met.

Table 2.2-2: Air Quality Standards

Criteria Pollutant	Federal Standard (National Ambient Air Quality Standards)	Federal Attainment Status	State Standard	State Attainment Status
Carbon Monoxide (CO)	35 ppm (1-hour average) 9 ppm (8-hour average)	Attainment	20 ppm (1-hour average) 9 ppm (8-hour average)	Attainment
Nitrogen Dioxide (NO ₂)	0.053 ppm (1-hour annual average)	Unclassified/Attainment	0.25 ppm (1-hour annual average)	Attainment
Ozone (O ₃)	0.08 ppm (8-hour average)	Unclassified/Attainment	0.07 ppm (8-hour average)	Nonattainment
Particulate Matter (PM ₁₀)	150 µg/m ³ (24-hour average)	Unclassified	50 µg/m ³ (24-hour average)	Nonattainment
Particulate Matter (PM _{2.5})	15 µg/m ³ (annual arithmetic mean)	Unclassified/Attainment	12 µg/m ³ (annual arithmetic mean)	Attainment

ppm=parts per million
µg/m³ = micrograms per cubic meter

Ambient air quality is affected by climate conditions, topography, and airflow patterns. The climate of San Luis Obispo County consists of warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This moderation diminishes inland with distance from the ocean or by major intervening terrain features, such as the coastal mountain ranges.

Airflow plays an important role in the movement and dispersion of pollutants in the region. During much of the year, onshore winds from the northwest generally prevail during the day, flushing out pollutants. At night, the sea breeze weakens, and airflows reverse with cooler air draining from the mountains. Occasionally, this pattern breaks down and stagnant conditions form, with pollutants building up and raking back and forth across the region with weak onshore and offshore breezes.

Environmental Consequences

The project is located in an attainment/unclassified area for all current federal air quality standards (see Table 2.2-2 above); therefore, air quality conformity does not apply. The project is included in the 2005 Regional Transportation Plan for the County of San Luis Obispo. The Regional Transportation Plan has been determined to be consistent with the applicable State Implementation Plan (SIP-the 2001 Clean Air Plan-CAP); therefore, the project is consistent with the state air quality attainment goals of the San Luis Obispo County Air Pollution Control District.

The project would require a National Emissions Standards for Hazardous Air Pollutants permit for work that affects the structural members of the Los Osos Valley Road bridge.

Avoidance, Minimization, and/or Mitigation Measures

Measures to control emissions and dust during construction are discussed in Section 2.4 Construction Air Quality.

2.3 Biological Environment

2.3.1 Natural Communities

Regulatory Setting

This section discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and fish passage and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Threatened and Endangered Species, Section 2.3.4. Wetlands and other waters are discussed in Section 2.3.2.

Affected Environment

The study area supports five natural communities of special concern: Central Coast arroyo willow riparian forest, seasonal wetland, freshwater marsh, seasonal drainage, and perennial drainage. Other parts of the study area are developed or support common natural communities (Natural Environment Study Report, 2008). The following sections discuss the Central Coast arroyo willow riparian forest found within the study area, the project's environmental consequences, and avoidance, minimization, and/or mitigation measures that would be associated with this community. Similar discussion for the remaining four natural communities of special concern can be found under wetlands and other waters in Section 2.3.2.

San Luis Obispo Creek and Prefumo Creek are important wildlife corridors within an urbanizing area and provide habitat for native fish species. During the wet season, intermittent drainages are used by a variety of wildlife species. These habitats may serve as travel corridors for amphibians, invertebrates, or other highly aquatic wildlife. Wildlife corridors are further discussed pertaining to particular species in Section 2.3.3 and 2.3.4.

Central Coast Arroyo Willow Riparian Forest

Riparian forest communities are considered sensitive locally, regionally, and statewide because of their habitat value and decline in extent. The California Department of Fish and Game has adopted a no-net-loss policy for riparian forest habitat values, and the Streambed Alteration Agreement would include mitigation requirements for loss of riparian forest vegetation. U.S. Fish and Wildlife Service mitigation policy identifies California's riparian forest habitats in Resource Category 2, for which no net loss of existing habitat value is recommended (46 Code of Federal Regulations 7644). Central Coast arroyo willow riparian forest communities occur along Prefumo Creek and San Luis Obispo Creek west and east of Los Osos Valley Road. One small piece of riparian forest habitat occurs near the realignment of Calle Joaquin.

Dominant tree species in the Central Coast arroyo willow riparian forest community include arroyo willow (*Salix lasiolepis*), walnut (*Juglans sp.*), black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), and coast live oak (*Quercus agrifolia*). Common shrubs include coyote brush (*Baccharis pilularis*), California coffeeberry (*Rhamnus californica*), California blackberry (*Rubus ursinus*), and elderberry (*Sambucus mexicana*). Giant reed (*Arundo donax*), an invasive species common in riparian forest areas, occurs in isolated clumps. Common herbaceous species in riparian forest habitat include poison hemlock (*Conium maculatum*), common horsetail (*Equisetum arvense*), sweetclovers (*Melilotus albus* and *M. indica*), mugwort (*Artemisia douglasiana*), pearly everlasting (*Anaphalis margaritacea*), periwinkle (*Vinca major*), garden

nasturtium (*Troaeolum majus*), cocklebur (*Xanthium strumarium*), manroot (*Marah fabaceus*), and chain speedwell (*Veronica catenata*).

Riparian forest woodlands in the study area provide potential nesting and perching habitat for a number of migratory birds and raptors seen during the 2006 field surveys. These include lesser goldfinch (*Carduelis psaltria*), bushtit (*Psaltriparus minimus*), western scrub jay (*Aphelocoma californica*), song sparrow (*Melospiza melodia*), black phoebe (*Sayornis saya*), American kestrel (*Falco tinnunculus*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), and great-horned owl (*Bubo virginianus*). Riparian forest vegetation provides escape cover and foraging areas for wildlife that forage along the adjacent aquatic and grassland habitats. Mammals found near riparian forests include California vole (*Microtus californicus*), Virginia opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). Common and terrestrial garter snakes (*Thamnophis sirtalis* and *elegans*) can be found foraging and resting within this habitat.

The Central Coast arroyo willow riparian forest communities located along the creeks provide shaded riverine aquatic cover. Shaded riverine aquatic cover vegetation is defined as streamside vegetation growing where the wetted channel meets the streambank and includes woody, terrestrial vegetation that extends over the wetted channel and associated tree roots and branches projecting into the water column. Shaded riverine aquatic cover typically is composed of riparian vegetation growing within 15 feet (horizontal distance) of the wetted channel.

Environmental Consequences

Impacts to the Central Coast arroyo willow riparian forest would include removal of trees during construction activities in and adjacent to the creeks. Alternative 3 would result in 0.40 acre of permanent impacts and 0.84 acre of temporary impacts. Alternative 6 would result in 1.01 acres of permanent impacts and 0.52 acre of temporary impacts. Figures 2.3-1 and 2.3-2 show the locations of these impacts.

Figure 2.3-1: Biological Resources – Alternative 3

Figure 2.3-1
Impacts to Biological Resources
Under Alternative 3 (Minimum Build)
 Los Osos Valley Road Interchange Project
 San Luis Obispo, California

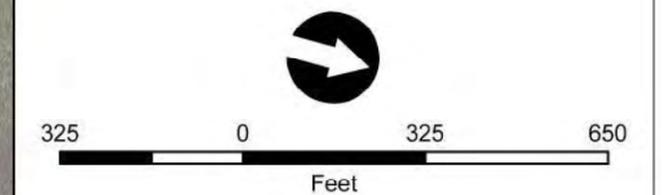


Legend

- Agriculture
- Annual Grassland
- Developed/Landscaped
- Freshwater Marsh
- Perennial Drainage
- Central Coast Arroyo Willow Riparian
- Ruderal
- Seasonal Drainage
- Seasonal Wetland

- Permanent Impact Area Under Alternative 3 (Minimum Build)
- Limit of Temporary Impact
- Study Area

Aerial Photo Source: City of San Luis Obispo, 2005



**Figure 2.3-2
Impacts to Biological Resources
Under Alternative 6 (Near Full Standard)**

Los Osos Valley Road Interchange Project
San Luis Obispo, California

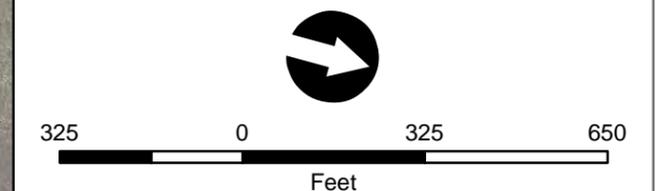


Legend

- Agriculture
- Annual Grassland
- Developed/Landscaped
- Freshwater Marsh
- Seasonal Drainage
- Perennial Drainage
- Central Coast Arroyo Willow Riparian
- Ruderal
- Seasonal Wetland

- Permanent Impact Area Under Alternative 6 (Near Full Standard)
- Limit of Temporary Impact
- Study Area

Aerial Photo Source: City of San Luis Obispo, 2005



*Chapter 2 • Affected Environment, Environmental Consequences,
and Avoidance, Minimization, and/or Mitigation Measures*

Construction of the project would result in the permanent loss of native trees within the riparian forest (Alternatives 3 and 6) community within the project footprint. Under both alternatives, trees within the riparian forest would also be temporarily disturbed during project construction. Trees adjacent to the construction area could sustain damage from equipment. All wildlife corridors will be maintained throughout the project during and after construction. Implementation of the avoidance and minimization measures would protect trees and avoid this potential impact.

Under the City tree ordinance, replacement of removed native trees would be required. The loss or disturbance of native trees is considered adverse because the trees provide a variety of important ecological functions and values. Implementation of Mitigation Measures BIO-2 and BIO-3 for riparian forest would address the impacts on native trees. No additional mitigation is recommended.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure BIO-1: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to be Avoided. The City of San Luis Obispo and/or its contractor(s) would install orange construction barrier fencing to identify environmentally sensitive areas. A qualified biologist would identify sensitive biological habitat at each bridge site before the final design plans are prepared so that the areas to be fenced can be included in the plans.

The area to be generally required for construction, including staging and access, is shown as the permanent and temporary impact area in Figures 2.3-1 and 2.3-2. Sensitive biological resources to be avoided during construction would be fenced off to avoid disturbance. Sensitive biological habitat next to the construction area includes the creek channels outside the construction zone, wetlands, and any trees that support nests of special-status bird species.

Before construction, the contractor would work with the project engineer and a biological resource specialist to identify the locations for the barrier fencing and would place stakes around the sensitive resource sites (riparian vegetation, seasonal wetlands, and trees that support nests of special-status birds) to indicate these locations. The protected areas would be designated as environmentally sensitive areas and identified clearly on the construction plans. The fencing would be installed before construction activities were initiated and would be maintained throughout the construction period. The following paragraph would be included in the construction specifications:

The contractor's attention is directed to the areas designated as "environmentally sensitive areas." These areas are protected, and no entry by the contractor for any purpose will be allowed unless specifically authorized in writing by Caltrans or the City of San Luis Obispo. The contractor will take measures to ensure that contractor's forces do not enter or disturb these areas, including giving written notice to employees and subcontractors. Vehicle operation, material and equipment storage, and other surface disturbing activities are prohibited within the fenced environmentally sensitive areas.

Temporary fences around the environmentally sensitive areas would be installed as one of the first orders of work. Temporary fences would be furnished, constructed, maintained, and removed as shown on the plans, as specified in the special provisions, and as directed by the project engineer. The fencing would be commercial-quality woven polypropylene, orange in color, and at least 4 feet high (Tensor Polygrid or equivalent). The fencing would be tightly strung on posts set at maximum intervals of 10 feet.

Mitigation Measure BIO-2: Avoid and Minimize Potential Indirect Disturbance of Riparian Forest Communities. To the extent possible, the City of San Luis Obispo would avoid and minimize potential indirect disturbance of riparian forest communities by implementing the following measures:

- The potential for long-term loss of riparian forest vegetation would be minimized by trimming vegetation rather than removing entire shrubs. Shrubs that need to be trimmed would be cut at least 1 foot above ground level to leave the root systems intact and allow for more rapid regeneration. Cutting would be limited to the minimum area necessary within the construction zone. Cutting would be allowed only for shrubs; all trees would be avoided. Also, cutting would be allowed only in areas that do not provide habitat for sensitive species. To protect nesting birds, pruning or removal of woody riparian forest vegetation would not be allowed between March 1 and August 15.
- A certified arborist would be retained to perform any necessary pruning or root cutting of riparian forest trees. Work in riparian forest areas will be conducted between June 1 and October 1, and disturbed areas would be stabilized with erosion control measures before October 1.

Mitigation Measure BIO-3: Compensate for Temporary and Permanent Loss of Riparian Forest Vegetation. Riparian vegetation would be replanted, by the City of San Luis Obispo, within 15 feet (horizontally) of the wetted channel until a minimum replacement ratio of 2:1 for permanently affected shaded riverine aquatic cover vegetation is met. Once the requirement for mitigation for shaded riverine aquatic cover vegetation is met, the remainder of riparian vegetation mitigation can be replanted farther than 15 feet from the channel.

The City would compensate for temporary construction-related loss of riparian forest vegetation and shaded riverine aquatic cover vegetation at Prefumo Creek and San Luis Obispo Creek at a minimum ratio of 1:1 (1 acre restored for every 1 acre temporarily affected) by replanting the temporary access areas with the native species removed. These include arroyo willow, California black walnut, black cottonwood, coast live oak, coyote brush, coffeeberry, California blackberry, and elderberry. Replanting at each creek would occur at the earliest opportunity following completion of construction activities and during the time of year when maximum survival of planted vegetation is assured.

The City would compensate for the permanent loss of riparian forest vegetation within and adjacent to the study area along Prefumo and San Luis Obispo creeks at a minimum ratio of 2:1 (2 acres restored or created for every 1 acre permanently affected). All permanent riparian impacts would first be mitigated at the treatment ponds adjacent to the study area. While these commitments are made in the environmental document, final locations and quantities for compensation would be confirmed through coordination with state and federal agencies as part of the permitting process and final design phase and would be based on the impacts calculated and presence of appropriate environmental conditions for enhancement or creation. Compensation would also include enhancement of the creek corridor through removing non-native species such as giant reed, castor bean, poison hemlock, English ivy, Himalayan blackberry, and big leaf periwinkle and replacing these plants with native riparian trees and shrubs.

With implementation of Alternative 3, compensation in this area can be achieved through enhancing 1.64 acres of existing riparian habitat within and adjacent to the study area. To replace shaded riverine aquatic cover vegetation that is *permanently* lost as a result of the project, a minimum of 520 linear feet of stream bank would need to be planted with riparian vegetation to meet the minimum 2:1 replacement ratio identified for permanent impacts on shaded riverine aquatic cover vegetation. To meet this mitigation requirement, shaded riverine aquatic cover vegetation can be planted on either bank. The total bank length replanted must equal at least 520

feet or 260 feet of stream length assuming both banks are planted. To replace shaded riverine aquatic cover vegetation that is *temporarily* lost, a minimum 640 linear feet of stream bank would need to be planted to meet the minimum 1:1 replacement ratio.

For Alternative 6, compensation would require enhancing 2.54 acres of existing riparian habitat within and adjacent to the study area (see Figure 2.3-2). Enhancement activities for Alternative 6 would include removing the existing southbound off-ramp onto Los Osos Valley Road (including a culvert across Prefumo Creek) and replanting with native riparian trees and shrubs. To replace shaded riverine aquatic cover vegetation that is *permanently* lost as a result of the project, a minimum of 1,820 linear feet of stream bank would need to be planted with riparian vegetation to meet the minimum 2:1 replacement ratio identified for permanent impacts on shaded riverine aquatic cover vegetation. To meet this mitigation requirement, shaded riverine aquatic cover vegetation can be planted on either bank. The total bank length replanted must equal at least 910 linear feet or 455 linear feet of stream length assuming both banks are planted. To replace shaded riverine aquatic cover vegetation that is *temporarily* lost, a minimum of 290 linear feet of stream bank would need to be planted to meet the minimum 1:1 replacement ratio.

Riparian enhancement areas could occur within the study area; the exact location would be determined in coordination with the City and state (Caltrans) and federal (U.S. Fish and Wildlife Service) agencies. Plantings would consist of cuttings taken from local plants, or plants grown from local material obtained within the Prefumo and San Luis Obispo creek watersheds. Plantings would be monitored annually for three years, or as required in the project permits. A minimum of 75 percent of the plantings would survive at the end of the monitoring period. If the survival criterion were not met at the end of the monitoring period, planting and monitoring would be repeated until the survival criterion were met.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 United States Code 1344) is the main law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. This order states that a federal agency, such as the Federal Highway Administration, and Caltrans as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction, and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated mainly by the California Department of Fish and Game and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required.

The California Department of Fish and Game's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Boards also issue water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

A preliminary delineation of waters of the United States in the study area has been prepared for the proposed project. The study area supports seasonal wetland, freshwater marsh, seasonal drainage, and perennial drainage (Wetland Delineation 2007). Based on the survey methodology described in the Natural Environment Study, the Los Osos Valley Road/US 101 interchange study area contains a total of 4.01 acres of waters of the United States. This acreage includes 1.75 acres of potential jurisdictional other waters of the United States and 1.32 acres of potential jurisdictional wetlands. In addition to potential jurisdictional features, 0.84 acre of non-jurisdictional wetlands and 0.10 acre of jurisdictional drainages were also delineated in the study area. Submittal of the report to the Corps and subsequent verification are pending.

Seasonal Wetlands

Seasonal wetland communities in the study area are associated mostly with roadside drainages and basins south of Los Osos Valley Road. Two areas identified as seasonal wetland in the study area lie in the northbound on-ramp cloverleaf area. One is near the culvert under the on-ramp, and the other is in the adjacent area between the northbound off-ramp and the highway. These two seasonal wetlands are connected by a culvert under the on-ramp and receive runoff from the adjacent roads. These seasonal wetlands features appear to be unconnected to any of the creeks in the area, and are likely to be considered non-jurisdictional.

Another seasonal wetland lies between the highway and Calle Joaquin where the roadside drainage widens to a basin beneath a billboard. Common species in the seasonal wetlands include poison hemlock, Bermuda grass (*Cynodon* sp.), birdfoot trefoil (*Lotus corniculatus*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), Italian ryegrass (*Lolium multiflorum*), curly dock (*Rumex crispus*), bristly ox-tongue (*Picris echioides*), and Harding grass (*Phalaris aquatica*). This feature displays potential connectivity to jurisdictional waters, and is likely to be considered jurisdictional.

As shown in Figures 2.3-1 and 2.3-2, additional seasonal wetland areas within the Calle Joaquin realignment project area include a spring-fed drainage channel that supports wetland vegetation located west of Calle Joaquin Road (Drainage 1) and seasonal wetlands located within the roadside drainage that crosses from the east side of Los Osos Valley Road to the west side of

Calle Joaquin Road (Drainage 2). These roadside drainage wetlands convey runoff from the freshwater marsh and riparian vegetation east of Los Osos Valley Road and from the adjacent roads. Segments of these drainages function as seasonal drainages and are discussed in the “Seasonal Drainages” section below.

Seasonal wetlands support many insects, which constitute a food source for a variety of birds, amphibians, and reptiles. During the July 2006 field survey, a great egret (*Ardea alba*) and red-winged blackbirds (*Agelaius phoeniceus*) were seen in the vicinity of seasonal wetlands in the study area. Tall vegetation associated with the seasonal wetland on the west side of US 101 may also provide nesting habitat for migratory birds.

Freshwater Marsh

The study area supports two locations of freshwater marsh community. One is located within the approved Calle Joaquin realignment project in Froom Ranch at the base of the Irish Hills. The marsh feature is within the floodplain of Froom Creek and is in an area of high ground water (Calle Joaquin Wetland Delineation 2005). Portions of the marsh are perennially wet. Dominant plant species there include iris-leaved rush (*Juncus xiphioides*), sedges (*Carex* spp.), creeping leather root (*Hoita orbiculatus*), coastal silverweed (*Potentilla anserina* ssp. *pacifica*), bull thistle (*Cirsium vulgare*), birdfoot trefoil, goldentop (*Lamarckia aurea*), and meadow fescue (*Festuca arundinacea*). Dominant plant species in the wettest areas include tule (*Scirpus acutus*), iris-leaved rush, seep monkeyflower (*Mimulus guttatus*), and watercress (*Rorippa nasturtium-aquatica*).

The other freshwater marsh lies between US 101 and Calle Joaquin. This feature appears to be perennial, possibly due to high ground water. Dominant species in this community include narrow-leaved cattail (*Typha angustifolia*), iris-leaved rush, Himalayan blackberry (*Rubus discolor*), sneezeweed (*Helenium puberulum*), and fringed willowherb (*Epilobium ciliatum*).

Common bird species seen in freshwater marsh habitats in the study area include red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), and mallard (*Anas platyrhynchos*). Freshwater marsh wetlands in the study area also provide habitat for aquatic amphibians and reptiles such as the Pacific tree frog (*Hyla regilla*) and common garter snake (*Thamnophis sirtalis*).

Seasonal Drainages

Several seasonal drainages cross the study area. Two seasonal drainages have been previously evaluated in a wetland delineation (2004) for the Calle Joaquin realignment project, identified as Drainage 1 and Drainage 2 in that wetland delineation (segments of these drainages function as seasonal wetlands and are discussed in the “Seasonal Wetlands” section above). Drainage 1 is spring-fed and enters an underground culvert at its south end that emerges at the confluence with Froom Creek on the west side of Calle Joaquin. Froom Creek crosses under US 101 at this location to its confluence with San Luis Obispo Creek. Drainage 1 supports Central Coast arroyo willow riparian forest vegetation, dominated by arroyo willow, dogwood (*Cornus sericea*), California bay (*Umbellularia californica*), California blackberry, and cattail.

Drainage 2 parallels Los Osos Valley Road and US 101 and is fed by urban runoff. The north portion of Drainage 2 in the study area floods into the adjacent freshwater marsh under high flow conditions. The northern portion of Drainage 2 supports Central Coast arroyo willow riparian forest vegetation, including arroyo willow, poison hemlock, sweet fennel (*Foeniculum vulgare*), teasel (*Dipsacus fullonum*), and milk thistle (*Silybum maritimum*). The southern portion along Calle Joaquin supports scattered arroyo willow and eucalyptus, coyote brush, poison hemlock, a small area of tule and cattail, and ruderal herbaceous species.

The study area also includes a seasonal drainage that parallels US 101 and is separated from the southern end of Drainage 2 by a stand of eucalyptus. This drainage flows south and expands into a seasonal wetland in a basin area between US 101 and Calle Joaquin. The lowest point of the basin supports freshwater marsh that appears to be perennial, then continues to another segment of seasonal drainage at the southernmost part of the study area. The upstream portion of this seasonal drainage is dominated by coyote brush, California blackberry, poison hemlock, and mugwort. The southernmost end of the drainage supports Central Coast arroyo willow riparian forest, with some non-natives, such as pepper tree.

The value of seasonal drainages as wildlife habitat varies with the duration and intensity of water flow. During the wet season, intermittent drainages are used by a variety of wildlife species. Mammals such as raccoons and opossum use the habitats for drinking and washing their food. Shorebirds and waterfowl may use intermittent drainages for resting or foraging, whereas these habitats may serve as travel corridors for amphibians, invertebrates, or other highly aquatic wildlife. Wildlife species observed in or adjacent to seasonal drainages in the study area during the 2006 field surveys included great egret, song sparrow, and mallard.

Perennial Drainages

Two perennial drainages—Prefumo Creek and San Luis Obispo Creek—cross roadways in the study area via cement box culverts and steel-pipe culverts of varying sizes. Froom Creek, which is intermittent in the vicinity of the study area, has a perennial reach upstream. These perennial drainages provide habitat for a variety of wildlife and fish. Vegetation growing along the edges of drainages provides nesting habitat for several bird species and foraging and refuge habitat for amphibians, reptiles, and mammals occupying the open water and adjacent grassland habitats.

Birds such as herons (*Ardeidae* spp.) and belted kingfishers (*Megaceryle alcyon*) forage in these communities, mainly along the water's edge. Many species of insectivorous birds, including white-throated swift (*Aeronautes saxatalis*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), black phoebe (*Sayornis nigricans*), and ash-throated flycatcher (*Myiarchus cinerascens*), catch their prey over open water.

Native fish species in San Luis Obispo Creek and Prefumo Creek include speckled dace (*Rhinichthys osculus*), prickly sculpin (*Cottus asper*), threespine stickleback (*Gasterosteus aculeatus*), south-central California coast steelhead trout (*Oncorhynchus mykiss*), and Pacific lamprey (*Lampetra tridentata*). Steelhead trout occur in perennial reaches of Froom Creek; the segment of Froom Creek within the study area is used as a migratory corridor for adults migrating to upstream spawning habitat and juveniles going to the ocean.

Introduced species such as goldfish, largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*), bluegill (*Lepomis macrochirus*), mosquitofish (*Gambusia affinis*), channel catfish (*Ictalurus punctatus*), brown bullhead (*Ameiurus nebulosus*), golden shiners (*Notemigonus crysoleucas*), and fathead minnows (*Pimephales promelas*) are also present in the watershed.

Environmental Consequences

Table 2.3-1 shows total impacts, both permanent and temporary, to wetlands and other waters of the U.S. for Alternatives 3 and 6.

The Seasonal Wetland (b) heading in Table 2.3-1 includes waters claimed as jurisdictional by the California Department of Fish and Game, but not by the U.S. Army Corps of Engineers. Figures 2.3-1 and 2.3-2 show the locations of these impacts and the differences between Alternatives 3 and 6.

Table 2.3-1: Impacts to Wetlands and Other Waters of the U.S.

Community Type	Alternative 3		Alternative 6	
	Permanently Affected (Acres)	Temporarily Affected (Acres)	Permanently Affected (Acres)	Temporarily Affected (Acres)
Seasonal Wetland (a)	0.03	0	0.02	0
Seasonal Wetland (b)	0.17	0	0.17	0
Freshwater Marsh	0	0	0	0
Seasonal Drainage	0.04	0	0.07	0
Perennial Drainage	0.07	0.19	0.15	0.11
Total Impacts	0.31	0.19	0.41	0.11

(a) Jurisdictional waters of the U.S., final acreages pending verification by the U.S. Army Corps of Engineers.

(b) Non-jurisdictional wetlands, final acreages pending verification by the U.S. Army Corps of Engineers.

Seasonal Wetland

Alternative 3: Implementation of Alternative 3 would result in the permanent loss of 0.03 acre of potentially jurisdictional seasonal wetlands within Drainage 2 during construction of the southbound on-ramp and 0.17 acre of non-jurisdictional seasonal wetland during construction of the biofiltration swales and strips within the northbound loop on-ramp.

Alternative 6: Implementation of Alternative 6 would result in the permanent loss of 0.02 acre of potentially jurisdictional seasonal wetlands within Drainage 2 during construction of the southbound on-ramp and 0.17 acre of non-jurisdictional seasonal wetland during construction of the biofiltration swales and strips within the northbound loop on-ramp.

With either alternative, indirect impacts on seasonal wetland could occur from adjacent construction activity. Seasonal wetland habitat that is adjacent to the construction area would not be removed for construction, but it could sustain damage from equipment. The loss or disturbance of seasonal wetland is considered adverse because wetland provides a variety of important ecological functions, including wildlife habitat, floodwater storage, and water quality improvement. The Drainage 2 seasonal wetlands and the two seasonal wetlands within the northbound off-ramp, however, are of limited functional value because they are surrounded by roads and have a small watershed defined by the roads.

Freshwater Marsh

Alternative 3: Freshwater marsh habitat is outside the proposed construction zone for Alternative 3. Construction of Alternative 3, therefore, would avoid direct and indirect impacts on freshwater marsh.

Alternative 6: Based on the extent of habitat shown in Figure 2.3-2, implementation of Alternative 6 would avoid any direct impacts on freshwater marsh within the project footprint for the Calle Joaquin/US 101 southbound on-ramp and off-ramp. It is likely that construction of the

Calle Joaquin Road realignment project (Figure 2.3-2) has removed the freshwater marsh area near proposed project construction since the field surveys were done. If any freshwater marsh habitat remains next to the study area at the time of project construction, Alternative 6 could result in indirect impacts on freshwater marsh from adjacent construction activity. The loss or disturbance of freshwater marsh is considered adverse because it provides ecological functions, including wildlife habitat, floodwater storage for Froom Creek, groundwater recharge, and filtration of pollutants.

Seasonal Drainage

Construction of the project would result in the permanent loss of seasonal drainage within Drainage 2. The permanent impact area would include loss of wetland vegetation. Temporary impacts on seasonal drainage would occur due to removal of vegetation and disruption of the drainage during construction activities in the right-of-way. No impacts on other seasonal drainages, including Froom Creek, are anticipated. The amount of impact on Drainage 2 differs between the two alternatives, as described below.

Alternative 3: Implementation of Alternative 3 would result in the permanent loss of 0.04 acre of seasonal drainage for the reconstruction of the existing Calle Joaquin/US 101 southbound on-ramp where it connects to the widened Los Osos Valley Road (Figure 2.3-1).

Alternative 6: Implementation of Alternative 6 would result in the permanent loss of about 0.07 acre of seasonal drainage within the project footprint for the reconstruction of the existing Calle Joaquin/US 101 southbound on-ramp where it connects to the widened Los Osos Valley Road (Figure 2.3-2).

Perennial Drainage

Construction of the project would result in the permanent loss of perennial drainage within Prefumo and San Luis Obispo creeks. The permanent impact area would include the loss of riparian and wetland vegetation. Temporary impacts on perennial drainages would occur due to removal of vegetation and disruption of the drainages during construction activities in the right-of-way. The amount of impact on the creeks differs between the two alternatives, as described below.

Alternative 3: Implementation of Alternative 3 would result in the permanent loss of about 0.07 acre of perennial drainage and temporary disturbance of about 0.19 acre of perennial drainage for the construction of a retaining wall at San Luis Obispo Creek, and the widening of the existing Los Osos Valley Road overcrossing at Prefumo Creek and San Luis Obispo Creek (Figure 2.3-1).

Alternative 6: Implementation of Alternative 6 would result in the permanent loss of about 0.15 acre of perennial drainage and temporary disturbance of about 0.11 acre of perennial drainage for the construction of a retaining wall at San Luis Obispo Creek, construction of a new northbound on-ramp and bridge at San Luis Obispo and Prefumo creeks, and the widening of the existing Los Osos Valley Road overcrossing at San Luis Obispo Creek (Figure 2.3-2).

Avoidance, Minimization, and/or Mitigation Measures

The impacts to wetlands have been minimized by project design features and minimization measures listed below, but are unavoidable. Because the project modifies the existing interchange by adding an additional eastbound traffic bridge on Los Osos Valley Road and by modifying on- and off-ramps, moving the project or existing highways cannot avoid impacts to wetland resources. The culvert modification to San Luis Obispo Creek is necessary to support the new eastbound travel lanes of Los Osos Valley Road, while accommodating future US 101 widening. Other alternatives to the proposed action were considered during project development, as described in Section 1.3. Various design and operation improvements were developed for the

interchange, ramps, and Los Osos Valley Road, ultimately resulting in Alternative 3 being selected as the least-damaging practicable alternative.

In accordance with Executive Order 11990, the least environmentally damaging practicable alternative selected for this project is Alternative 3. All practicable measures to minimize harm to the affected wetlands and waters have been included in the proposed alternative(s) as design features and additional avoidance, minimization, and mitigation measures. Below are design minimizations common to both build alternatives (many of these are beneficial to all aspects of the biological environment, but are discussed here for the sake of brevity). Then design minimizations specific to individual alternatives are described.

Design Minimizations Common to Alternatives 3 and 6

1. Alignment adjustments

- The northbound off-ramp was moved west toward US 101, away from San Luis Obispo Creek, ensuring trees would not be removed in this area and work could be conducted from the existing roadway. This avoidance measure ensures no loss of jurisdictional waters along the northbound off-ramp.
- Moving this off-ramp also avoids impacts to the Froom Creek outfall since the culvert will not need to be extended to accommodate the road.

2. Retaining walls and embankment configurations

- A retaining wall on the northbound off-ramp would limit impacts to San Luis Obispo Creek.
- A retaining wall on the southbound off-ramp would limit impacts to Prefumo Creek.
- Steeper 2:1 side slopes are proposed along the northbound off-ramp and southbound off-ramp. Current standards call for 4:1 slopes, but the steeper 2:1 gradients further restrict the horizontal extent of the road embankment that would encroach into San Luis Obispo Creek and Prefumo Creek.

3. In-stream changes

- If disturbance to the gravel cannot be avoided in San Luis Obispo Creek, the gravel would be removed temporarily and replaced to the extent practicable with gravel removed from the site. Before gravel would be returned to the channel following construction, gravel would be washed to remove fines (term for fine sediment) before being placed back into the creek channel. If it becomes necessary to augment disturbed gravel with gravel from outside sources, only washed river gravel (to remove fines) appropriately sized for adult steelhead trout would be used..
- Permanent fish passage would be maintained or improved at each structure that requires modification.
 - a. Along San Luis Obispo Creek, fish passage would not be impeded by the rock slope protection in the outfall.

4. Replanting and final grading

- The two seasonal wetlands in the artificially created basins between US 101 and the existing northbound on-ramps and off-ramps would be restored onsite as biofiltration

swales and strips after the new ramps are constructed. To ensure sufficient ponding in support of wetland vegetation, the basin would be excavated to pre-project conditions and planted with a native seed mix.

- All disturbed areas would be seeded with native mixes and mulched with certified weed-free mulch (rice straw may be used in upland areas). Native, non-invasive species would be used in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing.

Additional Alternative 3 Minimizations

Implementation of the avoidance and minimization measures would protect seasonal wetlands and avoid this potential impact.

State and federal agencies would require avoidance, minimization, and compensatory mitigation for the loss of seasonal wetlands.

Retaining walls and embankment configurations:

- A retaining wall would be built along the southbound on-ramp, restricting fills into a portion of Drainage Ditch #2.
- A retaining wall would be built along westbound Los Osos Valley Road between US 101 and the south southbound off-ramp. This would also restrict impacts to Prefumo Creek.

Additional Alternative 6 Minimizations

Implementation of the avoidance and minimization measures would protect freshwater marsh and avoid this potential impact. No additional mitigation is proposed for freshwater marsh habitat.

State and federal agencies would require avoidance, minimization, and compensatory mitigation for the loss of freshwater marsh.

Retaining wall:

- The northbound diagonal on-ramp would use retaining walls and free-spans over Prefumo Creek.

Only Practicable Finding

Based on the above considerations, Alternative 3 is the biologically preferred alternative for the proposed construction in wetlands. The proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. In accordance with Executive Order 11990, the least environmentally damaging practicable alternative selected for this project is Alternative 3. The basis for the least environmentally damaging practicable alternative determination is that Alternative 3 requires less ground and creek disturbance, requires less vegetation removal, has shallow footings to avoid paleontological resources, accommodates the future highway widening, and has the smallest environmental footprint.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

Mitigation Measure BIO-4: Avoid and Minimize Potential Indirect Disturbance of Seasonal Wetlands Near the Construction Area. The City would minimize the potential for indirect disturbance of the seasonal wetlands in the US 101 northbound on-ramp portion of the study area

by prohibiting the use of vehicles and equipment staging in this area. All access by vehicles in this portion of the study area would occur via the paved on-ramp.

Mitigation Measure BIO-5: Protect Water Quality and Prevent Erosion in Wetlands and Drainages. To protect water quality in seasonal wetlands, freshwater marsh, and Prefumo, San Luis Obispo, and Froom creeks, the City would implement the following best management practices before and during construction:

- All earthwork or foundation activities involving creeks, culverts, and bridges would occur in the dry season (generally between June 1 and October 1).
- All work in the drainages that may contain fish would be limited to the low-flow period in the dry season.
- Equipment used in and around waters of the U.S. would be in good working order and free of dripping or leaking engine fluids. All vehicle maintenance, staging, and materials storage would occur at least 300 feet from all waters of the U.S. Any necessary equipment washing would occur where the water cannot flow into the stream channel.
- Any surplus concrete rubble, asphalt, or other rubble from construction would be taken to an approved disposal site.
- An erosion control plan would be prepared and implemented for the proposed project. It would include the following provisions and protocols:
 - Discharge from dewatering operations, if needed, and runoff from disturbed areas would conform to the water quality requirements of the waste discharge permit issued by the Regional Water Quality Control Board.
 - Material stockpiles would be located in non-traffic areas only. Side slopes would not be steeper than 2:1. All stockpile areas would be surrounded by a filter fabric fence and interceptor dike.
 - Erosion control measures would be applied throughout construction of the proposed project. The Storm Water Pollution Prevention Plan for the project would detail the applications and type of measures and the allowable exposure of unprotected soils.
 - Soil exposure would be minimized through the use of temporary best management practices, groundcover, and stabilization measures. Exposed dust-producing surfaces would be sprinkled daily, if necessary, until wet; this measure would be controlled to avoid producing runoff. Paved streets would be swept daily following construction activities.
 - The contractor would conduct periodic maintenance of erosion- and sediment-control measures.
 - All temporary erosion- and sediment-control measures would be removed after the working area is stabilized or as directed by the engineer.
 - An appropriate seed mix of native species would be planted on disturbed areas upon completion of construction.
 - Sandbagged silt fences would be installed in all named and unnamed waterways in which construction work occurs, both upstream and downstream of the construction site. Any accumulated sediment would be removed and trucked to an approved disposal site.

Mitigation Measure BIO-6: Compensate for the Permanent Loss of Seasonal Wetlands. The City of San Luis Obispo would compensate for permanent loss of seasonal wetlands at a minimum ratio of 2:1 (2 hectares/acres restored for every 1 hectare/acre temporarily affected). Permanent impacts on seasonal wetland would first be mitigated on-site. Any remaining seasonal wetland mitigation that cannot be created on-site would be created off-site at an environmentally-approved location to be determined, such as the city-owned Johnson Ranch or through the San Luis Obispo Conservancy. While these commitments are made in the environmental document, final locations and quantities for compensation would be confirmed through coordination with state and federal agencies as part of the permitting process and final design phase and would be based on the impacts calculated and presence of appropriate environmental conditions for the creation of wetlands.

If Alternative 3 is built, total required compensation for impacts on seasonal wetland would be 0.16 hectare (0.40 acre). If Alternative 6 is built, total compensation for impacts on seasonal wetlands would be 0.15 hectare (0.36 acre). Because the two of the affected seasonal wetlands occur within artificially created basins between U.S. 101 and the northbound on- and off-ramps, these wetlands would be restored on-site after construction. To ensure sufficient ponding to support wetland vegetation, the basin north of the on-ramp would be excavated to pre-project conditions and planted with a native seed mix.

Mitigation Measure BIO-7: Avoid and Minimize Potential Indirect Disturbance of Freshwater Marsh near the Construction Area. The City would minimize the potential for indirect disturbance of the freshwater marsh in the Calle Joaquin/US 101 southbound on-ramp and off-ramp portion of the study area by prohibiting equipment staging in that area. All access by vehicle in that portion of the study area would be limited to the project right-of-way.

Mitigation Measure BIO-8: Avoid and Minimize Potential Indirect Disturbance of Seasonal Drainage near the Construction Area. The City would minimize the potential for indirect disturbance of the seasonal drainages in the realigned portion of the Calle Joaquin/US 101 southbound on-ramp under Alternative 3 or the Calle Joaquin/US 101 southbound on-ramp and off-ramp under Alternative 6 by prohibiting equipment staging in this area. All access by vehicle in this portion of the study area would be limited to the project right-of-way.

Mitigation Measure BIO-9: Compensate for Permanent Loss of Seasonal Drainage Habitat. The City would compensate for the permanent fill of seasonal drainage (a direct impact associated with new road construction) at a minimum ratio of 2:1 (2 acres restored or created for every 1 acre permanently affected).

- Under Alternative 3, a minimum of 0.08 acre of compensation for permanent loss of seasonal drainage would be required.
- Under Alternative 6, a minimum of 0.07 acre of compensation for the permanent loss seasonal drainage would be required.

Mitigation proposed includes a combination of onsite mitigation and compensation at undetermined offsite locations such as the Johnson Ranch or through the San Luis Obispo Land Conservancy. Onsite compensation would be accomplished by restoring and/or enhancing riparian and in-stream habitats along Prefumo and San Luis Obispo creeks in the study area. Compensation for other waters of the U.S. would be in addition to and would follow the guidelines for riparian habitat compensation described under Section 4.1.1 of the Natural Environment Study Report (2008). Permanent impacts to seasonal drainages that cannot be mitigated onsite would be compensated at a ratio of at least 2:1 at offsite locations.

Temporarily disturbed portions of the drainages would be returned to original grade following construction, and would result in no permanent impacts.

Mitigation Measure BIO-10: Avoid and Minimize Potential Indirect Disturbance of Perennial Drainage Near the Construction Area. The City would minimize the potential for indirect disturbance of the perennial drainages, including Prefumo and San Luis Obispo creek, in the project area by prohibiting equipment staging in these areas. All access by vehicle in these portions of the study area would be limited to the project right-of-way.

Mitigation Measure BIO-11: Compensate for Permanent Loss and Temporary Disturbance of Perennial Drainage Habitat. The City would compensate for temporary construction-related loss of perennial drainage at a minimum ratio of 1:1 (1 acre restored for every 1 acre temporarily affected) and would compensate for the permanent fill of perennial drainage (a direct impact associated with new road construction) in San Luis Obispo creek at a minimum ratio of 2:1 (2 acres restored or created for every 1 acre permanently affected).

- Under Alternative 3, a minimum of 0.33 acre of compensation for loss of perennial drainage would be required.
- Under Alternative 6, a minimum of 0.41 acre of compensation for the loss of perennial drainage would be required.

Mitigation proposed includes a combination of onsite mitigation and compensation at undetermined offsite locations such as the Johnson Ranch or through the San Luis Obispo Land Conservancy. Onsite compensation would be accomplished by restoring and/or enhancing riparian and in-stream habitats along Prefumo and San Luis Obispo creeks in the study area. Compensation for other waters of the U.S. would be in addition to and would follow the guidelines for riparian habitat compensation described under Section 4.1.1.2 of the Natural Environment Study Report (2008). Permanent impacts to seasonal drainages that cannot be mitigated onsite would be compensated at a ratio of at least 2:1 at offsite locations.

Temporarily disturbed portions of the drainages would be returned to original grade following construction, and would result in no permanent impacts.

The two seasonal wetlands in the artificially created basins between US 101 and the existing northbound on-ramps and off-ramps would be restored on-site as biofiltration swales and strips after the new ramps are constructed. To ensure sufficient ponding in support of wetland vegetation, the basin would be excavated to pre-project conditions and planted with a native seed mix.

2.3.3 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanographic and Atmospheric Fisheries Service, and the California Department of Fish and Game are responsible for implementing these laws.

This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.4. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanographic and Atmospheric Administration Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act

- Fish and Wildlife Coordination Act
- Marine Mammal Protection Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601–1603 of the Fish and Game Code
- Sections 4150 and 4152 of the Fish and Game Code

Affected Environment

As described in the Natural Environment Study Report, sensitive species that could potentially occur in the study area were identified based on a review of existing information, coordination with agency personnel, and field surveys, including a reconnaissance-level field survey and biological field surveys. With this information, the biologist determined that the sensitive wildlife species shown in Table 2.3-2 have the potential to occur in the study area or may be affected by construction activities.

Table 2.3-2: Sensitive Wildlife and Fish Species Potentially Occurring in the Study Area

Common Name, <i>Scientific Name</i>	Legal Status		Habitat Requirements	Species Present in Study Area?	Specific Habitat Present in Study Area?	Rationale
	Federal	State				
Foothill yellow-legged frog <i>Rana boylei</i>	–	Species of Special Concern	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge; usually found near riffles with rocks and sunny banks nearby	Not observed	Yes	No foothill yellow-legged frogs were observed during protocol-level surveys for California red-legged frog
Southwestern pond turtle <i>Emys marmorata pallida</i>	–	Species of Special Concern	Ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. Overwintering habitat consists of mud in stream and pond bottoms or a variety of upland habitats including riparian habitat. Eggs are laid in earthen cavities, usually in sunny locations within 1,640 feet of aquatic habitat.	Yes	Yes	Suitable aquatic habitat for southwestern pond turtles is present within Prefumo and San Luis Obispo creeks in the study area. One adult pond turtle was observed in Prefumo Creek near the confluence with San Luis Obispo Creek in the study area during the April 2006 field surveys.

Chapter 2 • Affected Environment, Environmental Consequences,
and Avoidance, Minimization, and/or Mitigation Measures

Common Name, Scientific Name	Legal Status		Habitat Requirements	Species Present in Study Area?	Specific Habitat Present in Study Area?	Rationale
	Federal	State				
Two-striped garter snake <i>Thamnophis hammondi</i>	–	Species of Special Concern	Perennial and intermittent streams having rocky beds bordered by willow thickets or other dense vegetation. Also inhabits large sandy riverbeds, such as the San Luis Obispo Creek, if a strip of riparian vegetation is present, and stock ponds if riparian vegetation and fish and amphibian prey are present	Not observed	Yes	San Luis Obispo and Prefumo creeks in the study area provide potential habitat for the species. The species is known to occur in San Luis Obispo County (California Natural Diversity Database, 2006).
Cooper's hawk <i>Accipiter cooperii</i>	–	Species of Special Concern	Nests primarily in riparian forests dominated by deciduous species; also nests in densely canopied forests from grey pine-oak woodland up to ponderosa pine; forages in open woodlands	Not observed	Yes	Species was not observed during reconnaissance-level fields surveys conducted between April and July 2006. Riparian forest in the study area provides suitable nesting and wintering habitat for the species.
Northern harrier <i>Circus cyaneus</i>	–	Species of Special Concern	Grasslands, meadows, marshes, and seasonal and agricultural wetlands.	Not observed	Yes	Species was not observed during reconnaissance-level fields surveys conducted between April and July 2006. Emergent marsh in the study area provides suitable nesting habitat for the species.
White-tailed kite <i>Elanus leucurus</i>	–	Fully Protected	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging.	Not observed	Yes	Species was not observed during reconnaissance-level fields surveys conducted between April and July 2006. Riparian forest in the study area provides suitable nesting and wintering habitat for the species.
Western burrowing owl <i>Athene cunicularia hypugea</i>	–	Species of Special Concern	Level, open, dry, heavily grazed or low-stature grassland or desert vegetation with available burrows.	Not observed	Yes	Species was not observed during reconnaissance-level fields surveys conducted between April and July 2006. Annual grasslands with active ground squirrel burrows in the study area provide suitable nesting and wintering habitat for the species.

The special-status species described below were either seen in the project area or suitable habitat for the species was present in the project area. These included the foothill yellow-legged frog

(*Rana boylei*), southwestern pond turtle (*Emys marmorata pallida*), two-striped garter snake (*Thamnophis hammondi*), Cooper's hawk (*Accipiter cooperii*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), and western burrowing owl (*Athene Cunicularia hypugea*).

Foothill Yellow-legged Frog

Foothill yellow-legged frogs were reported just west of the study area in 1987, although the frog(s) could have been misidentified California red-legged frogs. Foothill yellow-legged frogs were not seen during field surveys or during protocol-level surveys for California red-legged frog done within Prefumo and San Luis Obispo creeks in the study area. Prefumo and San Luis Obispo creeks in the study area provide suitable habitat for this species.

Southwestern Pond Turtle

The southwestern pond turtle is designated as a state species of special concern. During the 2006 field surveys, a southwestern pond turtle was seen in Prefumo Creek, near the creek's confluence with San Luis Obispo Creek. Prefumo and San Luis Obispo creeks provide suitable aquatic habitat for the species. Adjacent uplands in the study area occur within heavily disturbed urban areas in the city of San Luis Obispo and do not provide suitable nesting or wintering habitat.

Prefumo and San Luis Obispo creeks in the study area provide suitable aquatic habitat and basking sites for the species, and turtles may use riparian areas along these creeks as well.

Two-striped Garter Snakes

Two-striped garter snakes were not seen during field surveys done within Prefumo and San Luis Obispo creeks in the study area. However, focused surveys for this species were not performed. Suitable habitat is present within Prefumo and San Luis Obispo creeks, and the species is known to occur in San Luis Obispo County.

Prefumo and San Luis Obispo creeks provide suitable aquatic habitat for two-striped garter snakes.

Sensitive and Non-sensitive Migratory Birds

Several sensitive (including Cooper's hawk and white-tailed kite) and non-sensitive migratory birds could nest in and adjacent to the study area. The breeding season for most birds is generally from March 1 to August 15.

The Cooper's hawk, a state species of special concern, is a year-round resident throughout much of California, except in the high Sierra Nevada. Migrants from the north spend winter in California; residents move down slope and south from areas of heavy snow in fall and return in spring. The Cooper's hawk nests in coniferous and deciduous trees. It prefers second-growth conifers and deciduous riparian areas along streams. It forages along forest edges and in broken habitats for small birds and small mammals.

The white-tailed kite is a fully protected species under California Fish and Game Code 3511. The species has a restricted distribution in the U.S., occurring only in California and western Oregon and along the Texas coast. The species is fairly common in California's Central Valley lowlands. White-tailed kites nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. White-tailed kites use nearby treetops for perching and nesting sites. Voles and mice are common prey.

The Cooper's hawk and white-tailed kite have been seen within 10 miles of the study area, and suitable nesting and foraging habitat is present within the study area. No Cooper's hawk or white-tailed kite was seen in the study area during the 2006 field surveys done between April and July. A focused nest survey was not performed during the 2006 surveys.

Within the study area, suitable nesting habitat for migratory birds occurs within riparian forest, seasonal wetland, annual grassland, and emergent marsh habitats. Migratory birds seen in and near the study area include the red-winged blackbird, northern mockingbird, lesser goldfinch, song sparrow, red-shouldered hawk, and red-tailed hawk.

Western Burrowing Owl

The western burrowing owl is a federal species of concern and a state species of special concern. The burrowing owl is a species of special concern in California because suitable habitat and both local and statewide populations have declined. It is protected during its nesting season under the Migratory Bird Treaty Act and the California Fish and Game Code Section 3503.5. Burrowing owl is a ground-nesting raptor that typically uses the burrows of other species, such as ground squirrels, for nesting and thermal and escape cover.

No burrowing owls were observed in the study area during the 2006 field surveys done between April and July. Historically, burrowing owls are known to occur along Froom Creek, where they were seen in 1988 during surveys conducted for the Froom Creek Project, northwest of the study area. Within the study area, annual grasslands and agricultural lands provide potential breeding or wintering habitat for burrowing owls. However, these areas are heavily disturbed by adjacent development and ongoing agricultural practices, reducing the likelihood that burrowing owls would occur within the study area. If burrowing owls are present in the project vicinity, they could use existing ground squirrel burrows that exist in the annual grassland habitat west of Calle Joaquin.

Swallows

Active swallow nests were not seen in the study area during the 2006 field surveys done between April and July. However, existing bridges and box culverts in the study area provide potential nesting areas for swallows. Swallows often build mud nests on the underside of concrete structures over permanent or semi-permanent water sources.

Environmental Consequences

Table 2.3-3 shows permanent and temporary impacts to habitat for special-status animals in the project area. Possible impacts for each species are described in the text that follows.

Table 2.3-3 Impacts to Habitat for Special-Status Animals

Special-Status Animals	Alternative 3		Alternative 6	
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Foothill yellow-legged frog	0.51	1.03	1.23	0.63
Southwestern pond turtle	0.47	1.03	1.16	0.63
Two-striped garter snake	0.51	1.03	1.23	0.63
Cooper’s hawk	0.40	0.84	1.01	0.52

Northern harrier	1.46	none	1.82	none
White-tailed kite	1.66	0.84	2.64	0.52
Western burrowing owl	1.26	none	1.63	none

Foothill Yellow-legged Frog

The proposed project may affect potential breeding and dispersal habitat for foothill yellow-legged frogs. If they are present in the creek channel or along the creek bank during construction, they could be injured or killed by construction activities or personnel. In addition, dewatering aquatic habitat during the period when eggs or larvae are developing could result in the loss of frogs. Although construction in the stream channel would be conducted outside a portion of the breeding season, tadpoles could still be present within the channel through the summer foothill yellow-legged frogs bred in San Luis Obispo or Prefumo creeks.

Potential impacts on foothill yellow-legged frog would be the same under both Alternative 3 and Alternative 6, except for the amount of habitat affected:

- Implementation of Alternative 3 would result in a permanent loss of about 0.40 acre and a temporary disturbance of about 0.84 acre of potential foraging habitat (riparian forest) in the study area (see Figure 2.3-1). This alternative would also result in a permanent loss of about 0.11 acre and a temporary disturbance of about 0.19 acre of aquatic dispersal/summer habitat for the foothill yellow-legged frog.
- Implementation of Alternative 6 would result in a permanent loss of about 1.01 acres and a temporary disturbance of about 0.52 acre of potential foraging habitat (riparian forest) in the study area (see Figure 2.3-2). This alternative would also result in a permanent loss of about 0.22 acre and a temporary disturbance of about 0.11 acre of aquatic dispersal habitat for the foothill yellow-legged frog.

Southwestern Pond Turtle

Southwestern pond turtles are very sensitive to disturbances and quickly retreat into the water when threatened. If pond turtles are present in the creek channel or along the creek bank during in-channel construction within Prefumo and San Luis Obispo creeks, they could become entrapped in areas being dewatered during installation of diversion structures within these creeks in the construction work area. Although the nature of potential impacts on southwestern pond turtle would be the same under both Alternative 3 and Alternative 6, the amount of habitat affected would be different.

The differences in impacts on riparian and aquatic habitat between Alternatives 3 and 6 are described below:

- Implementation of Alternative 3 would result in a permanent loss of about 0.40 acre and a temporary disturbance of about 0.84 acre of riparian forest in the study area (see Figure 2.3-1). This alternative would also result in a permanent loss of about 0.07 acre and a temporary disturbance of about 0.19 acre of perennial aquatic habitat for the southwestern pond turtle.
- Implementation of Alternative 6 would result in a permanent loss of about 1.01 acres and a temporary disturbance of about 0.52 acre of riparian forest within the study area (see Figure 2.3-2). This alternative would also result in a permanent loss of about 0.15 acre and a

temporary disturbance of about 0.11 acre of perennial aquatic habitat for the southwestern pond turtle.

Two-striped Garter Snakes

If two striped-garter snakes are present in the creek channel or along the creek bank during in-channel construction, it is expected that they would move out of the way of construction equipment and would not be harmed. The potential exists for two-striped garter snakes to become entrapped in areas being dewatered during installation of diversion structures within Prefumo and San Luis Obispo creeks in the construction work area.

Potential impacts on two striped-garter snakes would be the same under both Alternative 3 and Alternative 6.

Sensitive and Non-sensitive Migratory Birds

The proposed project would result in a permanent loss and temporary disturbance of potential nesting habitat for the Cooper's hawk, white-tailed kite, and other migratory birds. Vegetation removal or noise associated with construction activities could result in the disturbance of nesting migratory birds if active nests are present within or near the permanent or temporary construction impact area. These disturbances could cause nest abandonment and death of young or loss of reproductive potential at active nests in or near the study area. Such disturbance would violate California Fish and Game Code Sections 3503 (bird nests), 3503.5 (raptor nests), 3511 (fully protected birds), 3513 (migratory birds), and the Migratory Bird Treaty Act.

Potential impacts on Cooper's hawks, white-tailed kites, and other migratory birds would be the same for both Alternative 3 and Alternative 6. Impacts to habitat for these species are shown for both alternatives in Table 2.3-3.

Western Burrowing Owl

The proposed project would result in a permanent and temporary loss of annual grassland and agricultural lands that provide potential habitat for burrowing owls. Ground-disturbing activities or noise associated with construction activities could result in the disturbance of breeding or wintering burrowing owls if active burrows are present within or near the permanent or temporary construction impact area. These disturbances could cause nest abandonment and death of young or loss of reproductive potential at active nests in or near the study area. The Migratory Bird Treaty Act and Section 3503.5 of the California Fish and Game Code prohibit the "take" of migratory birds, nests, and young.

Potential impacts on burrowing owls would be the same for both Alternative 3 and Alternative 6. Impacts to habitat for this species are shown for both alternatives in Table 2.3-3.

Swallows

Changes to the existing bridges and box culverts in the study area could result in the direct loss of active swallow nests. Loss of a nest could in turn result in the death of adults, young, or eggs. Construction activities that would remove any occupied nests with eggs or young would violate California Fish and Game Code Sections 3503 (active bird nests), 3513 (migratory birds), and the Migratory Bird Treaty Act (50 Code of Federal Regulations 10 and 21).

Potential impacts on nesting swallows would be the same for both Alternative 3 and Alternative 6. Impacts to habitat for this species are shown for both alternatives in Table 2.3-3.

Avoidance, Minimization, and/or Mitigation Measures

Many of the project design and avoidance features described in other sections of this document would also benefit these animal species. Similarly, many of the biological mitigation measures listed in other sections are also pertinent. All project avoidance, minimization, and/or mitigation

measures and implementing agencies are summarized in table format in Appendix C. In addition to those, the following mitigation measures would be used for wildlife:

Mitigation Measure BIO-12: Install Fencing and Monitor Dewatering Activities within the Construction Work Area and Relocate Sensitive Aquatic Wildlife, if Necessary. To avoid construction-related impacts on foothill yellow-legged frogs, southwestern pond turtles, and two-striped garter snakes during work within Prefumo and San Luis Obispo creeks, the City of San Luis Obispo would build fences upstream and downstream of the dewatering area to prevent these species from entering the construction area. The fences would stand at the edge of or just outside the area to be dewatered. The fences would be perpendicular to the creek and extend 100 feet out from the center of the creek on each side.

The City would retain a qualified wildlife biologist to monitor fence installation and dewatering activities associated with installation of cofferdams or water-diversion structures within Prefumo and San Luis Obispo creeks. Before dewatering, the area would be surveyed for all life stages of the foothill yellow-legged frog, southwestern pond turtle, and two-striped garter snake. If any were found, the biologist would move them outside the barrier fences to suitable habitat at least 300 feet from the construction area.

In addition, if a foothill yellow-legged frog, southwestern pond turtle, or two striped garter snake becomes entrapped in an area being dewatered or diverted, the biologist would help the contractor provide a means for the animal to voluntarily move out of the construction area, or the biologist would actually move the animal to an area outside the barrier fences. The biologist would have a valid scientific collecting permit as well as authorization from the Department of Fish and Game to relocate any of these three California species of special concern.

Mitigation Measure BIO-13: Conduct Preconstruction Nesting Bird and Raptor Surveys and Establish a No-Disturbance Buffer, if Necessary. To avoid and minimize impacts on nesting migratory birds and raptors, the City or its contractor would implement one or more of the following surveys and restrictions:

- If feasible, conduct all tree and shrub removal and grading (within annual grasslands) during the non-breeding season (generally between August 16 and February 28) for most migratory birds and raptors.
- If construction activities are scheduled to occur during the breeding season for migratory birds and raptors (generally between March 1 and August 15), a qualified wildlife biologist (with knowledge of the species to be surveyed) would be retained to conduct the following focused nesting surveys before the start of construction and within the appropriate habitat:
 - For Cooper’s hawk, white-tailed kite, and other tree-nesting raptors: Tree-nesting raptor surveys would be conducted before any construction disturbances occurring in or near suitable nesting habitat (riparian forest) within the permanent and temporary impact area and up to 300 feet outside the permanent and temporary impact area between March 1 and August 15.
 - For tree- and shrub-nesting migratory birds: Tree- and shrub-nesting surveys for the loggerhead shrike and other non-special-status migratory birds and raptors would be conducted before any tree and shrub trimming or removal activities within the permanent and temporary impact area between March 1 and August 15.
 - For northern harrier and other ground-nesting migratory birds: Ground-nesting surveys for northern harrier and other ground-nesting migratory birds would be conducted before any construction disturbances occur in freshwater marsh, seasonal wetland, annual

grassland, or agricultural areas within the permanent and temporary impact area between March 1 and August 15.

Nesting surveys should be conducted within 1 week of beginning construction activities in suitable habitat between March 1 and August 15. If no active nests were detected during these surveys, no additional mitigation would be required.

If surveys indicate that migratory bird or raptor nests are found in the survey area identified above, a no-disturbance buffer would be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged (left the nest on their own – usually in late June to mid-July). The extent of these buffers would be determined by the biologist (coordinating with the City, Caltrans, and California Department of Fish and Game) and would depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. If construction activities were scheduled to occur within an area that supports an active nest site or within an established no-disturbance buffer, construction would be delayed until after the breeding season or until the young have fledged (as determined by the biologist).

Mitigation Measure BIO-14: Conduct a Preconstruction Survey for Burrowing Owl in Accordance with the California Department of Fish and Game Guidelines and Establish a No-Disturbance Buffer, if Necessary. The California Department of Fish and Game (1995) recommends that a preconstruction survey be conducted to find active burrowing owl burrows in the construction work area and within a 250-foot-wide buffer zone around the construction area. A qualified wildlife biologist, hired by the City, would be retained to conduct a preconstruction survey for active burrows according to the California Department of Fish and Game's Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995). The preconstruction survey would be conducted within 30 days before construction activities begin. If no burrowing owls were detected, no further mitigation would be required. If active burrowing owl burrows were found in or near the permanent or temporary construction impact area, the City would implement the following measures:

- Occupied burrows would not be disturbed during the breeding season (February 1 to August 31).
- When destruction of occupied burrows is unavoidable during the non-breeding season (September 1 to January 31), unsuitable burrows would be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on protected lands approved by the California Department of Fish and Game. Newly created burrows would follow guidelines established by the California Department of Fish and Game.

Mitigation Measure BIO-15: Compensate for the Loss of Burrowing Owl Habitat in Accordance with Department of Fish and Game Guidelines. If active burrowing owl burrows are found within the permanent or temporary construction impact area and the owls must be relocated, the City would offset the loss of foraging and burrow habitat in the construction area by complying with the California Department of Fish and Game's Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995).

Mitigation Measure BIO-16: Conduct a Preconstruction Nesting Swallow Survey and Install Exclusion Netting on the Underside of Bridges or Culverts to Prevent Swallows from Nesting. To avoid impacts on nesting swallows and other bridge-nesting migratory birds that are protected under the Migratory Bird Treaty Act and Fish and Game Codes, the City would implement the following avoidance and minimization measures:

- If bridge or box culvert construction would take place during the breeding season (generally between February 15 and August 31), a qualified wildlife biologist would be hired to inspect these areas during the swallows' non-breeding season (September 1 through February 14). If nests are found and are abandoned, they may be removed. To avoid damaging active nests, all nests must be removed before the breeding season begins (February 15).
- After nests are removed, the undersides of the bridges and box culverts may be covered with 0.5- to 0.75-inch mesh net or poultry wire, or nests may be hosed and scraped every three days during construction to prevent swallows from reestablishing new nests. All net installation would occur before February 15. The netting would be anchored so that swallows cannot attach their nests through gaps in the net.
- If netting of the bridges and box culverts does not occur by February 15 or more than three days lapse between scraping and hosing and swallows colonize these areas, changes to the structure supporting active swallow nests should not begin before September 1 of that year or until a qualified biologist has determined that the young have fledged and all nest use has been completed.

If appropriate steps are taken to prevent swallows from constructing new nests, work can proceed at any time of the year.

2.3.4 Threatened and Endangered Species

Threatened or endangered species are species of plants and animals that are formally listed as endangered under the Federal Endangered Species Act or the California Endangered Species Act. Caltrans is required to determine if the proposed projects would involve—and possibly affect—proposed or listed species or their critical habitat.

Regulatory Setting

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act: United States Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanographic and Atmospheric Administration Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for

these actions an incidental take permit is issued by the California Department of Fish and Game. For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

The analysis of threatened/endangered species is based on a review of existing information, coordination with resources agencies, and a variety of field surveys reported in detail in the Natural Environment Study Report (2008), the Biological Assessment for South-Central California Coast Steelhead (2008), and the Biological Assessment for California Red-legged Frog (2008). Biological field surveys were conducted between February 2006 and August 2006.

The study area for biological resources was set around the existing Los Osos Valley Road and US 101 interchange and included portions of US 101, Los Osos Valley Road, Calle Joaquin Road, and South Higuera Street (see Figures 2.3-1 and 2.3-2). The study area lies in San Luis Obispo County within the San Luis Obispo and Pismo Beach 7.5-minute U.S. Geological Survey quadrangles. Land uses in the study area are mostly urban and agricultural.

The study area sits in the known ranges of, and provides suitable habitat for, two threatened species: the California red-legged frog (*Rana aurora draytonii*) (federally listed as threatened) and south-central California coast steelhead trout (federally listed as threatened). See Table 2.3-4.

Table 2.3-4: Threatened Species Potentially Occurring in the Study Area

Common Name, <i>Scientific Name</i>	Legal Status		Habitat Requirements	Species Present in Study Area?	Specific Habitat Present in Study Area?	Rationale
	Federal	State				
Central California Coast steelhead trout <i>Oncorhynchus mykiss</i>	Threatened	–	Requires silt free gravel for spawning. Juveniles require cool water, refuge cover, and sufficient dissolved oxygen.	Yes	Yes	Species has been documented within San Luis Obispo and Prefumo creeks in the study area.

Common Name, <i>Scientific Name</i>	Legal Status		Habitat Requirements	Species Present in Study Area?	Specific Habitat Present in Study Area?	Rationale
	Federal	State				
California red-legged frog <i>Rana aurora draytonii</i>	Threatened	Species of Special Concern	Permanent and semi-permanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation. May aestivate in rodent burrows or cracks during dry periods.	Not observed	Yes	Within the study area, suitable habitat is present within Prefumo Creek and San Luis Obispo Creek and within the adjacent wastewater treatment ponds. Several California red-legged frogs were observed in wastewater treatment facility during protocol surveys (see Appendix F).

California Red-legged Frog

California red-legged frog is a federally listed species that may be affected by the proposed project. Some potential habitat is present in the study area, though no critical habitat for this species has been identified.

Two individual California red-legged frogs were observed during protocol-level surveys in the raceways at the wastewater treatment plant adjacent to the project area. No California red-legged frogs were found in San Luis Obispo, Prefumo, or Froom creeks during the surveys. These creeks do not provide suitable breeding habitat within the project area; however, riparian corridors associated with San Luis Obispo and Prefumo creeks could provide potential foraging habitat, summer habitat, and dispersal corridors.

California Coast Steelhead Trout

California Coast steelhead trout is a federally listed species that may be affected by the proposed project, and critical habitat for this species is present within the project area.

In the study area, San Luis Obispo Creek supports rearing habitat for juvenile steelhead trout and is a known migration corridor for adult steelhead and out-migrating juveniles, including steelhead smolts. Within the study area, Prefumo Creek also supports migratory habitat for adult and juvenile steelhead trout. Summer-rearing habitat may be available in wet years; it is unknown how this habitat supports summer rearing.

The proposed project has potential to affect the federally listed south-central California Coast steelhead trout and its critical habitat. Critical habitat was redesignated for south-central California coast steelhead trout by the National Oceanic and Atmospheric Administration Fisheries (70 Code of Federal Regulations 52574, September 2, 2005). San Luis Obispo, Prefumo, and Froom creeks are included in the critical habitat designation. The south-central California coast steelhead trout was listed as threatened by the National Oceanic and Atmospheric Administration Fisheries on August 18, 1997 (62 Code of Federal Regulations 43937) and is a California state species of special concern.

Consultation will also be necessary for the federally listed California red-legged frog and for the south-central California Coast steelhead trout and its critical habitat, which has the potential to be affected by the proposed project. Consultation for federally listed anadromous fish is under the

jurisdiction of the National Oceanic and Atmospheric Administration Fisheries Service. A Biological Assessment addressing potential project effects on the south-central California Coast steelhead trout has been prepared for the proposed project.

Environmental Consequences

Table 2.3-5 shows permanent and temporary impacts to habitat for threatened species in the project area. Possible impacts for each species are described in the text that follows.

Table 2.3-5 Impacts to Habitat for Threatened Species

Special-Status Animals	Alternative 3		Alternative 6	
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
California red-legged frog	0.51	1.03	1.23	0.63
California coast steelhead trout	0.47	1.03	1.16	0.63

California Red-legged Frog

The proposed project may adversely affect California red-legged frog foraging, summer, or dispersal activities during construction efforts like dewatering or diversion, vegetation clearing, and heavy equipment use in riparian habitat. Potential impacts on the California red-legged frog would be the same under both Alternative 3 and Alternative 6, except for the amount of habitat affected as shown in Table 2.3-5 and described below:

- Implementation of Alternative 3 would result in a permanent loss of about 0.40 acre and a temporary disturbance of about 0.84 acre of potential foraging habitat (riparian forest) in the study area (see Figure 2.3-1). This alternative would also result in a permanent loss of about 0.11 acre and a temporary disturbance of about 0.19 acre of aquatic dispersal/summer habitat for the California red-legged frog. On August 8, 2008, the U.S. Fish and Wildlife Service released a Biological Opinion for this alternative. This Biological Opinion concluded the following:

“After reviewing the current status of the California red-legged frog, the environmental baseline for the action area, the effects of the proposed safety and operational highway improvements, minor drainage improvements, and the cumulative effects, it is the Service’s biological opinion that the proposed project is not likely to jeopardize the continued existence of the California red-legged frog.”

- Implementation of Alternative 6 would result in a permanent loss of about 1.01 acres and a temporary disturbance of about 0.52 acre of potential foraging habitat (riparian forest) in the study area (see Figure 2.3-2). This alternative would also result in a permanent loss of about 0.22 acre and a temporary disturbance of about 0.11 acre of aquatic dispersal habitat for the California red-legged frog.

South-Central California Coast Steelhead Trout

The project is expected to take three dry seasons, but work for the creek crossings and riparian areas would be restricted to two dry seasons. The number of working days in these sensitive areas would be determined during the permit phase, but would not exceed 300 days.

The removal of riparian vegetation along San Luis Obispo and Prefumo creeks is likely to adversely affect rearing habitat for juvenile steelhead trout by reducing cover and shade. However, these effects largely would be temporary until planted vegetation becomes established in the affected areas. Changes in water temperature, channel morphology, and hydrology could occur due to in-channel activities. However, no measurable changes to water temperature are anticipated because: the amount of existing shade that would be affected would be small; shade impacts would be temporary; and the additional shade created by bridge widening would offset, in part, shade loss associated with riparian vegetation and shaded riverine aquatic cover removal. Disturbance, injury, and mortality of individual fish could occur from work in and adjacent to water bodies from fish salvage and relocation activities and from pile driving. In addition, incidental take of steelhead trout could occur during dewatering of the stream channel to isolate work areas for bridge pier construction and during pile driving. However, the action is expected to have a minimal long-term effect on the stream or fish habitat, including spawning, rearing, or migratory habitat.

The proposed extension of the arch culvert on San Luis Obispo Creek at the Los Osos Valley Road stream crossing would avoid the potential for creating an impediment to fish passage because the natural channel bottom would be maintained and the oversized culvert would avoid or minimize the potential to create adverse hydraulic characteristics at this stream crossing relative to existing conditions. On July 14, 2009, the National Oceanic and Atmospheric Administration released a Biological Opinion for this project. The Biological Opinion concluded the following: That the proposed action is not likely to jeopardize the continued existence of the federally threatened steelhead or adversely modify critical habitat.

The National Marine Fisheries concluded that the proposed project is likely to result in incidental take of steelhead trout and therefore included an incidental take statement with the Biological Opinion. The incidental take statement includes reasonable and prudent measures that the National Marine Fisheries Service believes are necessary and appropriate to minimize and monitor incidental take of steelhead trout.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure BIO-26: Follow Programmatic Biological Opinion for Projects Funded or Approved under the Federal Aid Program [HAD-CA, File #: Section 7 within the Ventura U.S. Fish and Wildlife Service (US Fish and Wildlife Service), Document 3: S38192] (1-8-02-F-68).

1. Only biologists approved by the U.S. Fish and Wildlife Service would participate in activities associated with the capture, handling, and monitoring of the California red-legged frog.
2. Ground disturbance would not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.
3. Only biologists approved by the U.S. Fish and Wildlife Service would survey aquatic and riparian areas at the project site 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist would be allowed sufficient time to move them from the site before work activities begin. The Service-approved biologist would relocate the California red-legged frog the shortest distance possible to a location that contains suitable habitat and where it would not be affected by the activities associated with the proposed project. The Service-approved biologist would maintain detailed records of any

individuals that are moved (e.g. size, coloration, any distinguishing features, photographs) to assist him or her in determining whether relocated animals are returning to the original point of capture.

4. Before any activities begin on the project, a biologist approved by the U.S. Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
5. A biologist approved by the U.S. Fish and Wildlife Service would be present at the work site until all California red-legged frogs are removed, workers have been instructed, and disturbance of habitat is completed. After this time, the state or local sponsoring agency would designate a person to monitor onsite compliance with all minimization measures. The Service-approved biologist would ensure that this monitor receives the training outlined in Measure 4 and in the identification of the California red-legged frog. If the monitor or the approved biologist recommends that work be stopped because California red-legged frogs would be affected to a degree that exceeds the levels anticipated by the U.S. Fish and Wildlife Service during review of the proposed action, the monitor or biologist would notify the resident engineer (the engineer directly overseeing and in command of construction activities) immediately. The resident engineer would either resolve the situation by eliminating the effect immediately or require that all action that is causing these effects be halted. If work were stopped, the U.S. Fish and Wildlife Service would be notified as soon as is reasonably possible.
6. During project activities, all trash that may attract predators would be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris would be removed from work areas.
7. All refueling, maintenance, and staging of equipment and vehicles would occur at least 60 feet from riparian habitat or water bodies and, preferably, not in a location from where a spill would drain directly toward aquatic habitat. The monitor would ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the City would ensure that a plan is in place for prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
8. Project sites would be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials would be used to the extent practicable. Invasive, exotic plant would be controlled to the maximum extent practicable. This measure would be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and the City determine that that it is not feasible or practicable. (For example, an area disturbed by construction that would be used for future activities need not be revegetated.)
9. Habitat contours would be returned to their original configuration at the end of project activities. This measure would be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and the City determine that it is not feasible or modification of original contours would benefit the California red-legged frog.
10. The number of access routes, size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Environmentally Sensitive

Areas would be established to confine access routes and construction areas to the minimum area necessary to complete construction, and to minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

11. The City would attempt to schedule work activities for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain the California red-legged frog through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and informal consultation between the City and U.S. Fish and Wildlife Service during project planning should be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.
12. To control sedimentation during and after project implementation, the City would implement best management practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective, the City would attempt to remedy the situation immediately, in consultation with the Service. If a work site were to be temporarily dewatered by pumping, intakes would be completely screened with wire mesh not larger than 0.2 inch to prevent any California red-legged frog from entering the pump system. Water would be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. The methods and materials used in any dewatering would be determined by the City in consultation with U.S. Fish and Wildlife Service on a site-specific basis. Upon completion of construction activities, any diversions or barriers to flow would be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed would be minimized to the maximum extent possible; any imported material would be removed from the streambed upon completion of the project.
13. Unless approved by U.S. Fish and Wildlife Service, water would not be impounded in a manner that may attract the California red-legged frog.
14. A biologist approved by the U.S. Fish and Wildlife Service would permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The Service-approved biologist would be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
15. To ensure that diseases are not conveyed between work sites by the biologist approved by the U.S. Fish and Wildlife Service, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force would be followed at all times.

Central California Coastal Steelhead Trout

As part of the proposed action, the City would implement preventive actions to avoid and minimize potential adverse construction effects on aquatic and riparian resources by replanting riparian vegetation disturbed or removed during construction. A Storm Water Pollution Prevention Plan would be implemented as part of the National Pollutant Discharge Elimination System's General Construction Activity Storm Water Permit to minimize the potential for sediment input to the aquatic system, where it could adversely affect steelhead spawning and rearing habitat. A toxic materials control and spill response plan would be implemented to regulate the use of hazardous materials, such as the petroleum-based products used as fuel and lubricants for equipment and other potentially toxic materials associated with project construction.

Any activity that would temporarily divert flow from any segment of the river would require implementation of a variety of constraints. Pile-driving activities would also require sound minimization measures. Although construction would occur during the low-flow period (June 1 through October 1), in-channel construction activities could result in some harassment or delay of migrating juvenile steelhead trout from noise, artificial light, and other disturbances. Injury or death could also occur due to pile driving and fish salvage and relocation efforts. These disturbances are expected to take place over two dry seasons, each four months in duration.

Some juvenile steelhead trout are expected to be in the project area during in-channel construction and would be affected by project activities. Juvenile survival and growth could be affected. Implementation of avoidance and minimization measures described under riparian forest and seasonal wetlands, along with the following measures would ensure that the proposed project avoids and minimizes potential adverse construction effects on steelhead trout in San Luis Obispo and Prefumo creeks. The measures below apply to both creeks:

Mitigation Measure BIO-17: Limit In-Channel Construction Activities to the Low-Precipitation Period. In-channel construction, including riverbank and channel bed construction below the ordinary high-water mark, would be limited, by the City, to the summer low-precipitation period (June 1 to October 1) to minimize adverse effects on adult fish spawning and smolt migration. Project construction in the channel would also be subject to the following constraints:

- Construction requiring stream dewatering, stream crossings, or work in the channel bed would not start before June 1. Upstream and downstream passage for fish, including juvenile steelhead, would be provided through or around construction sites at all times. Cofferdams would be installed in all creeks to divert stream flow around each footing excavation. The construction period limits would also apply to a pipe diversion system that would be needed on San Luis Obispo Creek and Prefumo Creek. Limiting in-channel construction to the June 1 to October 1 period would achieve two goals:
- Construction would not be concurrent with the primary migration and spawning periods of steelhead trout.
- The length of the construction period would be maximized, thereby reducing the potential for in-channel construction (i.e., below the ordinary high-water mark) to have to be extended beyond October 1.

Minimization Measure BIO-18: Implement Water Quality Measures. The City would avoid or minimize increased sediment input to the project area channel. As part of the National Pollution Discharge Elimination System's General Construction Activity Storm Water Permit, a Storm Water Pollution Prevention Plan would be implemented that includes the following:

- Conducting all construction work according to site-specific construction plans that minimize the potential for sediment input to the aquatic system.
- Identifying all areas requiring clearing, grading, revegetation, and recontouring, and minimizing the areas to be cleared, graded, and recontoured.
- Grading spoil sites to minimize surface erosion.
- Avoiding riparian and wetland vegetation wherever possible and identifying and fencing specific trees to protect existing riparian habitat.
- Covering bare areas with mulch and revegetating all cleared areas.

- Avoiding equipment operation in flowing water during in-channel activities by constructing cofferdams and diverting all stream flows through or around construction sites.
- Constructing sediment catch basins across stream channels immediately below the project site when performing in-channel construction to prevent silt- and sediment-laden water from entering the main stream flow (accumulated sediments would be periodically removed from the catch basin).

Increased pollutant input to the project area channel would also be minimized and avoided by:

- Preventing raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses.
- Establishing a spill prevention and countermeasure plan before project construction that includes strict onsite handling rules to keep construction and maintenance materials out of drainages and waterways
- Cleaning up all spills immediately according to the spill prevention and countermeasure plan and notifying California Department of Fish and Game and National Oceanic and Atmospheric Administration Fisheries Service immediately of any spills and cleanup activities.
- Providing areas located outside the ordinary high-water mark for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.
- Removing vehicles from the normal high-water area of the waterway before refueling and lubricating.
- Avoiding operation of equipment in flowing water.

Implementation of measures to avoid or minimize the effects of increased sediment input would also avoid and minimize increased input of pollutants associated with sediments (e.g., mercury) and the potential for subsequent effects on steelhead trout.

Mitigation Measure BIO-19: Implement Stream Diversion Restrictions. The City of San Luis Obispo and/or its contractor(s) shall ensure flow would be diverted in San Luis Obispo Creek and Prefumo Creek during bridge widening and other in-channel work. Flow would be diverted from June 1 to October 1. Any activity that temporarily diverts flow from any segment of the creeks would trigger implementation of the following constraints:

- Before flow is diverted, cofferdams would be placed so that flow to river segments downstream from the construction site would not be interrupted.
- Subject to the sufficiency of ambient conditions, adequate fish passage conditions would be sustained by maintaining contiguous flows, avoiding the creation of vertical drops in excess of 6 inches, and maintaining suitable water velocities (i.e., 8 feet per second or less) and water depths (minimum of 1 foot).

Mitigation Measure BIO-20: Avoid Stranding Impacts to Fish in Dewatered Areas. The City shall ensure a qualified fish biologist would be onsite during the installation of cofferdams and during the cofferdam dewatering process to capture and move trapped salmonids and other fish. The fish would be relocated to the nearest suitable habitat unaffected by construction activities and upstream of the work area. Within temporarily drained stream channel areas, salvage activities would be initiated before or at the same time as stream area draining and completed within a timeframe necessary to avoid injury and death of steelhead trout. Protocols for the

capture, handling, and release of fish would be developed in cooperation with the National Oceanic and Atmospheric Administration Fisheries Service, California Department of Fish and Game, the City, and Caltrans. Fish biologists would contact the National Oceanic and Atmospheric Administration Fisheries Service and California Department of Fish and Game immediately if any steelhead trout are found dead or injured.

Mitigation Measure BIO-21: Avoid and Minimize Impacts to Spawning Habitat. The City would, to the extent practicable, avoid disturbance to any spawning gravel beds located in the study area on San Luis Obispo Creek. If disturbance to the gravel cannot be avoided, the gravel would be removed temporarily and replaced to pre-disturbance conditions. Before returning gravel to the channel following construction, gravel would be washed to remove fines before they are placed back into the creek channel. If it becomes necessary to augment disturbed gravel with gravel from outside sources, only washed river gravel (to remove fines) appropriately sized for adult steelhead trout (0.5 inch to 3 inches) would be used.

Mitigation Measure BIO-22: Minimize Noise Impacts from Pile Driving. Potential injury and death associated with pile driving would be avoided or minimized by the City and/or its contractor(s) by use of the following measures:

- In-channel construction would be limited to the summer low-flow period (June 1 to October 1) when stream flow in the creek is typically low, thereby minimizing the potential for sound pressure waves to travel long distances.
- Restriction of pile driving activities to the low-flow period coincides with the least likely occurrence of upstream migrating adults and downstream steelhead smolt migration.
- The smallest pile driver and minimum force necessary would be used to complete the work.
- Pile driving would be done within the dewatered cofferdams.

Mitigation Measure BIO-23: Minimize Loss of Steelhead Spawning and Rearing Habitat as a Result of Permanent Changes to Stream Hydraulics, Sediment Processes, and Channel Bottom Stabilization. The City would avoid or minimize the potential for loss of steelhead trout spawning and rearing habitat by the following measures:

- The amount of riparian vegetation removal, including vegetation providing shaded riverine aquatic cover, substrate, and in-stream woody material necessary to ensure suitable fish passage conditions, would be minimized, and existing spawning and rearing habitat would be maintained.
- Disturbance to the stream width, depth, velocity, and slope would be minimized, and modified or disturbed portions of the stream, banks, and riparian areas would be restored as nearly as possible to their pre-project contours (i.e., elevations, profile, and gradient).
- Environmentally sensitive areas would be fenced to prevent encroachment of equipment and personnel into riparian areas, stream channels, and banks to the maximum extent practicable (see Measure BIO-1).
- Disturbance and removal of aquatic vegetation would be avoided to the extent practicable; temporary fills, cofferdams, and other in-channel structures would be removed in a manner that minimizes disturbance to downstream flows and water quality; restores pre-existing streambed gradient and contours; and as necessary, replaces appropriately sized spawning gravel (0.5 inch to 3 inches).
- **Mitigation Measure BIO-24: Avoid Substantial Increases in Water Temperature as a Result of Lost Shade and Disturbance to Streambed and Banks.** The potential for substantial

increases in water temperature would be avoided or minimized by the City using the following measures:

- Exclusionary fencing would be used to minimize the potential for the accidental removal of more vegetation than is necessary to complete construction (see Measure BIO-1).
- Soil compaction would be minimized by using equipment that can reach over sensitive areas, thereby ensuring suitable soil conditions for mitigation plantings.
- Disturbance to the stream width, depth, velocity, and slope would be minimized and modified or disturbed portions of the stream, banks, and riparian areas would be restored as nearly as possible to their pre-project contours (i.e., elevations, profile, and gradient); and gaps in the post-construction canopy (i.e., shade), would be reduced by restricting extensions of streambank rock slope protection or other bank protection (e.g., sheet piles or bank and channel armoring) to the minimum necessary to protect essential infrastructure.

Mitigation Measure BIO-27: Follow Terms and Conditions in National Oceanic and Atmospheric Administration's National Marine Fisheries Service's (NMFS) Biological Opinion (File # SWR/2008/04273)

The City and/or its contractor(s) shall follow all measures and provisions set forth in the Biological Opinion issued by the National Oceanic and Atmospheric Administration:

1. Develop and implement a monitoring plan to ensure the proposed action does not result in reduced fish-passage opportunities within the area affected by the proposed action.
2. Submit future design drawings and findings from project analyses for National Marine Fisheries Service's review and agreement to ensure fish passage criteria are met within the area affected by the proposed action.
3. Employ a fisheries biologist for the purposes of monitoring the affected area and for removing and relocating steelhead trout from the affected area.
4. Report to the National Marine Fisheries Service activities associated with minimizing and monitoring proposed action effects on steelhead trout.

2.4 Construction Impacts

Traffic Management

Major traffic delays are not expected due to construction staging. Most construction would be accomplished using conventional traffic controls. Freeway traffic would be maintained with two lanes of traffic in each direction continuing through the falsework for the overcrossing widening. Falsework erection and removal would be performed during low traffic periods. Median crossovers would be used temporarily to maintain northbound flow. Southbound flow would be detoured onto the existing southbound off-ramp, through the intersection of Los Osos Valley Road, and back onto the freeway via the existing southbound on-ramp. Such activities would be restricted to periods when a single lane in each direction would be sufficient, which is likely at night.

The widening and reconstruction of the ramps would require some brief ramp closures. For the northbound off-ramp and southbound on-ramp closures, traffic would be detoured to the Higuera/US 101 interchange. Shorter closures would be scheduled for the northbound on-ramp and southbound off-ramp; those closures would require traffic to use ramps at Prado Road and Madonna Road.

Minimization Measure TRA-1: Prepare and Implement a Traffic Control Plan: In accordance with the City of San Luis Obispo policy on street closures and traffic diversion for arterial and collector roadways, the construction contractor would prepare a traffic control plan per the most current version of the Manual on Uniform Traffic Control Devices and the California Supplement to be approved by the City prior to construction.

The traffic control plan would include the following:

- A street layout that shows the location of construction activity and surrounding streets to be used as detour routes, including “special signage.”
- The tentative start date and construction duration for each phase of construction.
- The name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction.
- Written approval to implement traffic control from other agencies, as needed.
- Additionally, the traffic control plan would include the following stipulations:
 - Provide access for emergency vehicles at all times.
 - During lane closures, notify the City of San Luis Obispo Fire and Police Departments of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary.
 - Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners would be notified.
 - Limit construction-related vehicle and equipment parking to the staging area. Or provide adequate off-street parking or use designated public parking areas for construction-related vehicles not in use throughout the construction period.
 - Maintain pedestrian and bicycle access and circulation during project construction, where safe to do so. If construction encroaches on a sidewalk, provide a safe detour for pedestrians at the nearest painted crosswalk. If construction encroaches on a bike lane, post warning signs that indicate bicycles and vehicles are sharing the roadway.
 - Provide traffic controls to warn motorists of construction activity. Such controls may include flag persons wearing Occupational Safety and Health Administration-approved vests and using the “Stop/Slow” paddle.
 - Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area.

Utilities/Emergency Services

Project construction would generate a small amount of solid waste through the removal of earthen material from the channel bottom during construction of support infrastructure for the bridge, and general debris from project construction. Upon completion, the expanded bridge would not generate any solid waste. It is expected that the small amount of solid waste generated by project construction would be disposed of at an appropriate landfill that can easily accommodate the small volume of solid waste.

Cultural Resources

Mitigation Measures CR-1 through CR-3 would minimize the adverse effects and/or mitigate such late discoveries.

Mitigation Measure CR-1: Stop Work if Buried Cultural Resources Are Inadvertently Discovered. If cultural materials were discovered during construction, the City and/or its contractor(s) would be responsible for diverting all earth-moving activity within and around the immediate discovery area until a qualified archaeologist could assess the nature and significance of the find.

Mitigation Measure CR-2: Comply with State Laws Relating to Native American Remains. If human remains were discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the county coroner would be contacted. Per Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, which would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Valerie Levulett, District 5 Heritage Resources Coordinator, so that she may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Mitigation Measure CR-3: Comply with City Ordinances if Buried Cultural Resources Are Inadvertently Discovered. In accordance with the City of San Luis Obispo Resolution 8459 (1995 series) 4.60 Archaeological Discoveries During Construction, if during the course of a project, archaeological materials are identified by an archaeological monitor, City staff, the project sponsor, or his/her representative or employee, all construction activities that may disrupt those materials would cease. The District 5 Heritage Resources Coordinator, Valerie Levulett, shall be notified immediately of the discovery of archaeological materials.

Construction Air Quality

Environmental Consequences

Implementation of the project would result in the construction of widened roads, overcrossings, and embankments, as well as intersection improvements. Temporary construction emissions would result from grubbing/land clearing, grading/excavation, drainage/utilities/subgrade, and paving activities and construction worker commuting patterns. Pollutant emissions would vary daily, depending on the level of activity, specific operations, and prevailing weather. It is anticipated that construction activities would begin in 2010 and continue for approximately 24 to 36 months.

Minimization of construction activities is requested by the San Luis Obispo County Air Pollution Control District when the following emission thresholds are exceeded by both fugitive and combustion emissions, as presented in Table 2.4-1 (compare to Table 2.4-2).

Table 2.4-1: Level of Construction Activity Requiring Mitigation

Pollutant of Concern	Thresholds		Amount of Material Moved	
	Tons per Quarter	Pounds per Day	Cubic Yards per Quarter	Cubic Yards per Day
Reactive Organic Gases	2.5 – 6.0	185	247,000 – 593,000	9,100
Nitrogen Dioxide	2.5 – 6.0	185	53,500 -129,000	2,000
PM10	2.5		Any project with a grading area greater than 4 acres of continuously worked area will exceed the 2.5-ton PM ₁₀ quarterly threshold. Combustion emissions should also be calculated based on the amount of cut and	

			fill expected.
--	--	--	----------------

Source: San Luis Obispo Air Pollution Control District

- Greater than 185 pounds per day of reactive organic gases or nitrogen dioxide emissions requires Best Available Control Technology for construction equipment.
- Between 2.5 and 6.0 tons per quarter of reactive organic gases and nitrogen dioxide emissions requires Best Available Control Technology.
- Over 6.0 tons per quarter of reactive organic gases or nitrogen dioxide emissions requires Best Available Control Technology plus further mitigation, including emission offsets.
- Greater than 2.5 tons per quarter of PM10 requires Best Available Control Technology.

Construction emissions of reactive organic gases (ROG), nitrogen dioxide (NO₂), carbon monoxide (CO), and particulate matters less than 10 microns in diameter (PM₁₀) were estimated using the Road Construction Emissions Model (Version 5.2). The ambient air quality effects of traffic emissions were evaluated. Estimation of criteria pollutant emissions associated with the proposed project was done using an emission rate program and vehicle activity data provided by the project traffic engineer.

Vehicular delays from construction would cause temporary build-up of carbon monoxide levels within the roadway corridor. Although sensitive receptors (homes) are present, this would not be a substantial impact because the project does not adversely affect existing conditions.

A temporary increase in ozone precursor (reactive organic gases and nitrogen dioxide) and PM₁₀ emissions could occur during grading and construction activities.

The Road Construction Emissions Model (Version 5.2) was used to estimate construction-related ozone precursors (reactive organic gases and nitrogen dioxide), carbon monoxide, and PM₁₀ emissions from construction activities. It was assumed that construction activities would occur for 8 hours per day over a 12-month period. The total project length was assumed to be 0.70 mile, with a total acreage of 9 acres, and a maximum of 1 acre disturbed per day. Construction activities were divided into separate phases and analyzed separately. The results of modeling for construction activities are summarized in Table 2.4-2.

Table 2.4-2: Construction Emission Estimates in pounds/day

Construction Phase	Reactive Organic Gases	Carbon Monoxide	Nitrogen Dioxide	PM ₁₀ Pounds per day [tons per quarter]
Grubbing/land clearing	8	41	45	7
Grading/excavation	9	50	54	8
Drainage/utilities/subgrade	9	46	48	8
Paving	3	16	23	1
Maximum	9	50	54	8 [0.9]
Thresholds Pounds per day [tons per quarter]	185	185	185	75 [2.5]
Exceedance	No	No	No	No

Note: Emissions calculations based on Road Construction Emissions Model (Version 5.2).

The San Luis Obispo Air Pollution Control District recommends the implementation of all feasible, effective, and comprehensive control measures to reduce PM₁₀ emissions from construction activities. These measures are summarized in Table 2.4-3, Construction Control Measures.

In addition to Caltrans Standard Specifications being followed, the following Minimization Measures AQ-1 through AQ-3 would insure that the project impacts for air quality are minimized.

Minimization Measure AQ-1: The City and/or its contractor(s) shall implement California Department of Transportation Standard Specification 7-1.01F and Standard Specification 10.

The project proponent will follow Caltrans Standard Specification 7-1.01F and Standard Specification 10, which address the requirements of the local air pollution control district (San Luis Obispo Air Pollution Control District) and dust control, respectively.

Minimization Measure AQ-2: The City and/or its contractor(s) shall implement San Luis Obispo Air Pollution Control District Control Measures for Construction Emissions of PM₁₀.

The project proponent will implement all feasible PM₁₀ control measures required by the San Luis Obispo Air Pollution Control District.

Minimization Measure AQ-3: The City and/or its contractor(s) shall implement Air Resources Board Airborne Toxic Control Measures for Naturally Occurring Asbestos.

In addition, naturally occurring asbestos may exist at the site. A geological survey is required for the site. If the naturally occurring asbestos is found, then the project proponent will implement all feasible control measures required by the San Luis Obispo Air Pollution Control District to comply with the requirements listed in the Air Resources Board's Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying, and Surface Mining Operations. Such measures include, but are not limited to, the following:

29. a. The San Luis Obispo Air Pollution Control District is notified in writing at least 14 days before the beginning of the activity or in accordance with a procedure approved by the district.

30. b. All the following dust control measures are implemented during any road construction or maintenance activity:

31. 1. Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos.

32. 2. The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries.

33. 3. Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos.

34. 4. Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public.

Implementation of appropriate control measures from this list would further minimize air quality impacts from construction activities.

Table 2.4-3 Construction Control Measures

Category	Control Actions
Standard Minimization Measures for Construction Equipment	<ol style="list-style-type: none"> 1. Maintain all construction equipment in proper tune according to manufacturer's specifications. 2. Fuel all off-road and portable diesel-powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, with Air Resources Board certified motor vehicle diesel fuel (non-taxed version suitable for use off-road). 3. Maximize to the extent feasible, the use of diesel construction equipment meeting the Air Resources Board's 1996 or newer certification standard for off-road, heavy-duty diesel engines.
Discretionary Minimization Measures for Construction Equipment	<ol style="list-style-type: none"> 1. Electrify equipment where feasible. 2. Substitute gasoline-powered for diesel-powered equipment, where feasible. 3. Use alternative fueled construction equipment on site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel. 4. Use equipment that has Caterpillar pre-chamber diesel engines.
Construction Best Available Control Technology	<ol style="list-style-type: none"> 1. Install diesel oxidation catalysts (DOC), catalyzed diesel particulate filters (CDPF), or other District approved emission reduction retrofit devices where feasible.
Activity Management Techniques	<ol style="list-style-type: none"> 1. Develop a comprehensive construction activity management plan designed to minimize the amount of large construction equipment operating during any given time period. 2. Schedule construction truck trips during non-peak hours to reduce peak hour emissions. 3. Limit the length of the construction workday period, if necessary. 4. Phase construction activities, if appropriate.
Fugitive Dust Source Category	<ol style="list-style-type: none"> 1. Reduce the amount of the disturbed area where possible. 2. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (nonpotable) water should be used whenever possible. 3. All dirt stock-pile areas should be sprayed daily as needed. 4. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil-disturbing activities. 5. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast-germinating native grass seed and watered until vegetation is established. 6. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Air Pollution Control District. 7. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, road surfaces should be laid as soon as possible after grading unless seeding or soil binders are used. 8. Vehicle speed for all construction vehicles shall not exceed 15 miles per hour on any unpaved surface at the construction site. 9. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code (CVC) section 23114. 10. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site. 11. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
All categories	<ol style="list-style-type: none"> 1. Any other control measures approved by the Air Pollution Control District where necessary.

Construction Noise

Environmental Consequences

Two types of short-term noise impacts would occur during construction of the project. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally raise noise levels on access roads leading to the site. The pieces

of heavy equipment for grading and construction activities would be moved onsite, remain for the duration of each construction phase, and not add to the daily traffic volume in the project vicinity. There would be a relatively high single-event noise exposure potential at a maximum sound level of 87 dBA with trucks passing at 50 feet. (A-weighted decibels or dBA are adjusted to approximate the way humans perceive sound.) However, the projected construction traffic would be light when compared to the existing traffic volumes on US 101, Los Osos Valley Road, South Higuera Street, and other affected streets; associated long-term noise level change would not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be substantial.

The second type of short-term noise impact is related to noise generated during excavation, grading, and roadway construction. Construction is performed in steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated and, therefore, the noise levels along the alignments as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 2.4-4 lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

Table 2.4-4 Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers, 12,000 to 18,000 feet-lb/blow	81–96	93
Rock Drills	83–99	96
Jackhammers	75–85	82
Pneumatic Tools	78–88	85
Pumps	68–80	77
Dozers	85–90	88
Tractors	77–82	80
Front-End Loaders	86–90	88
Hydraulic Backhoe	81–90	86
Hydraulic Excavators	81–90	86
Graders	79–89	86
Air Compressors	76–86	86
Trucks	81–87	86

dBA = A-weighted decibels are adjusted to approximate the way humans perceive sound

Project construction would produce a periodic increase in ambient noise levels in the project vicinity above levels existing without the project. The project is also located within an airport land use plan, and construction activities would produce noise levels that exceed local criteria for short standards.

Minimization Measures NOI-1 through NOI-3 would reduce construction noise impacts for sensitive receptors adjacent to the project site:

Minimization Measure NOI-1: Implement Caltrans Standard Provision Section 5.1. The provisions are as follows:

“Sound control shall conform to the provisions in Section 7-1.01I (Sound Control Requirements) of the Standard Specifications and these special provisions. The noise level from the Contractor’s operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA at a distance of 50 feet. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level. The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixer, or transient equipment that may or may not be owned by the contractor. The use of loud signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel. Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.”

Minimization Measure NOI-2: Provide Contact Information for Noise Complaints. A notice of the duration of potential impacts from noise, dust, and glare from the proposed construction would be placed in local news media by the project sponsor two weeks in advance of the beginning of construction. A number would be made available to the public for calls concerning noise impacts or the proposed schedule. If noise complaints are received, temporary barriers of plywood on safety shape can be effective at reducing noise impacts when the line of sight between the source and receiver can be interrupted.

Minimization Measure NOI-3: Limit Night Work to Extent Feasible. Night construction should be avoided. If it cannot be avoided, the contractor would do the noisiest operations nearest the residents as early in the evening as possible. Final determination of working hours for construction of the interchange would be determined during the final design phase. These working hours would be consistent with mitigation measures identified in the environmental documents and City ordinance requirements.

2.5 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial, impacts occurring over time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the

conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

Section 15130 of the California Environmental Quality Act Guidelines describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under the California Environmental Quality Act, can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality regulations.

Environmental Consequences

The project would not result in cumulative impacts that are individually limited or cumulatively considerable. The project effects are mostly temporary and construction related. Cumulative impacts were covered in the appropriate sections above. Since none of these impacts would result in a substantial contribution to a cumulative impact, no further discussion is needed.

2.6 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas¹ emissions reduction and climate change research and policy have increased dramatically in recent years.

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007. See *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. On June 30, 2009 EPA granted California the waiver. California is expected to enforce its standards for 2009 to 2011 and then look to the federal government to implement equivalent standards for 2012 to 2016. The granting of the waiver will also allow California to implement even stronger standards in the future. The state is expected to start developing new standards for the post-2016 model years later this year.

¹ Greenhouse gases related to human activity, as identified in Assembly Bill 32, include: carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23, HFC-134a*, and HFC-152a*.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this order is to reduce California's greenhouse gas emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32, the Global Warming Solutions Act of 2006. Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals while further mandating that Air Resources Board create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing Assembly Bill 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and greenhouse gas reduction is also a concern at the federal level; at this time, no legislation or regulations have been enacted specifically addressing greenhouse gas emissions reductions and climate change. However, California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency to regulate greenhouse gases as a pollutant under the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.*, U.S. Supreme Court No. 05-1120. 549 U.S. Argued November 29, 2006—Decided April 2, 2007). The court ruled that greenhouse gases do fit within the Clean Air Act's definition of a pollutant, and that Environmental Protection Agency does have the authority to regulate greenhouse gases.

Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions. The U.S. Environmental Protection Agency is currently determining the implications to national policies and programs as a result of the Supreme Court decision.

Affected Environment

According to a recent white paper by the Association of Environmental Professionals², "an individual project does not generate enough greenhouse gas 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 greenhouse gases."

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emission reduction and climate change. Recognizing that 98 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the *Climate Action Program at Caltrans* (December 2006). Transportation's contribution to greenhouse gas emissions is dependent on 3 factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel.

Environmental Consequences

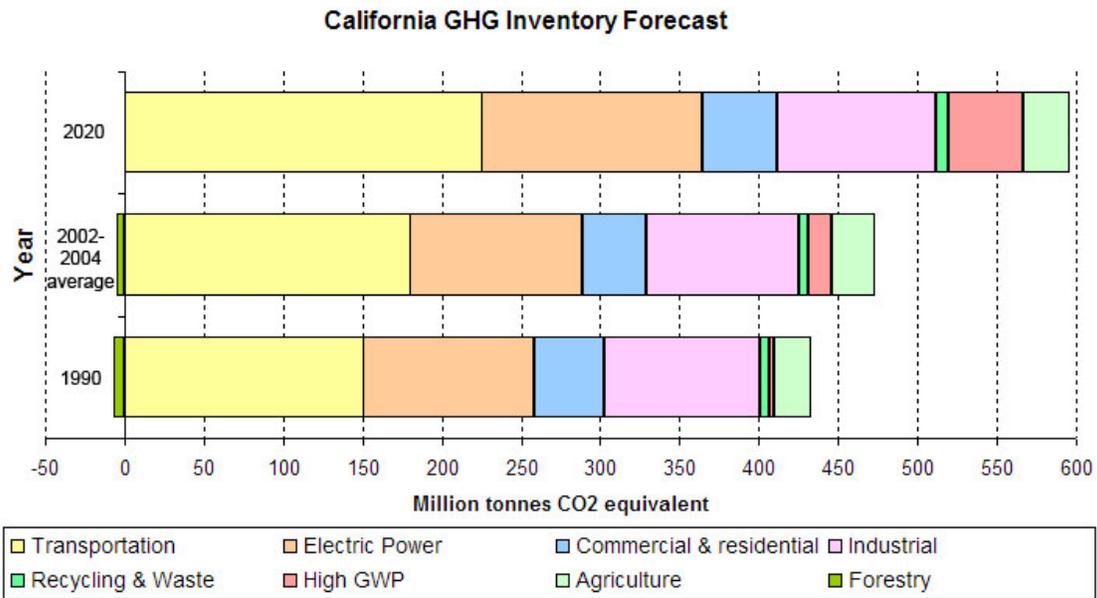
According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project

² Hendrix, Micheal and Wilson, Cori. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), p. 2.

may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable.” See CEQA Guidelines sections 15064(i)(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 in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below is a graph from that update that shows the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

Figure 2.6-1 California Greenhouse Gas Inventory



Taken from : <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

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 (see Climate Action Program at Caltrans (December 2006), Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at: <http://www.dot.ca.gov/docs/ClimateReport.pdf>

One of the main strategies in the Department’s Climate Action Program to reduce GHG emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 mph; the most severe emissions occur from 0-25 miles per hour (see Figure below). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors GHG emissions, particularly CO2, may be reduced.

The proposed project would not increase traffic, but would instead improve traffic operations and safety on Los Osos Valley Road and at the Los Osos Valley Road/US 101 interchange. Because

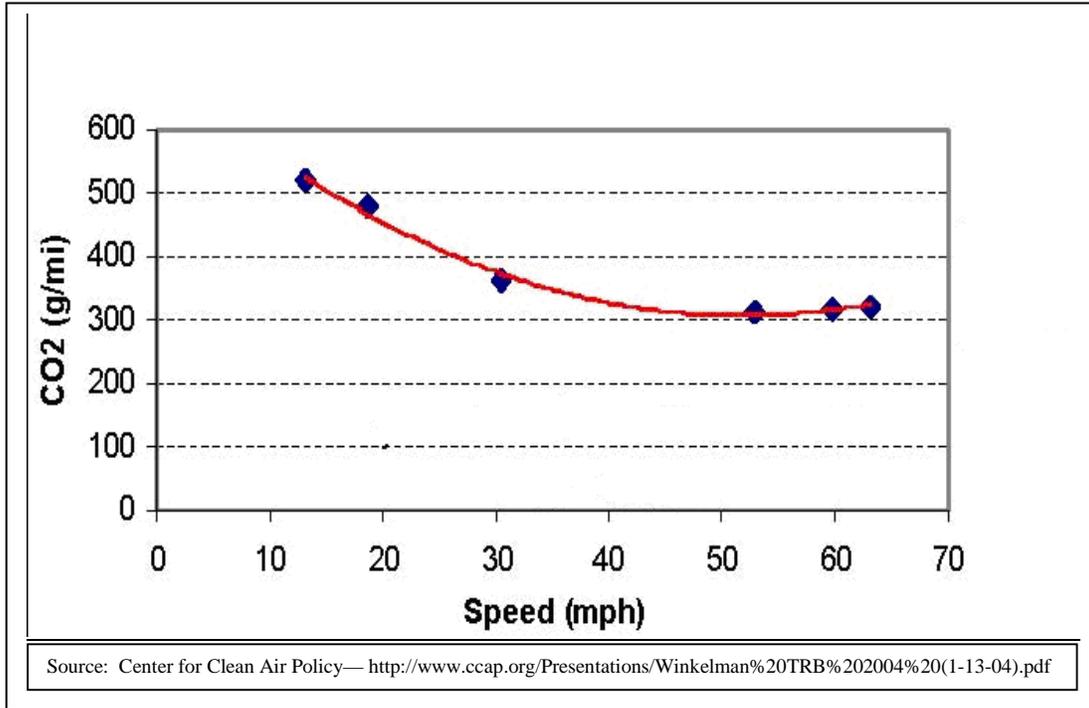
completion of either build alternative improves, rather than worsens, traffic operations and brings the City closer to General Plan operational efficiency goals; both build alternatives alleviate existing and projected traffic congestion.

The San Luis Obispo Council of Governments 2006 Regional Transportation Plan recognizes the projected congestion that would occur along Los Osos Valley without action. Along with improving other modal options for travel, the Regional Transportation Plan states the need for operational improvements (such as the one being provided by this proposed project) on existing facilities in the San Luis Obispo region. The purpose of the project is to improve traffic operations and safety on Los Osos Valley Road and the Los Osos Valley Road/US 101 interchange. Other modal options for this interchange project were not feasible as alternatives. Rather, improvement of this interchange is one part of the 2006 Regional Transportation Plan, which aims to improve transportation through operational improvements, non-motorized enhancements, better transportation connectivity and more frequent transit service.

Since the proposed project would relieve congestion at ramps and intersections, emissions of CO₂ are expected to be less with the project than with the No-Build Alternative. The proposed project would improve the level of service and average delay at US 101/Los Osos Valley Road ramp intersections, as shown in Table 2.1-2 in Chapter 2 of this document. Level of service is an indication of traffic flow, where level of service A indicates free-flowing traffic and level of service F indicates stop-and-go conditions.

Vehicles idling or traveling at low speeds as a result of congestion emit the greatest CO₂ emissions. Figure 2.6-1 below shows the relationship between CO₂ emissions (grams/mile) as a function of speed (miles per hour). Vehicles traveling at speeds roughly 40 miles per hour and less have a greater CO₂ emissions rate than vehicles traveling between 40 and 65 miles per hour. The rate of CO₂ emissions is lowest at speeds of 45 to 50 miles per hour (Barth and Boriboonsomsin 2008). The Traffic Operations Report for level of service analysis assumed free-flowing speeds of 65 miles per hour along the US 101 mainline, 20-50 miles per hour for US 101 and Los Osos Valley Road ramps, and posted speed limits for local roads.

Figure 2.6-2: Fleet Carbon Dioxide (CO₂) Emissions vs. Speed (Highways)



In the year 2015, the highway levels of service in the peak hour would degrade to level of service F for six of the seven intersections with the No-Build Alternative. Based on the project’s traffic assumptions, speeds at the ramps and intersections could be less than 20 miles per hour during congested peak hours with the No-Build Alternative. Only two intersections would reach level of service F with Alternative 3. Alternative 3 would result in level of service B or C (free-flow and near free-flow conditions) for five out of eight intersections. Also, two intersections out of seven would reach a level of service of F, and one intersection would reach level of service D for Alternative 6. Alternative 6 would also result in level of service B or C for four out of seven intersections.

Since mainline level of service levels would not be affected by the proposed project, any CO₂ increases as a result of mainline traffic speeds are not a result of the project, but rather, the projected overall increase in vehicle traffic as a result of growth that would occur whether or not the project were built.

Table 2.6-1 shows how each intersection would be affected in terms of level of service based on the different alternatives in 2015. At nearly every intersection, the vehicle delay would be substantially longer with the No-Build alternative than with either of the build alternatives.

Table 2.6-1: Design Year (2015) Intersection Level of Service Summary

Intersection	Peak Hour ¹	No-Build Alternative		Alternative 3		Alternative 6	
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³
Los Osos Valley Road/Auto Park Way	AM	77.1	E	22.1	C	23.6	C
	PM	89.9	F	23.4	C	25.9	C
Los Osos Valley Road/Calle Joaquin	AM	126.6	F	15.3	B	28.5	C

Chapter 2 • Affected Environment, Environmental Consequences,
and Avoidance, Minimization, and/or Mitigation Measures

	PM	144.3	F	29.2	C	32.7	C
Los Osos Valley Road/US 101 Southbound Off-ramp-Calle Joaquin (South)	AM	> 200	F	19.1	B	Intersection eliminated with alternative	
	PM	> 200	F	18.2	B		
Calle Joaquin (South)/US 101 Southbound On-ramp (intersection without signals)	AM	Intersection eliminated with alternative				26.2	D
	PM					31.3	D
Los Osos Valley Road/US 101 Northbound Ramps	AM	> 200	F	23.9	C	19.6	B
	PM	> 200	F	25.2	C	14.7	B
Los Osos Valley Road/Los Verdes Drive (intersection without signals) ³	AM	> 200	F	67.4	F	55.7	F
	PM	26.7	D	16.1	C	17.4	C
Los Osos Valley Road/South Higuera Street	AM	29.7	C	26.8	C	27.3	C
	PM	35.3	D	28.5	C	29.3	C
South Higuera Street/Vachell Lane (intersection without signals)	AM	> 200	F	> 200	F	> 200	F
	PM	> 200	F	> 200	F	> 200	F

Notes: ¹ AM = Morning peak-hour, PM = Evening peak-hour.

² Average delay reported in seconds per vehicle for signalized intersections. The worst movement/approach delay is reported in seconds per vehicle for side-street, stop-controlled intersections.

³ LOS = Level of service

Bold font indicates unacceptable intersection operations (LOS E or worse).

Source: Traffic Operation Report, 2007.

For the year 2035, the level of service would degrade to level of service F for seven of the seven intersections without the project. Alternative 3 would result in level of service E or F for three out of seven intersections, and level of service B or C for four intersections. Alternative 6 would result in level of service E or F for four out of seven intersections, level of service C or D for two intersections, and level of service B for one intersection. Table 2.6-2 shows how each intersection would be affected in terms of level of service based on the different alternatives in 2035. At every intersection, the vehicle delay would be substantially longer with the No-Build alternative than with either of the build alternatives.

Table 2.6-2: Design Year (2035) Intersection Level of Service Summary

Intersection	Peak Hour ¹	No-Build Alternative		Alternative 3		Alternative 6	
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³
Los Osos Valley Road/Auto Park Way	AM	162.7	F	26.0	C	28.2	C
	PM	77.1	E	31.2	C	50.3	D
Los Osos Valley Road/Calle Joaquin (North)	AM	134.3	F	15.1	B	27.9	C
	PM	83.6	F	34.9	C	39.6	D
Los Osos Valley Road/US 101 Southbound Off-ramp-Calle Joaquin (South)	AM	> 200	F	15.9	B	Intersection does not exist with alternative	
	PM	> 200	F	23.7	C		
Calle Joaquin (South)/US 101 Southbound On-ramp (intersection without signals)	AM	Intersection does not exist with alternative				19.3	C
	PM					49.8⁴	E
Los Osos Valley Road/US 101 Northbound Ramps	AM	> 200	F	34.2	C	18.5	B
	PM	> 200	F	26.9	C	14.6	B
Los Osos Valley Road/Los Verdes Drive (intersection without signals)	AM	181.8	F	36.0	E	37.7	E
	PM	> 200	F	150.3	F	110.3	F
Los Osos Valley Road/South Higuera Street	AM	30.0	C	28.8	C	28.9	C
	PM	> 200	F	63.4	E	72.4	E
South Higuera Street/Vachell Lane (intersection without signals)	AM	58.2⁵	F	65.2⁵	F	79.6⁵	F
	PM	> 200 ⁵	F	74.5⁵	F	103.7⁵	F

Notes: ¹ AM = Morning peak-hour, PM = Evening peak-hour.

² Average delay reported in seconds per vehicle for signalized intersections. The worst movement/approach delay is

Intersection	Peak Hour ¹	No-Build Alternative		Alternative 3		Alternative 6	
		Delay ²	LOS ³	Delay ²	LOS ³	Delay ²	LOS ³

reported in seconds per vehicle for side-street, stop-controlled intersections.

³ LOS = Level of service

⁴ Westbound left turn delay.

⁵ The uncontrolled southbound left-turn delay is greater than the side-street stop-controlled delay because the southbound queue extends north from Los Osos Valley Road and blocks the southbound left-turn pocket.

Bold font indicates unacceptable intersection operations (LOS E or worse).

Source: Traffic Operation Report, 2007.

Overall, it is apparent that the proposed project would reduce CO₂ emissions when compared to the future No-Build condition as a result of improving level of service levels towards free-flowing speeds. With the proposed project, there would be fewer intersections reaching level of service E or F. Because CO₂ emissions from the build alternatives are less than the No-Build Alternative, the project’s contribution to climate change is not cumulatively considerable and the project has a less than significant environmental effect on climate change.

Construction Emissions

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

CEQA Conclusion

Although future CO₂ emissions from the build alternatives are predicted to be less than the No-Build Alternative, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project’s direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

Assembly Bill 32 Compliance

Caltrans continues to be actively involved on the Governor’s Climate Action Team as CARB works to implement the Governor’s Executive Orders and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Governor Arnold Schwarzenegger’s Strategic Growth Plan calls for a \$238.6 billion infrastructure improvement program to fortify the state’s transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding through 2016. As shown on the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic

Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.³

As shown in the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in greenhouse gas emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach including a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements. The project fits in with transportation strategy number 1) “More efficient transportation systems” of the Climate Action Program at Caltrans by “improv[ing] operational efficiency of existing and new transportation systems” and “reliev[ing] congestion by enhancing operations and improving travel times in high congestion travel corridors (Caltrans 2006).”

Figure 2.6-3: Outcome of Strategic Growth Plan



As part of the Climate Action Program at Caltrans (December 2006), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority.

Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks. However, it is important to note that the control of fuel economy standards is held by the U.S. Environmental Protection Agency and the California Air Resources Board.

³ Governor’s Strategic Growth Plan, Fig. 1 (<http://gov.ca.gov/pdf/gov/CSGP.pdf>)

Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California at Davis. Table 2.6-1 summarizes the department's statewide efforts to reduce greenhouse gas emissions.

For more detailed information about each strategy, please see Climate Action Program at Caltrans (December 2006); it is available at <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

Table 2.6-3: Improving Transportation System Efficiency

Strategy	Program	Partnership	Method/Process	Estimated CO ₂ Savings (MMT)	
				2010	2020
Smart Land Use	IGR	Lead: Caltrans Partner: Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Lead: Caltrans Partner: Local and regional agencies and other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Lead: Regional Agencies Partner: Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements and Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Lead: Caltrans Partner: Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy and greenhouse gas into Plans and Projects	Office of Policy Analysis and Research; Division of Env. Analysis	Interdepartmental effort	Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational and Information Program	Office of Policy Analysis & Research	Partner: Interdepartmental, CalEPA, CARB, CEC	Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening and Fuel Diversification	Division of Equipment	Department of General Services	Fleet Replacement B20 B100	0.0045	0.0065 0.45 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team	Energy Conservation Opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries	2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	CalEPA, CARB, BT&H, MPOs	Goods Movement Action Plan	Not Estimated	Not Estimated
Total				2.72	18.67

To the extent applicable or feasible for the project, and through coordination with the project development team, the following measures would be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from projects:

- Landscaping—reduces surface warming and decreases CO₂ emissions.
- Portland cement—use of lighter color surfaces such as Portland cement helps to reduce the albedo effect and cool the surface; in addition, Caltrans has been a leader in the effort to add fly ash to Portland cement mixes. Adding fly ash reduces the greenhouse gas emissions associated with cement production; it also can make the pavement stronger.
- Use of energy-efficient lighting, such as LED traffic signals.
- Idling restrictions for trucks and equipment during project construction.

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Climate change adaption must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, Governor Schwarzenegger signed Executive Order S-13-08 which directed a number of state agencies to address California’s vulnerability to sea level rise caused by climate change.

The California Resources Agency [now the Natural Resources Agency, (Resources Agency)], through the interagency Climate Action Team, was directed to coordinate with local, regional, state and federal public and private entities to develop a state Climate Adaptation Strategy. The Climate Adaptation Strategy will summarize the best known science on climate change impacts to California, assess California’s vulnerability to the identified impacts and then outline solutions that can be implemented within and across state agencies to promote resiliency.

As part of its development of the Climate Adaptation Strategy, Resources Agency was directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010 to advise how California should plan for future sea level rise. The report is to include:

- relative sea level rise projections for California, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates;
- the range of uncertainty in selected sea level rise projections;
- a synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems;
- a discussion of future research needs regarding sea level rise for California.

Furthermore Executive Order S-13-08 directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level affecting safety, maintenance and operational improvements of the system and economy of the state. The Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Prior to the release of the final Sea Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level

rise. However, all projects that have filed a Notice of Preparation, and/or are programmed for construction funding the next five years (through 2013), or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines. Sea level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data. (Executive Order S-13-08 allows some exceptions to this planning requirement.)

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted as part of Governor's Schwarzenegger's Executive Order on Sea Level Rise and is mobilizing to be able to respond to the National Academy of Science report on Sea Level Rise Assessment which is due to be released by December 2010.

On August 3, 2009, Natural Resources Agency in cooperation and partnership with multiple state agencies, released the 2009 California Climate Adaptation Strategy Discussion Draft, which summarizes the best known science on climate change impacts in seven specific sectors and provides recommendations on how to manage against those threats. The release of the draft document set in motion a 45-day public comment period. Led by the California Natural Resources Agency, numerous other state agencies were involved in the creation of discussion draft, including Environmental Protection; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The discussion draft focuses on sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. The strategy is in direct response to Gov. Schwarzenegger's November 2008 Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change impacts, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, the Caltrans will be able review its current design standards to determine what changes, if any, may be warranted in order to protect the transportation system from sea level rise.

Chapter 3. Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and individual consultations via mail, phone, and in person.

This chapter summarizes the agencies and individuals who have been or will be contacted to identify, address, and resolve project-related issues through early and continuing coordination.

Endangered Species

The California red-legged frog is a federally listed species that may be affected by the proposed project, although no critical habitat for this species is present within the project area.

A field meeting was held on April 4, 2006. Attendees included representatives from the County, Caltrans, Dokken Engineering, and Jones & Stokes. Although the U.S. Fish and Wildlife Service was not in attendance, a meeting summary was prepared and sent via email by David Hacker of Caltrans, District 5, to Steve Kirkland and Julie Vanderwier of the U.S. Fish and Wildlife Service on April 11, 2006. The U.S. Fish and Wildlife Service was notified on August 14, 2006 of the positive identification of California red-legged frog during the protocol-level survey effort.

Subsequently, a field meeting was held on November 16, 2006 with the City of San Luis Obispo, Caltrans, and the U.S. Fish and Wildlife Service to review the location of California red-legged frog in relation to this project and the proposed expansion of the Bob Jones City-to-Sea Bike Trail.

The proposed project has potential to affect the federally listed south-central California coast steelhead trout and its critical habitat. Consultation for federally listed anadromous fish is under the jurisdiction of the National Oceanic and Atmospheric Administration Fisheries Service. A preliminary National Oceanic and Atmospheric Administration consultation for south-central California coast steelhead trout included a field meeting that was held on October 27, 2008 with Matt McGoogan, David Crowder, and Dr. Brian Cluer of the National Oceanic and Atmospheric Administration.

A Biological Assessment addressing potential project effects on south-central California coast steelhead trout was completed in 2008. A Biological Opinion (File # SWR/ 2008/ 04273) was issued by the National Oceanic and Atmospheric Administration on July 14, 2009.

Permit Consultations

The U.S. Army Corps of Engineers will be contacted for approval and issuance of a Section 404 Permit for filling or dredging waters of the United States. A field meeting was held with Bruce Henderson of the U.S. Army Corps of Engineers on December 11, 2007.

The California Department of Fish and Game will be contacted for obtaining a 1602 Agreement for Lake or Streambed Alteration, and the Central Coast Regional Water Quality Control Board will be contacted for Section 401 Water Quality Certification. The State Water Resources Control Board will be coordinated to obtain a Section 402 National Pollution Discharge Elimination System Permit.

Other Coordination and Consultation

The San Luis Obispo County Historical Society and Central Coastal Information Center were contacted. The Native American Heritage Commission performed a sacred lands database search that was negative. The Native American Heritage Commission also provided a contact list of Native American representatives for San Luis Obispo County. The list included 24 individuals. Each individual was contacted by U.S. mail, and follow-up phone calls were made to each person.

Two responses were obtained:

1. In a letter dated June 10, 2006, Fred Collins, spokesperson for the Northern Chumash Tribal Council, requested a detailed description of the project and a detailed map of the project. He further noted concern about “any projects that are near creeks.” He wrote “that a thorough site assessment be conducted by the Northern Chumash Tribal Council.” Last, he requested a meeting when the consulting archaeologist was in the area.
2. In an email dated May 24, 2006, Mona Tucker and Matthew Goldman requested “that you have a recognized Chumash Cultural Resource Monitor accompany you with any archaeological survey.” They further requested “a response to their email.”

Additionally, Brian Stark with the Land Conservancy has been coordinated with regarding the watershed enhancement plan and Arundo eradication.

Community

Public information workshops were held at the Mountainbrook Community Church on March 27, 2003 and July 1, 2004. The meetings provided opportunities for the public to see the proposed alternatives and provide input. The first meeting was attended by about 40 members of the public; the second meeting was attended by about 25 members of the public.

An individual working group meeting with Los Verdes Home Owners Association was held on March 11, 2003 at the Los Verdes Board Meeting Room.

The project was presented to the City Council on August 28, 2003.

A public hearing was held on July 8, 2008 to allow additional public input on the project and the preferred alternative selection. This hearing also provided an opportunity for members of the public to ask questions and provide comment on the Initial Study and proposed Mitigated Negative Declaration, which had been circulated in the prior two months.

Notice of Public Information Meeting/Hearing

An announcement of a public information meeting/hearing along with a Notice of Intent to adopt a Mitigated Negative Declaration was placed in the local newspaper, *The Tribune*, on June 8 and 24, 2008 (see Appendix D).

The Initial Study was available for review during the public comment period at the following locations:

- Caltrans Office at 50 Higuera Street in San Luis Obispo
- San Luis Obispo County Public Works Department at County Government Center 207 in San Luis Obispo
- City and County of San Luis Obispo Public Library at 995 Palm Street in San Luis Obispo
- South County Library at 800 W. Branch Street in Arroyo Grande

- The Initial Study was sent to federal, state, and local agencies, interest groups and individuals.

Public Information Meeting/Hearing

A public information meeting/hearing was held from 5:00 p.m. to 7:00 p.m. on July 8, 2008 at the San Luis Obispo City Hall Council Chambers in San Luis Obispo. The purpose of the meeting was to provide information and solicit comment on the proposed interchange project.

Forty people signed in at the public meeting/hearing. Informational display boards with project details, maps, cross-sections and graphics were set up around the room for public viewing. Project team members were available to explain the displays, answer questions and receive public input. Staff from the County of San Luis Obispo, Department of Public Works, and Caltrans attended the event.

Staff encouraged attendees to fill out comment cards (available at the meeting) or submit comments by mail or email to Caltrans. A court reporter was at the public meeting/hearing to record oral comments.

The oral and written comments received on the proposed project are provided in Appendix D Public Comments and Responses.

Chapter 4 List of Preparers

The following people were the principal contributors in the preparation of this environmental document:

California Department of Transportation

William Arkfeld, Environmental Engineer (Water Quality) P.E. B.S., Environmental Engineering Humboldt State University; 22 years of experience in water quality and hazardous waste investigation. Contribution: Reviewed Water Quality Report.

Bob Carr, Landscape Architect. B.S., Landscape Architecture; 17 years of experience in visual impact analysis and landscape architecture. Contribution: Reviewed Scenic Resources Evaluation.

Paula Juelke Carr, Architectural Historian. M.A., interdisciplinary history program from the University of California; 25 years of experience in California History. Contribution: Reviewed Historic Properties Survey Report.

Dave Hacker, Associate Environmental Planner (Biologist). B.S., Natural Resource Management; 10 years of experience in biotic resource inventories and impact assessment. Contribution: Reviewed Natural Environment Study and Biological Assessment documents.

Doug Heumann, Project Manager. P.E. B.S., Civil Engineering; 20 years experience in civil engineering. Contribution: Project Manager and project design oversight.

Terry Joslin, Associate Environmental Planner (Archaeologist). B.S., Anthropology/Geography; 15 years of experience in California prehistory and history fieldwork and document preparation. Contribution: Reviewed Historic Properties Survey Report.

Val Levulett, Senior, Environmental Planner (District Heritage Resources Coordinator). M.A., Ph.D., Anthropology; 38 years of experience in cultural resource studies. Contribution: Reviewed Native American consultation and provided quality assurance quality control review.

Wayne Mills, Noise, Air, Paleontology Specialist. B.A., Social Science; B.A., Earth Science; 24 years of experience in civil engineering. Contribution: Reviewed Noise, Air, and Paleontology documents.

Mike Thomas, Associate Environmental Planner. B.S., Environmental Horticultural Science; 9 years environmental and transportation planning experience. Contribution: Reviewed Initial Study and coordinated the environmental process for the project.

James Tkach, Environmental Engineer (Hazardous Waste). B.S., Soil Science; 7 years of experience in project design and construction; 18 years of experience in hazardous waste management. Contribution: Reviewed Hazardous Waste.

City of San Luis Obispo

Tim Bochum, Deputy Director of Public Works, T.E. B.S., Mathematics; 17 years experience in traffic engineering/operations, neighborhood traffic management programs, non-motorist transportation, transit, public involvement, and traffic safety. Contribution: Coordinated project, traffic studies, and project design.

Dr. Neil Havlik, Natural Resources Manager. B.S., Biology; M.S., Botany; Ph.D., Wildland Resources Science; over 35 years experience in land use planning, environmental impact analysis and mitigation, natural resource management, and biological conservation. Contribution: Reviewed Natural Environment Study and Biological Assessment documents.

Peggy Mandeville, Principal Transportation Planner. B.S., Landscape Architecture; 20 years experience in landscape architecture, land use planning, community planning, and bicycle and transportation planning. Contribution: Reviewed and provided quality assurance/quality control for the environmental document.

Freddy Otte, City Biologist. B.S., Biology Fisheries Biology; 10 years of experience in biotic resource inventories and impact assessment. Contribution: Reviewed Natural Environment Study and Biological Assessment documents.

Consultants

Dokken Engineering

Angela Alcala, Wildlife Biologist. B.S., Wildlife Fisheries; 5 years experience as wildlife biologist. Contribution: Habitat evaluation.

Michelle Campbell, Senior Environmental Planner. B.A. and M.A., Anthropology; 9 years environmental planning experience. Contribution: Environmental document preparation.

Matt Griggs, Project Manager. B.S. and M.S., Civil Engineering; 15 years experience in civil engineering. Contribution: Project design.

Namat Hosseinion, Senior Environmental Planner. B.A., Anthropology; 8 years environmental planning experience. Contribution: Environmental planning coordination and environmental document preparation.

Sarah Jenkins, Associate Environmental Planner. B.A., Biology; B.S., Environmental Science; 2 years environmental planning experience. Contribution: Environmental document preparation.

Rob Lawrence, Geotechnical Engineer. B.S. and M.S., Civil Engineering; 13 years experience in civil engineering. Contribution: Hazardous Waste Report.

Tony Overly, Associate Environmental Planner. B.A. and M.A., Anthropology; 15 years cultural resources management experience. Contribution: Environmental document preparation.

Jones and Stokes Associates

Christiaan Havelaar, Staff Archaeologist. B.A., Anthropology; 6 years cultural resources management experience. Contribution: Wrote Historic Properties Survey Report.

Shannon Hatcher, Air Quality Specialist. B.S., Environmental Science and Environmental Health and Safety; 8 years experience. Contribution: Air quality report.

Jeff Kozlowski, Fish Biologist. B.S., Natural Resources Management; M.S., Ecology; 20 years experience in fish impact analysis. Contribution: Wrote fish Biological Assessment.

Debbie Loh, Project Director. B.A., Geography/Ecosystems; M.A., Urban Planning; 29 years environmental planning experience. Contribution: Coordination of Special Studies performed by Jones and Stokes Associates.

Lisa Webber, Wetland Ecologist. B.A., Biology and M.S., Botany; 16 years experience as a botanist. Contribution: Botanical surveys.

LSA Associates Inc.

Brooke Langle, Senior Biologist. B.S., Ecology and Systematic Biology; 10 years experience in field biology. Contribution: California Red-legged Frog Biological Assessment.

Chapter 5. References

Air Quality Technical Report

- 2007 Air Quality Technical Report: Los Osos Valley Road/US 101 Interchange Improvement Project, San Luis Obispo County, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

ALUC

- 1973 Airport Land Use Plan for the San Luis Obispo County Regional Airport (amended 2002, 2004, and 2005).

American Ornithologists' Union

- 1983 Checklist of North American Birds. 6th edition. Allen Press. Lawrence, Kansas.

Barth, M. J. and K. Boriboonsomsin

- 2008 "Real-world CO2 Impacts of Traffic Congestion." Presented at the 87th Annual Meeting of the Transportation Research Board.

Biological Assessment

- 2004 Calle Joaquin Realignment Project, San Luis Obispo County, California, Biological Assessment. Prepared for Lori Atwater, Mountainbrook Community Church. San Luis Obispo, California. On file at City of San Luis Obispo.

Biological Assessment for California Red-Legged Frog

- 2008 Biological Assessment for California Red-Legged Frog: Los Osos Valley Road/US 101 Interchange, San Luis Obispo County, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Biological Assessment for South-Central California Coast Steelhead

- 2008 Biological Assessment for South-Central California Coast Steelhead: Los Osos Valley Road/US 101 Interchange Improvement Project, San Luis Obispo County, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

California Department of Transportation

- 2006 Climate Action Program at Caltrans.
<http://www.dot.ca.gov/docs/ClimateReport.pdf>

City of San Luis Obispo

- 1978 Chapter 5 Safety Element of the General Plan.
1987 Chapter 8 Water and Wastewater Element of the General Plan (revised 2006).
1994 Chapter 1 Land Use Element of the General Plan (revised 2006).
1994 Chapter 2 Circulation Element of the General Plan (revised 2006).
1996 Chapter 4 Noise Element of the General Plan.
2001 Chapter 7 Parks and Recreation Element of the General Plan.
2004 Chapter 3 Housing Element of the General Plan (revised 2006).
2006 Chapter 6 Conservation and Open Space Element of the General Plan.

City of San Luis Obispo, Public Works Department

- 2007 Bicycle Transportation Plan.

Hazardous Waste Initial Site Assessment

- 2007 Hazardous Waste Initial Site Assessment for the Los Osos Valley Road/US 101 Interchange Improvement Project. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Historical Property Survey Report

- 2007 Historical Property Survey Report for the Los Osos Valley Road/US 101 Interchange Improvement Project, San Luis Obispo County, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Holland, V.L., D. Keil, and M. Hanson

- 1988 Biological Survey of the Froom Ranch Project Site, San Luis Obispo, California. January. Appendix E in Calle Joaquin realignment project, San Luis Obispo County, California, Wetland Assessment. Morro Group, Inc. 2004. Prepared for Lori Atwater, Mountainbrook Community Church. San Luis Obispo, CA. February 23, 2004. On file at City of San Luis Obispo.

Land Conservancy of San Luis Obispo County

- 2002 San Luis Obispo Creek Watershed Enhancement Plan.

Revised Location Hydraulic Study Report

- 2010 Location Hydraulic Study Report: Los Osos Valley Road/US 101 Interchange Improvement Project. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Natural Environment Study Report

- 2008 Natural Environment Study Report: Los Osos Valley Road/US 101 Interchange Improvement Project, San Luis Obispo County, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Noise Impact Analysis

- 2007 Noise Impact Analysis: Los Osos Valley Road/US 101 Interchange. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Draft Preliminary Environmental Analysis Report

- 2003 Draft Preliminary Environmental Analysis Report: Los Osos Valley Road/US 101 Interchange, San Luis Obispo County, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Preliminary Geotechnical Report

- 2002 Preliminary Geotechnical Report, Los Osos Valley Road/US 101 Interchange, November 26, 2002. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

San Luis Obispo County Air Pollution Control District

- 2003 California Environmental Quality Act Air Quality Handbook A Guide for Assessing the Air Quality Impacts for Projects Subject to California Environmental Quality Act Review.

Scenic Resources Evaluation

- 2007 Scenic Resources Evaluation: Los Osos Valley Road/US 101 Interchange Improvement Project, San Luis Obispo, California. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

State of California, Department of Finance

- 2007 E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2007, with 2000 Benchmark. Sacramento, California.

State of California, Department of Fish and Game

- 1995 Staff Report on Burrowing Owl Mitigation. Sacramento, California.

State of California, Water Resources Control Board

- 2006a Proposed 2006 CWA Section 303(d) List of Water Quality Limited Segments Being Addressed by US Environmental Protection Agency Approved TMDLS.
- 2006b Proposed 2006 CWA Section 303(d) List of Water Quality Limited Segments Being Addressed by Actions Other Than TMDLS.

Tamagni, C.

- 1995 Distribution of the Five Native Fish Species in the San Luis Obispo Creek Watershed. California Polytechnic State University, San Luis Obispo California at:
<http://www.centralcoastsalmon.com/crkdocs/tamagni/tamagni.html>.

Traffic Operations Report

- 2007 Final Traffic Operations Report: US 101/Los Osos Valley Road Interchange Project Approval & Environmental Document. Report prepared by City of San Luis Obispo and submitted to California Department of Transportation. On file at City of San Luis Obispo.

Wetland Delineation

- 2005 Froom Ranch, San Luis Obispo County, California, wetland assessment. Prepared for Clint Pearce, Madonna Enterprises. San Luis Obispo, California. On file at City of San Luis Obispo.
- 2004 Calle Joaquin Realignment Project, San Luis Obispo County, California, Wetland Assessment. Prepared for Lori Atwater, Mountainbrook Community Church. San Luis Obispo, California. On file at City of San Luis Obispo.
- 2007 Preliminary Delineation of Waters of the United States, Including Wetlands, for the Los Osos Valley Road/US. 101 Interchange Improvements Project, San Luis Obispo, California. Jones and Stokes Associates.

Zeiner, D. C., F. Laudenslayer, K. E. Mayer, and M. White

- 1990 California's wildlife. Volume II. Birds. California Statewide Wildlife Habitat Relationships System. Sacramento, California: California Department of Fish and Game.

Appendix A. California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this Initial Study. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts and avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

AESTHETICS - 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 building 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 that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AGRICULTURE RESOURCES - 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. Would the project:

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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an				

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

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 that exceed quantitative thresholds for ozone precursors)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

d) Expose sensitive receptors to substantial pollutant concentration?

<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 type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

BIOLOGICAL RESOURCES - Would the project:

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 checked="" type="checkbox"/>	<input 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, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------	--------------------------

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

CULTURAL RESOURCES - Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Archaeological resources are considered “historical resources” and are covered under (a).

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

d) Disturb any human remains, including those interred outside of formal cemeteries?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

GEOLOGY AND SOILS - Would the project:

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 checked="" 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 checked="" type="checkbox"/>	<input 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 offsite 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 checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

HAZARDS AND HAZARDOUS MATERIALS -
Would the project:

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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------	--------------------------

d) 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

HYDROLOGY AND WATER QUALITY - Would the project:

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

a) Violate any water quality standards or waste discharge requirements?

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 that would not support existing land uses or planned uses for which permits have been granted)?

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 that would result in substantial erosion or siltation on or offsite?

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 that would result in flooding on or offsite?

e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

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?

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

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?

j) Result in inundation by a seiche, tsunami, or mudflow?

LAND USE AND PLANNING - Would the project:

a) Physically divide an established community?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

MINERAL RESOURCES - Would the project:

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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

NOISE - Would the project result in:

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 two 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 checked="" type="checkbox"/>	<input 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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

POPULATION AND HOUSING - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

PUBLIC SERVICES -

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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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"/> |

RECREATION -

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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 that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

TRANSPORTATION/TRAFFIC - Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

UTILITY AND SERVICE SYSTEMS - Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

e) Result in determination by the wastewater treatment provider that 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 type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

g) Comply with federal, state, and local statutes and regulations related to solid waste?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

MANDATORY FINDINGS OF SIGNIFICANCE -

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, 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Appendix B. Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. Box 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711



*Flex your power!
Be energy efficient!*

July 20, 2010

TITLE VI POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, or age, please visit the following web page:
http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: charles_wahnon@dot.ca.gov.


CINDY MCKIM
Director

"Caltrans improves mobility across California"

Appendix C. Minimization and/or Mitigation Summary

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>Mitigation Measure V-1: Screening of increased concrete visibility.</p> <p>The landscape plan shall include a planting screen along exposures of bridge abutments and at some proposed retaining wall locations, where appropriate. The planting shall complement the naturally appearing form of the interchange and not look like a formal, manicured landscape. The design shall avoid a linear planting along the wall locations. The landscape plan shall be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with the City's Architectural Review Committee and City staff. A Caltrans maintenance plan shall be developed during Plans, Specifications & Estimate to ensure that plantings within the state right-of-way establish to sufficiently reduce the identified impact.</p>	During and after construction.	City of San Luis Obispo	Caltrans	<input type="checkbox"/>	_____
<p>Mitigation Measure V-2: Replace vegetation lost because of construction. This mitigation will result in a naturalized condition comparable to the density, spacing, and species variety of the existing conditions. The site will be replanted with similar species to those that were affected by the project. Replacement plants will be sized so as to reach the existing plant sizes within the minimal time feasible. Maintenance and monitoring will be required to assure plant survival so that the existing conditions are closely replicated within the determined timeframe. The revegetation plan shall be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with the City's Architectural Review Committee and City staff.</p>	During and after construction.	City of San Luis Obispo	Caltrans	<input type="checkbox"/>	_____
<p>Mitigation Measure V-3: Consideration of aesthetic features for the bridge structure and interchange setting. Implementation of architectural features, developed with Caltrans/City aesthetic standards, shall be considered to meet the desired goals as defined in the Conservation and Open Space Element of the City's General Plan. The esthetic features shall be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with the City's Architectural Review Committee and City staff.</p>	Prior to and during construction.	City of San Luis Obispo	Caltrans	<input type="checkbox"/>	_____
<p>Mitigation Measure V-4: Develop Lighting Plan. A lighting plan would be developed that requires project lighting to be appropriately shielded. Project lighting design would be consistent with all Caltrans and City lighting guidelines and standards and would be developed with Caltrans and City aesthetic</p>	Prior to construction.	City of San Luis Obispo	Caltrans	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
standards. The lighting plan would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way, as well as with the City’s Architectural Review Committee and City staff.					
<p>Mitigation Measure AQ-1: Implement California Department of Transportation Standard Specification 7-1.01F and Standard Specification 10.</p> <p>The project proponent will follow Caltrans Standard Specification 7-1.01F and Standard Specification 10, which address the requirements of the local air pollution control district (San Luis Obispo Air Pollution Control District) and dust control, respectively.</p>	Prior to and during construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure AQ-2: Implement San Luis Obispo Air Pollution Control District Control Measures for Construction Emissions of PM10.</p> <p>The project proponent will implement all feasible PM10 control measures required by the San Luis Obispo Air Pollution Control District. Standard Mitigation Measures for Construction Equipment:</p> <ol style="list-style-type: none"> 1. Maintain all construction equipment in proper tune according to manufacturer’s specifications. 2. Fuel all off-road and portable diesel-powered equipment, including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets, compressors, auxiliary power units, with Air Resources Board certified motor vehicle diesel fuel (non-taxed version suitable for use off-road). 3. Maximize to the extent feasible, the use of diesel construction equipment meeting the Air Resources Board’s 1996 or newer certification standard for off-road, heavy-duty diesel engines. <p>Discretionary Mitigation Measures for Construction Equipment:</p> <ol style="list-style-type: none"> 1. Electrified equipment where feasible. 2. Substitute gasoline-powered for diesel-powered equipment, where feasible. 3. Use alternative fueled 	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>construction equipment on site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.</p> <p>4. Use equipment that has Caterpillar pre-chamber diesel engines.</p> <p>Construction Best Available Control Technology</p> <p>1. Install diesel oxidation catalysts (DOC), catalyzed diesel particulate filters (CDPF), or other District approved emission reduction retrofit devices where feasible.</p>					
<p>Activity Management Techniques</p> <p>1. Develop a comprehensive construction activity management plan designed to minimize the amount of large construction equipment operating during any given time period.</p> <p>2. Schedule construction truck trips during non-peak hours to reduce peak hour emissions.</p> <p>3. Limit the length of the construction workday period, if necessary.</p> <p>4. Phase construction activities, if appropriate.</p> <p>Fugitive Dust Source Category:</p> <p>1. Reduce the amount of the disturbed area where possible.</p> <p>2. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (nonpotable) water should be used whenever possible.</p> <p>3. All dirt stock-pile areas should be sprayed daily as needed.</p> <p>4. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil-disturbing activities.</p> <p>5. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast-germinating native grass seed and watered until vegetation is established.</p>					

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>6. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Air Pollution Control District.</p> <p>7. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, road surfaces should be laid as soon as possible after grading unless seeding or soil binders are used.</p> <p>8. Vehicle speed for all construction vehicles shall not exceed 15 miles per hour on any unpaved surface at the construction site.</p> <p>9. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code (CVC) section 23114.</p> <p>10. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.</p> <p>11. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.</p> <p>All categories:</p> <ol style="list-style-type: none"> Any other control measures approved by the Air Pollution Control District where necessary. 					
<p>Mitigation Measure AQ-3: Implement Air Resources Board's Airborne Toxic Control Measures for Naturally Occurring Asbestos.</p> <p>In addition, naturally occurring asbestos may exist at the site. A geological survey is required for the site. If the naturally occurring asbestos is found, then the project proponent will implement all feasible control measures required by the San Luis Obispo Air Pollution Control District to comply with the requirements listed in the Air Resources Board's Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying, and Surface Mining Operations. Such measures include, but are not limited to, the following:</p> <ol style="list-style-type: none"> The San Luis Obispo Air Pollution Control District is notified in writing at least fourteen (14) days before the beginning of the activity or in accordance with a procedure approved by the district. 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>b. All the following dust control measures are implemented during any road construction or maintenance activity:</p> <ol style="list-style-type: none"> 1. Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 % asbestos; 2. The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries; 3. Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 % asbestos; and 4. Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public. <p>c. Equipment and operations must not cause the emission of any dust that is visible crossing the project boundaries.</p>					
<p>Mitigation Measure BIO-1: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Biological Resources to Be Avoided.</p> <p>The City or its contractor will install orange construction barrier fencing to identify environmentally sensitive areas. A qualified biologist will identify sensitive biological habitat at each bridge site before the final design plans are prepared so that the areas to be fenced can be included in the plans. The area that would generally be required for construction, including staging and access, is shown as the permanent and temporary impact area on Figures 2.3-1 and 2.3-2. Sensitive biological resources that are to be avoided during construction should be fenced off to avoid disturbance. Sensitive biological habitat that occurs adjacent to the construction area includes the creek channels outside the construction zone, wetlands, and any trees that support nests of special-status bird species.</p> <p>Before construction, the contractor will work with the project engineer and a biological resource specialist to identify the locations for the barrier fencing and will place stakes around</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>the sensitive resource sites (i.e., riparian vegetation, seasonal wetlands, and trees that support nests of special-status birds) to indicate these locations. The protected areas will be designated as environmentally sensitive areas and identified clearly on the construction plans. The fencing will be installed before construction activities are initiated and will be maintained throughout the construction period. The following paragraph will be included in the construction specifications:</p> <p>The contractor’s attention is directed to the areas designated as “environmentally sensitive areas.” These areas are protected, and no entry by the contractor for any purpose will be allowed unless specifically authorized in writing by Caltrans or the City of San Luis Obispo. The contractor will take measures to ensure that contractor’s forces do not enter or disturb these areas, including giving written notice to employees and subcontractors. Vehicle operation, material and equipment storage, and other surface-disturbing activities are prohibited within the fenced environmentally sensitive areas.</p> <p>Temporary fences around the environmentally sensitive areas will be installed as one of the first orders of work. Temporary fences will be furnished, constructed, maintained, and removed as shown on the plans, as specified in the special provisions, and as directed by the project engineer. The fencing will be commercial-quality woven polypropylene, orange in color, and at least 4 feet high (Tensor Polygrid or equivalent). The fencing will be tightly strung on posts set at maximum intervals of 10 feet.</p>					
<p>Mitigation Measure BIO-2: Avoid and Minimize Potential Indirect Disturbance of Riparian Forest Communities.</p> <p>To the extent possible, the City will avoid and minimize potential indirect disturbance of riparian forest communities by implementing the following measures:</p> <ul style="list-style-type: none"> • The potential for long-term loss of riparian forest vegetation will be minimized by trimming vegetation rather than removing entire shrubs. Shrubs that need to be trimmed will be cut at least 1 foot above ground level to leave the root systems intact and allow for more rapid regeneration. Cutting will be limited to the minimum area necessary within the construction zone. Cutting will be allowed only for shrubs; all trees will be avoided. Also, cutting will be allowed only in areas that do not provide habitat for sensitive species. To protect nesting birds, pruning or removal of woody riparian forest vegetation will not be allowed between March 1 and August 15. • A certified arborist will be retained to perform any necessary pruning or root cutting of riparian forest trees. Work in riparian forest areas will be conducted 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>between June 1 and October 1, and disturbed areas will be stabilized with erosion control measures before October 1.</p>					
<p>Mitigation Measure BIO-3: Compensate for Temporary and Permanent Loss of Riparian Forest Vegetation.</p> <p>This mitigation measure compensates for temporary and permanent construction-related loss of streamside vegetation, including both riparian vegetation and shaded riverine aquatic cover (a component of riparian vegetation); see Natural Environment Study Report (2008) section 4.4, “Sensitive Fish Species” for a discussion of impacts on shaded riverine aquatic cover. Shaded riverine aquatic cover vegetation is defined as streamside vegetation growing at the interface between the wetted channel and the streambank and includes woody, terrestrial vegetation that extends over the wetted channel and associated tree roots and branches projecting into the water column. Because shaded riverine aquatic cover typically is composed of riparian vegetation growing within 15 feet (horizontal distance) of the wetted channel, compensatory mitigation for construction-related losses of shaded riverine aquatic cover necessitates that riparian vegetation plantings occur within 15 linear feet of the wetted channel in order to be considered mitigation for impacts on shaded riverine aquatic cover vegetation. Therefore, to be effective as mitigation for impacts on both riparian vegetation and shaded riverine aquatic cover, this measure includes the requirement that riparian vegetation be replanted within 15 feet (horizontally) of the wetted channel until a minimum replacement ratio of 2:1 for affected shaded riverine aquatic cover vegetation is met. Once the requirement for mitigation for shaded riverine aquatic cover vegetation is met, the remainder of riparian vegetation mitigation can be replanted farther away than 15 feet from the channel.</p> <p>The City will compensate for temporary construction-related loss of riparian forest vegetation and shaded riverine aquatic cover vegetation at Prefumo Creek and San Luis Obispo Creek at a minimum ratio of 1:1 (1 acre restored for every 1 acre temporarily affected) by replanting the temporary access areas with the native species removed, including arroyo willow, California black walnut, black cottonwood, coast live oak, coyote brush, coffeeberry, California blackberry, and elderberry. Replanting at each creek will occur at the earliest opportunity following completion of construction activities and during the time of year when maximum survival of planted vegetation is assured.</p> <p>The City will compensate for the permanent loss of riparian forest vegetation within and adjacent to the study area along Prefumo and San Luis Obispo creeks at a minimum ratio of 2:1 (2 acres restored or created for every 1 acre permanently</p>	<p>Prior to, during, and after construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>affected). All permanent riparian impacts will first be mitigated at the treatment ponds adjacent to the study area. While these commitments are made in the environmental document, final locations and quantities for compensation will be confirmed through coordination with state and federal agencies as part of the permitting process and final design phase and will be based on the impacts calculated and presence of appropriate environmental conditions for enhancement or creation. Compensation would also include enhancement of the creek corridor through removal of nonnative species such as giant reed, castor bean, poison hemlock, English ivy, Himalayan blackberry, and big leaf periwinkle and replacing these plants with native riparian trees and shrubs.</p> <p>With implementation of Alternative 3, compensation in this area can be achieved through enhancement of 1.64 acres of existing riparian habitat within and adjacent to the study area by removing nonnative species (such as giant reed, castor bean, poison hemlock, English ivy, Himalayan blackberry, and bigleaf periwinkle and replacing these plants with native riparian trees and shrubs) and planting this area with native riparian trees and shrubs (such as arroyo willow, California black walnut, black cottonwood, coast live oak, coyote brush, coffeeberry, California blackberry, elderberry, mugwort, and other readily establishing native riparian forest species).</p> <p>For Alternative 6, compensation would require enhancement of 2.54 acres of existing riparian habitat within and adjacent to the study area (see Figure 2.3-1). Enhancement activities for Alternative 6 would include removal of the existing southbound off-ramp onto Los Osos Valley Road (including the a culvert across Prefumo Creek) and replanting with native riparian trees and shrubs. To replace shaded riverine aquatic cover vegetation that is permanently lost as a result of the project, a minimum of 1,820 linear feet of stream bank would need to be planted with riparian vegetation to meet the minimum 2:1 replacement ratio identified for permanent impacts on shaded riverine aquatic cover vegetation. To meet this mitigation requirement, shaded riverine aquatic cover vegetation can be planted on either bank. The total bank length replanted must equal at least 910 linear feet or 455 linear feet of stream length assuming both banks are planted. To replace shaded riverine aquatic cover vegetation that is temporarily lost, a minimum of 290 linear feet of stream bank would need to be planted to meet the minimum 1:1 replacement ratio.</p> <p>Riparian enhancement areas could occur within the study area and the exact location would be determined in coordination with Caltrans and the City. Plantings will consist of cuttings taken from local plants, or plants grown from local material obtained within the Prefumo and San Luis Obispo Creek watersheds. Plantings will be</p>					

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>monitored annually for 3 years, or as required in the project permits. A minimum of 75% of the plantings will survive at the end of the monitoring period. If the survival criterion is not met at the end of the monitoring period, planting and monitoring will be repeated until the survival criterion is met.</p>					
<p>Mitigation Measure BIO-4: Avoid and Minimize Potential Indirect Disturbance of Seasonal Wetlands Near the Construction Area.</p> <p>The City will minimize the potential for indirect disturbance of the seasonal wetlands in the US 101 northbound on-ramp portion of the study area by prohibiting the use of vehicles and equipment staging in this area. All access by vehicle in this portion of the study area will occur via the paved on-ramp.</p>	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-5: Protect Water Quality and Prevent Erosion in Wetlands and Drainages.</p> <p>To protect water quality in seasonal wetlands, freshwater marsh, and Prefumo, San Luis Obispo, and Froom creeks, the City will implement the following best management practices before and during construction:</p> <ul style="list-style-type: none"> • All earthwork or foundation activities involving creeks, culverts, and bridges will occur in the dry season (generally between June 1 and October 1). • All work in the drainages that may contain fish will be limited to the low-flow period in the dry season. • Equipment used in and around waters of the United States will be in good working order and free of dripping or leaking engine fluids. All vehicle maintenance, staging, and materials storage will occur at least 300 feet from all waters of the United States. Any necessary equipment washing will occur where the water cannot flow into the stream channel. • Any surplus concrete rubble, asphalt, or other rubble from construction will be taken to an approved disposal site. • An erosion control plan will be prepared and implemented for the proposed project. It will include the following provisions and protocols: <ul style="list-style-type: none"> • Discharge from dewatering operations, if needed, and runoff from disturbed areas will be made to conform to the water quality requirements of the waste discharge permit issued by the Regional Water Quality Control Board. • Material stockpiles will be located in non-traffic areas only. Side slopes will not be steeper than 2:1. All stockpile areas will be surrounded by a filter fabric fence 	Prior to and during construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>and interceptor dike.</p> <ul style="list-style-type: none"> Erosion control measures will be applied throughout construction of the proposed project. <p>The Storm Water Pollution Prevention Plan for the project will detail the applications and type of measures and the allowable exposure of unprotected soils. Soil exposure will be minimized through the use of temporary best management practices, groundcover, and stabilization measures. Exposed dust-producing surfaces will be sprinkled daily, if necessary, until wet; this measure will be controlled to avoid producing runoff. Paved streets will be swept daily following construction activities.</p> <p>The contractor will conduct periodic maintenance of erosion and sediment control measures. All temporary erosion and sediment control measures will be removed after the working area is stabilized or as directed by the engineer. An appropriate seed mix of native species will be planted on disturbed areas upon completion of construction. Sandbagged silt fences will be installed in all named and unnamed waterways in which construction work occurs, both upstream and downstream of the construction site. Any accumulated sediment will be removed and trucked to an approved disposal site.</p>					
<p>Mitigation Measure BIO-6: The City of San Luis Obispo would compensate for permanent loss of seasonal wetlands at a minimum ratio of 2:1 (2 hectares/acres restored for every 1 hectare/acre temporarily affected). Permanent impacts on seasonal wetland would first be mitigated on-site. Any remaining seasonal wetland mitigation that cannot be created on-site would be created off-site at an environmentally approved location to be determined, such as the city-owned Johnson Ranch or through the San Luis Obispo Conservancy. While these commitments are made in the environmental document, final locations and quantities for compensation would be confirmed through coordination with state and federal agencies as part of the permitting process and final design phase and would be based on the impacts calculated and presence of appropriate environmental conditions for the creation of wetlands.</p> <p>If Alternative 3 is built, total required compensation for impacts on seasonal wetland will be 0.16 hectare (0.40 acre). If Alternative 6 is implemented, total compensation for impacts on seasonal wetlands would be 0.15 hectare (0.36 acre). Because the two of the affected seasonal wetlands occur within artificially created basins between US 101 and the northbound on- and off-ramps, these wetlands would be restored on-site after construction. To ensure sufficient ponding to support wetland vegetation, the basin north of the on-ramp would be excavated to pre-project conditions and planted with a native seed mix..</p>	<p>Prior to construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>Mitigation Measure BIO-7: Avoid and Minimize Potential Indirect Disturbance of Freshwater Marsh near the Construction Area.</p> <p>The City will minimize the potential for indirect disturbance of the freshwater marsh in the Calle Joaquin/US 101 southbound on-ramp and off-ramp portion of the study area by prohibiting equipment staging in this area. All access by vehicle in this portion of the study area will be limited to the project right-of-way.</p>	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-8: Avoid and Minimize Potential Indirect Disturbance of Seasonal Drainage near the Construction Area.</p> <p>The City will minimize the potential for indirect disturbance of the seasonal drainages in the realigned portion of the Calle Joaquin/US 101 southbound on-ramp under Alternative 3 or the Calle Joaquin/US 101 southbound on-ramp and off-ramp under Alternative 6 by prohibiting equipment staging in this area. All access by vehicle in this portion of the study area will be limited to the project right-of-way.</p>	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-9: Compensate for Permanent Loss of Seasonal Drainage Habitat.</p> <p>The City will compensate for the permanent fill of seasonal drainage (a direct impact associated with new road construction) at a minimum ratio of 2:1 (2 hectares/acres restored or created for every 1 hectare/acre permanently affected).</p> <ul style="list-style-type: none"> • Under Alternative 3, a minimum of 0.08 acre of compensation for permanent loss of seasonal drainage will be required. • Under Alternative 6, a minimum of 0.07 acre of compensation for the permanent loss seasonal drainage will be required. <p>Mitigation proposed includes a combination of on-site mitigation and compensation at undetermined offsite locations such as the Johnson Ranch or through the San Luis Obispo Land Conservancy. Onsite compensation will be accomplished by restoring and/or enhancing riparian and in-stream habitats along Prefumo and San Luis Obispo creeks in the study area. Compensation for other waters of the United States will be in addition to and will follow the guidelines for riparian habitat compensation described under section 4.1.1 of the Natural Environment Study Report (2008). "Riparian Forest." Permanent impacts to seasonal drainages that cannot be mitigated onsite will be compensated at a ratio of at least 2:1 ratio at offsite locations.</p> <p>Temporarily disturbed portions of the drainages will be returned to original grade following construction, and will result in no permanent impacts.</p>	Prior to, during, and after construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-10: Avoid and Minimize Potential Indirect Disturbance of Perennial Drainage Near the Construction Area.</p> <p>The City will minimize the potential for indirect disturbance of the perennial drainages, including Prefumo and San Luis Obispo creeks, in the project area by prohibiting equipment staging in</p>	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
these areas. All access by vehicle in these portions of the study area will be limited to the project right-of-way.					
<p>Mitigation Measure BIO-11: Compensate for Permanent Loss and Temporary Disturbance of Perennial Drainage Habitat.</p> <p>The City will compensate for temporary construction-related loss of perennial drainage at a minimum ratio of 1:1 (1 hectare/acre restored for every 1 hectare/acre temporarily affected) and will compensate for the permanent fill of perennial drainage (a direct impact associated with new road construction) in Prefumo and San Luis Obispo creeks at a minimum ratio of 2:1 (2 hectares/acres restored or created for every 1 hectare/acre permanently affected).</p> <ul style="list-style-type: none"> • Under Alternative 3, a minimum of 0.33 acre of compensation for loss of perennial drainage will be required. • Under Alternative 6, a minimum of 0.41 acre of compensation for the loss of perennial drainage will be required. <p>Mitigation proposed includes a combination of onsite mitigation and compensation at undetermined offsite locations such as the Johnson Ranch or through the San Luis Obispo Land Conservancy. Onsite compensation will be accomplished by restoring and/or enhancing riparian and in-stream habitats along Prefumo and San Luis Obispo creeks in the study area. Compensation for other waters of the United States will be in addition to and will follow the guidelines for riparian habitat compensation described under section 4.1.1.2 of the Natural Environment Study Report (2008) "Riparian Forest." Permanent impacts to seasonal drainages that cannot be mitigated onsite will be compensated at a ratio of at least 2:1 ratio at off-site locations.</p> <p>Temporarily disturbed portions of the drainages will be returned to original grade following construction, and will result in no permanent impacts.</p> <p>The two seasonal wetlands, located in the artificially created basins between US 101 and existing northbound on- and off-ramps, will be restored onsite as biofiltration swales and strips after the new ramps are constructed. To ensure sufficient ponding in support of wetland vegetation, the basin will be excavated to pre-project conditions and planted with a native seed mix.</p>	<p>Prior to, during, and after construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Mitigation Measure BIO-12: Install Fencing and Monitor Dewatering Activities within the Construction Work Area and Relocate Sensitive Aquatic Wildlife, if Necessary.</p> <p>To avoid construction-related impacts on foothill yellow-legged frog, southwestern pond turtles, and two-striped garter snakes during work within Prefumo and San Luis Obispo creeks, fences will be constructed upstream and downstream of the dewatering area to prevent these species from entering the construction</p>	<p>Prior to and during activities in the creeks.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>area. The fences will be constructed at the edges of or just outside of the area to be dewatered. The fences will be perpendicular to the creek and will extend 100 feet out from the center of the creek on each side. The City shall retain a qualified wildlife biologist to monitor fence installation and dewatering activities associated with installation of cofferdams or water-diversion structures within Prefumo and San Luis Obispo creeks. Prior to dewatering, the area will be surveyed for all lifestages of foothill yellow-legged frog, southwestern pond turtle, and two-striped garter snake and the biologist will relocate any individuals found to the outside of the barrier fences in suitable habitat at least 300 feet from the construction area. In addition, if a foothill yellow legged-frog, southwestern pond turtle, or two striped garter snake becomes entrapped in an area being dewatered or diverted, the biologist will assist the contractor in providing means for the animal to voluntarily move out of the construction area or the biologist will actively relocate the animal to an area outside the barrier fences. The biologist will have a valid scientific collecting permit as well as authorization from the Department of Fish and Game to relocate these three California species of special concern.</p>					
<p>Mitigation Measure BIO-13: Conduct Preconstruction Nesting Bird and Raptor Surveys and Establish a No-Disturbance Buffer, if Necessary.</p> <p>To avoid and minimize impacts on nesting migratory birds and raptors, the City or its contractor will implement one or more of the following surveys and restrictions.</p> <ul style="list-style-type: none"> • If feasible, conduct all tree and shrub removal and grading (within annual grasslands) during the nonbreeding season (generally between August 16 and February 28) for most migratory birds and raptors. • If construction activities are scheduled to occur during the breeding season for migratory birds and raptors (generally between March 1 and August 15), a qualified wildlife biologist (with knowledge of the species to be surveyed) shall be retained to conduct the following focused nesting surveys prior to the start of construction and within the appropriate habitat. • Cooper's Hawk, White-Tailed Kite, and other Tree-Nesting Raptors. Tree-nesting raptor surveys will be conducted before any construction disturbances occurring in or near suitable nesting habitat (riparian forest) located within the permanent and temporary impact area and up to 300 feet outside the permanent and 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>temporary impact area between March 1 and August 15.</p> <ul style="list-style-type: none"> Tree and Shrub Nesting Migratory Birds. Tree- and shrub-nesting surveys for loggerhead shrike and other non-special-status migratory birds and raptors shall be conducted prior to any tree and shrub trimming or removal activities located within the permanent and temporary impact area between March 1 and August 15. Northern Harrier and other Ground-Nesting Migratory Birds. Ground-nesting surveys for northern harrier and other ground-nesting migratory birds shall be conducted before any construction disturbances occur in freshwater marsh, seasonal wetland, annual grassland, or agricultural areas located within the permanent and temporary impact area between March 1 and August 15. <p>The nesting surveys should be conducted within 1 week prior to initiation of construction activities that will occur in suitable habitat between March 1 and August 15. If no active nests are detected during these surveys, then no additional mitigation is required.</p> <ul style="list-style-type: none"> If surveys indicate that migratory bird or raptor nests are found in the survey area identified above, a no-disturbance buffer shall be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged (usually late June to mid-July). The extent of these buffers shall be determined by the biologist (coordinating with the City, Caltrans, and California Department of Fish and Game) and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. If construction activities are scheduled to occur within an area that supports an active nest site or within an established no-disturbance buffer, construction will be delayed until after the breeding season or until the young have fledged (as determined by the biologist). 					
<p>Mitigation Measure BIO-14: Conduct a Preconstruction Survey for Burrowing Owl in Accordance with the California Department of Fish and Game Guidelines and Establish a No-Disturbance Buffer, if Necessary. The California Department of Fish and Game</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>(1995) recommends that a preconstruction survey be conducted to locate active burrowing owl burrows in the construction work area and within a 250-foot-wide buffer zone around the construction area. A qualified wildlife biologist will be retained to conduct a preconstruction survey for active burrows according to the California Department of Fish and Game’s Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995). The preconstruction survey will be conducted within 30 days before construction activities begin. If no burrowing owls are detected, no further mitigation is required. If active burrowing owl burrows are identified within or near the permanent or temporary construction impact area, the City will implement the following measures:</p> <ul style="list-style-type: none"> • Occupied burrows will not be disturbed during the breeding season (February 1 to August 31). • When destruction of occupied burrows is unavoidable during the nonbreeding season (September 1 to January 31), unsuitable burrows will be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on protected lands approved by California Department of Fish and Game. Newly created burrows will follow guidelines established by California Department of Fish and Game. 					
<p>Mitigation Measure BIO-15: Compensate for the Loss of Burrowing Owl Habitat in Accordance with California Department of Fish and Game Guidelines.</p> <p>If active burrowing owl burrows are found within the permanent or temporary construction impact area and the owls must be relocated, the City shall offset the loss of foraging and burrow habitat in the construction area by complying with the California Department of Fish and Game’s Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995).</p>	<p>During and after construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Mitigation Measure BIO-16: Conduct a Preconstruction Nesting Swallow Survey and Install Exclusion Netting on the Underside of Bridges or Culverts to Prevent Swallows from Nesting.</p> <p>To avoid impacts on nesting swallows and other bridge-nesting migratory birds that are protected under the Migratory Bird Treaty Act and Fish and Game Codes, the City will implement the following avoidance and minimization measures.</p> <ul style="list-style-type: none"> • If bridge or box culvert construction will take place during the breeding season (generally between February 15 and August 31), a qualified wildlife biologist will be hired to inspect these areas during the swallows’ non-breeding season 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>(September 1 through February 14). If nests are found and are abandoned, they may be removed. To avoid damaging active nests, all nests must be removed before the breeding season begins (February 15).</p> <ul style="list-style-type: none"> After nests are removed, the undersides of the bridges and box culverts may be covered with 0.5- to 0.75-inch mesh net or poultry wire, or nests may be hosed and scraped every three days during construction to prevent swallows from reestablishing new nests. All net installation shall occur before February 15. The netting shall be anchored so that swallows cannot attach their nests through gaps in the net. If netting of the bridges and box culverts does not occur by February 15 or more than three days lapse between scraping and hosing and swallows colonize these areas, modifications to the structure supporting active swallow nests should not begin before September 1 of that year or until a qualified biologist has determined that the young have fledged and all nest use has been completed. <p>If appropriate steps are taken to prevent swallows from constructing new nests, work can proceed at any time of the year.</p>					
<p>Mitigation Measure BIO-17: Limit In-Channel Construction Activities to the Low-Precipitation Period.</p> <p>In-channel construction, including riverbank and channel bed construction below the ordinary high-water mark (ordinary high-water mark), will be limited to the summer low-precipitation period (June 1 to October 1) to minimize adverse effects on adult fish spawning and smolt migration. Project construction in the channel will also be subject to the following constraints:</p> <ul style="list-style-type: none"> Construction requiring stream dewatering, stream crossings, or work in the channel bed will not start before June 1. Upstream and downstream passage for fish, including juvenile steelhead, will be provided through or around construction sites at all times. Cofferdams will be installed in all creeks to divert stream flow around each footing excavation. The construction period limits will also apply to a pipe diversion system that will be needed on San Luis Obispo Creek and Prefumo Creek. Limiting in-channel construction to the June 1 to October 1 period will achieve two goals: <ul style="list-style-type: none"> Construction will not be concurrent with the primary migration and spawning periods of steelhead. The length of the construction period will be maximized, thereby 	<p>During construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>reducing the potential for in-channel construction (i.e., below the ordinary high-water mark) to have to be extended beyond October 1.</p>					
<p>Minimization Measure BIO-18: Implement Water Quality Measures.</p> <p>The City will avoid or minimize increased sediment input to the project area channel. As part of the National Pollutant Discharge Elimination System’s General Construction Activity Storm Water Permit, a Storm Water Pollution Prevention Plan will be implemented that includes the following:</p> <ul style="list-style-type: none"> • conducting all construction work according to site-specific construction plans that minimize the potential for sediment input to the aquatic system; • identifying all areas requiring clearing, grading, revegetation, and recontouring, and minimizing the areas to be cleared, graded, and recontoured; • grading spoil sites to minimize surface erosion; • avoiding riparian and wetland vegetation wherever possible and identifying and fencing specific trees to protect existing riparian habitat; • covering bare areas with mulch and revegetating all cleared areas; • avoiding equipment operation in flowing water during in-channel activities by constructing coffer dams and diverting all stream flows through or around construction sites; and • constructing sediment catch basins across stream channels immediately below the project site when performing in-channel construction to prevent silt- and sediment-laden water from entering the main stream flow (accumulated sediments will be periodically removed from the catch basin). <p>Increased pollutant input to the project area channel will also be minimized and avoided by:</p> <ul style="list-style-type: none"> • preventing raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses; • establishing a spill prevention and countermeasure plan before project construction that includes strict onsite handling rules to keep construction and maintenance materials out of drainages and waterways; • cleaning up all spills immediately 	<p>During construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>according to the spill prevention and countermeasure plan and notifying the California Department of Fish and Game and the National Oceanic and Atmospheric Administration Fisheries Service immediately of any spills and cleanup activities;</p> <ul style="list-style-type: none"> • providing areas located outside the ordinary high-water mark for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants; • removing vehicles from the normal high-water area of the waterway before refueling and lubricating; and • avoiding operation of equipment in flowing water. <p>Implementation of measures to avoid or minimize the effects of increased sediment input will also avoid and minimize increased input of pollutants associated with sediments (e.g., mercury) and the potential for subsequent effects on steelhead.</p>					
<p>Mitigation Measure BIO-19: Implement Stream Diversion Restrictions.</p> <p>Flow will be diverted in San Luis Obispo Creek and Prefumo Creek during bridge widening and other in-channel work. Flow will be diverted from June 1 to October 1. Any activity that temporarily diverts flow from any segment of the creeks will trigger implementation of the following constraints.</p> <ul style="list-style-type: none"> • Before flow is diverted, cofferdams will be placed so that flow to river segments downstream from the construction site will not be interrupted. • Subject to the sufficiency of ambient conditions, adequate fish passage conditions will be sustained by maintaining contiguous flows, avoiding the creation of vertical drops in excess of 6 inches, and maintaining suitable water velocities (i.e. 8 feet per second or less) and water depths (minimum of 1 foot). 	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-20: Avoid Stranding Impacts to Fish in Dewatered Areas.</p> <p>A qualified fish biologist will be onsite during the installation of cofferdams and during the cofferdam dewatering process to capture and move trapped salmonids and other fish. The fish will be relocated to the nearest suitable habitat unaffected by construction activities and upstream of the work area. Within temporarily drained stream channel areas, salvage activities shall be initiated before or at the same time as stream area draining and completed within a timeframe necessary to avoid injury and mortality of steelhead. Protocols for the capture, handling, and release of fish will be developed in cooperation with National Oceanic and Atmospheric Administration Fisheries,</p>	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>California Department of Fish and Game, the City, and Caltrans. Fish biologists will contact National Oceanic and Atmospheric Administration Fisheries and California Department of Fish and Game immediately if any steelhead are found dead or injured.</p>					
<p>Mitigation Measure BIO-21: Avoid and Minimize Impacts to Spawning Habitat.</p> <p>The City will, to the extent practicable, avoid disturbance to any spawning gravel beds located in the study area on San Luis Obispo Creek. If disturbance to the gravel cannot be avoided, the gravel will be removed temporarily and replaced to pre-disturbance conditions. Before returning gravels to the channel following construction, gravels will be washed to remove fines before they are placed back into the creek channel. If it becomes necessary to augment disturbed gravels with gravel from outside sources, only washed river gravel (to remove fines) appropriately sized for adult steelhead, (0.5 inch to 3.0 inches) will be used.</p>	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-22: Minimize Noise Impacts from Pile Driving.</p> <p>Potential injury and mortality associated with pile driving will be avoided or minimized by the following measures:</p> <ul style="list-style-type: none"> • In-channel construction will be limited to the summer low-flow period (June 1 to October 1) when stream flow in the creek is typically low, thereby minimizing the potential for sound pressure waves to travel long distances. • Restriction of pile driving activities to the low-flow period coincides with the least likely occurrence of upstream migrating adults and downstream steelhead smolt migration. • The smallest pile driver and minimum force necessary will be used to complete the work. • Pile driving will be done within the dewatered cofferdams. 	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure BIO-23: Minimize Loss of Steelhead Spawning and Rearing Habitat as a Result of Permanent Changes to Stream Hydraulics, Sediment Processes, and Channel Bottom Stabilization.</p> <p>The potential for loss of steelhead spawning and rearing habitat will be avoided or minimized by the following measures:</p> <ul style="list-style-type: none"> • the amount of riparian vegetation removal, including vegetation providing shaded riverine aquatic cover, substrate, and in-stream woody material necessary to ensure suitable fish passage conditions will be minimized, and existing spawning and rearing habitat will be maintained; • disturbance to the stream width, depth, velocity, and slope will be minimized and modified or disturbed portions of the 	During construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>stream, banks, and riparian areas will be restored as nearly as possible to their pre-project contours (i.e., elevations, profile, and gradient);</p> <ul style="list-style-type: none"> environmentally sensitive areas will be fenced to prevent encroachment of equipment and personnel into riparian areas, stream channels, and banks to the maximum extent practicable (see Measure BIO-1); disturbance and removal of aquatic vegetation will be avoided to the extent practicable; temporary fills, coffer dams, and other in-channel structures would be removed in a manner that minimizes disturbance to downstream flows and water quality; restores pre-existing streambed gradient and contours ; and replaces, as necessary, appropriately sized spawning gravel (0.5 inch-3 inches). 					
<p>Mitigation Measure BIO-24: Avoid Substantial Increases in Water Temperature as a Result of Lost Shade and Disturbance to Streambed and Banks.</p> <p>The potential for substantial increases in water temperature will be avoided or minimized by the following measures:</p> <ul style="list-style-type: none"> exclusionary fencing will be used to minimize the potential for the accidental removal of more vegetation than is necessary to complete construction (see Measure BIO-1); soil compaction will be minimized by using equipment that can reach over sensitive areas, thereby ensuring suitable soil conditions for mitigation plantings; disturbance to the stream width, depth, velocity, and slope will be minimized and modified or disturbed portions of the stream, banks, and riparian areas will be restored as nearly as possible to their pre-project contours (i.e., elevations, profile, and gradient) 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<input type="checkbox"/>	<p>_____</p>
<p>Mitigation Measure BIO-25: Avoid the Introduction and Spread of Invasive Plants</p> <p>The City's contractor shall be responsible for avoiding the introduction of new invasive plants and the spread of invasive plants previously documented in the study area. Accordingly, the following measures shall be implemented during construction:</p> <ul style="list-style-type: none"> Construction supervisors and managers will be educated about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations. Surface disturbance within the construction work area will be minimized to the greatest extent possible. 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<input type="checkbox"/>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<ul style="list-style-type: none"> • All disturbed areas will be seeded with certified weed-free native mixes and mulched with certified weed-free mulch (rice straw may be used in upland areas). • Native, non-invasive species will be used in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing. • To the maximum extent practicable invasive species rated A or B will be eradicated from the areas disturbed by construction activities. 					
<p>Mitigation Measure BIO-26: Follow Programmatic Biological Opinion for Projects Funded or Approved under the Federal Aid Program [HAD-CA, File #: Section 7 within the Ventura U.S. Fish and Wildlife Service (US Fish and Wildlife Service), Document 3: S38192] (1-8-02-F-68).</p> <p>Avoidance and minimization measures included within the Programmatic Biological Opinion (2003) will be incorporated into the project and are listed below:</p> <ol style="list-style-type: none"> 1. Only Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frog. 2. Ground disturbance will not begin until written approval is received from the US Fish and Wildlife Service that the biologist is qualified to conduct the work. 3. Only US Fish and Wildlife Service-approved biologists will survey aquatic and riparian areas at the project site 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work activities begin. The US Fish and Wildlife Service-approved biologist will relocate the California red-legged frog the shortest distance possible to a location that contains suitable habitat and where it will not be affected by the activities associated with the proposed project. The US Fish and Wildlife Service-approved biologist will maintain detailed records of any individuals that are moved (e.g. size, coloration, any distinguishing features, photographs) to assist him or her in determining whether relocated animals are returning to the 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;">_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>original point of capture.</p> <p>4. Before any activities begin on the project, a US Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measure that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any question.</p> <p>5. A US Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs are removed, workers have been instructed, and disturbance of habitat is completed. After this time, the state or local sponsoring agency will designate a person to monitor onsite compliance with all minimization measures. The US Fish and Wildlife Service-approved biologist will ensure that this monitor receives the training outlined in Measure 4 and in the identification of California red-legged frog. If the monitor or the approved biologist recommends that work be stopped because California red-legged frog have would be affected to a degree that exceeds the levels anticipated by US Fish and Wildlife Service during review of the proposed action, they will notify the resident engineer (the engineer directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the effect immediately or required that all action that is causing these effects be halted. If work is stopped, the US Fish and Wildlife Service will be notified as soon as is reasonably possible.</p> <p>5. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris</p>					

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>will be removed from work areas.</p> <p>6. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and preferably, not in a location from where a spill would drain directly toward aquatic habitat. The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the City will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.</p> <p>7. Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plant will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless US Fish and Wildlife Service and the City determine that that it is not feasible or practicable. (For example, an area disturbed by construction that would be used for future activities need not be revegetated).</p> <p>8. Habitat contours will be returned to their original configuration at the end of project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless US Fish and Wildlife Service and the City determine that it is not feasible or modification of original contours would benefit the California red-legged frog.</p> <p>9. The number of access routes, size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Environmentally Sensitive Areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and</p>					

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>construction areas outside of wetlands and riparian areas to the maximum extent practicable.</p> <p>10. The City will attempt to schedule work activities for times of the year when impacts to California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain the California red-legged frog through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and informal, consultation between the City and US Fish and Wildlife Service during project planning should be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.</p> <p>11. To control sedimentation during and after project implementation, the City will implement best management practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective, the City will attempt to remedy the situation immediately, in consultation with the Service. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. The methods and materials used in any dewatering will be determined by the City in consultation with US Fish and Wildlife Service on site-specific basis. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed will be minimized to the maximum extent possible; any</p>					

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>imported material will be removed from the stream bed upon completion of the project.</p> <p>12. Unless approved by US Fish and Wildlife Service, water will not be impounded in a manner that may attract the California red-legged frog.</p> <p>13. A US Fish and Wildlife Service-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The US Fish and Wildlife Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.</p> <p>14. To ensure that diseases are not conveyed between work sites by the US Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.</p>					
<p>Mitigation Measure BIO-27: Follow Terms and Conditions in National Oceanic and Atmospheric Administration’s National Marine Fisheries Service’s (NMFS) Biological Opinion (File #SWR/2008/04273)</p> <p>Follow all measures and Provisions set forth in the Biological Opinion issued by the National Oceanic and Atmospheric Administration:</p> <ol style="list-style-type: none"> 1. Develop and implement a monitoring plan to ensure the proposed action does not result in reduced fish-passage opportunities within the area affected by the proposed action. 2. Submit future design drawings and findings from project analyses for NMFS’ review and agreement to ensure fish passage criteria are met within the area affected by the proposed action. 3. Employ a fisheries biologist for the purposes of monitoring the affected area, and for removing and relocating steelhead from the affected area. 4. Report to NMFS activities associated with minimizing and monitoring proposed action effects on steelhead. 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>Mitigation Measure CR-1: Stop Work if Buried Cultural Resources Are Inadvertently Discovered.</p> <p>If 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.</p>	During construction, if resources are discovered	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure CR-2: Comply with State Laws Relating to Native American Remains.</p> <p>If 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, which will then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Valerie Levulett, District 5 Heritage Resources Coordinator, so that she may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.</p>	During construction, if human remains are discovered	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure CR-3: Comply with City Ordinances if Buried Cultural Resources Are Inadvertently Discovered.</p> <p>In accordance with the City of San Luis Obispo Resolution 8459 (1995 series) section 4.60 Archaeological Discoveries During Construction, if during the course of a project, archaeological materials are identified by an archaeological monitor, City staff, the project sponsor or his/her representative or employee, all construction activities that may disrupt those materials shall cease. The District 5 Heritage Resources Coordinator, Valerie Levulett, shall be notified immediately of the discovery of archaeological materials.</p>	During construction, if resources are discovered	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Mitigation Measure Paleo-1: Stop Work if Buried Paleontological Materials Are Inadvertently Discovered.</p> <p>If paleontological materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified paleontologist can assess the nature and significance of the find.</p>	During construction, if resources are discovered	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Minimization Measure HW-1: Determine the Current Status of Remediation.</p> <p>Perform a case file review and conduct interviews with owners/managers of the ARCO gas station, former Texaco gas station site, and Perry Ford car dealership to determine the current status of remediation at these sites. The proposed project alignment will not require acquisition of any of these properties; therefore, verification of completed remediation of these properties is not necessary.</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>Minimization Measure HW-2: Perform a Preliminary Aerially Deposited Lead (ADL) Investigation.</p> <p>In areas of exposed soil within 50 feet of the paved surfaces of US 101, conduct a survey to determine the possible presence and levels of aerially deposited lead from motor vehicle exhaust emissions. Ensure that all necessary soil management and disposal procedures are followed and disposed of at an appropriate Class I facility.</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo and Caltrans	<input type="checkbox"/>	_____
<p>Minimization Measure HW-3: Conduct Lead-Based Paint Survey.</p> <p>Use a certified consultant to ascertain the absence or presence of lead based paint prior to modifications/demolition of the existing Los Osos Valley Road bridges within the study area. The presence of lead shall require abatement and/or special construction worker health and safety procedures during demolition activities. Lead-based paint removed from site shall be disposed of at an approved facility.</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo and Caltrans	<input type="checkbox"/>	_____
<p>Minimization Measure HW-4: Test Yellow Stripe and Pavement Marking Materials.</p> <p>Conduct tests and follow removal requirements for yellow striping and pavement marking materials in accordance with Caltrans Construction Program Procedure Bulletin 99-2 (CPB 99-2).</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo and Caltrans	<input type="checkbox"/>	_____
<p>Minimization Measure HW-5: Conduct Asbestos Survey.</p> <p>Use a certified consultant to ascertain the absence or presence of asbestos prior to any modification to or demolition of the Los Osos Valley Road bridges. The presence of asbestos shall require abatement and/or special construction worker health and safety procedures during demolition activities. Asbestos removed from the site shall be disposed of at an approved facility.</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo and Caltrans	<input type="checkbox"/>	_____
<p>Minimization Measure HW-6: Conduct Naturally Occurring Asbestos Survey.</p> <p>Use a certified consultant to ascertain the absence or presence of naturally occurring asbestos (NOA) in the existing road base materials in areas where the road base materials will be removed or disturbed. The presence of asbestos shall require abatement and/or special construction worker health and safety procedures during demolition activities. Asbestos removed from the site shall be disposed of at an approved facility.</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo and Caltrans	<input type="checkbox"/>	_____
<p>Minimization Measure HW-7: Test Leaking Transformers for PCBs if Disturbed.</p> <p>Any leaking transformers observed during the course of the project should be considered a potential polychlorinated biphenyl (PCB) hazard unless tested and should be handled accordingly.</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo	<input type="checkbox"/>	_____
<p>Minimization Measure HW-8: Follow Caltrans Standards if Unknown Hazards are Inadvertently Discovered.</p> <p>For any previously unknown hazardous waste/material encountered during construction,</p>	Prior to construction.	City of San Luis Obispo	City of San Luis Obispo and Caltrans	<input type="checkbox"/>	_____

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>the contractor shall follow Unknown Hazards Procedures for Construction as outlined by Caltrans in the current Construction Manual.</p>					
<p>Minimization Measure WQ-1: Implement Erosion-Control Measures During Project Construction.</p> <p>To minimize the mobilization of sediment to adjacent water bodies, the following erosion- and sediment-control measures would be included in the Storm Water Pollution Prevention Plan to be included in the construction specifications, based on standard City measures and standard dust-reduction measures.</p> <p>Cover or apply nontoxic soil stabilizers to inactive construction areas that could contribute sediment to waterways within 48 hours of predicted rainfall event.</p> <p>Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.</p> <p>Contain soil and filter runoff from disturbed areas by using berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.</p> <p>Prohibit the placement of earth or organic material where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water.</p> <p>Prohibit the following types of materials from being rinsed or washed into streets, shoulder areas, or gutters: concrete, solvents and adhesives, fuels, dirt, gasoline, asphalt, and concrete saw slurry.</p> <p>Conduct dewatering activities according to the provisions of the Storm Water Pollution Prevention Plan. Prohibit placement of dewatered materials in local water bodies or in storm drains leading to such bodies without implementation of proper construction water quality control measures.</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Minimization Measure WQ-2: Implement Measures to Control Turbidity.</p> <p>If water is flowing in the streams during construction, the City of San Luis Obispo or its contractor(s) will control the release of sediment to the creeks during construction by installing a sheet-pile cofferdam or other method that will control turbidity to the specifications given below. This will ensure that activities result in minimal increase in turbidity or suspended solids in the channel.</p> <p>During installation of the cofferdam, the City or its contractor will monitor turbidity and suspended solids during the installation of the cofferdam, construction, and removal of the cofferdam. If levels exceed the Central Coast Regional Water Quality Control Board Basin Plan standards, the city or its contractor will stop work until levels are within Basin Plan limits. Basin plan standards for turbidity state that project activities will not cause an increase in</p>	<p>During construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>ambient river turbidity by more than 20% above background turbidity where the natural turbidity is between 0 and 50 JTU (Jackson Turbidity Unit), an increase by more than 10% where natural turbidity is over 100 JTU (Central Coast Regional Water Quality Control Board 1998). During the first week of construction, turbidity measurements will be taken upstream of the project construction area and at a distance of 200 feet downstream of the project construction area (or far enough downstream where applicable mixing has occurred) to provide a baseline comparison conditions. During the construction period, measurements will be taken two times per day and will be taken where flow regime is applicable to the relative flow regime around the construction zone, so the sample is representative of the water quality affected by construction. If turbidity limits are exceeded above the applicable turbidity level, operations will stop and the Regional Water Quality Control Board will be notified. Investigation of the cause of the significant turbidity increase will be conducted and corrections made in construction operations where applicable. This minimization may be modified in coordination with the Regional Water Quality Control Board and/or other regulatory entities, provided that in no case will turbidity levels be allowed to increase as a result of the project such that beneficial uses of the streams become substantially degraded or impaired.</p>					
<p>Minimization Measure WQ-3: Implement a Spill Prevention and Control Program.</p> <p>The City of San Luis Obispo and/or its contractor(s) will develop and implement a spill prevention and control program to minimize the potential for and effects from spills of hazardous, toxic, or petroleum substances during project construction. The federal reportable spill quantity for petroleum products, as defined the Environmental Protection Agency (40 Code of Federal Regulations 110) is any oil spill that (1) violates applicable water quality standards, (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline, or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines. If a spill is reportable, the contractor's superintendent will notify the relevant San Luis Obispo County officials, which have spill response and clean-up ordinances to govern emergency spill response. A written description of reportable releases must be submitted to the Central Coast Regional Water Quality Control Board. This submittal must include a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases must be documented on a spill report form. If an appreciable spill occurs and results determine that project activities have adversely affected</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>groundwater quality, a detailed analysis will be performed by a Registered Environmental Assessor to identify the likely cause of contamination. This analysis will conform to American Society for Testing and Materials standards, and will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, the City and/or its contractors will select and implement measures to control contamination, with a performance standard that groundwater quality must be returned to baseline conditions. These measures will be subject to City approval.</p>					
<p>Minimization Measure WQ-4: Where Possible Use San Luis Obispo Creek Waterway Management Plan Design Criteria.</p> <p>Although the project is a transportation project and Best Management Practices must meet Caltrans standards, all treatment Best Management Practices should also meet local standards, established in the San Luis Obispo Creek Waterway Management Plan, when these local specifications do not conflict with Caltrans guidance.</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Mitigation Measure WQ-5: Permanent Treatment Best Management Practices.</p> <p>Appropriate permanent treatment Best Management Practices will be implemented during final design. Proposed Best Management Practices may include Infiltration or detention devices, media filters and multi-chambered treatment trains.</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Minimization Measure NOI-1: Implement Caltrans Standard Provision Section 5.1.</p> <p>The provisions are as follows:</p> <p>“Sound control shall conform to the provisions in Section 7-1.01I (Sound Control Requirements) of the Standard Specifications and these special provisions. The noise level from the Contractor’s operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA at a distance of 15 m (50 ft). This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level. The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixer or transient equipment that may or may not be owned by the contractor. The use of loud signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel. Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.”</p>	<p>During construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>Minimization Measure NOI-2: Provide Contact Information for Noise Complaints.</p> <p>A notice of the duration of potential impacts from noise, dust, and glare from the proposed construction will be placed in local news media by the project sponsor two weeks in advance of the beginning of construction. A number will be made available to the public for calls concerning noise impacts or the proposed schedule. If noise complaints are received, temporary barriers of plywood on safety shape can be effective at reducing noise impacts when the line of sight between the source and receiver can be interrupted.</p>	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Minimization Measure NOI-3: Limit Night Work to Extent Feasible.</p> <p>Night construction should be avoided. If it cannot be avoided, the contractor shall conduct the noisiest operations nearest the residents as early in the evening as possible.</p>	<p>During construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>
<p>Minimization Measure TRA-1: Prepare and Implement a Traffic Control Plan.</p> <p>In accordance with the City of San Luis Obispo policy on street closures and traffic diversion for arterial and collector roadways, the construction contractor will prepare a traffic control plan per the most current version of the Manual on Uniform Traffic Control Devices (MUTCD) and the California Supplement to be approved by the City prior to construction.</p> <p>The traffic control plan will include the following:</p> <ul style="list-style-type: none"> • A street layout that shows the location of construction activity and surrounding streets to be used as detour routes, including “special signage.” • The tentative start date and construction duration for each phase of construction. • The name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction. • Written approval to implement traffic control from other agencies, as needed. <p>Additionally, the traffic control plan will include the following stipulations.</p> <ul style="list-style-type: none"> • Provide access for emergency vehicles at all times. • During lane closures, notify the City of San Luis Obispo Fire and Police Departments of construction locations to ensure that alternative evacuation and emergency routes are designed to maintain response times during construction periods, if necessary. • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified. • Limit construction-related vehicle and 	<p>Prior to and during construction.</p>	<p>City of San Luis Obispo</p>	<p>City of San Luis Obispo</p>	<p><input type="checkbox"/></p>	<p>_____</p>

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Completed	Initials
<p>equipment parking to the staging area. Or provide adequate off-street parking or use designated public parking areas for construction-related vehicles not in use throughout the construction period.</p> <ul style="list-style-type: none"> • Maintain pedestrian and bicycle access and circulation during project construction, where safe to do so. If construction encroaches on a sidewalk, provide a safe detour for pedestrians at the nearest painted crosswalk. If construction encroaches on a bike lane, post warning signs that indicate bicycles and vehicles are sharing the roadway. • Provide traffic controls to warn motorists of construction activity. Such controls may include flag persons wearing OSHA-approved vests and using the “Stop/Slow” paddle. • Post standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area. 					

Appendix D. Public Comments and Responses

Comment 1 State Clearinghouse and Planning Unit (Received via letter)



ARNOLD SCHWARZENEGGER
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

July 18, 2008

Michael H. Thomas
California Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, CA 93401

Subject: Los Osos Valley Road/US 101 Interchange Improvements Project
SCH#: 2008061098

Dear Michael H. Thomas:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 17, 2008, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

1.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report
State Clearinghouse Data Base**

SCH# 2008061098
Project Title Los Osos Valley Road/US 101 Interchange Improvements Project
Lead Agency Caltrans #5

Type MND Mitigated Negative Declaration
Description The California Department of Transportation (Caltrans) proposes to improve the Los Osos Valley Road/US 101 Interchange in the City and County of San Luis Obispo. The project would correct operational deficiencies and improve safety. The project would widen the Los Osos Valley Road overcrossing and widen the adjacent bridge crossing San Luis Obispo Creek. The project would also potentially relocate and reconfigure the freeway ramps, depending on the alternative chosen.

Lead Agency Contact

Name Michael H. Thomas
Agency California Department of Transportation, District 5
Phone (805) 549-3023 **Fax**
email
Address 50 Higuera Street
City San Luis Obispo **State** CA **Zip** 93401

Project Location

County San Luis Obispo
City San Luis Obispo
Region
Lat / Long
Cross Streets Los Osos Valley Road and US 101
Parcel No. 053-161-014; 059-141-013; 053-151-016
Township 31S **Range** 12E **Section** 10 **Base**

Proximity to:

Highways US 101
Airports
Railways
Waterways Prefumo, San Luis Obispo, Froom Creek
Schools Pacific Beach HS, Montessori Childrens School, Laguna MS
Land Use Land uses in the area include vacant, residential, commercial, light industrial, and agricultural activity.
 General Plan designations include: Parkway Arterial
 Zoning designations include: Conservation - Open Space, Prime Farmland (C/OS), Tourist - Commercial (C-T)

Project Issues Aesthetic/Visual; Air Quality; Biological Resources; Noise; Soil Erosion/Compaction/Grading; Traffic/Circulation; Toxic/Hazardous; Vegetation; Water Quality; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 4; Cal Fire; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services; California Highway Patrol; Air Resources Board, Transportation Projects; State Water Resources Control Board, Clean Water Program; Regional Water Quality Control Board, Region 3; Native American Heritage Commission

Date Received 06/18/2008 **Start of Review** 06/18/2008 **End of Review** 07/17/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

Response:

1. Caltrans appreciates the State Clearinghouse letter regarding comment from the Native American Heritage Commission. This comment is addressed below.

Comment 2

Native American Heritage Commission (Received via letter)

STATE OF CALIFORNIA

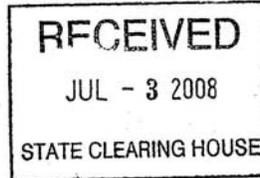
Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax



June 23, 2008



clear
7-17-08
e

Michael H. Thomas, Caltrans Environmental Planner
State of California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

RE: SCH# 2008061098 Los Osos Road/US 101 Interchange Improvements Project; San Luis Obispo County.

Dear Mr. Thomas:

The Native American Heritage Commission has reviewed the Notice of Completion (NOC) regarding the above referenced project. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

1. ✓ Contact the appropriate Information Center for a record search to determine:
 - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
 - If any known cultural resources have already been recorded on or adjacent to the APE.
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - If a survey is required to determine whether previously unrecorded cultural resources are present.
2. ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
 - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
3. ✓ Contact the Native American Heritage Commission for:
 - A Sacred Lands File Check. **Sacred Lands File check completed, no sites indicated**
 - A list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
 - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
 - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
 - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

Response:

1. Please see the Historic Property Survey Report (available online at <http://www.slocity.org/publicworks/lovric.asp>), which covers the concerns listed.
2. All appropriate Native American contacts have been made.
3. Mitigation measures are in place to properly handle any accidental discovery during construction. The probability for cultural resources is low in the area of potential effects.

Comment 3

Chuck and Susan Atlee (Received via email)

1. Friends:
Because we will not be able to attend the hearing Tuesday, 7/8, please note in your records that we of the "Tortoises" group of the SLO Bike Club strenuously advocate for a safe connection of the Bob Jones Bike and Hiking Trail from the Prado Road extension to the proposed City to Sea trail.
We hope you can put into the preliminary and final plans for the safe and practical connection via the Los Osos Valley Road interchange of these trail pieces.
Since we are retired but active, we are urging you to make plans to complete the trail before we are too old to hike or bicycle. It has been our dream since 1969!!!!
Thank you for your efforts.
Chuck and Susan Atlee, [REDACTED]

Response:

1. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 4

John Olejczak (Received via email)

- I.
- > TO:
 - > RE: Bob Jones bike path
 - > It is important to me that all intersections of the Bob Jones bike
 - > path be convenient to the bicycle commuter. I use the bicycle as a
 - > form of transportation not recreation. I will use other routes if
 - > intersections are awkward for me to use while dealing with auto
 - > traffic aboard by bicycle.
 - > With the big upsweep in bicycle use during our escalating energy
 - > expenses, I recommend planners design our roads to be practical for
 - > bicycle transportation. We have, in the past given the lion share of
 - > concessions to the personal automobile.
 - >
 - > J. Olejczak,
 - > San Luis Obispo, CA.

Response:

1. A separate local project—*independent of the Los Osos Valley Road Interchange Project*—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 5

Scott Steinmaus (Received via email)

Dear Mr Cesena,
I have lived here in San Luis Obispo for ten years. I lived in Riverside, California while doing my post-doctoral research before accepting a position at Cal Poly. I had not realized how lucky I was to be able to bike commute while a PhD student at UC Davis until moving to Riverside.
That is, until I moved to San Luis Obispo. This city is the most dangerous city in which I have EVER ridden. Having raced bicycles with US Cycling Federation, I am well aware of the dangers while riding. Yet, I have never been more frightened in my life

1. than by close calls in San Luis Obispo including those at the intersections involving Los Osos Valley road near and along Higuera. It is imperative to the livability and charm of this county and city that a continuous class I bike route be completed. Currently, our best hope is the Bob Jones Trail with a class I connection between class I bicycle trails from the north side of Los Osos Valley Road to the proposed trail class I on the South side of Los Osos Valley Road (LOVR). Having to cross a four lane road as chaotic and dangerous as Los Osos Valley Road on bicycle would diminish the usability and safety of the bike trail immensely. A class I bicycle trail attached to the north side of the bridge widening on LOVR would provide a link to a tunnel under-crossing in the eastern most culvert. This would provide continuity of the class I City to Sea bike trail during non flood events (>99% of the time). The Signalized intersection would be utilized during the severe storm events (<1% of time). A class I bridge across San Luis Creek should be included in the widening of the bridge on LOVR. Please have the foresight to make this town safe and usable for those who choose to conserve gas by riding a bicycle for reasons of environmental legacy and personal fitness of mind and body. I espouse a lifestyle independent of the automobile with my students and having examples of a city doing its part to make that lifestyle safe and sustainable bolsters my case. Let's make that example San Luis Obispo rather than Davis or even Riverside.

Sincerely,

Scott Steinmaus, PhD
Professor
Biological Sciences

Response:

1. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 6

Barry Lewis (Received via email)

1. As a non-driver, and a regular commuter by bicycle to the Five-Cities area of San Luis Obispo County, I urge you to include a separate Class I bike trail that connects the North and South side of the Los Osos Valley Road / Hwy 101 Interchange. We need more Class I bike trails, and as evident by the increased use of the Bob Jones Avila portion of the City to Sea trail, people are using them.

Respectfully submitted,

Barry Lewis
San Luis Obispo

Response:

1. A separate local project—*independent of the Los Osos Valley Road Interchange Project*—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 7

Philip Teresi (Received via email)

Comments on the intersection of Bob Jones Bike trail, Los Osos Valley Road and South Higuera:

1. I am a bicycle commuter that rides daily from Pismo to San Luis Obispo and have had many close calls with cars at the intersection of Los Osos Valley road and Higuera while riding Southbound. The car drivers do not seem to understand why I am riding out in the road between the through lane and the right turn lane. The completion of the Bob Jones bike trail will increase bicycle traffic in this intersection. Lanes will need to be clearly marked and improved.

One solution is to clearly mark the pavement with a bike lane in between the turn lane and the thru lane. Also, a sign showing the bike lane in between the two south bound lanes would help the motorist understand what the bicyclist are doing. This is a dangerous intersection for bicyclist and needs proper lane marking and signs to help clarify the traffic flow.

I am looking forward to the completion of the Bob Jones Bike trail and a safer commute. If a separate under or overpass for bicycles is possible it would be helpful.

Sincerely,

Philip Teresi
bicycle commuter
[REDACTED]

Response:

1. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

The City is currently reviewing the southbound approach of Higuera Street at Los Osos Valley Road to determine if striping changes can be made to create a southbound bike slot to assist with the vehicle conflicts that you have described. This review and possible change would likely occur before the interchange project construction starts.

Comment 8

Nancy Steinmaus (Received via email)

Attention: Mr. Chuck Cesena, 50 Higuera Street, San Luis Obispo, CA 93410.

Chuck.Cesena@dot.ca.gov

Dear Mr Cesena.

1. There needs to be a connection between class I bicycle trails from the north side of Los Osos Valley Road to the proposed trail class I on the South side of Los Osos Valley Road (LOVR). The Bob Jones City to Sea Trail is a major asset to the City of San Luis Obispo and this crossing of a four lane road is a flaw in the plan. The signalized crossing of LOVR is not adequate for children, inexperienced riders, walkers, runners, dog lovers...

A class I bicycle trail attached to the north side of the bridge widening on LOVR would provide a link to a tunnel under-crossing in the eastern most culvert. This would provide continuity of the class I City to Sea bike trail during non flood events. The Signalized intersection would be utilized during severe storm events. As fuel prices increase this is an opportunity to create alternate safe routes of transportation. Further, the dismal OBESITY rate in CHILDREN and adults warrants recreational and transportation options that enhance our precious SLO! I can attest that trying to ride bikes with a 4 year old and a 7 yr old in SLO is extremely challenging because it is dangerous!

A class I bridge across San Luis Creek should be included in the widening of the bridge on LOVR.

Earnestly,
Nancy Steinmaus
(cyclist, runner, teacher, mom...)

Response:

1. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 9

Mary Andrews (Received via email)

Dear Mr. Cesena,

1. I recently reviewed the proposed alternatives for the Los Osos Valley Road/ 101 interchange project. I was very disturbed to note that none of the alternatives included provisions for a Class 1 bike path as part of the creek or 101 overpass. Please incorporate the vision of the Bob Jones City to Sea Bike Path in this project.

My children and I have ridden the new under pass on the Bob Jones Bike Path at San Luis Bay Drive in Avila and find it to be a fantastic solution for a bike path crossing a very busy road. For 300 plus days a year cyclist can cross safely via the underpass, during the few stormy days when flood conditions are present cyclist can use the overpass.

We would like to see a similar design for the Bike Path at the LOVR/ 101 interchange. A class one path adjacent to the new or expanded creek bridge that would connect the West side of the path to the East Side of the Creek with a ramp to take pedestrians/cyclists down to creek level where the easterly creek conduits could be partially converted to a bike underpass.

We would also like to see a Class One separated bike path adjacent to the new 101 overpass to connect the North leg of the Bob Jones to the main Bob Jones Bike path.

This bike path promises to be utilized by tourist, commuters and recreation cyclists and pedestrians alike. For me having to negotiate a road as busy as Los Osos Valley Road even with a signalized crossing with two kids will be a significant deterrent to my utilizing the bike path. With gas prices on the rise I would like to think that Cal Trans is doing its part to promote bicycle commuting as an viable option to cars.

Sincerely,

Mary Andrews

Please let me know you have received this email by responding with an acknowledgment.
Thanks

Response:

1. A separate local project—*independent of the Los Osos Valley Road Interchange Project*—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 10

Brad Buxton (Received via email)

1. There needs to be connectivity between class I bicycle trails from the north side of Los Osos Valley Road to the proposed trail class I on the South side of Los Osos Valley Road (LOVR). Although the City of San Luis Obispo has not constructed the Class I path on either side of LOVR, the approved bicycle transportation plan provides for class I trails on both sides. The Bob Jones City to Sea Trail is a major asset to the City of San Luis Obispo and this crossing of a four lane road is lesion in the plan. The signalized crossing of LOVR is not adequate for children or inexperienced riders. A class I bicycle trail attached to the north side of the bridge widening on LOVR would provide a link to a tunnel under-crossing in the eastern most culvert. This would provide continuity of the class I City to Sea bike trail during non flood events. The Signalized intersection would be utilized during severe storm events. As fuel prices increase this is an opportunity to create alternate safe routes of transportation. A class I bridge across San Luis Creek should be included in the widening of the bridge on LOVR.

Brad Buxton

Response:

1. A separate local project—*independent of the Los Osos Valley Road Interchange Project*—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 11

Susan Coward (Received via email)

1. Dear Mr. Cesena,
I am writing regarding plans for the Los Osos Valley Road and 101 interchange. I am concerned that I don't see what I consider adequate plans for safe transportation by bicycle. My office is in that area, and I regularly encounter and observe the high volume of traffic. I know you know the stats!

Our family is really working toward reducing our reliance on automobiles, but it is sometimes pretty difficult. My husband has commuted by bike on LOVR for over fifteen years. He regularly comes home with tales of inattentive drivers and near-misses. Our 9 year old son is a fine cyclist who has taken safe cycling classes, yet we just can't take him in that area on his bike. We still have to load up a car to go many places due to road and traffic conditions. Instead of arriving at our destination energized and enthused, we arrive kind of deflated, since we had to put three people into a car just to help the smallest one arrive safely.

I could do most of my errands on the south end of town with my bike and trailer if I felt I could get there safely. As it is, both potential routes from my home have heavy traffic and pose challenges due to busy freeway interchanges.

The City of SLO has made a great start with the Bob Jones Bike Trail. Cal Trans can assist and enhance this effort by providing Class I paths for cyclists.

I think Cal Trans has both an opportunity and an obligation to consider and address the needs and safety of ALL travelers when planning roadways. Please include Class I bike paths in the transportation plan for the LOVR/101 area. Not just for our family, but for the all families and individuals who will benefit from increasing physical fitness, reducing traffic and air pollution, and reducing fuel expenses with safe car-free travel.

Thank you.

Susan Coward

Response:

1. A separate local project—independent of the Los Osos Valley Road Interchange Project—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 12

Douglas & Elaine Highland (Received via email)

To Whom It May Concern,

1. As residents of San Luis Obispo for the past 22 years my wife and myself have seen an increasing urgency to dedicate resources towards increasing safe and usable cycling options within the county. My wife is a general manager of Velowear Team Apanel in Grover Beach and I am a tenured Faculty member of Cuesta College. We are dedicated to helping and improving life here in SLO for EVERYONE!

There needs to be connectivity between class I bicycle trails from the north side of Los Osos Valley Road to the proposed trail class I on the South side of Los Osos Valley Road (LOVR). The Bob Jones City to Sea Trail is a major asset to the City of San Luis Obispo and this crossing of a four lane road is lesion in the plan. The signalized crossing of LOVR is not adequate for children or inexperienced riders. A class I bicycle trail attached to the north side of the bridge widening on LOVR would provide a link to a tunnel under-crossing in the eastern most culvert. This would provide continuity of the class I City to Sea bike trail during non flood events. The Signalized intersection would be utilized during severe storm events. As fuel prices increase this is an opportunity to create alternate safe routes of transportation. A class I bridge across San Luis Creek should be included in the widening of the bridge on LOVR.

Thank You,
Douglas Highland
Elaine Highland

Response:

1. A separate local project—*independent of the Los Osos Valley Road Interchange Project*—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 13

Helene Finger (Received via email)

Dear Chuck,

1. I am writing to encourage the construction of an undercrossing for the Bob Jones trail at the new LOVR / 101 interchange. This project provides the most economical opportunity for the construction of a safe crossing of LOVR for this family trail. The undercrossing recently constructed on the trail in Avila Beach is a perfect example of how beautiful and well used by people of all ages this trail can be.

Thank you for considering my comments,
Helene Finger
[REDACTED]

Response:

1. A separate local project—independent of the Los Osos Valley Road Interchange Project—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 14

Adam Fukushima (Received via email and letter)



San Luis Obispo County Bicycle Coalition

PO Box 14860 • San Luis Obispo, CA 93406-4860

Adam Fukushima, Executive Director
Phone: 805-547-2055
Email: adamf@slobikelane.org

July 15, 2008

Caltrans District 5
Attn: Chuck Cesena
50 Higuera Street
San Luis Obispo, CA 93401

Dear Mr. Cesena,

Thank you for holding the public workshop on July 8 in the San Luis Obispo city council chambers regarding the Los Osos Valley Road-Hwy 101 interchange project.

- I. The San Luis Obispo County Bicycle Coalition is concerned about safe and convenient access for bicycling and walking through the interchange for users of the Bob Jones City-to-Sea Trail as well as Los Osos Valley Road (LOVR). Given the popularity of the Bob Jones trail and that many families will be using it, the intersection deserves special attention. In the popular “Best of SLO” poll of the SLO New Times, the Bob Jones trail was voted the “Best Use of Taxpayer Dollars” and the “Best Place to Ride a Bike”. In fact, our annual survey consistently shows that safe and convenient trails for bicycling is the single most important issue for our members.

We are concerned that neither alternative #3 nor #6 will provide for adequate circulation of bicycling and walking traffic through the intersection. We believe there should be a crossing of LOVR that is separated from motor traffic in the form of an undercrossing much like the example of the new facility at San Luis Bay Drive near Avila Beach. The undercrossing should be designed so that it will be useful even during the rainy season. If that is not possible, then there should also be access across LOVR. However, any at-grade crossing should strongly consider the safety of families, who would be crossing multiple lanes of traffic to reach the forthcoming new section of the Bob Jones trail on the south side of the intersection. As both alternatives--look now with five or more lanes of traffic in the plans--we are concerned that families riding across the intersection will not be seen by motorists.

The San Luis Obispo County Bicycle Coalition is a 501(c)(3) nonprofit organization working to transform SLO County into a safer and more livable community by promoting bicycling and walking for everyday transportation and recreation. For more information, visit www.slobikelane.org.

Safety and convenience is also a concern for bicycling and walking on Los Osos Valley Road. The new interchange should have sufficiently wide bike lanes and sidewalks so that all users of the road (including the disabled) are accommodated.

Thank you for the opportunity to voice our concerns on this project. We would be pleased to work with Caltrans and the City of San Luis Obispo in finding solutions as the project moves forward.

Best regards,



Adam Fukushima, *Executive Director*
San Luis Obispo County Bicycle Coalition

Response:

1. A separate local project—independent of the Los Osos Valley Road Interchange Project—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The design of any at-grade crossing of Los Osos Valley Road by the Bob Jones City-to-Sea Bike Trail users would be done meeting appropriate and safe design guidelines for visibility and signal operations.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

All pedestrian and bicycle facilities included as a part of the proposed project will be built according to Americans with Disabilities Act standards.

Comment 15

Nancy Reppert (Received via email)

Dear Chuck:

1. When designing the extension to Bob Jones Bike Trail and roads on Los Osos Valley Rd., please keep in mind the plethora of bicycles that commute on these roads. I am still astonished that when Home Depot was built, no BICYCLE detectors were installed at the light crossings. This results in getting off the bicycle, walking to the pedestrian light monitoring devise, pushing that and getting back on the bike to wait for the light to change.
2. Motorists don't have to get out of their cars to push buttons to get across the light, cyclists should not have to either. We have the same rights as motorists in the State of California but our constantly denied our rights. WE ARE TIRED OF BEING UNLAWFULLY DISCRIMINATED AGAINST. We shouldn't have to keep ever vigilant on every new street and light that goes up, that is your job. Yes, there are bicyclists out there. Open your eyes. It's not all about the car. Thank you. Nancy Reppert

Response:

1. The City uses a combination of in-ground inductive loops as well as video detection to detect bicycles for signal operations. The locations that you mention have detectors in place to detect bicycle traffic for signal timing. Please contact the Public Works Department at (805) 781-7200 if you would like more specific information on how to use these locations without having to use the pedestrian detection equipment.
2. A separate local project—independent of the Los Osos Valley Road Interchange Project—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 16

Matt and Rita Colonell (Received via comment card)



PUBLIC HEARING

Los Osos Valley Road & US-101 Interchange Improvement Project In The City of San Luis Obispo

Comment Card – July 8th 2008

Name: Matt Colonell

Address (optional): [Redacted]

Telephone (Optional): [Redacted]

Affiliation: [Redacted] Email Address (Optional): [Redacted]

1.

Comment: We would like to see continuity of the Bob Jones Bike Path maintained with a good bicycle crossing of LSVR - grade separated way to be best or if at grade then a special bike signal would be appreciated. Thanks!

Do you want to be added to the project contact list? [X] YES [] NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. A separate local project—independent of the Los Osos Valley Road Interchange Project—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 17

Kathleen Cohan (Received via comment card)



PUBLIC HEARING

**Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo**

Comment Card – July 8th 2008

Name: Kathleen Cohan Address (optional): _____

Telephone (Optional): _____

Affiliation: Former resident of V Park #1 Email Address (Optional): _____

1. Comment: Will Stop Sign @ VJI & VVI be a four way?

2. How will bike lane from city to sea cross LOVR?

Do you want to be added to the project contact list?

YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. A four-way stop is not currently included in designs for Los Verdes Park I or II. The City is investigating alternatives to the driveway locations and would continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually reviews the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision reviews and observations.
2. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 18

Michael McGuire (Received via comment card)



PUBLIC HEARING

**Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo**

Comment Card – July 8th 2008

Name: MIKE MCGUIRE Address (optional): [REDACTED]
 Telephone (Optional): [REDACTED] [REDACTED]
 Affiliation: CITY OF SLO PW Email Address (Optional): [REDACTED]

1. Comment: THE CITY IS STARTING THE INITIAL DESIGN PHASE FOR A CONNECTION FOR THE EXISTING BOB JONES BIKE TRAIL TO LOVR. OUR PRELIMINARY DESIGN PLAN IS TO CONTINUE THE BIKE TRAIL WITH SOME ENVOACHMENT INTO HWY. 101 AND TYING INTO THE EXISTING SERVICE ROAD. ALTERNATIVE SIX, WITH ITS NORTHBOUND ONRAMP, WOULD PRECLUDE CONTINUING THE TRAIL IN OUR PROPOSED LOCATION, AND REQUIRE INSTALLATION OF A BRIDGE INTO RIPARIAN HABITAT.
- Do you want to be added to the project contact list? YES NO
- Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

Alternative 6 does not preclude the connection of Bob Jones City-to-Sea Bike Trail to Los Osos Valley Road. However, until the City completes its initial design and installation of this connection, it is not known at this time if Alternative 6 would require that the initial City project be relocated or another bridge be built across San Luis Obispo Creek.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

Based on public comments received, the environmental impacts associated with Alternative 6, input from stakeholders and the Caltrans project development team, and a comparison of the benefits and impacts of the alternatives, Caltrans has selected Alternative 3 as the preferred alternative. Please refer to Section 1.3 of the environmental document for further discussion of selection of a preferred Alternative.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 19

Cheryl Lenhardt (Received via comment card)



PUBLIC HEARING

**Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo**

Comment Card – July 8th 2008

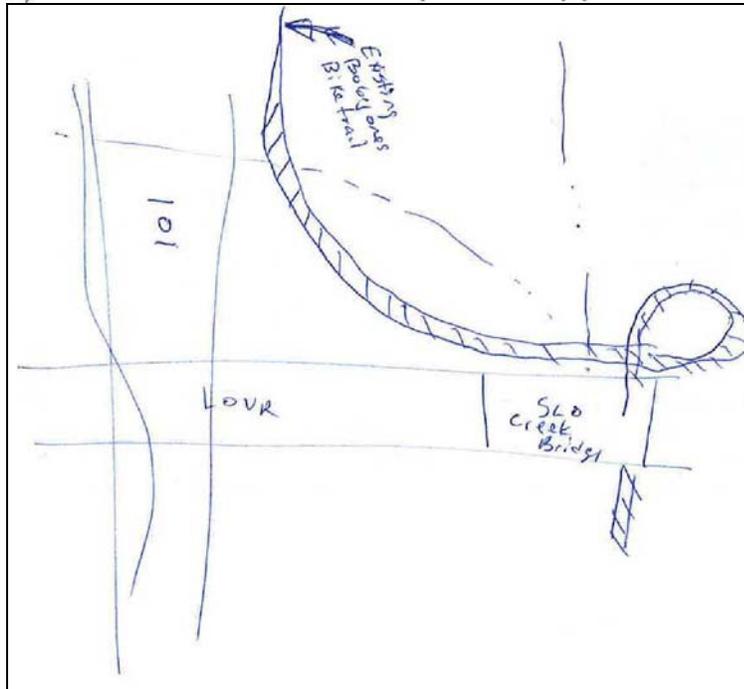
Name: Cheryl Lenhardt Address (optional): [REDACTED]
 Telephone (Optional): _____
 Affiliation: _____ Email Address (Optional): [REDACTED]

- Comment: To allow cyclists to avoid crossing LOVR, can the SLO creek bridge (LOVR) widening include a catelievered section on the north side, separated from LOVR traffic? Cyclist could cross SLO creek and then loop down and go under LOVR. see sketch on back.

Do you want to be added to the project contact list?

YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.



Response:

- A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road and if feasible may consider a cantilevered design. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future

extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

Comment 20

Terry Mohan (Received via email)

Chuck,

1. I attended the informational meeting at the SLO City Hall last week & was not impress by the presentation. Having attended several Caltrans informational meetings and hearing your conclusions reached due to "public input" was a dead giveaway that the two alternatives chosen had nothing to do with the public. What we need here is a good old fashioned citizens advisory group to validate the conclusions that you and the City administration have already agreed to. I will predict that Alternative #6 will be the winner because Dave Romero wants the exit as far away from the Dalidio Road overpass to imply that Dalidio is needed. This was the first Caltrans meeting I've attended that there was not an open public comment Q&A segment.
2. I guess you don't mind Caltrans being blamed for squashing public input. As I have stated on several occasions the entrances and exits at LOVR & 101 should utilize the new Calle Joaquin extensions, eliminating the light at the current exit. There should be an entrance on the north side of LOVR coming from Higuera with an auxiliary lane connecting to Prado road. The new bridge should be three lanes wide while still keeping the old bridge. That would give a right hand turn lane for drivers exiting from south bound 101 to enter the auxiliary lane to return to Prado Road. Also in the event that the original bridge needs to be replaced or repaired the impact will not be as great. To sign off on either one of these alternative will only bring Caltrans more grief in the future as the decision on South Street is still being questioned.

Terry Mohan

Response:

1. Multiple public meetings as well as City Council Presentations were held throughout the project development phase. Below is a list of the meetings that were held. The public hearings were typically conducted in an open format style. Public input was received either at the hearings/meetings or during the circulation period. In addition, Caltrans staff was on hand at the hearing to answer questions and listen to comments by the public. CEQA public involvement requirements have been met. A court reporter was provided at the public hearing on July 8, 2008 to record comments for the formal administrative record.
 - Public Scoping Meeting #1: March 27, 2003
 - Public Scoping Meeting #2: July 1, 2004
 - Los Verdes HOA Meeting: March 11, 2003
 - Los Verdes HOA Meeting: July 1, 2008
 - Public Hearing: July 8, 2008

The purpose of the public hearing was to obtain public comment and to ensure that transportation decisions are consistent with the goals and objectives of federal, State, and local entities.

2. Seven alternatives were evaluated in the Project Study Report (approved February 27, 2004). Two met the purpose and need of the project and had the least environmental impacts. These two alternatives (3 and 6) were evaluated in detail in the circulated Initial Study. Furthermore, a value analysis study was done between February 4 and February 8, 2008 to determine if any additional alternatives or project features met the projects purpose and need. This analysis determined that no additional alternatives or project features sufficiently met the project purpose and need without additional environmental and fiscal impacts.

While the connections that you suggest are possible, Alternative 3, the preferred alternative, is forecast to deliver necessary traffic capacity to meet state and city objectives for the future

forecast conditions. That forecast does not indicate that six lanes of traffic are needed for the Los Osos Valley Road Bridge across US 101.

Comment 21

D.E. Dresp (Received via email)

Attn Chuck Cesena:

1. Regarding the LOVR and US 101 interchange, as a resident in nearby Los Verdes Park housing, your intention of widening LOVR between the two parks, would make it even more difficult for the residents to turn left or right onto LOVR.
2. Are there any plans of putting a stoplight at the entrances of the parks? Or stop signs? They would help very much.

Sometimes the traffic is so backed up on LOVR that one takes his life into his hands just to get out into the traffic.
3. There was some talk about putting an overpass at Prado Rd. That would help to relieve the traffic on LOVR overpass.

Respectfully, D. E.

Dresp

Response:

1. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. This project does not preclude future projects that could address expanding access to Los Verdes Parks I and II.

A Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

2. Adding a signal at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants (specific criteria set forth by the State that are required to be evaluated for placement of a traffic signal) at this time, nor would they meet signal warrants at the design year of 2035 pursuant to requirements of the State of California Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los

Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single lane approach may temper speeds of vehicular traffic approaching the driveways.

3. The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the Airport and Dalidio Area Development project. The Prado road projects are driven by specific development projects, which have not yet occurred.

Comment 22

Mila Vujovich-La Barre (Received via email)

Dear Mr. Cesena,

This message is in regard to the "Draft Initial Study and Intent to Adopt Proposed Mitigated Negative Declaration for Los Osos Valley Road and US 101 Improvement Project at City of San Luis Obispo".

It has come to my attention that today is the last day to forward concerns and/or praise to you about the proposed interchange designs.

Having been present for a portion of the evening at City Hall on July 8, 2008, I would like to offer these brief comments for consideration.

Choice of Alternative

1. Many people were discussing their desire to have Alternative 2 revisited. Apparently, it was not discussed at length. If the authorities have completely voted out Alternative 2, then my vote is cast for the less expensive \$16 million alternative. My vote for the less expensive alternative was not solely based on price; it made the most sense to me design wise.

2. There was also discussion of the Prado Road overpass at that particular meeting. For the record, the portion of Prado Road that I remain adamantly opposed to is the small portion of the planned, four-lane Prado Road that is designated to bisect the Damon-Garcia Sports Fields and South Hills open space. The road is "on paper" on 7-acres of land that was purchased as part of the sports complex. Please do everything possible to provide alternatives to this inappropriately planned extension of Prado Road as the area in this part of San Luis Obispo is analyzed and developed. Many constituents are not opposed to an overpass at Prado, but are opposed to an interchange there. Many of these same people are also opposed to jeopardizing the integrity of the Damon-Garcia Sports Fields with a four-lane road, given the fact that the fields are already bordered by four-lane Broad Street.

So, as the interchange at LOVR is developed it is my hope that both Tank Farm Road and Buckley Road will be maximized for the East-West connection - not Prado Road.

3. Traffic Analysis
The material distributed seemed to lack a complete traffic analysis of the areas that will be affected by this interchange. Please make available a complete traffic analysis of the US101 /LOVR interchange that reflects an analysis of traffic from various outlying areas such as:
 - a) Orcutt Road suburban and /or residential agricultural areas outside SLO City limits, within about 10 miles of the City limits
 - b) Highway 227 from Arroyo Grande and Pismo Beach
 - c) Coastal areas

4. Bike Lanes and Pedestrian Thoroughfares
This new overpass and interchange can set a new standard for facilitating various modes of transportation.

Please make sure that the design includes ample space for both pedestrians and bikers. Ideally, this interchange will include Class 1 bike lanes that will merge seamlessly with the Bob Jones Bike Trail once it is extended. Walking paths ideally should be designed with all age groups and people with disabilities in mind.

5. Aesthetics of the Entire Overpass
This overpass will become the visual gateway for residents and tourists who are northbound on Highway 101 and will be a gateway the South County for residents and

tourists who are Southbound on Highway 101. There are many inexpensive ways to turn this necessary mass of concrete into a work of art with stamped concrete, decorative fencing and landscaping. Los Osos resident David Baldwin is the local representative for the cement union workers. He will be able to refer you to individuals who specialize in colored concrete and stamped concrete finishes that would greatly enhance the structure. The overpass would look magnificent if the concrete finish could appear to be similar to the natural beauty Bishop's Peak. Dave Baldwin's contact number is 805-528-0215 or cell 805-431-1255. There is also decorative fencing that can be installed. The decorative fencing that it always eye-catching is on the stretch of highway near Mission Viejo in Southern California on Highway 5. It is colorful and practical, yet visually appealing due to the bronze "birds" worked into the fencing structure.

In closing, please keep me on the mailing list of residents concerned about the design of this interchange. It is indeed, well-worth the funds that are being expended to improve the traffic circulation in this area.

Thank you for your consideration.

Sincerely,

Mila Vujovich-La Barre



Response:

1. The preference for Alternative 3 (the alternative with the \$16 million construction cost) has been noted.

During the Project Study Report phase of the project, Alternative 2 was developed; it proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to conservation/open space land and San Luis Obispo Creek. The alignment was also strongly opposed by residents of the Los Verdes development who did not want a major road along the west and northwest sides of the development.

Due to the high cost, environmental impacts, mixed public opinion, and scope outside the project's purpose and need, Alternative 2 was dropped from the list of viable alternatives studied in the environmental document. The proposed bypass project is not currently included in the City's General Plan or County's Regional Transportation Plan; however, this project may be included in the next update of the City's Circulation Element (of the General Plan).

2. Changes to the existing Prado Road interchange would be a City project with Caltrans oversight. The changes are identified in the City's General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1 as well as the San Luis Obispo County Regional Transportation Plan. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the Margarita and Dalidio Area Development planning areas, and other funding sources.

Your comments regarding Prado Road east of the interchange study area as well as the other regional facilities and locations are noted, but those issues are considered beyond the scope of the impact of the Los Osos Valley Road interchange alternatives assessment area. Both the

City's General Plan and the Regional Transportation Plan include recommendations for and analysis of these areas as part of the overall circulation system needs of the city and county.

3. Traffic volume forecasts are based on General Plan build-out conditions for the City of San Luis Obispo. Intersections that would have the most influence on the proposed project were considered in the traffic models (see intersections in Table 2.1-2 in the Initial Study). The San Luis Obispo Citywide Traffic Model (SLOCTM) was used to develop traffic projections at the US 101/Los Osos Valley Road interchange and to study intersections under General Plan build-out conditions. General Plan build-out conditions reflect traffic conditions approximately 30 years in the future (beyond year 2035 conditions). The Traffic Operations Report evaluated the study area and developed forecasts for the required 20-year study window. The study area was selected in consultation with City of San Luis Obispo and Caltrans staff per the requirements set forth in the December 2002 Caltrans Guide for the Preparation of Traffic Impact Studies.
4. The project would install standard 5-foot Class II bike lanes along Los Osos Valley Road and connect to and preserve the existing 6-foot sidewalks in front of the Los Verdes Parks I and II development. Class II bike lanes are one-way lanes with pavement markings that separate the area reserved for bicycles from the area reserved for vehicles. The City General Plan calls for Class II facilities along arterial routes. Class II bike lanes have been found to provide separation between bicyclists and motorists. Marked bicycle lanes can also benefit pedestrians—turning motorists slow and yield to bicyclists; they would do likewise for pedestrians.

All pedestrian and bicycle facilities included as a part of the proposed project would be built according to Americans with Disabilities Act standards.

Class I bike lanes, which are two-way facilities separated from vehicular traffic, are infeasible on Los Osos Valley Road in front of the Los Verdes Parks I and II developments.

All intersections with traffic signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks at intersections with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

5. Aesthetics would be considered during the design process and would receive additional local input through the City's Architectural Review Committee process. Mitigation Measure V-3 addresses aesthetic features. Specifically, architectural features would be developed with Caltrans and City aesthetic standards. The aesthetic features would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with the City's Architectural Review Committee and City staff. The design suggestions are welcome and have been noted.

Comment 23

Lisbeth Ceaser (Received via comment card)

Caltrans

PUBLIC HEARING

Los Osos Valley Road & US-101

Comment Card – July 8th 2008

Name: Lisbeth Ceaser

Telephone (Optional): [REDACTED] Address (optional): _____

1. Affiliation: LVHOA II Email Address (Optional): [REDACTED]

Comment: Please address the 3 signal crossings (No/so ramps & So. H./Lover) with consideration for increased pedestrian traffic safety, we have children, elderly and bus riders who need improved crossing conditions.

2., 3. What is planned for mitigating noise & air pollution for residents of the Los Verdes Parks?

Do you want to be added to the project contact list? YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list

Response:

1. All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

2. Noise

With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion at the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

3. Air

Project air quality impacts are from construction only. Temporary construction air impacts and minimization measures are discussed in Section 2.4.

Comment 24

Darrell Goo (Received via comment card)



PUBLIC HEARING

**Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo**

Comment Card – July 8th 2008

Name: DARRELL GOO Address (optional): [REDACTED]

Telephone (Optional): _____

Affiliation: LVP #2 Email Address (Optional): [REDACTED]

1. Comment: NOT ENOUGH CONSIDERATION FOR LONG TERM SOLUTION NOW!
THE BENEFITS TO THE CITY, COUNTY STATE TRANSPORTATION AND RESIDENTS OF LVP #2 ARE SIGNIFICANT.

Darrell Goo

Do you want to be added to the project contact list?
 YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. The proposed project is consistent with the County and City of San Luis Obispo General Plan, Regional Transportation Plan, and the Regional Transportation Improvement Program, which are developed for long-term 20-year and 5-year solutions, respectively. A long-term solution has been evaluated for the proposed project to the year 2035 in the Traffic Operations Report to properly plan for future growth in the San Luis Obispo area. The long-term solution could include additional driveways (as a separate City project) to alleviate additional traffic entering and exiting the Los Verdes communities.

Comment 25

Darrell Goo (Received via comment card)



PUBLIC HEARING
Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo

Comment Card – July 8th 2008

Name: DARRELL GOO Address (optional): [REDACTED]
 Telephone (Optional): [REDACTED]

Affiliation: LVP 2 Homeowner, Email Address (Optional): [REDACTED]

1. Comment: THERE ARE NO CONSIDERATIONS FOR THE SAFETY OF THE RESIDENTS OF THE LOS VERDES PARKS ONE & TWO IN NONE OF THE ALTERNATIVES.
2. ALTERNATIVES TO RELOCATING THE ENTRANCES TO BOTH LVP (FOR INSTANCE) HAVE NOT BEEN EXPLORED THOROUGHLY.
2. SIGNALIZATION HAS NOT BEEN SERIOUSLY CONSIDERED AS A VIABLE OPTION TO SAFETY.

Do you want to be added to the project contact list?

YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report indicated that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as it moves on to the design of the interchange project and determine if additional changes to access can be made.

A Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveways locations and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

2. Adding a traffic signal at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways does not meet signal warrants at this time, nor would it meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the

driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single lane approach may temper speeds of vehicular traffic approaching the driveways.

Further safety improvements have been made with the roadway design proposed by both viable build alternatives. The project would limit use of free-slip ramps, which create intersection speeds, and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The road profile has been changed in both Alternatives 3 and 6 to improve stopping-sight distance and decision-sight distance at the southbound ramp.

Local Access Issues

It is important to note that the traffic assessment found that the project build alternatives forecast the same or better future conditions than the No-Build Alternative. Although not critical to choosing an interchange option, access to the Los Verdes Parks was reviewed as part of the traffic assessment to determine if changes to access location or control might improve the location of the driveways without considerably limiting operations along Los Osos Valley Road.

New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II developments were considered in the Traffic Operations Report. The report concluded that while the relocated access would have better spacing between the two existing intersections with signals of Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on- and off-ramps, the new access points still would not meet California signal warrants most notably due to the low volume of traffic coming from the Los Verdes Park driveways. It was further noted that the relocated driveways may need to be restricted to right in-/right out-only movements in the future due to the low volume approaches, the high costs for adding signals and the operational reductions that the major corridor may experience.

New driveways onto South Higuera Street were also considered for both sections of the Los Verdes development, but need further consideration and discussion between the City and affected property owners. The new entry for Los Verdes Park II would require right-of-way

acquisition across other private property and would change the traffic patterns of the park in the southeast quadrant. Any new entrance to Los Verdes Park I could present operational deficiencies for both city street systems as well as localized impacts due to the lack of frontage space between Los Verdes Drive and South Higuera Street as well as the elevation difference between Higuera and the local frontage road. Increased noise and the potential for cut-through traffic trying to avoid the intersection of Higuera and Los Osos Valley Road could be a problematic result of making this connection.

Comment 26

JB Bates (Received via comment card)



PUBLIC HEARING

Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo

Comment Card – July 8th 2008

Name: JB BATES Address (optional): [REDACTED]
Telephone (Optional): [REDACTED]

Affiliation: HOMEOWNER/LVP 2 Email Address (Optional): [REDACTED]

1. Comment: MY CONCERNS ARE CONGESTION ALONG LVR. TURNING LEFT (OR RIGHT) IS SUCH A PROBLEM FOR US. I'M NOT SURE NARROWING THE LANES TO ACCOMMODATE MORE CARS IS THE ANSWER (TO ALLOW FOR BIKE LANE AND KEEPING THE FOLIAGE ALONG LVP 1 and 2 THE TRAFFIC ON HIGUERA turning towards the freeway IS SO BAD that we can hardly MAKE turns to get out OF PARK I & II
Do you want to be added to the project contact list? YES NO
Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report indicated that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative.

The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as it moves on to the design of the interchange project and determine if additional changes to access can be made.

A Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Parks I or II. The City is studying potential alternatives to the driveway concern and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the City for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways does not meet signal warrants at this time, nor would it meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Local Access Issues

To reiterate the conclusion of the traffic assessment, the build alternatives forecast at the same or better future conditions than the No-Build Alternative. Although not critical to choosing an interchange option, access to the Los Verdes Parks was reviewed as part of the traffic assessment to determine if changes to access location or control might improve the location of the driveways without considerably limiting operations along Los Osos Valley Road.

New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II developments were considered in the Traffic Operations Report. The report concluded that while the relocated access would have better spacing between the two existing intersections with signals—Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on- and off-ramps, the new access points still would not meet California signal warrants most notably due to the low volume of traffic coming from the Los Verdes Park driveways.

It was further identified that the relocated driveways may need to be restricted to right-in/right-out-only movements in the future due to the low volume approaches, the high costs for adding signals, and the operational reductions that the major corridor may experience.

New driveways onto South Higuera Street were also considered for both sections of the Los Verdes development, but further consideration and discussion between the City and affected property owners are needed. The connection for Los Verdes Park II would require right-of-way acquisition across other private property; the connection would also change traffic patterns in the park's southeast quadrant.

Any new connection for Los Verdes Park I could present operational deficiencies for city street systems, as well as localized impacts due to the lack of frontage space between Los Verdes Drive and South Higuera Street and the elevation difference between Higuera and the local frontage road. Increased noise and the potential for cut-through traffic trying to avoid the intersection of Higuera and Los Osos Valley Road could be a problematic result of making this connection.

Comment 27

William Bates (Received via comment card)



PUBLIC HEARING

**Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo**

Comment Card – July 8th 2008

Name: WILLIAM BATES

Address (optional): [REDACTED]

Telephone (Optional): [REDACTED]

Affiliation: Homeowner

Email Address (Optional): [REDACTED]

1.

Comment: CONCERN FOR THE SAFETY OF ALL HOMEOWNERS IN LOS VERDES PARKS I & II AS WE ATTEMPT MAKE RIGHT OR LEFT TURNS INTO TRAFFIC ON LOS OSOS VALLEY RD. 3 YEARS AGO WE WERE PROMISED THAT THE PRADO PROJECT WAS DEFINITE, WHICH WOULD RELIEVE OUR TRAFFIC PROBLEM.

Do you want to be added to the project contact list?

YES

NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The Traffic Operations Report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways, except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as design of the interchange project moves forward and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding a signal at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the

driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian-crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Local Access Issues

To reiterate the conclusion of the traffic assessment, the build alternatives forecast at the same or better future conditions than the No-Build Alternative studied as part of the interchange proposal. Although not critical to choosing an interchange option, access to the Los Verdes Parks was reviewed as part of the traffic assessment to determine if changes to access location or control might improve the driveway locations without considerably limiting operations along Los Osos Valley Road.

New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II developments were considered in the Traffic Operations Report. The report concluded that while the relocated access would have better spacing between the two existing intersections with signals—Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on- and off-ramps, the new access points still would not meet California signal warrants most notably due to the low volume of traffic coming from the Los Verdes Park driveways. It was further identified that the relocated driveways may need to be restricted to right-in/right-out-only movements in the future due to the low volume approaches, the high costs for adding signals and the operational reductions that the major corridor may experience.

New driveways onto South Higuera Street were also considered for both sections of the Los Verdes development, but further consideration and discussion between the City and affected property owners would be needed. The connection for the Los Verdes II would require right-

of-way acquisition across other private property; the connection would also change traffic patterns in the park's southeast quadrant. Any new connection for Los Verdes Park I could present operational deficiencies for city street systems, as well as localized impacts due to the lack of frontage space between Los Verdes Drive and South Higuera Street and the elevation difference between Higuera and the local frontage road. Increased noise and the potential for cut-through traffic trying to avoid the intersection of Higuera and Los Osos Valley Road could be a problematic result of making this connection.

The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the airport area, the Dalidio area and other development projects within the City.

Comment 28

Cameron Boyne (Received via comment card)



Caltrans

PUBLIC HEARING
Los Osos Valley Road & US-101
Interchange Improvement Project
In The City of San Luis Obispo
Comment Card – July 8th 2008

Name: Cameron Boyne Address (optional): [REDACTED]

Telephone (Optional): [REDACTED]

Affiliation: Home owner Email Address (Optional): [REDACTED]

1. Comment: Should any other development be done until Prado over pass is done?

2. How will access issues be fixed? (for Los Verdes Park 142)

3. Move signal from Higuera to Los Verdes entrance

Do you want to be added to the project contact list?
 YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

1. Question noted. The City reviews each development project that is proposed for various impact possibilities, including both project-specific and cumulative effects. Whether or not private development may occur before any infrastructure improvement need (such as the Prado Road Interchange) is dependent on each project’s impact and associated pro rata share of that impact on existing facilities.

The City has developed guidelines for this type of review and requires that each development project be reviewed consistent with those guidelines to meet objectives of impact identification. Thus, the answer to your first question depends on the individual projects that will come forward and the potential impacts that may result from each. The Prado Road interchange is not necessary for the US 101/Los Osos Valley Road Interchange to proceed. The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the airport area, the Dalidio area and other development projects within the City.

2. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study

this issue as design of the interchange project moves forward and determine if additional changes to access can be made.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

To reiterate the conclusion of the traffic assessment, the build alternatives forecast at the same or better future conditions than the No-Build Alternative studied as part of the interchange investigation. Although not critical to choosing an interchange option, access to the Los Verdes Parks was reviewed as part of the traffic assessment to determine if changes to access location or control might improve the driveways location without considerably limiting operations along Los Osos Valley Road.

New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II developments were considered in the Traffic Operations Report. The report concluded that while the relocated access would be have better spacing between the two existing intersections with signals—Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on- and off-ramps, the new access points still would not meet California signal warrants most notably due to the low volume of traffic coming from the Los Verdes Park driveways. It was further identified that the relocated driveways may need to be restricted to right-in/right-out-only movements in the future due to the low volume approaches, the high costs for adding signals and the operational reductions that the major corridor may experience.

New driveways onto South Higuera Street were also considered for both sections of the Los Verdes development, but further consideration and discussion between the City and affected property owners are needed. The connection for the Los Verdes II would require right-of-way acquisition across other private property and would change the traffic patterns in the park's southeast quadrant. Any new connection for Los Verdes Park I could present operational deficiencies for city street systems, as well as localized impacts due to the lack of frontage space between Los Verdes Drive and South Higuera Street and the elevation difference between Higuera and the local frontage road. Increased noise and the potential for cut-through traffic trying to avoid the intersection of Higuera and Los Osos Valley Road could be a problematic result of making this connection.

3. Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is investigating potential alternatives to the driveways locations and will continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually checks the City for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the

design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Local Access Issues

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

Comment 29

Jan Smith (Received via email)

Chuck:

Thank you for your work on this project.

1. A better plan is to re-route LOVR south of Los Verdes Park II, exiting at Higuera Street and eventually connecting to Buckley Road. This would eliminate the Vachell Lane intersection problem and the LOVR Higuera intersection problem.
2. In terms of traffic circulation and safety, the 2 options currently being supported by staff are far inferior than the option of moving the LOVR/Higuera intersection south of Los Verdes Park.
I trust that you will do the right thing.

Jan Smith
Property Owner
Los Verdes Park II

Response:

1. During the Project Study Report (PSR) phase of the project, Alternative 2 was developed; this alternative proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally, the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/Open Space land and San Luis Obispo Creek. The alignment was also strongly opposed by residents of the Los Verdes development who did not want a major road along the west and northwest sides of the development.
2. Due to the high cost, environmental impacts, mixed public opinion, and scope outside the project's purpose and need, Alternative 2 was dropped from the list of viable alternatives in the Draft Project Report and Environmental Document phase of the project. The concept of this connection does have merit in regard to providing a potential bypass to some vehicular traffic in the southern section of the City. Unfortunately, it also comes at a high cost, and there are potential environmental issues. If a bypass (like Alternative 2) to Los Osos Valley Road is evaluated in the future, it will be studied as a City circulation improvement project separate from the proposed interchange at US 101/Los Osos Valley Road.

The bypass project is not currently included in the City's General Plan or County's Regional Transportation Plan; however, this project may be included in the next updates of these two planning and programming documents.

Comment 30

Mike Stephens (Received via email)

A quick question.

1. I own a home in Los Verdes Park II. Will the road between the Los Verdes Parks be widened to 4 lanes and will the frontage property of LVPII along LOVR be eliminated or modified.

Thanks for your time,

Mike

Response:

1. Both Alternatives 3 and 6 change Los Osos Valley Road to four lanes (or three, depending if both westbound lanes on Los Osos Valley Road are striped as part of the project). The frontage road along Los Verdes Parks would not be eliminated or changed as part of the project. While most of the work to be done by the project would be at the interchange, minor improvements would be made to Los Osos Valley Road east and west of the interchange to tie the project into the local road network.

East of the interchange, at the western edge of the Los Verdes development, the project would conform to the existing profile and alignment of Los Osos Valley Road. From the western edge of the Los Verdes development, the project would resurface and restripe the existing roadway with no change in the existing paved width. No changes need to be made to the existing curb, gutter, or sidewalk along the Los Verdes development to create the four lanes. The landscaped raised median would be removed to provide a continuous two-way left-turn lane and extend the dual left-turn lanes at the intersection of Higuera.

Class II bike lanes would be striped and marked with standard bike lane pavement markings. All lanes widths would meet City of San Luis Obispo requirements.

Comment 31

Jim Smith (Received via email)

June 27, 2008

Chuck Cesena

Cal Trans

50 Higuera Street

San Luis Obispo, CA 93401

Re: Los Osos Valley Road & US-101 Interchange Improvement Project

Dear Chuck:

1. Widening LOVR to 4 lanes and adding bike lanes in front of the only access point from over 170 homes, 2 blocks from a major freeway without traffic control is inviting disaster. A disaster similar to the automobile death over 10 years ago at the intersection of Descanso and LOVR that prompted the installation of a light there. This intersection, if left uncontrolled, would be the only 4-way intersection except the Diablo Drive intersection (2 miles from the freeway) along the City of San Luis Obispo LOVR corridor without the protection of a traffic light.
2. My wife Jan and I own a home in Los Verde Park, and often have to wait 4-5 minutes to get out safely exit the park onto LOVR with the current traffic situation. My wife waited while 36 cars drove by on Wednesday, June 28th around noon before she could exit the development.

Even though the traffic engineers claim that the distance between the lights are too close, I believe that a traffic light could be programmed with a combination of usage sensitive sensors and timing to take traffic through in packs without serious impediment. I have seen this implemented on Crow Canyon Road near the intersection with San Ramon Valley Blvd. in San Ramon, on the east and west sides of I-680.

I object to the planned road improvements without the installation of a traffic light at the intersection of LOVR and Los Verdes/Los Palos Drive.

Jim Smith

Homeowner



Response:

1. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that Los Verdes Parks I and II were built with a single access to the local roadway system. The Traffic Operations Report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City will continue to study this issue as design of the interchange project moves forward and determine if additional changes to the access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveways location and will continue to monitor this location as part of its Annual Traffic Safety report process. This process annually checks the City for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

2. Adding a signal to the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of the driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Comment 32

Gary and Judi Tewell (Received via email)

1. My husband and I bought a home in Los Verdes Park I in 1974. We were assured at that time that the overpass on Los Osos Valley Road would never go through. Plus or minus 10 years later, it was there. Now, as time and traffic marches forward, we are looking at even more "improvements"
2. I am in full agreement with the Los Verdes Park Board of Directors and their concerns, but to even consider all of this with no traffic signal is insanity. There are around 180 homes in both parks, and even now, it is almost impossible to make a left turn out of either park. I shudder to think what it will be like with 4 lanes. I would also suggest opening up the "never finished" north bound onramp to 101, so that cars entering the freeway do not have to cross the opposing lanes of traffic. Thank you for your serious consideration in these matters. Gary and Judi Tewell [REDACTED]

Response:

1. The connection of Los Osos Valley Road (as an arterial) between Higuera and the US 101 interchange was in the City's Circulation Element before development of the Los Verdes Park subdivisions and was coordinated as part of the subdivision approvals that led to the development of the condominium projects as they exist today. While this connection occurred after the condominium projects were built, the arterial location and cross section were completed as part of the public improvements built in coordination of the development project when it was built in the early 1970s. Unfortunately, single points of access were built to each of the Los Verdes Parks I and II when they were constructed and are now difficult to resolve due to the topography and close proximity to adjacent intersection locations.
2. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as design of the interchange project moves forward and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the City for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp. These ramp improvements would provide safer conditions for pedestrians and bicycles by slowing traffic, increasing visibility, and decreasing sidewalk crossing distances.

Comment 33

Melville Hodge (Received via email)

Mr. Casena,

1. I am the owner of the property occupied by Margie's Diner on old Calle Joaquin. I write to enter my strong objection to Alternative 6 described in the project report. Margie's business has already been hurt by closing of old Calle Joaquin on which the restaurant is located. The changes proposed in Alternative 6 appear potentially devastating to Margie's remaining business. This would result in a major loss of value to the property. Since the closing of Calle Joaquin appears irreversible, Alternative 3 is clearly the choice that will do the least additional harm.
2. More generally, I am disappointed that the report did not include an assessment of the impact of the proposed changes on affected businesses. The changes that have taken place already and the additional proposed changes appear to be for the benefit of the new "big box" stores developed along LOVR. This has come at a great price for some smaller businesses like Margie's.
3. Please advise me when a decision has been made on this matter so that if necessary we may timely review what options we might have with our attorneys.

Melville Hodge



Response:

1. Alternative 3 has been chosen as the preferred alternative. Please see Section 1.3.4 for further information on the selection of the preferred alternative.
2. The City continues to work with area businesses, particularly those along the relocated Calle Joaquin, to develop appropriate improvements to promote access and logical progression of change that meets the objectives of the public and private interests.
3. After taking into consideration public comments received, the environmental impacts associated with Alternative 6, input from stakeholders and the Caltrans project development team, and a comparison of the benefits and impacts of the alternatives, Caltrans has decided to move forward with Alternative 3.

Comment 34

Ken Johnson (Received via email)

Dear Chuck,

1. My name is Ken Johnson. My wife and I own the Margie's Diner restaurant at 1575 Calle Joaquin, San Luis Obispo. The recent realignment of Calle Joaquin has of course hurt our business by making the restaurant less accessible. One of the ramp reconfiguration proposals now under consideration will put the on/off ramps partially through our parking lot blocking access from the proposed new Hampton Inn. This may completely put us out of business. This plan also creates an additional 90 degree turn for all southbound freeway traffic from the new portion of Calle Joaquin which will certainly jam up traffic on the ramps. The new shorter ramps with tighter turn radii dont seem to be an improvement. Why is such a proposal even being considered?
- 2.

Yours,

Ken Johnson

Response:

1. Based on public comments received, the environmental impacts associated with Alternative 6 (like the concerns you raise), input from stakeholders and the Caltrans project development team, and a comparison of the benefits and impacts of the alternatives, Caltrans has selected Alternative 3 as the preferred alternative. Alternative 3 would not require any acquisition of land from this business. Please see Section 1.3.4 for further information on the selection of the preferred alternative.
2. Alternative 3 (the Minimum Build) proposes to leave the existing ramp intersections in their current location and make improvements to them to better meet Caltrans standards. While the alternative does not solve all the various issues at the location, the project forecasts that it will deliver 20 years of traffic demand and not considerably affect adjacent properties or businesses.

Comment 35

Jim Smith (Received via court reporter)

1.

4 MR. SMITH: My name is Jim Smith. I'm a
5 property owner in Los Verdes Park. And if they go ahead
6 with this, I would vote for a two-way left turn lane in
7 the middle of the four lanes of traffic to help
8 residents get out of Los Verdes Park onto Los Osos
9 Valley Road.

Response:

1. Thank you for your comments. A two-way left-turn lane is proposed as part of the project to allow for the turns as you suggest.

Comment 36

Cameron Boyne (Received via court reporter)

1. 10 MR. BOYNE: My name is Cameron Boyne,
11 B-O-Y-N-E. I am a homeowner in Los Verdes Park II. And
12 my comments are, should any other development be
13 approved or done until the Prado Road overpass is
2. 14 completed. And then another comment is, how will access
15 issues for Los Verdes Parks I and II be fixed in the
3. 16 long term? And finally, would traffic flow be better if
17 the signal was moved from Higuera to the entrances of
18 Los Verdes Park I and II leading traffic to flow onto
19 Higuera Street? That's it.

Response:

1. The City reviews each development project that is proposed for various impact possibilities including both project specific and cumulative effects. Whether or not private development may occur before any infrastructure improvement need (such as the Prado Road interchange) is dependent on each project's impact and associated pro rata share of that impact on existing facilities. The City has developed guidelines for this type of review and requires that each development project be reviewed consistent with those guidelines to meet objectives of impact identification. Thus, the answer to your first question depends on the individual projects that will come forward and the potential impacts that may result from each. The Prado Road interchange is not necessary for the US 101/Los Osos Valley Road interchange to proceed. The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the airport area, the Dalidio area and other development projects within the City.
2. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The recommendation of the project report and environmental document is that the City continue to study this issue as it moves onto the design of the interchange project and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveways locations and will continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways does not meet signal warrants at this time, nor would it meet signal warrants at the design year of 2035 pursuant to requirements of the State Manual on Uniform Traffic Control Devices.

3. The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Comment 37

Marilyn Reasoner (Received via court reporter)

1. 20 MS. REASONER: Marilyn Reasoner, M-A-R-I-L-Y-N,
21 R-E-A-S-O-N-E-R. And my comment ties in with Lisbeth.
22 In the key feature section everyone was mentioned, the
23 bicyclists, the Bob Jones people, the this and that, the
24 hikers. Everybody except the 187 plus residents,
25 homeowners, that live in those two parks. And he
1 mentioned -- you take it.

Response:

1. Comments noted. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report conducted indicated that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as it moves onto the design of the interchange project and determine if additional modifications of the access conditions can be accomplished.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding a signal at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers

are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Comment 38

Lisbeth Ceaser (Received via court reporter)

2 MS. CEASER: Lisbeth, L-I-S-B-E-T-H,
3 C-E-A-S-E-R. Resident of Los Verdes Park II. And our
4 concern -- we're happy with the over-change. We're
5 happy with the new sidewalks on the bridge. We're
6 concerned, as residents of these two parks, that we
7 haven't been considered as people that live there
8 24 hours a day.

1. 9 The environmental impact report talks about the
10 view shed and the landscaping along the freeway, but it
11 doesn't talk about breathing 24 hours a day the fumes of
2. 12 the increased traffic. It doesn't talk about the noise
13 24 hours a day along that corridor. And it also doesn't
14 consider the people who live in the parks.

3. 15 There are many elderly people, many school
16 children. The bus is going to have to be moved. We're
17 worried about pedestrian safety. We're worried about
18 elderly people who are trying to cross Los Osos Valley
19 Road to get to shopping, schools, the bus stops and over
20 the freeway overpass. That's a very dangerous place for
21 pedestrians.

22 Right now we risk our lives crossing the middle
23 of Los Osos Valley Road, or we have to walk all the way
24 to South Higuera, cross the street at a signal that's
25 too short, and all the way up and over the bridge the
1 other direction. What are those three traffic signals
2 going to do to help improve conditions for pedestrians
3 coming out of the Los Verdes two parks?

Response:

1. Please see the Air Quality discussion in Chapter 2 for additional information. No impacts are anticipated.
2. Noise

With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

The project in all cases would not contribute to traffic noise level increases because the No-Build levels are the same if not higher (at receptor locations near Los Verdes Parks I and II) than with project conditions.

3. Pedestrian crossing facilities currently available for crossing Los Osos Valley Road are located at the South Higuera and Calle Joaquin intersection. Existing crossing facilities will remain the same and the project will include additional pedestrian crossing facilities at the US 101/Los Osos Valley Road northbound on- and off-ramps. The pedestrian crossing facilities will be adequate for all pedestrians and conform to Americans with Disabilities Act requirements. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes. A pedestrian crossing of Los Osos Valley Road at Los Verdes Parks I and II is not warranted nor recommended at this time. Safe pedestrian crossing facilities necessitate a stop-controlled facility. Mid-block pedestrian crossings are historically unsafe. Since a stop-controlled facility is not warranted at the entrances of the Los Verdes Parks (refer to following paragraphs), a pedestrian crossing of Los Osos Valley Road at the Los Verdes Parks is not feasible.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II

driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

Comment 39

Eugene Judd (Received via court reporter)

4 MR. JUDD: Eugene Judd. I teach Transportation
5 Planning at Cal Poly here. I'm a member of the
6 Institute of Transportation Engineers. Actually, I'm a
7 fellow in the Institute of Transportation Engineers. So
8 I'm glad I can dictate to you. I think I have five
9 points here.

1. 10 Number one point, truck traffic is not
11 mentioned at all in the report, truck traffic. Heavy
12 vehicle are not mentioned in the report; although we
13 have a truck traffic prohibition on Los Osos Valley Road
14 where it passes through the Los Verdes neighborhood,
15 where it passes through the Los Verdes neighborhood.

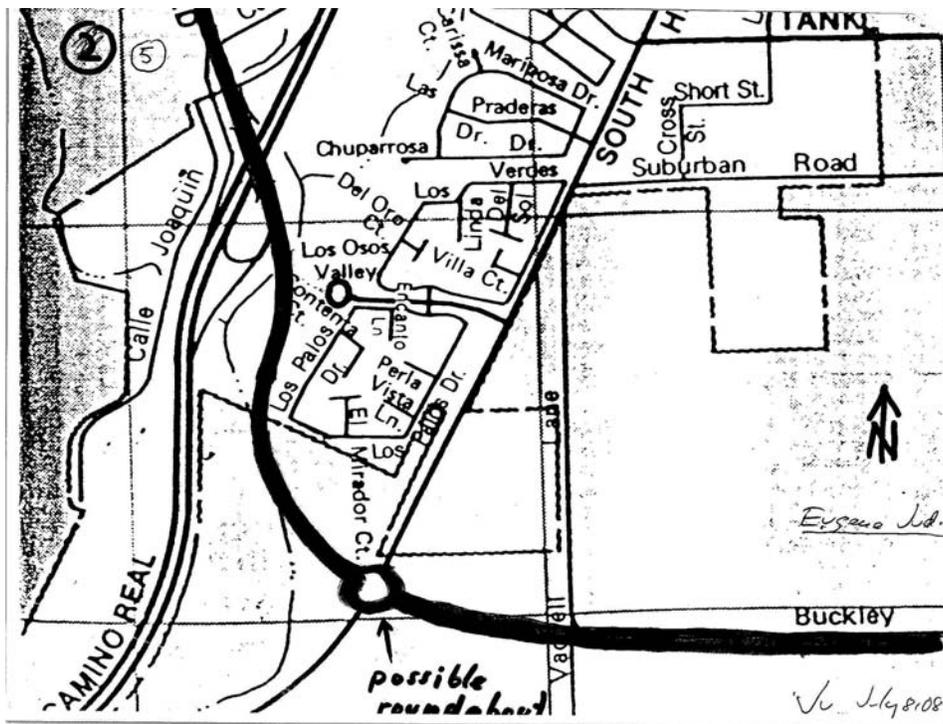
2. 16 Point two, the word public transportation or
17 bus is not mentioned at all in the report. It appears
18 astonishing that looking into the year 2030 and having
19 air pollution problems, we do not even talk about public
20 transportation.

3. 21 Number three, induced traffic. That means new
22 regenerated traffic by the facility should be treated in
23 the environmental document. Also, this is not done.

4. 24 Number four, greenhouse gases, our interest is
25 AB32, are very superficially addressed while other

5.

1 projects appear to take this much more seriously.
 2 Number five, the bike pass on Los Verdes should
 3 be built immediately, and the money invested into Los
 4 Osos Valley Road through the Los Verdes neighborhood
 5 could be saved. Los Osos Valley Road through the
 6 neighborhood would become a cul-de-sac without issue.
 7 The new Los Osos Valley Road could connect with South
 8 Higuera Street with around about. Okay. Thank you.
 9 (Map attached to the back of transcript.)



Response:

1. Large truck traffic is discussed on page 9 of the Traffic Operations Report (2007). The report recognized that although large truck traffic is prohibited on the segment of Los Osos Valley Road between South Higuera Street and US 101, large trucks do use this route. To account for large truck traffic, the Traffic Operations Report applied a peak hour truck percentage of 8% for mainline US 101 and 2% for ramps and local roadways. In addition, the law does not allow local jurisdictions to prohibit truck movements along City streets unless a safety issue is apparent.
2. Intercity transit in this area is operated by the San Luis Obispo Regional Transit Authority (SLORTA). Currently, Route 10 of SLORTA provides local transit service in the area, but does not use the Los Osos Valley Road interchange. Transit service within the City of San

Luis Obispo is provided by SLO Transit. SLO Transit does not operate any routes that use the Los Osos Valley Road interchange.

The possibility of transit service using the Los Osos Valley Road interchange has been reviewed, but was not warranted or determined to be an efficient route service at this time.

Limited opportunities to enhance transit service are provided by this project as the project is mainly focused on widening Los Osos Valley Road between the ramp intersections on either side of US 101 where no appropriate locations exist for transit stops. Other improvements include ramp widenings, which do not present opportunities for transit enhancements.

The project would reduce congestion along this transit corridor and would not have any negative impacts on existing or future transit service.

3. Induced traffic is represented in the proposed project forecast volumes as determined in the Final Traffic Operation Report for the 2035 design year; however, it is important to note that any induced traffic associated with the project is much lower than new traffic growth associated with land use changes in the county area and passing through the US 101/Los Osos Valley Road interchange and adjacent street system. All technical studies use these results that are consistent with the County and City of San Luis Obispo General Plan Circulation Elements, Regional Transportation Plan and the Regional Transportation Improvement Program, which are developed for long-term 20-year and 5-year solutions, respectively.
4. Please refer to Section 2.6 of the environmental document for discussion and analysis of AB32, greenhouse gases, and climate change.
5. Based on the context of the comment discussing Los Osos Valley Road as a cul-de-sac and the “new Los Osos Valley Road”, we understand the comment to be in regard to the bypass and not the bike path. In regard to the bypass, during the Project Study Report (PSR) phase of the project, Alternative 2 was developed. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/ Open Space land and San Luis Obispo Creek. The alignment was also strongly opposed by some residents of the Los Verdes developments who did not want a major road along the west and northwest sides of their development unless Los Osos Valley Road was terminated. This alternative does not exist in any regional transportation plan or City planning document at this time.

Due to the high cost, environmental impacts, mixed public opinion, and scope outside the projects purpose and need, Alternative 2 was dropped from the list of viable alternatives studied in the environmental document. However, as part of the City Council direction of developing all project alternatives for the US 101/Los Osos Valley Road interchange project, each of the proposed alternatives do not preclude this alternative from being built at a future time should this project be included in the next update of the City’s Circulation Element or the County’s Regional Transportation Plan.

Comment 40

Ruth Wilhelm (Received via court reporter)

1. 10 MS. WILHELM: My name is Ruth Wilhelm,
11 W-I-L-H-E-L-M, and I'm a resident of Los Verdes Park II.
12 And one of my concerns -- actually, there's a few -- I
13 hear the gentleman speaking about traffic, and the
14 speed, and numbers, and it's all very numerical and very
15 logical, and yet what I hear them not talking about is
16 the safety of all the residents on both sides of this
17 project, safety health-wise and safety, specifically,
18 traffic-wise.
19 I have to say I've lived in Los Verdes Park II
20 for 20 years. I started living there as a
21 29-year-old, moved away, and have come back. My
22 93-year-old father now lives there.
23 It is one of the very few affordable housing
24 places for seniors. It is close to everything that my
25 dad needs, and he can live alone. And it is a perfect

1 place for him, except I very often hear sirens, and am
2 terrified that he has gotten hit in the traffic, the
3 cross-traffic.

4 This will only be doubled if there is no signal
5 or no stop sign for those residents. It is -- we will
6 have to cross a bike lane, two lanes of traffic, a
7 left-hand turn lane, a left-hand turn lane, two lanes of
8 traffic and another bike lane safely in order to get to
9 the freeway. It is unreasonable for these senior
10 citizens who live there.

11 I'm one of youngest. I'm 61, and I'm
12 practically the youngest people who live there. So my
13 concern is for all these elderly people trying to pull
14 out in this traffic.

15 I hear the Caltrans guys very distinctly saying
16 there will be a left-hand turn lane and so forth.
17 Regardless, there will be twice as much traffic going in
18 each direction no matter how you look at it. And if I
19 give you a bigger hose, more water is going to come out.
20 So there will be more traffic, because there will be
21 more to accommodate the cars. There will be more space
22 to accommodate the cars. So we will get more traffic
23 even though that's not what they're saying.

24 Also, I look at the drawings, and I see Los
25 Osos Valley Road, and they show a signal, a signal, and

1 a signal, and then if you just sort of glance, you see a
2 stop sign, and it looks like they've put a stop sign
3 there. It truly isn't. And so it's a little bit
4 deceptive for the onlooker if they're not really aware.
5 It is -- the stop signs are on our personal property, on
6 Los Verdes Park property. It's not on Los Valley Road
7 property. And so that's a little deceptive for the
8 person looking at that drawing or plan.

9 So I heard him talking about the speed when we
10 addressed this issue, but I'm saying, please, consider
11 the safety. It is one of the only affordable housing
12 for seniors that is close to everything they need, but
13 it is really unsafe. I think that's what I'd like to
14 say.

15 It talks about enhancing pedestrian and
16 bicyclist safety. I don't get that. I don't
17 understand.

2. 18 Oh, I have another concern. That's about the
19 hydraulics. That's what they're talking about is that
20 tunnel over water that goes under the freeway. I'm
21 wondering if that is good housing for homeless people.
22 What will they do to prevent homeless people from using
23 that as housing. We had 60 encampments down along the
24 creek in the winter-time, and so it's a favorite spot.

Response:

1. Thank you for your comments and suggestions. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to investigate this issue as it moves onto the design of the interchange project and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is investigating potential alternatives to the driveway locations and will continue to monitor these locations as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways until the City determines it is needed. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Please accept our apologies if the presentation exhibit was unclear about the locations of the stop signs. We will clarify this detail for future City presentations.

2. **No additional proposed culverts would be built under US 101.** Your comments regarding transient issues are noted and will be forwarded to the City for review and action. The City's

park rangers enforce the no-camping provision for the creek areas and will continue to work in the area to address your concerns.

Comment 41

Liz Apfelberg (Received via court reporter)

1. 25 | MS. APFELBERG: The roadway at the areas by Los |
1 | Verdes Park should be made of open grade material.
2 | Okay? Open grade material helps suck down the sand and
3 | also excess water.

Response:

1. Thank you for your comment. The project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure.

Comment 42

Terry Mohan (Received via court reporter)

1. 4 MS. MOHAN: My name is Terry Mohan, M-O-H-A-N.
5 I totally disagree with this whole -- both of the --
6 what do they call them -- assignments, both of the
7 project names, numbers three and six. I think they
8 should be using Calle Joaquin on both sides to bring the
9 traffic on and off and to eliminate one of the lights.
2. 10 I don't agree with any of the traffic statistics that
11 Mr. Bochum is putting out. I don't know where he's
12 getting his numbers from. He's talking about build out
13 into the City. I think he's overestimating what the
14 City is going to build out to be. Yeah. All I can say
15 is, I disagree with both of them.
3. 16 I think they should take the Los Verdes. Have
17 those people come out on Suburban Road, and they should
18 build an extension on the back part of Los Verdes two,
19 have the people exit there and close off the two exits
20 that they have now. Those are in the wrong place. They
21 were always in the wrong place. And open that up to a
22 four-lane road and have traffic only go up and down Los
23 Osos Valley Road. I guess that's it.

Response:

1. During the Project Study Report (PSR) phase of the project, the Project Development Team considered seven project alternatives and evaluated them based on project cost, level of service and other traffic data, and specific environmental impacts. Alternative 2 was evaluated and eliminated based on these criteria discussed in the Project Study Report and Section 1.3 of the environmental document. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange and as you suggested, evaluated the possibility of using Calle Joaquin as the intersections for the southbound on- and off-ramps from US 101. Please refer to Section 1.3 of the environmental document for a discussion of the alternatives considered but eliminated and a discussion and reasoning for selecting Alternative 3.
2. Traffic volume forecasts are based on General Plan build-out conditions for the City of San Luis Obispo. The Traffic Operation Report is included the Draft Project Report (2008) listed

at the following website: www.slocity.org/publicworks/lovric.asp. The intersections that would have the most influence on the proposed project were considered in the traffic models (these intersections are in Table 2.1-2 in the environmental document).

The San Luis Obispo Citywide Traffic Model (SLOCTM) was used to develop traffic projections at the US 101/Los Osos Valley Road interchange and study intersections under General Plan build-out conditions. General Plan build-out conditions reflect traffic conditions approximately 30 years in the future (beyond year 2035 conditions). The Traffic Operations Report evaluated the study area and developed forecasts for the required 20-year study window. The study area was selected in consultation with City of San Luis Obispo and Caltrans staff per the requirements set forth in the December 2002 Caltrans Guide for the Preparation of Traffic Impact Studies.

3. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The traffic operations report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as design of the interchange project moves forward and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks

with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Local Access Issues

To reiterate the conclusion of the traffic assessment, the build alternatives forecast at the same or better future conditions than the No-Build alternative. Although not critical to choosing and interchange option, access to the Los Verdes Parks was reviewed as part of the traffic assessment to determine if changes to access location or control might improve the driveway locations without considerably limiting operations along Los Osos Valley Road. New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II development were considered in the Traffic Operations Report. The report concluded that while the relocated access would have better spacing between the two existing intersections with signals at the Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on-and off-ramps, the new access points still would not meet California signal warrants most notably due to the low volume of traffic coming from the Los Verdes Park driveways. It was further identified that the relocated driveways may need to be restricted to right-in/right-out-only movements in the future due to the low volume approaches, the high costs for adding signals and the operational reductions that the major corridor may experience.

New driveways onto South Higuera Street were also considered for both sections of the Los Verdes development, but need further consideration and discussion between the City and affected property owners. The driveways for the Los Verdes II would require right-of-way acquisition across other private property and would change traffic patterns in the southeast quadrant of the park. Any new connection for Los Verdes Park I could present operational deficiencies for city street systems as well as localized impacts due to the lack of frontage space between Los Verdes Drive and South Higuera Street and the elevation difference between Higuera and the local frontage road. Increased noise and the potential for cut-through traffic trying to avoid the intersection of Higuera and Los Osos Valley Road could be a problematic result of making this connection.

Comment 43

Michael McGuire (Received via court reporter)

I. 24 MR. MCGUIRE: Mike McGuire, M-C-M-C-G-U-I-R-E.
25 My concern is that the connections shown for the Bob
1 Jones Bike Trail seem very superficial and have not been
2 well thought out. I feel that the connection up to the
3 intersection has to happen at very minimum. But my
4 larger concern is that the primary users of a bike
5 trail, such as the Bob Jones trail are actually less
6 skilled cyclists, and they're bringing less skilled
7 cyclists, which includes family with children to a
8 five-lane wide intersection, which may potentially even
9 in the future be seven lanes, is an amazing liability,
10 and the best way to take care of this would be to
11 construct or design that takes the bike trail underneath
12 the LOVR.

Response:

1. A separate local project—independent of the Los Osos Valley Road Interchange Project—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

The project would install standard 5-foot Class II bike lanes and connect to and preserve the existing 6-foot sidewalks in front of the Los Verdes Parks I and II development. Class II bike lanes are one-way facilities with pavement markings that separate bicyclists from the

vehicular travel lanes. The City General Plan calls for Class II facilities along arterial routes. Class II bike lanes have been found to provide more consistent separation between bicyclists and passing motorists. Marked bicycle lanes can also benefit pedestrians; turning motorists slow and yield to bicyclists, and they would likely also do so for pedestrians.

All intersections with signals would include pedestrian crossing controls. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detector loops for the Class II bike lanes.

Comment 44

Michael C. Sullivan (Received via email and letter)

16 July 2008. From Michael Sullivan to Calif. Dept. of Transportation (Cal Trans) RE proposed Initial Study and mitigated Neg. Dec. for US 101 / Los Osos Valley Road Interchange, San Luis Obispo

Page 1 of 4

15 July 2008

To:
Mr. Chuck Cesena
Calif. Dept. of Transportation (Cal Trans)
50 Higuera Street
San Luis Obispo, CA 93401
Chuck.Cesena@dot.ca.gov

From:
Michael Sullivan

RE: Comments on the Draft Initial Study and Intent to Adopt Proposed Mitigated Negative Declaration for Los Osos Valley Road and U.S. 101 Improvement Project (freeway interchange) at City of San Luis Obispo, CA
Public hearing on 08 July 2008 in City of San Luis Obispo

Abbreviations
CEQA - California Environmental Quality Act
IS June 2008 - Initial Study (Cal Trans) of June 2008 for LOVR / US 101 interchange improvement project
LOVR - Los Osos Valley Road
SLO - San Luis Obispo (City or County)

I. 1. Public participation has been thwarted.

Several years ago (circa 2004), I attended a public meeting sponsored by City of San Luis Obispo. The purpose of the meeting was to receive comments from the public regarding seven proposed alternative designs for the US 101 / LOVR interchange in San Luis Obispo. At the meeting (circa 2004), Mr. Tim Bochum (City of San Luis Obispo Public Works Dept.) commented to the public participants at the meeting that that particular meeting was to be the first of several meetings / workshops to give the public a chance to evaluate interchange alternatives and to submit comments to the City of San Luis Obispo. However, to the best of my knowledge, no other subsequent meetings or workshops about interchange alternatives were ever held by City of San Luis Obispo (or any other public entity). I confirmed this during my discussion with Mr. Namat Hosseinion (Cal Trans) during the public hearing of 08 July 2008 in San Luis Obispo. When I asked Mr. Hosseinion whether subsequent public hearings or workshops were ever conducted by City of San Luis Obispo (or any other public entity) to give the public a chance to consider and evaluate project alternatives, he (Mr. Hosseinion) said that no such subsequent meetings were ever held.

Assuming the above information is correct, it appears that the public was excluded from the full participation process for evaluation of various project alternatives for the design of the US 101 /

16 July 2008. From Michael Sullivan to Calif. Dept. of Transportation (Cal Trans) RE proposed Initial Study and mitigated Neg. Dec. for US 101 / Los Osos Valley Road Interchange, San Luis Obispo
Page 2 of 4

LOVR interchange, and that the decision to eliminate most of the alternatives (except for Alternative 3 and Alternative 6 and the No-Build Alternative) was a decision made within the agencies (City of San Luis Obispo and/or Cal Trans) without a chance for public input. This seems to be at odds with the purpose of CEQA. CEQA requires "wide public involvement" in order to "receive and evaluate public reactions to environmental issues related to the agency's activities." CEQA Guidelines 15201; see additional discussion in Remy 2006 at p. 34.

2. **2. Alternatives analysis is inadequate and is inconsistent with CEQA requirements.**

In the IS June 2008 analysis of **Alternative 2 (Los Verdes Bypass)** it is stated, "While the alternative addressed some regional circulation issues, those are not a specific part of the project's defined need and purpose to increase capacity of the Los Osos Valley Road interchange. This alternative was rejected from further consideration because of its higher environmental impacts and high cost." IS June 2008 at p. 17. However, the General Plans of the City (SLO) and County indicate that regional circulation issues are paramount in the consideration of this interchange, and that such regional traffic issues are related directly to the purpose of the Los Osos Valley Road interchange as stated in General Plan goals and objectives of County and City.

For example:

- (1) County Circulation Element of General Plan, SLO Area Plan (2003) , states, "State Highways 1, **101**, and 227, **Los Osos Valley Road**, Foothill Road and **South Higuera Street** are regional arterials providing access to and through the planning area." SLO Area Plan at p. 5-4.
- (2) **Buckley Road** may need to be widened to 4 lanes and would extend westerly to connect to South Higuera Street. (SLO Area plan at p. 5-9)
- (3) **South Higuera Street** should be improved to four travel lanes from the southern city limits to the proposed intersection with **Buckley Road**. (County SLO Area Plan at p. 5-8)

City of SLO General Plan (Circulation element) has certain objectives related to regional traffic, e.g.

1.8 Manage traffic

4. Provide a system of streets that allow safe travel and alternate modes of transportation throughout the city **and connect with Regional Routes and Highways**.
 5. Manage the use of arterial streets, **regional routes** and highways so that traffic levels during peak traffic periods do not result in extreme congestion, increased headways for transit vehicles, or unsafe conditions for pedestrians or bicyclists.
- City of SLO, General Plan Circulation Element at p. 2-9.

Alternative 2 could play an important role in the solution to regional traffic problems involving Buckley Road, South Higuera Street, and Los Osos Valley Road, helping to reach County goals for regional traffic management and adequate connections of arterials to major interchanges (such as at US 101 / LOVR), and City objectives in the General Plan Circulation Element for connection with regional routes and highways, as stated above. Therefore, it is certainly not reasonable to eliminate Alternative 2 from the range of Alternatives in the Initial Study. Even though the costs might be higher and some additional farmland might be taken using Alternative 2, nevertheless Alternative 2 likely has some significant advantages in terms of meeting City and County goals and objectives of

16 July 2008. From Michael Sullivan to Calif. Dept. of Transportation (Cal Trans) RE proposed Initial Study and mitigated Neg. Dec. for US 101 / Los Osos Valley Road Interchange, San Luis Obispo
Page 3 of 4

the General Plan, and in reducing anticipated traffic congestion along several regional arterials which bring traffic to the US 101/LOVR intersection. Such a potential reduction in traffic congestion, made possible by Alternative 2, is an environmental benefit and this is a valid reason for inclusion of Alternative 2 in the Initial Study analysis of alternatives.

Furthermore, at the public "workshop" of 08 July 2008, Mr. Tim Bochum of City of SLO Public Works Dept stated that if Alternative 2 is not adopted and one of the other two alternatives (3 or 6) is adopted, then there could be significant delays at any future signals for traffic entering from Los Verdes 1 and 2 housing tracts onto Los Osos Valley Road east of US 101. Such congestion could potentially be eliminated or significantly reduced by using Alternative 2.

In summary, to ensure fair public participation and to fulfill the requirements under CEQA for an adequate range of alternatives, Alternative 2 (Los Verdes bypass) should be considered in the Initial Study and should not be eliminated as one of the alternatives.

3. **3. Initial Study traffic analysis should consider impacts from a sufficiently broad traffic study area.**

Traffic reaching the US 101 / LOVR interchange would include traffic from various outlying areas such as:

- (a) Orcutt Road suburban and/or residential agricultural areas outside SLO City Limits, within about 10 miles of the City limits.
- (b) Highway 227 from Arroyo Grande and Pismo Beach.
- (c) Coastal areas (Los Osos, Morro Bay, Cayucos, and Cambria)

Has the traffic analysis included the above sources? If not, it should.

4. **4. Initial Study traffic analysis should consider impacts based on various scenarios for proposed Prado Road / US 101 interchange.**

The City of SLO General Plan proposes a future interchange or overpass at Prado Road and US 101, which is in very close proximity to the proposed US 101 / LOVR interchange. Various scenarios are possible. This Prado Road "interchange" might be simply an overpass with no ramps, or might have limited ramps, or might have full ramps on and off in northbound and southbound directions. There is also the possibility that traffic would enter and leave the Dalidio site (City of SLO) via access road from Dalidio site to LOVR and/or via Calle Joaquin to LOVR, as indicated in previous plans for a regional shopping center at the Dalidio site, e.g. the 2004 Marketplace plan (City of SLO), or the 2006 Measure J plan for Dalidio Ranch (County of SLO). What would be the traffic impact on US 101/LOVR interchange from each of these scenarios? This analysis should be included in the Initial Study.

16 July 2008. From Michael Sullivan to Calif. Dept. of Transportation (Cal Trans) RE proposed Initial Study and mitigated Neg. Dec. for US 101 / Los Osos Valley Road Interchange, San Luis Obispo
Page 4 of 4

5. **5. Initial Study traffic analysis should consider future need to widen US 101 to 6 lanes.**

Previous project EIRs in City of SLO (e.g. Home Depot on LOVR, DeVaul Ranch housing project on LOVR) have indicated that traffic conditions along US 101 will require widening of US 101 to 6 lanes in the near future. Traffic congestion is already excessive along US 101 southbound south of LOVR during peak hours in late afternoon. The Initial Study should consider US 101 designed for 6 lanes in relation to the ultimate design requirements of US 101 / LOVR interchange.

6. **6. Proposed bike lanes are unsafe and should be improved to equivalent of Class 1 bike lanes.**

Both County and City General Plan advocate safe travel for cyclists. For example, the City of SLO Circulation Element requires that bikeway design "should be designed and maintained to improve bicycling safety, convenience, and encourage people to use bicycles to commute to work or school." City of SLO General Plan Circulation Element, Policy 4.0.5.

The bike lanes as proposed are Class 2. This situation is dangerous for cyclists, considering the volume and speed of traffic on such an interchange as US 101/LOVR. To meet the policies for cyclist safety, the bike lanes should be equivalent to Class 1 (separation of cyclist lane from traffic lane by median or other device). This could be achieved, for example, by a curb (approximately 1 to 2 feet wide) between the bike lane and traffic lane.

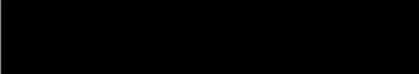
7. **7. Design of interchange should be flexible enough to allow potential future modification.**

At the public workshop of 08 July 2008, Mr. Tim Bochum (City of SLO) stated that Alternatives 3 or 6 would not preclude a future design modification which would make the interchange look more like Alternative 2, i.e. with a connection to South Higuera Street, bypassing the southern part of Los Verdes housing tract between the housing tract and US 101. If this is to be realized in fact, then design of either Alternative 3 or Alternative 6 should allow such future modification in a way that not does become prohibitive in terms of cost or engineering feasibility. This design flexibility should be part of the project description in the Initial Study, and it should be enforced through conditions of approval of the interchange project.

Sincerely,



Michael C. Sullivan



References

Remy, M. (2006). Guide to CEQA. 11th ed. Solano Press, Point Arena, CA USA.

Response:

1. Response #1 – Public Input

The City of San Luis Obispo met with the Los Verdes Parks I and II Home Owners Association boards and Caltrans held a public hearing to meet CEQA requirements. Public input was received either at the hearings/meetings or during the circulation period. The meeting on July 8, 2008 satisfies CEQA requirements for public input. In addition to the public hearings, several public meetings were held with Los Verdes I and II Homeowners

Association. The City Council also received project status updates during the development of the project.

Multiple meetings were held throughout the project development phase: meetings with the general public, meetings specifically with members of the Los Verdes Parks, other project update and funding discussions by the City Council, and the required public hearing for CEQA discussion. The public hearing was conducted in an open format style. Public input was received either at the hearings/meetings or during the circulation period. In addition, Caltrans staff was on hand at the hearing to answer questions and listen to comments by the public. A partial list of these meetings is provided below. It is our conclusion that CEQA public involvement requirements have been met. A court reporter was present at the public hearing on July 8, 2008 to record comments for the formal administrative record, and all of the comments are incorporated into the final report.

- Public Scoping Meeting #1: March 27, 2003
- Public Scoping Meeting #2: July 1, 2004
- Los Verdes Home Owners Association Meeting: March 11, 2003
- Los Verdes Home Owners Association Meeting: July 1, 2008
- Public Hearing: July 8, 2008

The public meetings, City Council presentations, and public hearings were advertised in *The Tribune* newspaper. In addition, notices of the public hearing were sent to interested parties and occupants/tenants within about 2,000 feet of the interchange.

The purpose of the public hearing was to obtain public comment and to ensure that transportation decisions are consistent with the goals and objectives of federal, State, and local entities.

The meetings provided opportunities for members of the public to see the final proposed alternatives and provide their input. The meetings were well attended by the members of the public and homeowners near the project.

As part of project development, two individual working group meetings with the Los Verdes Home Owners Association were held: one on March 11, 2003 and another on July 1, 2008. While the time between these meetings was longer than expected, the delay in the meetings was a result of the studies and technical reviews conducted for the project alternatives in the interim.

Project alternatives were considered and evaluated during the Project Study Report (approved February 27, 2004) phase of the project. Seven alternatives were considered by the Project Development Team and evaluated based on project cost, level of service and other traffic data, and specific environmental impacts (including public input). Two of these Alternatives (3 and 6) met the purpose and need of the project and had the least environmental impacts. Based on public comments received and the environmental impacts associated with Alternative 6, Caltrans selected Alternative 3 as the preferred alternative. Please refer to Section 1.3 of the environmental document for a discussion of public involvement in the selection of Alternatives.

2. Response #2 Alternative Evaluation

Please refer to response for Comment #1 for discussion on Alternative selection during public hearings.

3. Response #3 – Traffic Study Area

All traffic volume forecasts were done using the City’s traffic model and are based on General Plan build-out conditions for the City of San Luis Obispo. The intersections that would have most influence on the proposed project were considered in the traffic models (these intersections are in Table 2.1-2 in the environmental document).

The San Luis Obispo Citywide Traffic Model (SLOCTM) forecasts external traffic through the project area based on land use assumptions in the exterior area that you mention in your comment. The traffic study includes an analysis that forecasts 20 years “after” project build conditions that was used to develop traffic projections at the US 101/Los Osos Valley Road interchange and other study intersections. This 2035 scenario is commensurate with the City General Plan build-out conditions that were forecast in the City’s Circulation Element. General Plan build-out conditions reflect traffic conditions approximately 30 years in the future (beyond year 2035 conditions) and forecast a very conservative traffic volume scenario through the interchange.

The Traffic Operations Report evaluated the study area and developed forecasts for the required 20-year study window. The study area was selected in consultation with City of San Luis Obispo and Caltrans staff per the requirements set forth in the December 2002 Caltrans Guide for the Preparation of Traffic Impact Studies. The rectangle on figure 1 of the Traffic Operations Report represents a generalized study area. This study area is consistent with other environmental study areas used for regionally important projects that have been reviewed by the City. (See page 1 of the Traffic Operations Report for key intersections, freeway mainline segments, and freeway ramp junctions studied in the report.)

It is important to note that the traffic operation report, conducted for the Los Osos Valley Road interchange project, is a project-specific assessment and is not intended, nor required by CEQA, to study broad-ranging or other regional planning implications that are beyond the scope or impact of the project under review.

4. Response #4 – Prado

The Traffic Operations Report includes a variety of alternative scenarios that forecast future conditions for both land use growth changes as well as infrastructure changes. The 2035 scenario of the operations report must address potential changes at the project location and other changes that might be made for regionally important infrastructure improvements. Because the 2035 scenario coincides with the City’s build-out of its General Plan, the Traffic Operations Report assumes as a baseline that the Prado Road interchange would be improved so that it is consistent with the City’s Circulation Element. CEQA and Caltrans environmental guidelines require that the document be consistent with the City’s General Plan and the County’s Regional Transportation Plan, both of which include improvements at the Prado Road interchange.

The City has also developed guidelines for this type of review and requires that each project be reviewed consistently with those guidelines to meet CEQA objectives of impact identification. So, the answer to first question is that Prado Road has been considered in the impact assessment. The Prado Road interchange is not necessary for the US 101/Los Osos Valley Road interchange to proceed. The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes

to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the airport area, Dalidio area and other development projects within the City.

The Traffic Operations Report also assessed how the US 101/Los Osos Valley Road interchange would function if the Prado Road interchange were delayed in construction longer than the 2035 timeframe.

Finally, Los Osos Valley Road interchange Alternative #4 “Los Osos Valley Road-Prado Hybrid” analyzed sharing the US 101 on- and off-ramps for both Prado Road and Los Osos Valley Road in between the two interchanges on the west side of the freeway.

5. Response #5 – Future Widening of US 101

All final alternatives have been designed to allow the eventual six lanes of the US 101 freeway; therefore, analysis of this as an alternative in the environmental review is not necessary. Future widening of US 101 from four lanes to six lanes was also discussed in the Traffic Operations Report.

6. Response #6 – Bike Lanes

The City’s Bicycle Transportation Plan, dated May 15, 2007, designates Class II bikeway facilities on Los Osos Valley Road. Class II bikeway facilities are safe and clearly mark areas for bicycles and cars along roadways that must be shared by different modes of travel. All three bikeway classifications should be used to provide connectivity and degrees of separation between the modes.

The interchange project would install Class II bike lanes on Los Osos Valley Road consistent with city standards. Class II bike lanes are one-way facilities with pavement markings used to establish specific lines separating bicycles from vehicular travel lanes. While Class I bikeway facilities provide the greatest degree of separation between modes, not all bicycle riders choose to use Class I facilities. Many experienced bicyclists prefer to use the main roadway for their daily commutes; in these cases, Class II facilities provide them with greater separation than the Class III bike route designation or no bicycle facility at all.

7. Response #7 – Design Flexibility

The City Council has directed staff to develop viable alternatives that do not preclude the eventual conversion of the interchange to incorporate the cross-town connection that you suggest. Both Alternatives 3 and 6 have been designed with enough design flexibility to not prohibit a future change and the possibility of a bypass similar to Alternative 2.

Comment 45

Vicente del Rio (Received via email)

Dear Mr. Chuck Cesena and Mr. Tim Bochum

1. I live in Los Verdes Park I since 2001, and I would like to express my deep concerns regarding the current project for the Los Osos Valley Road and Highway 101 interchange. I am also on the HOA board and signed the board's official letter of comments to you, but wanted to express my own with this email. It is important that both CalTrans and the City understand what we, as residents, think of the implications of the current project.

Firstly I was surprised that the planning process itself was not more open to public participation and, specifically, to the residents of Los Verdes Park I and II, who will be directly affected by the project. Yes, the process included a couple of meetings with the HOA boards and one public meeting in 2003 but nothing more than that. Unfortunately, I was away teaching abroad at the time and could not participate. However, one would expect that a truly open and participatory process should include the residents in several ways and phases in its methodology.

Secondly, the Draft Initial Study has serious technical flaws that seem to compromise its results and the conclusion for a negative environmental impact declaration. Some of the major aspects that deserve more attention and detailed studies are:

2. 1) Study Area - The study area as indicated in the study is totally subjective, and reflects a perfect rectangle. This is totally inappropriate as it does not reflect the full impacts of the project and does not include in full all the properties that are being impacted. Traffic, sound, air quality, and aesthetical impacts are not limited to this rectangle and seem to exceed it by much.
3. 2) Sound Impact - The measurement stations for the present noise levels were all in front of the homes at LVP I & II while those for the "after the project" situation are behind the houses, which are farther away from the noise source (the road) and constitute a barrier to sound thus skewing the results. This indicates that further studies are needed, particularly in regards to providing both parks with a sound barrier (wall plus planting).
4. 3) Traffic Impact - Movement of vehicles in and out both Parks will be significantly impacted. With the project, it will be much more difficult and dangerous to turn east from Los Verdes Park I, and west from Park II, as it will be if one is trying to access any of the parks coming from west or east. Even with the proposed "turning lane" (which will be narrower than most turning lanes) the problem will persist. Not having a turning lane and forcing cars from both complexes to turn opposite to where they want to go, or to keep on ahead until finding a place to u-turn, does not seem to be a good option since it would force into the traffic flow and going in the wrong direction a number of vehicles that would not need to be there in the first place. A new traffic signal at the parks' entrance, coordinated with the existing one at the South Higuera intersection, would make more sense, and would protect our children and residents when crossing the road. I am sure that a thorough traffic study will prove this is a valid option, as some of my expert colleagues at Cal Poly believe.
5. 4) Aesthetical Impact - See 2 above. A wall and complementary planting would be needed, particularly if the project includes redoing the South Higuera corners to provide for larger turning radii due to the increase of traffic lanes on both directions. A thorough vehicular signage system should also be implemented, not only to direct drivers but also to increase safety for both park residents.
6. As a general comment, the best alternative would be to by-pass LV Park II to the south, and connect the overpass to Buckley road, which makes much more overall sense and provide an alternative route to Broad and the airport. As it is, Alternative 6 seems to have much more positive effects on the general traffic flow of the intersection, as I expressed in a letter back during the 2003 hearings.
7. Finally, I would also like to excuse myself for not being able to be at the public hearing to express these concerns verbally. I was away on vacation, as I am sure a lot of residents who could be there. Summer is a very inappropriate time to set a public

hearing.

Sincerely,

Vicente del Rio, PhD
Professor, City and Regional Planning, Cal Poly San Luis Obispo Resident, Los Verdes Park I, [REDACTED]

Response:

1. It was Caltrans' intent to hold the public hearing with sufficient time for the public to review the Initial Study and provide input. Consideration was given to the time and location of the times of all the public meetings held for the project. Multiple public meetings (including scoping meetings, City council meetings, Homeowners Association meetings, and a public hearing) were held throughout the project development phase. Below is a list of meetings that were available to the residents of the Los Verdes Parks I and II. Public involvement requirements have been met. A court reporter was present at the last public hearing on July 8, 2008 to record comments for the formal administrative record.

- Public Scoping Meeting #1: March 27, 2003
- Public Scoping Meeting #2: July 1, 2004
- Los Verdes Home Owners Association Meeting: March 11, 2003
- Los Verdes Home Owners Association Meeting: July 1, 2008
- Public Hearing: July 8, 2008

The purpose of the public hearing is to solicit public comment on the environmental document and project alternatives.

The various meetings provided opportunities for the public to learn about the proposed alternatives and provide feedback. The Initial Study, which explains the proposed project and its environmental impact, was distributed in June 2008. CEQA regulations require a public comment period lasting at least 30 days after the distribution of the Initial Study. The public hearing, which is optional under CEQA for a Mitigated Negative Declaration, was scheduled in July 2008 in coordination with the required public comment period.

2. The study area that pertains to the Traffic Study Area in the Final Traffic Operations Report applies to the traffic study only and not other environmental resources. As described in the legend of the "Traffic Study Area (Final Traffic Operations Report, p. 2)," the dotted line in the shape of a rhombus is the "Scope of Interchange Modifications," meaning that the only interchange changes would take place within the dotted lines. This includes the intersections labeled 2, 3, 4, and 5. No other intersections would be changed in any way, only intersections 2 through 5. In the legend, it states that the "Study Intersection" is labeled numerically, so that each intersection corresponds with a number to identify it easily. Intersections 1, 2, 3, 4, 5, 6, 7, and 8 are the intersections that were studied for the Final Traffic Operations Report, not just intersections 2, 3, 4, and 5. In Section 1, Introduction, Study Locations, all of the intersections are listed with the name of the exact intersection, including Freeway Mainline Segments and Freeway Ramp Junctions.

The project area is shown in Figure 1.1-1 of the Initial Study. The project area was delineated to include the areas of permanent and temporary disturbance resulting from the proposed project. Although the project area in Figure 1.1-1 is largely limited to areas that would experience ground disturbance, evaluations regarding traffic, air quality, noise, and aesthetics were conducted in a manner that takes into account larger areas that could be potentially affected by the project, depending on characteristics of the environmental resource. In particular:

- See two paragraphs above. Traffic was evaluated for the interchange changes inside the Traffic Study Area. Traffic was also evaluated at intersections not proposed for change, but potentially affected.

- A Noise Impact Analysis evaluated potential noise impacts resulting from the proposed project. Noise measurements and modeled noise receptors were located at areas with potential to be affected by the proposed project. Locations of these measurements and receptors were not just within the project construction footprint, but alongside the roads at residences and other potentially sensitive land uses.
- The Air Quality Technical Report evaluates local impacts, as well as compliance with regional, state, and federal air quality standards. The nearest sensitive receptors in the vicinity of the modeled roadway segments were modeled to represent a worst-case scenario.
- A Scenic Resources Evaluation was completed to specifically address effects to the view near and far. These included identification and analysis of impacts to visual resources of the region, the immediate project area, and the project site.

3. Noise

Monitor stations were located near the roadway and in front of homes at Los Verdes Parks I and II. Modeling was done at 38 receptor locations, which represented residences, a school, recreation areas, and commercial uses. Modeling also indicated how far from a project potential noise impacts may extend. The receptor locations in the Noise Impact Analysis follow the Caltrans Traffic Noise Analysis Protocol (2006), which meets federal and state regulations, standards, and policies relating to traffic noise.

The purpose of the Noise Impact Analysis was to assess whether the proposed project would lead to traffic noise impacts (noise impacts that exceed or approach the Noise Abatement Criteria or predicted traffic noise levels that substantially exceed the existing noise level). The Noise Impact Analysis, which follows protocol and local standards (Noise Element 1996 General Plan) regarding receptor locations and modeling, determined that the only receptor that approached or exceeded the Noise Abatement Criteria does not require abatement. A full copy of the Noise Impact Analysis is available at the following website: www.slocity.org/publicworks/lovric.asp.

With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek Bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt are known as 'quiet pavement' because they reduce the audible noise emanating from traffic.

4. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. This project does not preclude future projects that could address expanding access to Los Verdes Parks I and II.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the Federal Manual on Uniform Traffic Control Devices 2003. Installation of a signal that does not meet signal warrants is not recommended for operational and safety reasons.

New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II development were considered in the Traffic Operations Report. The report concluded that the relocated access would be more appropriately spaced between the two existing intersections with signals at Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on-and off-ramps, but that the new access point would not meet signal warrants and further recommended that the relocated driveways be restricted to right-in/right-out-only movements.

New driveways onto South Higuera Street were considered for both sections of the Los Verdes development. The connection for the western park would require right-of-way acquisition, and the connection for the eastern park would present operational deficiencies due to the lack of frontage space between Los Verdes Drive and South Higuera Street.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional capacity and reduce backups on Los Osos Valley Road, which would allow more time for Los Verdes Parks I and II residents to make right and left turns.

5. A Scenic Resources Evaluation for the proposed project analyzed impacts to visual resources of the region, the immediate project area, and the project site. The proposed build alternatives would not substantially degrade the existing visual character or quality of the site and its surroundings because an interchange already exists on the project site. As soundwalls are not being proposed for the frontage road of the Los Verdes Parks I and II, aesthetic wall treatment is not included. Visual mitigation measures V-1 through V-4 address screening, vegetation, aesthetic features of the bridge structure, and lighting plans. Aesthetic landscape planting and additional vehicular signage would be included as part of the project during the final design phase.
6. The bypass option was considered early on under Alternative 2. During the Project Study Report (PSR) phase of the project, Alternative 2 was developed. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally, the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/Open Space land and San Luis Obispo Creek. The alignment was also strongly opposed by residents of the Los Verdes development who did not want a major road along the west and northwest sides of the development.

Due to the high cost, environmental impacts, mixed public opinion, and scope outside the projects purpose and need, Alternative 2 was dropped from the list of viable alternatives studied in the Draft Project Report and Environmental Document phase of the project. The proposed bypass project is not currently included in the Cities General Plan or Counties Regional Transportation Plan; however, this project may be included in the next update of the Cities Circulation Element.

7. The City of San Luis Obispo held meetings with the Los Verdes Park I and II Home Owners Association boards, plus held a public hearing, per CEQA requirements.

Comment 46

John R. Polk (Received via email)

Mr. Cesena,

Since I'll be unable to attend the July 8, 2008 public meeting at City Hall, I'd like to call your attention to a few of my concerns about the proposed widening of Los Osos Valley Road east of US 101.

1. I live in the Los Verdes II condominium community, which is between US 101 and Higuera Street. As I now understand the proposal for this section of street, the city and Caltrans intends to widen Los Osos Valley Road to four lanes, while continuing to retain a bike lane on each side and the center lane for left turns. Ahhhh, Mr. Cesena, are we talking about the same street? I freely admit that I'm no expert when it comes to designing streets, but I'm pretty sure that the majority of users of this road don't all drive the subcompacts that will be necessary to fit the itty bitty lanes you'll have to install in order to fit all this into this section of road.
2. In addition, getting out of our community onto Los Osos Valley Road can already be a long frustrating wait with the streets current configuration of just two lanes. Question: Has anyone at Caltrans actually sat back and looked at a detailed street map, noticed that there are two condominium communities straddling this section of street, and considered the consequences to all these hundreds of residents with this current proposal? I'll ask this another way, how would you like to wait five minutes for a break in traffic every time you tried to go someplace? And while your waiting, another resident gets in line behind you, and then another...
3. You're probably now predicting that I'll most likely propose that the logical solution would be the installation of a new short cycle signal light at our entrance. Mr. Cesena, I am aware enough to recognize how close our entrance/exit is to Higuera Street and that Caltrans will probably be disinclined to have two signals so close together, but it is a *logical* solution for this specific problem.

Mr. Cesena, I'm not suggesting I know a better way to do this, I'm saying the current proposal appears ill conceived and short sighted and there's probably a better, resident friendly way of doing this. I'm just asking for somebody to take another look at your maps, maybe drive down and look at what you *actually* have to work with, before you spend all this money, time, and effort on something that so many residents will hate every time they want to go someplace. Please remember that our residents are not the ones just driving through this area to get somewhere, this is where we live.

Thank you for your time and consideration.

John R. Polk

Response:

Thank you for your comments. We understand your concerns regarding access to and from the Los Verdes residential complexes.

1. The project was designed to local standards and requirements.
2. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The Traffic Operations Report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as design of the interchange project moves forward and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. The City is investigating potential alternatives to the driveways location and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the City for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

3. Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways does not meet signal warrants at this time, nor would it meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

The existing signal at South Higuera and Los Osos Valley Road cannot be removed and/or relocated to the intersection of Los Osos Valley Road and the Los Verdes Parks I and II driveways because the traffic volumes at this intersection are considerably higher than the driveway locations. Turns made at the intersections would become problematic and lead to considerable back up in all directions (including across the Los Verdes driveway locations) such that all arterial operations would likely fail. As an example of how large these numbers are, the future highest left-turn volume from one of the driveways is about 70 vehicles, compared to the over 800 vehicles that turn left from Los Osos Valley Road onto Higuera. The need to keep signals at that intersection is critical.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveway due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101

freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Comment 47

Brian B. Stark (Received via letter)

July 17, 2008



Caltrans District 5
Attn: Chuck Cesena
50 Higuera Street
San Luis Obispo, CA 93401

Dear Mr. Cesena,

Thank you for the opportunity to comment on the environmental analysis for the Los Osos Valley Road and overpass widening project. After discussing the project with representatives at the public meeting held on July 8, 2008, I offer the comments below.

1. The Land Conservancy of San Luis Obispo County has been involved in restoring creeks in the San Luis Obispo Creek watershed since the 1980's. We have also completed a restoration project in the current project area (Fish Passage @ Prefumo Creek and Hwy. 101). The project designs appear to avoid impacts to fish passage on Prefumo Creek, but there is not a clear description of how work happening away from the fish passage structure might impact the project function and how this potential impact is being avoided. It is our concern that any work in San Luis Obispo Creek that speeds up flow, such as removal of sediment and any vegetation from the channel of SLO Creek or Culvert, may cause a headcut that travels up SLO Creek and eventually up Prefumo Creek and alters the fish passage project. Is there a risk that alterations to the flow regime on SLO Creek will cause the channel bed to degrade and change the jump height into the fish passage structure?
2. We noticed on page 36 of the Environmental Document, under the "affected environments" description, that the report described the start of Prefumo Creek at Laguna Lake. Technically, Prefumo Creek starts higher up in Prefumo Canyon. This should be corrected for accuracy.
3. The Land Conservancy also has concerns about bicycle safety on and around the interchange project. While alternatives address cyclists, none of the project alternatives appear to "maximize" safety for cyclists. The Bob Jones Trail section that currently ends at Prefumo Creek will be a busy trail and crossing Los Osos Valley Rd. on the surface will be dangerous. The description is not clear how the project will facilitate the Bob Jones Trail traffic moving across LOVR. There is a signaled intersection, but no information is given on how the intersection will operate for movement of bicycles and pedestrians. The stated goal for the project and the Caltrans standard states "*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.*" We feel the project as described falls short of this goal by not choosing to direct trail traffic under Los Osos Valley Road or via an overpass. The following

THE LAND CONSERVANCY OF SAN LUIS OBISPO COUNTY
P. O. BOX 12206, SAN LUIS OBISPO, CA 93406
805 544-9096 • 805 544-5122 FAX • LC@LCSLO.ORG • WWW.LCSLO.ORG

questions should be answered in the final document. How was bicycle safety assessed for this trail crossing? Why does the project not contain an overpass or underpass for cyclists and pedestrians. Was an underpass considered as a safer route? We believe an underpass will greatly improve safety by removing bicycles from the traffic areas. Even if an underpass is temporarily flooded during flood flows, the benefits would outweigh the inconvenience of occasional inundation.

We hope you will consider these comments as constructive input to a project that is clearly needed for improved transportation in San Luis Obispo for both automobiles as well as cyclists and pedestrians. We thank you again for the opportunity to comment.

Sincerely,



Brian B. Stark
Executive Director

Response:

1. The project description does not include sediment removal within the project. Also, the project does not intend to increase the hydraulic capacity of San Luis Obispo Creek.

With the active channel not being altered, water levels would stay consistent. Water levels would not change, so the jump height into the fish passage structure would not change.

2. In Section 2.2.1 Hydrology and Floodplain of the environmental document, the change has been made addressing the start from Prefumo Canyon to Laguna Lake to Prefumo Creek. Thank you for the correction.

3. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

The project would install standard 5-foot Class II bike lanes and connect to and preserve the existing 6-foot sidewalks in front of the Los Verdes Parks I and II development. Class II bike lanes are one-way facilities with pavement markings showing separated areas reserved for bicycles and vehicular travel lanes. The City General Plan calls for Class II facilities along arterial routes. Class II bike lanes have been found to provide more consistent separation

between bicyclists and passing motorists. Marked bicycle lanes can also benefit pedestrians; turning motorists slow and yield to bicyclists, and are more likely to do so for pedestrians.

Class I bike lanes that are two-way facilities separated from vehicular traffic are infeasible on Los Osos Valley Road in front of the Los Verdes Parks I and II developments.

All intersections with signals would include pedestrian crossing controls. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detector loops for the Class II bike lanes.

Comment 48

Donna Di Gangi (Received via letter)

Los Verdes Park I and II, Board of Directors
c/o Farrell Smyth for Los Verdes Park I



Attn: Mr. Chuck Cesena
California Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, CA 93410

July 17, 2008

Re: Los Osos Valley Road/US 101 Interchange Improvements Project
San Luis Obispo County, California, 05-SLO-101-PM 25.5-26.3, 05-0H7300
Initial Study with Proposed Mitigated Negative Declaration

Dear Mr. Cesena:

This letter presents comments about the Los Osos Valley Road/US-101 Interchange Improvements Project. Concerns focus on the impact to the Los Verdes Park I and II (LVP) residential communities. The intent of this letter is to bring forth matters of interest within the comment period, so that we do not miss expressing any pertinent factors for consideration in the nearly approaching project decision process.

Many of us in both communities reviewed the reports as thoroughly as possible and discussed matters with the representatives at the recent LVP meeting and public hearing. Moreover, the community received consultation from Cal Poly faculty, who specialize in engineering, traffic engineering, and city and regional planning. Comments represent core issues facing the 178 homes and approximately 500 residents in LVP and pertain to concerns for which background or support information is not evident from the initial study and negative declaration. We have found that many items presented in the project need clarification and/or further study.

We respectfully request review, evaluation, and response to comments addressing concerns prior to environmental document approval. We also request that the City and Caltrans incorporate applicable changes and mitigation measures into the substance of the study and work with us to make the outcomes successful for the City and for the residents of LVP.

Background on the LVP Communities

The LVP communities are planned urban developments consisting of tranquil, single-family homes on the north and south sides of Los Osos Valley Road at the corner of Los Osos Valley Road and S. Higuera. (See Figure 1 and Attachment A, which contains LVP I and II tract maps.) Combined these two communities contain 178 homes¹. The homes in these developments are predominantly three or four bedroom units, with one to four or more residents

¹ LVP I has 91 units. LVP II has 87 units.

per household. The estimated population of these communities is between 400 and 600 persons. In LVP I, twenty-five homes line Los Osos Valley Road and S. Higuera. In LVP II, seven homes line Los Osos Valley Road. These perimeter homes and those in open space corridors or on hilltops are of most concern for noise and air pollution impacts.



Figure 1: Entryway to Los Verdes Park I (left) and Los Verdes Park II (right)

Source of Project Concerns and Comments

The project includes extensive changes to the layout and functioning of the roadway and the interchange, leading to major concerns about the magnitude of environmental and economic effects on the LVP communities. Project evaluations consistently led to less than significant impact declarations for the residential area, though it seems that there will be substantial real and lasting effects on abutting property and quality of life.

The initial study and negative declaration appear constrained to an overview of environmental effects on residents, because of limited details about the LVP area and a study area that does not encompass the entire project for all factors. In contrast, the study and declaration comprehensively and directly evaluate environmental effects on the entire interchange area, per Caltrans' standards, and clearly define design plans for the interchange area. The inclusion of the CEQA checklist for the project indicates that study of the residential area is complete, though specific comments follow that indicate a need for further study specific to this area.

1. Technical Comments

Dr. Cornelius Nuworsoo, a professor at Cal Poly and a certified planner with a Ph.D. in traffic engineering, performed an independent evaluation to assist the community. Attachment B contains this evaluation, which includes comments in addition to the ones made in the body of this letter. (Please note that this letter supersedes the July 2, 2008, "Formal Comments" letter referenced in Dr. Nuworsoo's evaluation. Though content of this letter is similar to the July 2, 2008 version, Dr. Nuworsoo has not specifically reviewed this letter.)

- b. The concern is that the study does not capture the full traffic impact for intersections near LVP because traffic information is extrapolated, data is not quantitative or associated in the same manner used to evaluate the interchange area² for all relevant scenarios, and that certain factors are not considered for the intersections.
- c. The concern is that evaluation of the intersections near LVP without the Prado Road interchange is not shown in the report. (The City indicated at the recent LVP meeting and at the public hearing that without a Prado Road interchange, traffic levels on Los Osos Valley Road would require six travel lanes.) Traffic levels at these intersections would likely change for scenarios that exclude the interchange, which could mean higher volume and lower levels of service than predicted with its inclusion. This is of special concern since City plans indicate that the Prado Road interchange is unlikely to be built for many years, the Prado Road interchange was a very significant project, and that predictions without this interchange represent the most likely and current scenario.
- d. The concern is that the Prado Road extension between Madonna Road and S. Higuera was included in the model, this extension is not likely to occur, and predictions would change without this road segment.
- e. The concern is that a capacity increase and overall better roadway would encourage use of the road as a preferential, main thoroughfare, leading to additional traffic volume and related impacts at LVP. The improved roadways and interchange will accommodate and acquire more traffic from growth.
- f. Traffic counts predict an increase in traffic into and out of the LVP driveways. However, these developments are constrained from growth.

3.

3. Noise

As stated in the Noise Impact Analysis report, “[T]he primary source of noise in the project area is traffic on Los Osos Valley Road, S. Higuera Street, and US 101.”³ Currently noise levels from these sources are quite substantial in the residential area. Regular traffic, large commercial trucks, and vehicles speeding or screeching around the corner from S. Higuera onto Los Osos Valley Road and driving onto the raised median all contribute to current noise levels.

The report indicates that noise impacts are less than significant for sensitive receptor locations⁴. (See Figure 3 for data from the selected receptors.) A review of the report’s details

² For example, qualitative instead of quantitative queue data at intersections near LVP is shown in the report.

³ Noise Impact Analysis, p. 20

⁴ Noise Impact Analysis (p. 26): *If the peak-hour traffic noise level at a sensitive receptor location is predicted to approach or exceed the NAC, or if the predicted traffic noise level is 12 dBA or more over its corresponding existing noise level at the sensitive receptor location analyzed, noise abatement measures must be considered. Of the 38 modeled receptors, 1 receptor would approach or exceed the NAC under activity category B (67) for both Alternatives 3 and 6 conditions. Of the 38 modeled receptors, no receptors would experience a substantial increase over their corresponding adjusted existing peak-hour noise levels.*

has led to the discussion below, which outlines concerns for clarification and additional study. Concerns relate to limits of the scope of the study, sensitive receptor analyses, and discrepancies regarding City noise limits.

Table ES-A: Projected Traffic Noise Level, dBA L_{eq}

Rec No.	Location	Type of Development	Noise Abatement Category	Adjusted Existing Noise Level	Future No Build	Alternative 3	Change from Existing Level	Alternative 6	Change from Existing Level
R-1 ¹	Los Osos Valley Road	Commercial	C (72)	69	72 ²	72	3	73	4
R-2 ²	Los Osos Valley Road	Commercial	C (72)	69	72	72	3	72	3
R-3 ²	Los Osos Valley Road	Commercial	C (72)	71	73	74	3	74	3
R-4 ²	Los Osos Valley Road	Commercial	C (72)	65	68	68	3	69	4
R-5 ²	Los Osos Valley Road	Commercial	C (72)	64	67	67	3	67	3
R-6 ²	Los Osos Valley Road	Commercial	C (72)	65	68	68	3	68	3
R-7	Los Osos Valley Road	Residential	B (67)	62	65	64	2	62	0
R-8	Los Osos Valley Road	Residential	B (67)	62	64	64	2	62	0
R-9	Chuparosa Drive	Residential	B (67)	60	63	63	3	61	1
R-10	Chuparosa Drive	Residential	B (67)	61	64	64	3	62	1
R-11	Chuparosa Drive	Residential	B (67)	61	63	63	2	61	0
R-12	Chuparosa Drive	Residential	B (67)	60	63	63	3	61	1
R-13	Los Palos Drive	Residential	B (67)	51	54	55	4	54	3
R-14	Los Palos Drive	Residential	B (67)	48	53	53	5	52	4
R-15	Los Palos Drive	Residential	B (67)	57	59	59	2	58	1
R-16	Los Palos Drive	Residential	B (67)	61	64	64	3	64	3
R-17	South Higuera Street	School	B (67)/E(52)	58/34 ²	66/42	66/42	8	66/42	8
R-18	Encanto Lane	Residential	B (67)	47	50	51	4	49	2
R-19	Encanto Lane	Residential	B (67)	54	56	56	2	56	2
R-20	Encanto Lane	Residential	B (67)	60	63	63	3	63	3
R-21	Los Palos Drive	Residential	B (67)	51	56	56	5	56	5
R-22	Los Palos Drive	Residential	B (67)	53	59	59	6	59	6
R-23	Los Verdes Drive	Residential	B (67)	58	62	62	4	61	3
R-24	Los Verdes Drive	Residential	B (67)	49	53	53	4	52	3
R-25	Los Verdes Drive	Residential	B (67)	48	58	52	4	52	4
R-26	Los Verdes Drive	Residential	B (67)	51	55	55	4	54	3
R-27	Los Verdes Drive	Residential	B (67)	56	60	60	4	60	4
R-28	Los Verdes Drive	Residential	B (67)	53	59	59	6	59	6
R-29	Los Verdes Drive	Residential	B (67)	55	64	64	9	64	9
R-30	Los Verdes Drive	Residential	B (67)	54	58	58	4	57	3
R-31	Los Verdes Drive	Residential	B (67)	49	53	53	4	52	3
R-32	Los Verdes Drive	Residential	B (67)	55	59	59	4	59	4
R-33	Los Verdes Drive	Recreation	B (67)	51	57	57	6	56	5
R-34	Los Verdes Drive	Residential	B (67)	48	54	53	5	53	5
R-35	Los Verdes Drive	Residential	B (67)	48	55	55	7	54	6
R-36	Los Verdes Drive	Residential	B (67)	46	53	53	7	53	7
R-37	Los Verdes Drive	Residential	B (67)	55	64	64	9	64	9
R-38	Calle Joaquin	Recreation	B (67)	52	56	56	4	59	7

Source: LSA Associates, Inc., 2006.

- ¹ No outdoor active use areas are associated with the commercial land use.
- ² Numbers underlined represent noise levels that approach or exceed the NAC under activity category B (67) or C (72).
- ³ Exterior/Interior noise level. A 24-dBA exterior-to-interior sound attenuation with windows and doors closed is assumed for the classrooms.

Figure 3: Current and Predicted Noise Levels

Scope Limitations

The map from the Noise Impact Analysis (see Figure 4) and the body of the noise report indicate that the study area does not cover the complete roadway from the interchange through to S. Higuera and on S. Higuera. (This aligns with the study area from the traffic study previously shown in Figure 2, which shows the rectangular area selected for study). The study area is limited to the interchange area up to the driveways of the LVP communities for Alternative 3 and up to an area between the driveways and the interchange for Alternative 6. Additionally, the report does not indicate that analyses accounted for the change in plans (a significant delay) for construction of the Prado Road interchange.



Excerpt of the map on p. 19 of the Noise Impact Analysis. Circles and a corresponding number indicate the location of the sensitive receptors whose predicted noise levels were evaluated. Arrows pointing to the study boundaries were added to the map excerpt to clarify study boundaries.

Figure 4: Map Indicating Locations Studied and Study Boundaries.

Sensitive Receptor Analyses

The Noise Impact Analysis indicates that existing noise levels were measured “at 9 representative sensitive receptor locations”⁵ at points labeled M-1 through M-9. The measurements captured noise levels, which subsequently served as input data for the software model that predicted noise levels at the 38 sensitive receptor locations. Measurements taken in the LVP communities were at locations M-4 through M-8, located in the front yard or driveway of homes lining Los Osos Valley Road⁶. (See Figure 5 for decibel readings at locations M-4 through M-8.) Although these areas had been considered “representative sensitive receptor locations” when the measurements were taken, none of the 38 sensitive receptor locations selected for evaluation (except possibly Location R-16)⁷ are located in areas of front-side outdoor activity (barbeque, etc.) for homes lining Los Osos Valley Road.

Table F: Short-Term Ambient Noise Monitoring Results

Monitor #	Date	Start Time	Duration	dBA L _{eq}
M-1	3/15/2006	9:51 a.m.	20 minutes	72.5
M-2	3/15/2006	10:26 a.m.	20 minutes	64.0
M-3	3/15/2006	10:55 a.m.	20 minutes	64.9
M-4	3/15/2006	11:26 a.m.	20 minutes	66.0
M-5	3/15/2006	1:18 pm.	20 minutes	64.0
M-6	3/15/2006	1:49 pm.	20 minutes	64.2
M-7	3/15/2006	2:19 p.m.	20 minutes	64.9
M-8	3/15/2006	2:46 p.m.	20 minutes	65.6
M-9	3/15/2006	3:22 p.m.	20 minutes	61.1

Source: LSA Associates, Inc., 2006.

Figure 5: Measured Results from Representative Sensitive Receptor Locations

The map in Figure 4 shows the location of the 38 studied sensitive receptor locations. In the residential area lining Los Osos Valley Road, it shows that all evaluated locations (except possibly Location R-16) are at points further (approximately double the distance) from the road than M-4 through M-8 (front-side areas) and that they are at the rear of homes or behind other building structures, e.g. garages. Additionally, the report does not indicate noise level predictions for indoor areas of residences.

Discrepancies for City Noise Limits

Pages 16 and 17 of the Noise Impact Analysis, state that the City’s maximum noise exposure level for residences from transportation sources is 60 dBA L_{DN} (CNEL). However, as indicated in the Noise Impact Analysis (p. 29), evaluations of sensitive receptor locations compare results

⁵ Noise Impact Analysis, p. 21

⁶ See pages 21 and 22 of the Noise Impact Analysis for exact description of these locations.

⁷ Noise Impact Analysis, Figure 2, p. 19. An exception may be Location R-16. It is difficult to tell from the map exactly where Location R-16 lies.

to a 65 dBA City noise limit. In addition to the discrepancy within the report, a 65 dBA limit is different from the City's current noise limits for residential use. The City's Noise Element (Adopted 1996, Section 1.4) states, "[N]oise created by new transportation noise sources, including road, railroad, and airport expansion projects, shall be mitigated to not exceed the levels specified in Table 1 for outdoor activity areas and indoor spaces of noise-sensitive land uses which were established before the new transportation noise source." Table 1 of the noise element shows a limit of 60 dBA for exterior and 45 dBA for interior residential use.

Specific Concerns

Specific concerns related to the limits to the scope of the study, sensitive receptor analyses, and discrepancies with the City's noise limits are that:

- a. As indicated within traffic report comments, exclusion of roadway areas surrounding LVP from the study area in the noise model could change the outcome of the impact assessment. Aligned with the study area, receptor locations appear concentrated in corridors or locations that seem to capture noise from the interchange (study area), but not noise from the entire planned roadway through to S. Higuera and for S. Higuera. This poses concern regarding additional noise levels at homes lining S. Higuera. It also adds to concerns about noise levels indoors and at the front-side outdoor activity areas along Los Osos Valley Road.
- b. As indicated for comments about the traffic report, inclusion of the Prado Road interchange and Prado Road extension between Madonna Road and S. Higuera in the noise model could change the outcome of the impact assessment.
- c. Predicted noise levels at the front-side outdoor activity areas of perimeter homes could be 3 to 6 dBA greater than the analysis indicates, since the modeled sensitive receptor locations are approximately double the distance from the roadway than the front-side of these homes. Noise levels could be 6 dBA higher if the expected standing (queue) traffic approaching S. Higuera meets the definition of a point source. The following statements from the Noise Impact Analysis (p. 11) regarding the effects of point and line sources provide the basis for concern.
 - For a point source: "The sound level attenuates (or drops off) at a rate of six dBA for each doubling of distance."
 - For a line source: "The change in sound level from a line source [moving traffic on a highway] is three dBA per doubling of distance."
- d. Predicted noise levels at the front-side outdoor activity areas of perimeter homes could be substantially higher than the analysis indicates, since the modeled sensitive receptor locations are sheltered by buildings from traffic noise on Los Osos Valley Road. This concern is based on the statement from the Noise Impact Analysis (p. 12), which states, "[N]atural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels."

- e. Predicted noise levels at the front-side of perimeter homes could signify the need for mitigation per Caltrans' standards. The basis for this concern is that measurements indicate that the noise levels for sensitive receptors M-4 through M-8 are very close to the Caltrans' 67 dBA threshold⁸ for noise abatement (see Figure 4), so adjacent areas would likely also be very close to this threshold when modeled under current conditions and over the limits for projected levels.
- f. Sensitive receptor locations 29 and 37 both appear on S. Higuera and indicate a noise level increase of 9 dBA. (See Figure 3 for data). This type of increase is perceptible and almost twice as loud as current conditions⁹. If this type of increase (9 dBA) extrapolates to the homes on Los Osos Valley Road, e.g. representative sensitive receptor locations adjacent to measurement locations M-4 through M8 (front-side outdoor activity areas), these homes could exceed the 67 dBA Caltrans' abatement threshold and be well above City limits for traffic induced noise. Increases on Los Osos Valley Road would expectedly be higher than predicted for S. Higuera due to the combined effects of queuing at S. Higuera, traffic on Los Osos Valley Road, and traffic at the interchange area.
- g. The report does not explain why the analysis does not contain data showing the evaluation of the front-side outdoor activity areas of the perimeter homes.
- h. Interior noises levels could exceed the City's permissible exposure standard of 45 dBA, especially when residents use windows or doors for ventilation. (These homes do not have air conditioning or other ventilation systems and rely on windows for ventilation.) This concern is not limited to the perimeter homes.
- i. In consideration of current noise levels at the 24-hour monitoring station at LVP near the highway, which averaged 68 dBA¹⁰, the L_{DN} has a strong potential to exceed all regulatory thresholds for perimeter housing on Los Osos Valley Road.
- j. The discrepancy regarding the City noise limit stated early in the report and the one used for comparison in the analysis needs resolution. The concern is that the projected levels are over the threshold.

In general, LVP residents are significantly impacted by noise. The community was once at a dead-end street and now it is on an arterial that is gradually expanding and increasing in traffic travel. The elimination of the Prado Road Interchange project and the feeding of more arterial roads into S. Higuera will exasperate noise and other problems. Queuing at S. Higuera, which indicates a poor level of service, adds substantial noise that will continue with the alternatives. Signage on Los Osos Valley Road prohibits trucks from using the road, yet this is not enforced;

⁸ Or the action level, 1 dBA below the threshold (66 dBA)

⁹ Noise Impact Analysis, p. 11 states, "... the trained ear can detect changes of 2 dBA in normal environmental noise. It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of 3 dBA. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice or half as loud."

¹⁰ Noise Impact Analysis, p. 24

the noise from these vehicles is extensive at times and improvements will likely encourage even more truck travel. Residents have noticed a significant increase in speeding and screeching in front of LVP. Sound walls that appear all down S. Higuera in residential areas help to mitigate noise for the adjacent homes, but the shrubs along the perimeter of the LVP communities no longer provide sufficient sound absorption because noise levels are too high for this attenuator. Overall, traffic patterns have dramatically changed the area. Whatever the level, the incremental addition of noise from this project adds to the little by little increases over the years from other projects, especially the increase from the more recent projects west of US-101.

The main overall concerns about this project are that:

- The studied sensitive receptors do not encompass significant noise affected locations representative of the community;
- Study area boundaries constrain the noise model from capturing the full impacts;
- Inclusion of the Prado Road interchange does not represent actual conditions;
- Predicted noise levels were compared with a higher limit than the City noise ordinance allows; and
- Residents would experience a substantial increase in noise in excess of regulations.

The community is very concerned that noise levels will be unbearable, outside the established limits, and without mitigation. To convey the full impacts of traffic noise, it is necessary to have an accurate and complete accounting of noise levels that are evaluated using relevant inputs and at correctly positioned sensitive receptor locations. The main concern is that, because of the factors described previously, the study does not fully capture the effects of the project on residential noise levels at the areas most affected by noise.

Finally, noise levels would be unbearable without mitigation prior to construction and substantial construction barriers. Although City ordinances restrict construction to the hours between 7 am and 7 pm, a particular concern is about major construction occurring at night near the highway and if the restriction would apply to the interchange area or if the sound would travel and be significant enough to affect residences. Also, in consideration of residences, further restriction of construction hours would be greatly appreciated.

4. **Air Quality**

The air quality report shows that overall air quality will improve with the alternatives, yet results from air quality modeling are dependent on the traffic study analyses. Because of the dependence on the traffic study, whose underlying assumptions and scope are in question, air quality is of concern. As one example, when traffic levels of service reach D, E, or F because of a project, carbon monoxide would be of significant impact. The concern is that the project will generate elevated “hotspot” concentrations in front of the communities for CO or other pollutants

and bring air pollution levels above standards and/or significantly degrade air quality. As with noise, assurance that air quality modeling is representative of the community is of concern.

Air Quality During Construction

The study states that the homes (sensitive receptors) would not be substantially impacted by carbon monoxide during construction “because the project does not adversely affect existing conditions”. The meaning of this statement is not clear in the study or described with a link to data in the “Air Quality Technical Report” and needs clarification.

5. **5. Widening Plans**

The City has indicated that, aside for some potential need to widen the proposed bike lanes, changes to Los Osos Valley Road at LVP are not likely to change existing curb and sidewalk locations because current plans comprise of very narrow travel, median, and bike lanes that will fit between the existing curbs. The concern is that design plans are not solid enough to assure the changes will remain within the boundaries of the existing curbs and could ultimately involve movement of the existing curb, bringing the roadway closer to the LVP communities.

6. **6. Vehicular and Pedestrian Safety and Community Accessibility**

LVP I and II each have only one way into and out of the subdivisions, requiring all traffic to enter and exit on Los Osos Valley Road near S. Higuera. Figure 6 depicts the current, typical traffic situation at LVP at 5:00 pm on a weekday.



Figure 6: Typical traffic at 5 pm at Los Verdes Park
Vehicles queued and blocking LVP Driveways (left). Large truck traffic (right).

Vehicular Safety and Accessibility

Under current conditions, exiting the LVP communities is very difficult during peak hours and becoming increasingly difficult at non-peak hours. Level of service at Los Verdes Drive will be at category “F” for all alternatives, which exceeds the level of service “D” category of acceptability for the City.

Various factors compound the safety and accessibility problems. Currently, traffic tends to increase its speed to as fast as possible when turning onto Los Osos Valley Road from S. Higuera and often vehicles drive onto the raised medians on Los Osos Valley Road. (Recently, a vehicle coming from S. Higuera involved in an accident at Los Verdes Drive supposedly was traveling at an estimated speed of 50 mph at the point of impact.) Many drivers often do not obey the “keep clear” road markings at Los Verdes Drive. Turns onto Los Osos Valley Road from S. Higuera are relatively constant due to the S. Higuera signal configuration, which predominantly offers a green signal to right-hand turners, and from vehicles that do not stop when this light is red. Although these factors compound the problem, the difficulty still exists on its own.

The study discusses the access problem briefly and Fehr and Peers have included a summary of possible options designed to mitigate the problem and actions to determine an appropriate solution, but the study does not indicate specific plans to resolve this matter. Further, predictions made in the traffic study affect the scope of the situation and potential solutions.

The concern is that the plan is to use the proposed median lane as the solution to the problem. Aside from sheer traffic volume, crossing extra lanes will be more difficult due to staggering of the traffic flow. The safety of turning left halfway across onto a narrow median lane, especially with opposing driveways at LVP I and II, is of great concern. The City has indicated that one, if not the only, practical solution is to restrict exits from LVP to right-hand turns; however, this solution would pose a major inconvenience to hundreds of residents and each resident wishing to turn left would then need to travel quite a distance before being able to reroute themselves in the proper direction. This low-cost solution, essentially adds vehicle miles causing LVP residents to travel as far as Home Depot or down S. Higuera to turn around. This type of travel will add to the already stressed traffic situation, pollution, and noise and the accessibility problems will remain. Overall, the concern is that inclusion of the median lane does not feasibly address the issue.

The traffic report indicates that recommended alternatives to mitigate unacceptable operations¹¹ at this intersection, including a traffic signal and alternative driveways¹², need detailed study with engineering calculations encompassing all relevant factors and community input. The problem needs resolution and if not considered as an integral part of the project design, the concern is that otherwise viable alternatives may become severely constrained and result in solutions that are not feasible or beneficial.

¹¹ Page 38

¹² Pages 56 and 57

Pedestrian Safety

The crossing signal at the S. Higuera intersection is extremely short, causing concern for pedestrian safety in crossing Los Osos Valley Road. Special concern lies with school-age children in the area.

7. **7. Visual/Aesthetics**

The concern is that the project substantially changes the current views of the roadway at the LVP communities, primarily on Los Osos Valley Road and to some extent on S. Higuera. A current view of the median area is shown in Figure 7. The landscaping and raised median help provide the perception that the area is residential.



Figure 7: Median area between LVP I and II, heading toward S. Higuera

The study does not address the aesthetic aspects of this portion of the roadway and states on page 26 that, “[T]he change to the aesthetic quality of the site will likely be considered neutral.” However, the study does not specifically discuss changes in the residential area nor does the study include photo simulation for the views near LVP, as provided for the interchange area. Median removal, mature tree removal, additional lanes, and potential changes in street lighting will cause changes in the visual/aesthetic quality of the area. The project could create a new source of substantial light or glare from street lighting and traffic, which would adversely affect visual/aesthetic traits. These views would have a direct impact on the hundreds of residents in LVP and others using the roadway and would likely negatively impact property values.

8. **8. Community Character and Property Values**

The concern is that the project will substantially change the character of the community from a tranquil, residential neighborhood to a loud, heavily traveled area with poor visual/aesthetic characteristics. The concern is that changes to the visual/aesthetic aspects, community character, and traffic and related impacts would result in a degraded quality of life and lowered property values for residents

9. **9. Land Use and Circulation Element**

The concern is that the improved roadways will lead to and encourage development in the areas served by the roadways. Also, the concern is that changes have been made to the City's circulation element and it does not include widening of Los Osos Valley Road east of US-101 and that review of this aspect of the interchange project is an "add-on" that did not undergo applicable review as part of the circulation element.

10. **10. Cumulative Effects**

The required review of historical, present, and future (reasonably foreseeable) cumulative effects, per NEPA (40 CFR §1508.7) and CEQA (Section 15355) requirements, helps prevent the adoption of multiple projects that individually demonstrate no significant effect when compared to current conditions, but collectively cause significant impacts on an area when incrementally adopted. Cumulative effects are of concern since they could significantly change the usage of Los Osos Valley Road and affect the LVP communities. Impacts would stem from changes to traffic patterns that subsequently would influence air quality, pedestrian safety, vehicular safety and accessibility, noise levels, visual/aesthetic characteristics, and community character.

The traffic study indicated future road development (buildout) plans, but it is not clear from the study how or why they were determined not to be individually limited or cumulatively considerable. As shown on page 8 of the traffic report, certain buildouts in the City were assumed for the design year, 2035, though changes to the City's circulation element for buildouts and buildout timing could affect the outcome. The study (p. 102) concludes that:

The project would not result in cumulative impacts that are individually limited or cumulatively considerable. The project effects are mostly temporary and construction related. Cumulative impacts were covered in the appropriate sections above. Since none of these impacts would result in a substantial contribution to a cumulative impact, no further discussion is needed.

However, direct study of the residential area and the link between data and conclusions for cumulative effects are not apparent in the report.

The concern is that incrementally, past projects have had significant impact, especially the development and road changes west of US-101, and that the full range of cumulative impacts are underestimated. Overall, a direct and detailed discussion of the cumulative effects is necessary to provide the link between the data and information and the conclusions. Following are historical, current, and future projects known to the community that potentially or are likely to contribute to impacts on the residential area.

- a. Historical
 - i. Opening of Los Osos Valley Road from a previously dead-end street to accommodate the overpass/interchange at Los Osos Valley Road
 - ii. Addition of the Food 4 Less development
 - iii. Development of the west side of US-101
- b. Present
 - i. Actual roadwork and development west of US-101, since the collection of study data
 - ii. The project itself
- c. Future (dependent on the City's current plans)
 - i. Overall changes to the City's circulation element
 - ii. Land use and land use changes in the City's (or County) plans
 - iii. Major delay to Prado Road interchange or no interchange
 - iv. Buckley Road extension to S. Higuera
 - v. Prado Road extension from S. Higuera to Madonna Road and Broad Street
 - vi. Tank Farm Road widening and intersection improvements
 - vii. Four continuous lanes down S. Higuera (widening between Margarita Avenue and Elks Lane)
 - viii. Collector road from Dalidio property to Froom Ranch Way
 - ix. Additional development on the west side of US-101
 - x. South Street road diet (could encourage Tank Farm Road or Prado Road travel to S. Higuera, which will likely encourage travel to the Los Osos Valley Road interchange instead of the Madonna Road interchange)
 - xi. A park and ride lot near the interchange and intercity transfer service utilizing the interchange

11. Community Involvement and Previously Expressed Concerns

The first public meeting about the interchange was an individual working group meeting with LVP I and II board members on March 11, 2003. Additional public meetings were informational workshops held at the Mountainbrook Community Church on March 27, 2003 and July 1, 2004. At the time of the meetings, the project was in its preliminary stages with all seven alternatives under consideration and no real details about the impacts. However, attendees expressed some of the concerns that are still facing residents of LVP today, such as improving safety at LVP, ensuring traffic does not increase on Los Osos Valley Road, and ensuring access into and out of the communities. The concern is that the initial study and negative declaration are still preliminary in addressing previously expressed concerns.

Summary

The concerns of residents in LVP are substantial. Mitigation of noise pollution and safety/accessibility and the protection of property values and quality of life are paramount for the communities. We thereby request re-evaluation of various study parameters in light of these comments before a final decision is made, so that we can better understand the true impacts facing our communities. Expansion of the study area to include the effects of roadway changes to Los Osos Valley Road and S. Higuera and direct consideration of the residential areas for all relevant factors, using updated land use and circulation elements, is necessary to supply a complete depiction of the impacts.

Overall, the area desperately needs traffic calming and maintenance as a residential environment. The current project involves a solution that could have significant and long-term negative impacts on an established community with hundreds of residents. It seems that growth now converges at this location, forcing added traffic on arterial roads and leaving the LVP communities to suffer. We would like the City's serious consideration of the project's current and cumulative impacts and whether this is the right solution overall. We request the City's consideration of alternative traffic congestion solutions. Additionally, we would like to comment that inclusion of this project in pre-planning for phased reduction of greenhouse gases could be beneficial to ensuring that this project does not limit the potential for meeting the reductions set by AB32.

We seek written response and evaluations, so that we can further review the project and begin to work with the City on appropriate mitigation measures for the LVP communities, if the project proceeds. We are not currently at ease with the project and appreciate your time and consideration of these comments. Endorsement of these comments, on behalf of the LVP communities by the Los Verdes Park I and II Homeowners' Associations, is provided in Attachment C.

Sincerely,



Donna Di Gangi, on behalf of the LVP I and II Communities
Resident of LVP I, Treasurer for LVP I

Attachments

cc: Mr. Tim Bochum, Deputy Director of Public Works (via email to tbochum@slocity.org)
Mr. Dave Romero, Mayor (via email to slocitycouncil@slocity.org)
Mr. Paul Brown, Vice Mayor (via email to slocitycouncil@slocity.org)
Ms. Christine Mullholland, Councilmember (via email to slocitycouncil@slocity.org)
Mr. Andrew Carter, Councilmember (via email to slocitycouncil@slocity.org)
Mr. Allen Settle, Councilmember (via email to slocitycouncil@slocity.org)
Additional copy to Mr. Chuck Cesena at Chuck.Cesena@dot.ca.gov

Attachment B: Evaluation from Dr. Cornelius Nuworsoo

Review of Technical Documents for Impacts on the Los Verdes Park Residential Development
Cornelius Nuworsoo, Ph.D., AICP

Los Osos Valley Road/US 101 Interchange Improvements Project
San Luis Obispo County, California

Review of Technical Documents for Impacts on the Los Verdes Park Residential Development

By
Cornelius Nuworsoo, Ph.D. AICP; Cal Poly State University
7/7/08

Documents Reviewed

The following documents were reviewed to determine potential impacts of the proposed interchange and roadway improvement project on the residential development of Los Verdes Park (LVP), located on either side of Los Osos Valley Road (LOVR) in San Luis Obispo:

1. **Traffic Analysis** – Attachment I of Draft Project Report & Environmental Document, 2008
2. **Air Quality** Technical Report, May 2008
3. **Noise Impact Analysis**, June 2008
4. Formal Comments on LOVR Project, July 2, 2008

Traffic Findings

12.

While the traffic study recognized the need to take specific look at impacts on the LVP residential development, the information provided was only preliminary, offering opinions at best. The following limitations are therefore noted:

1. The section of the report entitled, “Los Verdes Access Alternatives” is only a cursory review that is not backed by data and actual technical analysis.
2. The signal warrant analysis of the intersection of LOVR at Los Verdes Drive (*study intersection #6*) is not comprehensive as it considered peak hour analysis only. A detailed study would include 12-hour turning movement counts (by vehicle class), 12-hour pedestrian counts, a three-year accident investigation, spot speed studies on the LOVR approaches and peak-hour delay study on the LVP Drive approaches.

The following results are noticeable overall from the traffic analysis:

1. Under existing and future “No Build” alternatives, queues spill back from adjacent intersections through the Los Verdes Drive intersection (*study intersection #6*) during morning and evening peak hours. This condition is not desirable as it blocks access to and from the LVP developments and is susceptible to increased air pollution. Details on the westbound queues from the intersection of US 101 Northbound Ramps at LOVR (*study intersection #5*) are included in the tables listed below.

Condition	Alternative	Peak Hour	WB Queue Effect on Los Verdes Drive?	Source: 2008 Draft Project Report ¹
Existing	Existing	PM Peak Hour	Yes	Table 5, p 283
Interim	No Build	AM/PM Peak Hr	Yes	Table 11, p 299
Interim	Build	AM/PM Peak Hr	No	Table 11, p 299
Design Year	No Build	AM/PM Peak Hr	Yes	Table 16, p 314
Design Year	Build	AM/PM Peak Hr	No	Table 16, p 314

¹Page numbers refer to consecutive pages of PDF document.

2. The build alternatives eliminate these queues. Details are included in the tables listed above.
3. No details are provided for eastbound queues from the intersection of S. Higuera St. at LOVR (*study intersection #7*). However the figures listed below indicate that the queues spill back through Los Verdes Drive during peak hours (without identifying whether AM or PM peak hour) under existing and all future alternatives:

Condition	Alternative	Peak Hour	EB Queue Effect on Los Verdes Drive?	Source: 2008 Draft Project Report ¹
Existing	Existing	Peak Hour	Yes (AM/PM?)	Fig 3, p 284
Interim	No Build	Peak Hour	Yes (AM/PM?)	Fig 6a, p 300
Interim	Build	Peak Hour	Yes (AM/PM?)	Fig 6b, 6c, 6d P 301-303
Design Year	No Build	Peak Hour	Yes (AM/PM?)	Fig 8a, p 315
Design Year	Build	Peak Hour	Yes (AM/PM?)	Fig 8b, 8c, 8d P 316-318

¹Page numbers refer to consecutive pages of PDF document.

Conclusions & Recommendations

These findings support the need for more detailed investigation of the “Los Verdes Access Alternatives”. First, the build alternatives of the interchange area are desirable to eliminate the

effect of westbound queues on Los Verdes Drive. If the S. Higuera intersection could not be configured further to eliminate the effects of eastbound queues on Los Verdes Drive, then either alternative or additional entrances need to be investigated and analyzed for feasibility and convenience to residents.

12-hour (7 a.m. to 7 p.m.) vehicular and pedestrian count data are necessary to reveal how much movement occurs between LVP I and LVP II to help in making the following choices:

- If negligible, then the intersection of Los Verdes Drive could be eliminated in favor of alternative entrances on S. Higuera St.
- If significant, then the intersection of Los Verdes Drive could be eliminated in favor of an alternative entrance to the west on LOVR approximately half-way between the two adjacent traffic signals. This is to facilitate its signalization, if warrant analyses so indicate.
- If significant, also consider signaling and coordinating traffic signals between S. Higuera St. and the US 101 interchange ramp intersections with a possible half-cycle at the LVP entrance onto LOVR.

Other Findings

13. **Air Quality**

There is a statement in the air quality report that needs qualification. It states: “As the proposed project adds no capacity to the highway, it is a project with low potential MSAT effects” – par 4, p 3-16. While this may be true of mainline US 101, central to the interchange improvement project is the doubling of through capacity on LOVR from S. Higuera St. to Auto Park Way. For local arterial travel, the improvement will remove a perennial bottleneck and make LOVR a more attractive choice between LOVR communities and San Luis Obispo. This attractiveness should, however, be captured in the travel modeling that provided data for the traffic and other analysis.

The study concludes that: “Emissions will likely be lower than present levels in the design year as a result of the EPA’s national control programs that are projected to reduce MSAT emissions

by 57–87% between 2000 and 2020” – par 4, p 3-20. This assertion is verified in the modeled air quality results included in Table 3-8 and 3-9, which generally show reductions from existing levels to future alternatives.

14. **Noise**

The noise report asserts: “the 2035 with project conditions in the project area would be at the City’s exterior noise standard of 65 dBA CNEL or below, except for Receptor R-17, which would be exposed to a traffic noise level of 67 dBA CNEL. However, as the project would not contribute to traffic noise level increases at Receptor R-17, the proposed project would have a less than significant impact on noise-sensitive land uses” – par 2, p 29. This assertion is substantiated in Table K (p 27-28).

It is worth noting that Receptor R-17 projects traffic noise levels on S. Higuera St., which is adjacent to the LVP development, to exceed the City standard by 2 dBA CNEL under all future alternatives. However all receptors within the development (R-21 to R-29) are projected to experience elevation of exterior noise levels but below the City standard for all future alternatives.

Community Concerns

The “Formal Comments” document of 7/2/08 largely expresses concerns from the point of view of LVP residents. These concerns are legitimate and need to be verified under a detailed study of impacts on Los Verdes Park development as outlined under this review of the traffic study.

Attachment C: Homeowners' Association, Endorsement of Comments

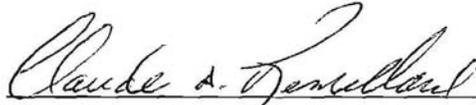
Los Verdes Park I Homeowner's Association Board of Directors

Out of town, e-mailed endorsement follows

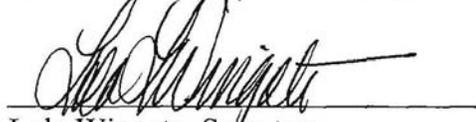
Sean Flickinger, President



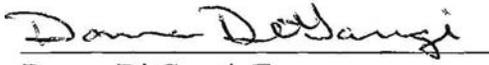
Vicente Del Rio, Vice President



Claude Remillard, Vice President



Lola Wingate, Secretary



Donna Di Gangi, Treasurer

Donna

From: Sean Flickinger [REDACTED]
Sent: Thursday, July 17, 2008 9:21 PM
To: Donna
Subject: LOVR Project

I Sean Flickinger, Board President of Los Verdes Park 1 endorse the letter submitted by the Board to the various agencies and individuals. I was not present for the signing of the letter so this email is in lieu of a signature. This letter specifies many concerns the board has with the project that we feel the city and CalTrans need to address.

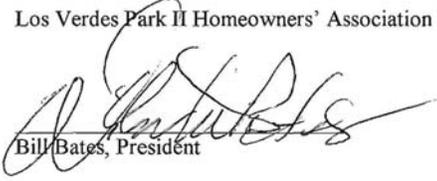
Sincerely,

Sean D. Flickinger

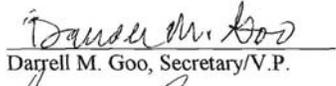
LVP1 President

7/17/2008

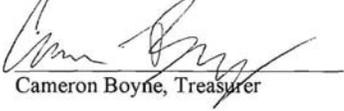
Los Verdes Park II Homeowners' Association Board of Directors



Bill Bates, President



Darrell M. Goo, Secretary/V.P.



Cameron Boyne, Treasurer

Response:

1. Thank you for your comments.
2. Traffic (pg. 3)
 - a. You have commented that “The concern is that the traffic study boundaries limit the extent of data and analysis for the residential area” and cite Figure 2 of the Traffic Operations Report as a basis for concern. As described in the legend of the “Traffic Study Area (Final Traffic Operations Report, Figure 2, p. 2),” the dotted outline is the “Scope of Interchange Modifications,” and shows the area of basic interchange changes that are essential in determining alternative configurations for the assessment of the final project alternatives. The roadways and intersections in question along Los Osos Valley Road and South Higuera are included in the study area as indicated in the same diagram and as shown by intersection identification numbers.

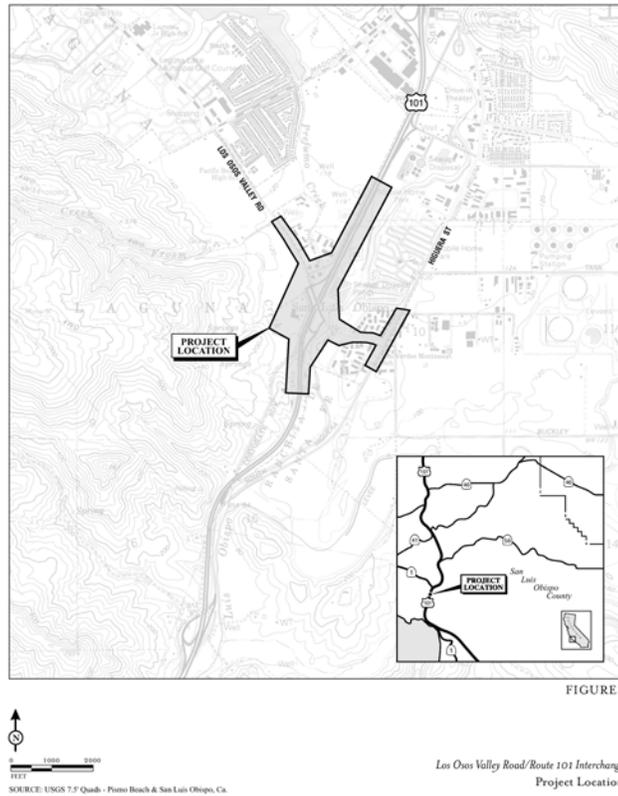
The dashed outline does not represent the entire study area (shown by the entire figure) that was used in the assessment of the various alternatives. This figure and the “study area” should not be confused with the project descriptions for alternatives contained in Chapter 4 that fully describe the background improvements proposed for each project alternative and impacts to the surrounding study area included in Figure 2. The Traffic Operations Report compares and assesses these various alternatives within the study area shown in Figure 2 (including the residential areas you have mentioned) to determine if impacts may arise and mitigation may be required. The study area was determined through consultation with the City and Caltrans and is consistent with City and Caltrans guidelines for the preparation of traffic impact analysis. Existing, interim and long-term (2035) conditions and data are presented in the report for assessment of the project alternatives, including the roadways and intersections surrounding the Los Verdes Parks residential areas.

- b. The data included in the report is quantitative and is taken from verified field measurements, the City’s traffic model and other sophisticated assessment software tools used by the City and Caltrans for operational assessments and traffic impact determination. The Traffic Operations Report identifies where qualitative conclusions are reached regarding this data, and future forecasts are made for public consideration. These recommendations and calculations have been reviewed by the City and Caltrans and are consistent with City and Caltrans guidelines for the preparation of traffic impact analysis.
- c. The Prado Road interchange and associated improvements are included in both of the City’s Circulation Element and the San Luis Obispo Council of Governments’ Regional Transportation Plan and included in the City’s build-out assumption for the General Plan. Based on discussion with City and Caltrans staff, the Prado Road interchange is included in the 2035 background assumptions for the assessment of project alternatives and associated impact assessment. For public consideration, the report also includes an assessment of traffic conditions at the US 101/Los Osos Valley Road interchange area if the Prado Road interchange is not built by the 2035 horizon year.

It is beyond the scope of the Los Osos Valley Road interchange project to determine the actual timing, programming and funding of the Prado Road interchange. However, because the 2035 horizon year is also consistent with the City’s General Plan build-out scenario, the assessment must be consistent with the City’s Circulation Element, which includes Prado Road interchange as being completed.

The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built as funding is secured from Airport and Dalidio area development projects and done in such a manner that does not exceed City service thresholds contained in the Circulation Element.

- d. See response to comment C above. The environmental assessment and Traffic Operations Report assumptions are consistent with the City's Circulation Element and San Luis Obispo Council of Governments' Regional Transportation Plan.
 - e. Comment noted. The project and alternatives have been created to address current and future operational, safety and growth conditions that exist or may occur in the future. While it is difficult to forecast individual travel path choices commensurate with available roadway capacity, the Traffic Operations Report uses the City's Traffic Model to forecast traffic loads in future conditions to accurately and fairly distribute the traffic assignments for alternative impact assessment. The use of the traffic model is consistent with City and Caltrans guidelines for the preparation of traffic impact analysis, the County and City of San Luis Obispo General Plan Circulation Elements, San Luis Obispo Council of Governments' Regional Transportation Plan, and the Regional Transportation Improvement Program, which are developed for long-term 20-year and 5-year solutions respectively.
 - f. The Traffic Operations Report is responsible for analyzing potential impacts associated with all project alternatives and future scenario conditions. To be conservative, even though the two residential areas are substantially built out, the study increased traffic volumes associated with the entry and exit movements of the Los Verdes Parks I and II driveways to accommodate any increase in occupancy or occupancy density that might be foreseeable in the future. This was done to analyze the two driveway approaches in a "worst case" format for consideration of both level of service possibilities and increased traffic control requirements.
3. Noise
- a. The noise study area that was evaluated is represented on Figure 1 of the Noise Impact Analysis and is consistent with Caltrans and City noise analysis requirements. This area encompassed all sensitive receptors as well as adjacent receptors potentially affected by the proposed project. The Noise Impact Analysis includes modeled receptors along Los Osos Valley Road and South Higuera Street. The locations of these modeled receptors are shown in Figure 2 of the Noise Impact Analysis and include parts of the Los Verdes Park I and II. To clarify, red and blue markings on Figure 2 show portions of the road being changed, whereas the analysis in the Noise Impact Analysis includes the project area extending into and along South Higuera Street.



- b. Comment noted. Future traffic noise was evaluated for LOS D/E on US 101 and 2035 traffic volumes for all other roadways as a worst-case scenario. The LOS D/E corresponds to 1,950 vehicles per lane per hour on the main highway travel lane and 2035 traffic volumes on US 101 freeway ramps, Los Osos Valley Road, South Higuera Street, and Calle Joaquin.
- c. Following the Traffic Noise Analysis Protocol, modeled receptors were located at exterior areas where frequent human activity occurs. The project is consistent with Caltrans, federal and city noise guidelines. Within the study area, pertinent outdoor areas (resident backyards or patios) were located inwards of the community and modeled accordingly. The residences fall under Category B, which includes picnic areas, recreation areas, playgrounds, and parks and have a federal threshold of 67 dB. Within residential land uses, backyards provide similar exterior activity space and were chosen as appropriate locations for evaluation.

Please note that for existing conditions, ambient noise measurements were taken at points alongside Los Osos Valley Road, which are representative of the conditions at the front-side of perimeter homes.

Ambient (20-minute) noise measurements were done to document the existing noise levels. The existing condition was then modeled and adjusted for peak-hour noise levels to determine whether a substantial noise increase would occur under future worst-case conditions. In response to idle cars as a point source, traffic noise is largely a result of the traveling speed of cars, in which increased travel speeds result in greater noise levels (Technical Noise Supplement, 2006). Modeling in the Noise Impact Analysis assumes a worst-case scenario of LOS D/E on US 101 based on 2035 future forecast traffic volumes.

- d. Please refer to the response to comment “3c” for discussion regarding front-side outdoor noise activity areas of the perimeter homes.
- e. Please refer to the response to comment “3c” for discussion regarding front-side outdoor noise activity areas of the perimeter homes.

With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek Bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

- f. The existing and future conditions of the modeled receptors are consistent with the findings that an increase in noise is not caused by the project itself, but by the general planned growth of the area.
- g. Please refer to the response to comment “3c” for discussion regarding front-side outdoor noise activity areas of the perimeter homes.
- h. The City of San Luis Obispo provided monetary compensation to Los Verdes Parks I and II residents to purchase dual-pane windows and air conditioning units in 1986. This was a mitigation measure for noise impacts from a bridge and traffic project at the time.
- i. The locations of the modeled receptors in the Noise Impact Analysis follow the Traffic Noise Analysis Protocol. The existing and future conditions of the modeled receptors are consistent with the findings that an increase in noise is not caused by the project itself, but by the general planned growth of the area.
- j. Thank you for your correction. The City has an exterior noise standard of 60 dBA community noise equivalent level (CNEL) for residential land uses. This has been corrected on page 29 of the noise study. Since CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact, according to Caltrans standards the project does not have a noise impact. Please refer to comment “3e” above for environmental enhancement measures.

Additional Noise comment: “Although City ordinances restrict construction to the hours between 7 am and 7 pm, a particular concern is about major construction occurring at night near the highway and if the restriction would apply to the interchange area or if the sound would travel and be significant enough to affect residences. Also, in consideration of residences, further restriction of construction hours would be greatly appreciated.”

Response: Minimization Measures NOI-1 and NOI-3 detailed in Section 2.4 Temporary Construction Noise of the environmental document would reduce construction noise impacts for sensitive receptors adjacent to the project site. Final determination of working hours for construction of the interchange would be determined during the final design phase. These working hours would be consistent with mitigation measures identified in the environmental documents and City ordinance requirements.

Additional Noise comment: “Sound walls that appear all down S. Higuera in residential areas help to mitigate noise for the adjacent homes, but the shrubs along the perimeter of LVP communities no longer provide sufficient sound absorption because noise levels are too high for this attenuator”

Response: Based on the results of the Noise Impact Analysis With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). Noise abatement criteria is not met by the project; therefore, sound walls are not warranted as noise mitigation. The project will however, use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

4. Air Quality

See response “3a” above about the traffic study area. Construction emissions of reactive organic gases (ROG), nitrogen dioxide (NO₂), carbon monoxide (CO), and particulate matters less than 10 microns in diameter (PM₁₀) were estimated using the Road Construction Emissions Model (Version 5.2). An estimate of criteria pollutant emissions associated with the proposed project was made using an emission rate program (Road Construction Emissions Model Version 5.2). Estimates were made for construction-related ozone precursors (reactive organic gases and nitrogen dioxide), carbon monoxide, and PM₁₀ emissions from construction activities. These construction activities were divided into separate phases and analyzed separately against ambient air quality measurements. The results of modeling for construction activities are summarized in Table 2.4-2 in the environmental document.

5. Widening Plans

While most of the work to be done by the project would be at the interchange, minor improvements would be made to Los Osos Valley Road east and west of the interchange to tie the project into the local road network.

East of the interchange, at the western edge of the Los Verdes developments, the project would conform to the existing profile and alignment of Los Osos Valley Road. As shown in Attachment 1, expanding the lanes along Los Osos Valley Road in front of the Los Verdes Park properties is doable without widening the curb-to-curb distance or encroaching into the parkway or sidewalk area. The trade off for this particular cross section alternative is that the raised median island in the center of Los Osos Valley Road must be removed and a narrower two-way left-turn lane installed.

From the western edge of the Los Verdes developments, the project would remove the median area, resurface and restripe the existing roadway with no change in the total outside existing paved width. No changes would be made to the existing curb, gutter, or sidewalk along the Los Verdes development. An alternative to this cross section (one that widened the roadway and maintained the median) was considered but discarded for the concern that you have expressed—that of bringing traffic closer to the existing Los Verdes residences.

6. Vehicular and Pedestrian Safety and Community Accessibility

Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The Traffic Operations Report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City would continue to study this issue as design of the interchange project moves forward and determine if additional changes to access can be made.

Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes. The City has also reviewed the signal timing at the intersection of Higuera/Los Osos Valley Road and has concluded that additional pedestrian timing for crossing Los Osos Valley Road is possible; the timing changes would be implemented before the interchange project were built.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from South Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways. This effort, in conjunction with adjustments to signal timing, could provide gaps in the traffic flow on Los Osos Valley Road resulting in improved access for Los Verdes Park I and II residents.

Further safety improvements have been made with the roadway geometrics proposed by both viable build alternatives. The project limits use of free-slip ramps that create intersection speeds and cross slopes that are not conducive to non-motorized forms of transportation. The project includes single-lane ramps to minimize crossing distances for pedestrians and

bicyclists. The roadway profile has been modified in Alternatives 3 and 6 to improve stopping sight distance and decision sight distance at the southbound ramp.

Local Access Issues

To reiterate the conclusion of the traffic assessment, the build alternatives forecast the same or better future conditions than the No-Build Alternative. Although not critical to choosing an interchange option, access to the Los Verdes Parks was reviewed as part of the traffic assessment to determine if changes to access location or control might improve the driveway locations without significantly limiting operations along Los Osos Valley Road. New access driveways on Los Osos Valley Road at the western edge of the Los Verdes Parks I and II developments were considered in the Traffic Operations Report. The report concluded that while the relocated access would have better spacing between the two existing intersections with signals at Los Osos Valley Road/South Higuera and Los Osos Valley Road/northbound on-and off-ramps, the new access points still would not meet California signal warrants most notably due to the low volume of traffic coming from the Los Verdes Park driveways. It was further identified that the relocated driveways may need to be restricted to right-in/right-out-only movements in the future due to the low volume approaches, the high costs for adding signals and the operational reductions that the major corridor may experience.

New driveways onto South Higuera Street were also considered for both the Los Verdes Parks I and II, but further consideration and discussion between the City and affected property owners are needed. The connection for the Los Verdes II would require right-of-way acquisition across other private property and would change the traffic patterns of the park. Any new connection for Los Verdes Park I could present operational deficiencies for city street systems as well as localized impacts due to the lack of frontage space between Los Verdes Drive and South Higuera Street and the elevation difference between South Higuera and the local frontage road. Increased noise and the potential for cut-through traffic trying to avoid the intersection of South Higuera and Los Osos Valley Road could be a problematic result of making this connection.

7. Visual/Aesthetics

The cross section of Los Osos Valley Road adjacent to Los Verdes Parks I and II was developed and installed as part of the subdivisions for the two residential areas that occurred in the 1970s. The current curb-to-curb dimensions do not allow for installation of the additional needed travel lanes while maintaining the bicycle lanes that are needed for future conditions. To accomplish this, the roadway must be widened or existing lanes narrowed to obtain the needed cross section for the future roadway lane assignments. Widening to the outside and narrowing to the inside were both considered for this section with the conclusion that reducing the raised median area and installing the two-way left-turn lane alternative was the most appropriate along this segment. This alternative does not bring automobile traffic closer to the residences of Los Verdes Park I and II and maintains the sidewalk areas and substantial landscape screening along the Los Verdes Park frontage of Los Osos Valley Road. The median, which is 170 feet long, would be removed to provide space for the two additional lanes and maintain the Class II bike lanes. While removal of the median does include the removal of three existing street trees, its impact is considered less than the removal of the Los Verdes Park street trees or landscaping that would be required if the road must be widened beyond the existing curb-to-curb area. Lighting along this area would conform with City standards and is not considered a source of substantial glare or light intrusion for the adjacent residential areas.

8. Community Character and Property Values

Thank you for your comment. Conclusions reached from the technical studies for the project indicate the proposed project does not encroach on the Los Verdes Parks I and II residential neighborhoods nor does it remove sidewalks or landscape screening along Los Osos Valley Road; therefore, it is not anticipated that the character of the community would be affected. As identified in responses above, the No-Build Alternative contains many conditions worse than either Alternative 3 or 6, the two build alternatives. Future ambient and cumulative changes to traffic, noise and air quality would affect conditions along the roadways near Los Verdes Parks I and II.

The qualitative conclusion that project components would result in quality of life or property value reductions is beyond the scope of the environmental process.

9. Land Use and Circulation Element

Your comments are noted. The San Luis Obispo Citywide Traffic Model (SLOCTM) was used to develop traffic projections at the US 101/Los Osos Valley Road interchange and study intersections under General Plan Build-out Conditions. General Plan Build-out conditions reflect traffic conditions about 20 years in the future and include land use changes and growth that may occur within that timeframe. Since the 20-year build-out scenario of the traffic model is consistent with the Caltrans 20-year “after project” scenario requirement (in this case, the year 2035) the City’s build-out model forecasts are considered proper for use in the design year conditions for the Los Osos Valley Road interchange project assessments.

The City’s General Plan Circulation Element classifies this segment of Los Osos Valley Road from US 101 to Higuera to be an “arterial street,” which by definition has two to four travel lanes (page 2-52 of the City’s General Plan Circulation Element amended 2006). The two build alternatives for the project both limit the number of lanes being widened along Los Osos Valley Road to four lanes; this is not considered to be overbuilding the capacity of the road system for growth that may or may not occur in the future.

10. Cumulative Effects

The Prado Road interchange and associated improvements are included in both of these plans and included in the City’s build-out assumption for the General Plan. The Prado Road Interchange Project is a City project with Caltrans oversight. Based on discussion with City and Caltrans staff, the Prado Road interchange is included in the 2035 background assumptions for the assessment of project alternatives and associated impact assessment. The report also includes for public consideration an assessment of traffic conditions at the US 101/Los Osos Valley Road interchange area if the Prado Road interchange is not built by the 2035 horizon year. It is beyond the scope of the Los Osos Valley Road Interchange project to determine the actual timing, programming and funding of the Prado Road interchange. However, because the 2035 horizon year is also consistent with the City’s General Plan Build-out Scenario, the assessment must be consistent with the City’s Circulation Element, which includes Prado Road interchange as being completed.

The City of San Luis Obispo’s General Plan, the County of San Luis Obispo General Plan, the San Luis Obispo Council of Governments’ Regional Transportation Plan and the California State Transportation Improvement Program (STIP) were all cited as planning documents anticipating the need for improvements at the US 101/Los Osos Valley Road

interchange. Technical studies on issues such as traffic, noise, air quality and hydrology all confirmed that future conditions in and around the interchange location would be problematic and in some instances exceed City thresholds. The project alternatives improve on these conditions, and it has been concluded that they have less impact than the No-Build Alternative future conditions. It has also been concluded that the project does not lead to future additional cumulative impacts (NEPA (40 CFR §1508.7) and CEQA (Section 15355)) that would require additional projects not foreseen in the documents mentioned above.

11. Community Involvement and Previously Expressed Concerns

The City of San Luis Obispo met with the Los Verdes Parks I and II Home Owners Association boards, plus held a public hearing. The meeting on July 8, 2008 satisfies CEQA requirements for public input. For more information on the public hearings and meetings, please refer to Chapter 3 of the environmental document.

The purpose of the public hearing was to receive public comments on the draft document, address areas that may be lacking, and help determine which of the viable alternatives studied in the environmental document would be selected as the preferred alternative.

The meetings provided opportunities for the public to see the final proposed alternatives and provide input. The meetings were well attended by the members of the public and homeowners near the project.

Public input and concerns were considered during the alternative selection process of the Project Study Report. The project has incorporated design features for pedestrian, bicyclist, and motor vehicle safety. Response number 6 to your comments addresses specific safety improvements requested by the Los Verdes Park communities. While public input is a factor in selecting an alternative and project design, other factors (such as cost, level of service and other traffic data, and environmental impacts) were considered as well.

Two of the alternatives considered (Alternatives 3 and 6) met the purpose and need of the project and had the least environmental impacts. Based on public comments received, the environmental impacts associated with Alternative 6, input from stakeholders and the Caltrans project development team, and a comparison of the benefits and impacts of the alternatives, Caltrans has selected Alternative 3 as the preferred alternative. For more information regarding the selection of a preferred alternative please refer to Section 1.3.4 of the environmental document.

During the Project Study Report (PSR) phase of the project, Alternative 2 was developed. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally, the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/Open Space land and San Luis Obispo Creek. The alignment was opposed by some residents of the Los Verdes Park II who did not want a major road along the west and northwest sides of their development.

Please refer to Section 1.3 of the environmental document for a discussion on the selection of alternatives.

Sub - Comment 48

Dr. Cornelius Nuworsoo

Response:

12. Traffic

Please refer to Los Verdes Park I and II Communities, Board of Directors Response #2 and #6 regarding traffic and vehicular and pedestrian safety and community accessibility, respectively.

13. Air

Based on the Federal Highway Administration's interim guidance for mobile sources of air toxics (MSATs), the proposed project meets the criteria for a qualitative project-level MSAT. The proposed project does not create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; neither does it create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the annual average daily traffic is projected to be in the range of 140,000 to 150,000 or greater, by the design year.

14. Noise

The following suggested text has been inserted into the Noise Impact Analysis:

Receptor R-17 projects traffic noise levels on S. Higuera St., which is adjacent to the Los Verdes Park development, to exceed the City standard by 2 dBA Community Noise Equivalent Level under all future alternatives. However, all receptors within the development (R-21 to R-29) are projected to experience elevation of exterior noise levels but below the City standard for all future alternatives.

Comment 49

A. Mansfield (Received via comment card)



PUBLIC HEARING

Los Osos Valley Road & US-101

Comment Card – July 8th 2008

Name: A. MANSFIELD

Telephone (Optional):

Address (optional):

Affiliation: _____

Email Address (Optional): _____

1. Comment: PLAN A TRAVESTY! NO CONSIDERATION
2. FOR 500+ RESIDENTS OF LOS VERDES PARKS
- MUCH TRAFFIC IS TO & FROM COUNTY. SOLU-
- TION SHOULD INVOLVE COUNTY & BE
- FARTHER SOUTH WHERE OPEN LAND AVAILABLE
- DONT DESTROY RESIDENTIAL AREA OF 30 YEARS

Do you want to be added to the project contact list?

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list

YES NO

Response:

1. Public meetings were held throughout the project development phase. These involved meeting with the general public, meeting with members of Los Verdes Parks, other project update and funding discussions by Council and the required public meetings for CEQA discussion. A court reporter was present at the last public hearing on July 8, 2008 to receive comments for the formal administrative record; all of the comments are included in this final report. Chapter 3 of the environmental document discusses the public meetings and hearings.

As part of project development, two group meetings with the Los Verdes Home Owners Association were held: one on March 11, 2003 and another on July 1, 2008 at the Los Verdes Board Meeting Room. While the time between these meetings was longer than expected, the delay in the meetings was a result of the extensive studies and technical reviews conducted for the project alternatives in the interim.

Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. The Traffic Operations Report concluded that the various alternatives for the interchange design had little effect on the future operations of the driveways except that all alternatives studied showed a better future condition than the No-Build Alternative. The interchange project alternatives do not preclude work that could address increasing or changing access to Los Verdes Parks I and II that the City may want to consider. The City will continue to study this issue as it moves onto the design of the interchange project and determine if additional changes to access can be made.

2. During the Project Study Report (PSR) phase of the project, the Project Development Team considered seven project alternatives and evaluated them based on project cost, level of

service and other traffic data, and specific environmental impacts. Alternative 2 was developed during this phase. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally, the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/Open Space land and San Luis Obispo Creek. The alignment was opposed by some residents of the Los Verdes Park II who did not want a major road along the west and northwest sides of their development.

Due to the high cost, environmental impacts, mixed public opinion, and scope outside the project's purpose and need, Alternative 2 was dropped from the list of viable alternatives studied in the environmental document phase of the project. The proposed bypass project is not currently included in the City's General Plan or San Luis Obispo Council of Governments' Regional Transportation Plan; however, this project may be included in the next update of the City's Circulation Element.

Of the seven alternatives evaluated in the Project Study Report (approved February 27, 2004), two met the purpose and need of the project and had the least environmental impacts. These two alternatives (3 and 6) were evaluated in detail in the circulated Initial Study. Furthermore, a value analysis study was conducted between February 4 and February 8, 2008 to evaluate if any additional alternatives or project features met the project's purpose and need. This analysis determined that no additional alternatives or project sufficiently met the project purpose and need without additional environmental and fiscal impacts.

Based on public comments received and the environmental impacts associated with Alternative 6, Caltrans selected Alternative 3 as the preferred alternative.

Please refer to Section 1.3 of the environmental document for a discussion on the alternatives considered but eliminated and a discussion and reasoning for selecting Alternative 3.

Comment 50

Greg Freese (Received via comment card)



PUBLIC HEARING
Los Osos Valley Road & US-101
Comment Card – July 8th 2008

Name: GREG FREESE

Telephone (Optional): [REDACTED]

Address (optional): [REDACTED]

Affiliation: PROPERTY OWNER

Email Address (Optional): [REDACTED]

1. Comment: CHANGING LANE BETWEEN LANE & 101 BRIDGE TO HIGUERA INTO A 5 LANE ROAD WILL (1) CREATE MORE NOISE AND
2. AIR POLLUTION (2) DESTROY THE PROPERTY VALUES IN RESIDENTIAL NEIGHBORHOODS NEARBY. ADDING MORE TRAFFIC IN THAT SMALL AREA IS UNACCEPTABLE. I AM AGAINST THAT PROJECT!

Do you want to be added to the project contact list?

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list

YES NO

Response:

1. Noise

The Noise Impact Analysis modeled sensitive land uses in the project vicinity. Based on results of the noise modeling for traffic conditions in the existing, future no-build, Alternative 3, and Alternative 6 scenarios, long-term impacts generated by the project would be similar with or without the project.

With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

Temporary construction noise minimization measures NOI-1 through NOI-3 would reduce construction noise impacts for sensitive receptors adjacent to the project site and are explained in Section 2.4 of the environmental document.

Air

The Air Quality Technical Report evaluated the air quality impacts of the proposed project for 2005 out to 2015 and 2035, considering project traffic volumes. Relieving congestion on Los Osos Valley Road will decrease vehicle emissions.

Under the no-build option, increased traffic congestion would inevitably create more air pollution than if Alternative 3 or Alternative 6 were chosen.

It was determined that National Air Quality Standards would be met, no generation of notable levels of mobile sources of air toxics (MSATs) would result from the project, and emissions would not exceed the City of San Luis Obispo County Air Pollution Control Standards. For temporary impacts, minimization measures for construction-related air impacts have been included to protect the resident from construction pollution. Please see the minimization measures for Air Quality in Section 2.4 under the Construction Air Quality heading of the Initial Study.

2. Conclusions reached from the technical studies conducted for the project indicate it is not anticipated that the proposed project alternatives would substantially affect the character of the community or lead to worse conditions in the future. Future ambient and cumulative changes to traffic, noise and air quality will affect conditions along the roadways in the vicinity of Los Verdes Parks I and II. The qualitative conclusion that project components would result in quality of life or property value reductions is beyond the scope of the project or environmental process.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Comment 51

K Cohan (Received via comment card)

 **PUBLIC HEARING**
Los Osos Valley Road & US-101
Comment Card – July 8th 2008

Name: K Cohan

Telephone (Optional): _____ Address (optional): _____

Affiliation: _____ Email Address (Optional): _____

1. Comment: How will Bob Jones trail cross @ LOVR?

2. Please keep bike lane on LOVR over creek & Hwy 101.
LOVR is necessary bike route over 101.

Do you want to be added to the project contact list? YES NO Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list
already on list

Response:

1. A separate local project—*independent of the Los Osos Valley Road Interchange Project*—will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to Bob Jones City-to-Sea Bike Trail along lower Higuera. The exact location has not been determined at this time. The location would be determined as part of the Bob Jones City-to-Sea Bike Trail project.
2. The project would include Class II bike lanes along both sides of Los Osos Valley Road to facilitate access over US 101.

Comment 52

Karen Mansfield (Received via comment card)



PUBLIC HEARING
Los Osos Valley Road & US-101
Comment Card - July 8th 2008

Name: Karen Mansfield
 Telephone (Optional): _____ Address (optional): [REDACTED]
 Affiliation: _____ Email Address (Optional): [REDACTED]

Comment: I have significant concerns about widening Los Osos Valley between the freeway + S. Higuera. I live in Los Verdes Park 2 and it is very difficult to pull out in between the traffic flow. The intersection of Los Osos Valley Rd at Los Verdes Parks 1 + 2 is very dangerous + will only get worse. Recently there
Do you want to be added to the project contact list? Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.
 YES NO was an accident at the intersection.

1.

Response:

1. Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Comment 53

Jim Smith (Received via comment card)

Caltrans

PUBLIC HEARING
Los Osos Valley Road & US-101
Comment Card - July 8th 2008

Name: JIM SMITH

Telephone (Optional): [REDACTED] Address (Optional): [REDACTED]

Affiliation: LVPK II Property Owner Email Address (Optional): [REDACTED]

Comment: Dangerous intersection, this new project will cause many accidents with cars and pedestrians. Many more than are acceptable. Deaths may occur. Scrap the plan and route/around Los Verdes Park. LVR

Do you want to be added to the project contact list? YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list

Response:

1. Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.
2. During the Project Study Report (PSR) phase of the project, the Project Development Team considered seven project alternatives and evaluated them based on project cost, level of service and other traffic data, and specific environmental impacts. Alternative 2 was developed during this phase. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally, the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/Open Space land and San Luis Obispo Creek. The alignment was opposed by some residents of the Los Verdes Park II who did not want a major road along the west and northwest sides of their development.

Due to the high cost, environmental impacts, mixed public opinion, and scope outside the project's purpose and need, Alternative 2 was dropped from the list of viable alternatives studied in the environmental document phase of the project. The proposed bypass project is not currently included in the City's General Plan or San Luis Obispo Council of Governments' Regional Transportation Plan; however, this project may be included in the next update of the City's Circulation Element.

Of the seven alternatives evaluated in the Project Study Report (approved February 27, 2004), two met the purpose and need of the project and had the least environmental impacts. These two alternatives (3 and 6) were evaluated in detail in the circulated Initial Study. Furthermore, a value analysis study was conducted between February 4 and February 8, 2008 to evaluate if any additional alternatives or project features met the project's purpose and need. This analysis determined that no additional alternatives or project sufficiently met the project purpose and need without additional environmental and fiscal impacts.

Based on public comments received and the environmental impacts associated with Alternative 6, Caltrans selected Alternative 3 as the preferred alternative.

Please refer to Section 1.3 of the environmental document for a discussion of the alternatives considered but eliminated and a discussion and reasoning for selecting Alternative 3.

Comment 54

Edna Coley (Received via comment card)



PUBLIC HEARING
Los Osos Valley Road & US-101
Comment Card – July 8th 2008

Name: Edna Coley

Telephone (Optional) [REDACTED] Address (optional): _____

Affiliation: Los Verdes I Email Address (Optional): _____

1. Comment: 1) Noise/pollution studies only measure predicted increases from now. But the reality is we already have problems because of inc. traffic. Can't the city do something to mitigate this problem for which we are not responsible!

2. 2) Safety danger from added buslanes is underestimated. Los Verdes has 91 units but because of the great adult population there are many cars per unit. This problem should be studied further and a stoplight considered.

Do you want to be added to the project contact list? YES NO

Your Name and Address will NOT be held confidential in the event that a request is made for the project contact list.

Response:

- 1. Noise

The Noise Impact Analysis modeled sensitive land uses in the project vicinity. Based on results of the noise modeling for traffic conditions in the existing, future no-build, Alternative 3, and Alternative 6 scenarios, long-term impacts generated by the project would be similar with or without the project.

With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

Temporary construction noise minimization measures NOI-1 through NOI-3 would reduce construction noise impacts for sensitive receptors adjacent to the project site and are explained in Section 2.4 of the environmental document.

- 2. Caltrans, the City of San Luis Obispo, and the County of San Luis Obispo recognize that the Los Verdes Parks I and II were built with a single access to the local roadway system. This project does not preclude future projects that could address expanding access to Los Verdes Parks I and II.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State of California Manual on Uniform Traffic Control Devices.

Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways.

Comment 55

Frank Mullin and Dale Sutliff (Received via letter)



San Luis Obispo Bicycle Club



P.O. Box 1585, San Luis Obispo, CA 93406

To promote safe and legal riding of bicycles and encourage bicycle riding as an accepted mode of transportation

July 9, 2008

From: San Luis Obispo Bicycle Club (SLOBC)
Dale Sutliff, Advocate and
Frank Mullin, President

To: Caltrans District 5, Attn: Chuck Cesena
50 Higuera Street
San Luis Obispo, CA 93401

Re: LOVR Interchange Proposal

Dear Chuck,

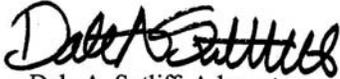
We have reviewed the project description and draft EIR, and attended the public workshop on July 8 at San Luis Obispo City Council chambers for the LOVR Interchange improvements.

1. The San Luis Obispo Bicycle Club (an organization of some 500 members) is disappointed to find that neither Caltrans Alternates #3 or #6 proposals include a separated bicycle underpass as an extension of the Bob Jones Trail as a part of the LOVR Interchange project. It is essential that this improvement be included as part of the project as the time to build it is at the same time the interchange and drainage improvements are built. With the widening of the San Luis Obispo Creek bridge the bike underpass should be included as part of it. The city and Caltrans should work to ensure that this happens for the benefit of both local and regional users of the Bob Jones Trail for commuting and recreational purposes.
2. The SLOBC feels strongly that ample bicycle and pedestrian circulation should be included throughout the LOVR corridor, with a minimum width of five feet for both bike lanes and sidewalks.

In addition, the SLOBC would like to have the project include improvements to the LOVR and Higuera Street intersection. This intersection is unsafe for bicyclists as currently existing. Improvements should include clear signage and bike lane markings to permit bicyclists to more safely continue southbound on Higuera Street through the intersection. It should also include clear designation to motorists and cyclists turning northbound onto Higuera Street from LOVR.

3. The SLOBC supports the LOVR interchange and corridor project. However, the club desires that all opportunities for safe and convenient movement of bicyclists and pedestrians are included with the project.

The SLOBC is glad to work with Caltrans and the City of San Luis Obispo to see the successful completion of the LOVR interchange and corridor improvements and the Bob Jones Trail extension.


Dale A. Sutliff, Advocate
San Luis Obispo Bicycle Club


Frank Mullin, President
San Luis Obispo Bicycle Club

Response:

1. A separate local project— independent of the Los Osos Valley Road Interchange Project— will connect the Bob Jones City-to-Sea Bike Trail segments from Prado Road to Los Osos Valley Road. This project is currently under design and is scheduled to begin construction soon. The design teams for both projects have coordinated efforts to ensure that the connection is completed efficiently and in an appropriate location along Los Osos Valley Road. The trail connections are a high priority project for the City of San Luis Obispo. This project does not preclude a future extension of the trail under or over Los Osos Valley Road to the Bob Jones City-to-Sea Bike Trail along lower Higuera.

The Bob Jones City-to-Sea Bike Trail Project Master Plan includes information regarding what is proposed for the entire trail and the Los Osos Valley Road and US 101 interchange specifically. There are currently no short-term plans to extend the Bob Jones City-to-Sea Bike Trail southwest of Los Osos Valley Road. The City of San Luis Obispo Bicycle Transportation Plan includes information on bike plans throughout the city.

2. The project would include Class II bike lanes along both sides of Los Osos Valley Road, as well as bicycle detector loops and street print (stamped/imprinted asphalt or concrete) through the crosswalks at the intersections with signals.

The project would install standard 5-foot Class II bike lanes and connect to and preserve the existing 6-foot sidewalks in front of the Los Verdes Parks I and II development. Class II bike lanes are one-way facilities with pavement markings showing separated areas reserved for bicycles and vehicular travel lanes. The City General Plan calls for Class II facilities along arterial routes. Class II bike lanes have been found to provide more consistent separation between bicyclists and passing motorists. Marked bicycle lanes can also benefit pedestrians; turning motorists slow and yield to bicyclists, and are more likely to do so for pedestrians.

3. The design of any at-grade crossing of Los Osos Valley Road by the Bob Jones City-to-Sea Bike Trail users would be done meeting appropriate and safe design guidelines for visibility and signal operations.

All pedestrian and bicycle facilities included as a part of the proposed project will be built according to Americans with Disabilities Act standards.

Comment 56

Sarah Flickinger (Received via letter)

Sarah Flickinger
79 Del Oro Court
San Luis Obispo, CA, 93401

Attn: Mr. Chuck Cesena
California Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, CA 93410

July 17, 2008

Re: Los Osos Valley Road/US 101 Interchange Improvements Project
San Luis Obispo County, California, 05-SLO-101-PM 25.5-26.3, 05-0H7300
Initial Study with Proposed Mitigated Negative Declaration

Dear Mr. Cesena:

The following comments address the proposed Los Osos Valley Road/US 101 Interchange Improvements Project, specifically relating to my personal concerns as:

- 1) A homeowner in Los Verdes Park 1 (unit #79)
- 2) A member of the San Luis Obispo Chamber of Commerce Tourism Council
- 3) A member of the San Luis Obispo County Visitors & Conference Bureau
- 4) A former marketing representative for the City of San Luis Obispo (via employment with a contracted agency)
- 5) A local business operator in the Tourism / Wine / Media industries
- 6) An experienced public relations practitioner, familiar with standards for community involvement in public projects with significant impact to residential communities.

I would like to request review, evaluation and documented response for each of the comments contained herein prior to the environmental document approval.

I. First, and foremost, as a homeowner in Los Verdes Park 1, I would like to comment on the flawed analyses contained in the proposed project plan. These comments are reflected in the letter provided jointly by the Los Verdes Park 1 and Park 2 Boards of Directors. I echo the concerns of the formal comments of the boards with regard to:

1. Sound impact throughout the residential community both during and following the Project
2. Air quality impact throughout the residential community both during and following the Project
3. Safety mitigation measures at the intersection of Los Osos Valley Road and Los Verdes Drive

4. Safety mitigation measures at the intersection Los Osos Valley Road and South Higuera Street
5. Community Character, Quality of Life and Property Value concerns for LVP residents
6. Land Use and Circulation Element concerns
7. Cumulative effects of the project, when paired with other planning and circulation decisions made at the City, County and State levels.

For each of these concerns, I am providing the following suggestions for consideration during the planning process of this project:

- I.1
1. Sound impact throughout the residential community both during and following the Project
 - a. Request thorough analysis of noise impacts in front, back and inside affected residences, as outlined in the Formal Comments of the LVP Boards of Directors.
 - b. Request that the study area be increased to encompass the entirety of the Los Verdes Parks.
 - c. Request that the study be reevaluated based on current circulation plans (without Prado Road Interchange Project; without Prado Road connection between South Higuera and Broad Street (Hwy 227)).
 - d. Prior to approval, request a formal proposal of mitigation measures that will be employed by CalTrans and the City of San Luis Obispo to ensure that sound levels are acceptable to meet state and city limits throughout the duration of the Project and once the project is completed. It is imperative that the mitigation measures be acceptable to residents and agreed upon by residents prior to approval of the environmental reports. As my husband serves on one of the Boards, I know that the LVP Boards of Directors welcome ideas and want to work with the City and CalTrans to devise appropriate mitigation measures.
- I.2
2. Air quality impact throughout the residential community both during and following the Project
 - a. Request thorough analysis of air quality impacts in front, back and inside affected residences. As our homes are without the ability for central air and ventilation, residents are forced to open windows for cooling and ventilation of their homes. As the Los Verdes Parks are an affordable housing alternative, a majority of residents fit into the categories of elderly or young families. Poor air quality (indoor and out) has a significant impact for the elderly, young children and pregnant women. Due to the nature of the residents involved, I ask that particular attention be paid to the air quality impacts.
 - b. Speaking for our own residence, and for those neighbors I have personally discussed it with, residents would be willing to accommodate air quality measuring apparatus in their homes and

- yards to assist with thorough study of current levels and prediction of future levels.
- I.3 3. Safety mitigation measures at the intersection of Los Osos Valley Road and Los Verdes Drive
- a. Many residents are in favor of a traffic-activated stoplight at the intersection of Los Osos Valley Road and Los Verdes Drive. Personally, I am not in favor of this option, unless the signal was only active during peak travel times (between 7 and 9 a.m. and between 4 and 6 p.m.).
 - b. If Westbound Los Osos Valley Road traffic were kept to a single lane until 50-100 feet past the intersection with Los Verdes Drive (Los Verdes Park 1 side), I feel strongly that this would reduce the need for a traffic signal at the intersection. Additionally, this would allow for the preservation of safety medians and turn lanes, mitigating residents' concerns about crossing two lanes before merging with two additional lanes. They would either cross one then merge with two, or cross two then merge with one.
 - c. Adjustment for signal timing at the Los Osos Valley Road and South Higuera intersection to hold traffic on South Higuera for slightly longer, allowing residents more frequent opportunities to exit Los Verdes Drive.
 - d. Future adjustment for signal timing at Los Osos Valley Road and Northbound US 101 Intersection to hold traffic slightly longer, allowing residents more frequent opportunities to exit Los Verdes Drive. A timing adjustment of only a few seconds could make a significant difference.
 - e. For pedestrian traffic: Considering many residents are elderly or walking with children, appropriate timing of signals to allow for longer pedestrian traffic intervals is imperative.
 - f. Signage and appropriate signal timing at Tank Farm, South Higuera and Prado roads to encourage northbound US 101 traffic to Prado Road onramp from eastern portions of the City and to encourage southbound US 101 traffic to proceed straight on South Higuera to enter US 101 at the Higuera Street onramp.
- I.4 4. Safety mitigation measures at the intersection Los Osos Valley Road and South Higuera Street
- a. These suggestions are incorporated as part of the suggestions for Comment 3, above.
- I.5 5. Community Character, Quality of Life and Property Value concerns for LVP residents
- a. The City of San Luis Obispo has been adding medians on Los Osos Valley Road, South Street, South Higuera Street and others to beautify the city and for improved traffic control. As a homeowner in Los Verdes Park 1, I do not understand why the City would want to remove mature medians used for these same applications on Los Osos Valley Road. Should the Project require removal of the

medians, the residents would prefer to see new medians placed to replace them at the following locations for both aesthetic and traffic control/safety reasons:

- i.*
 - i. Dividing traffic direction on Los Osos Valley Road at the South Higuera intersection. This median is hit repeatedly each day by motorists, slowing them down and preventing them from entering oncoming traffic. Occasionally, it has been hit hard enough that a car completely crosses it into oncoming traffic. Without this median in place, the number of accidents could increase significantly. Should the City adopt a plan that includes a single lane on Westbound Los Osos Valley Road until after the intersection of Los Verdes drive, there should be plenty of space for a median to be included at this location.
 - ii.* ii. Left turn from Westbound Los Osos Valley Road into Los Verdes Park 2 (south side of Los Verdes Drive). Residents agree that having median distinguishing the left turn entries into the park is preferred significantly over an open turn into/turn out of center lane. The feeling is that these turn medians provide a safer waiting place for residents turning left into the developments, as well as deter “turnaround” traffic within the neighborhoods. Additionally, continued use of medians would discourage truck/heavy equipment traffic along Los Osos Valley Road, lessening noise and air quality impacts and provide aesthetic value to the residential area, consistent with other parts of the City.
 - iii.* iii. Left turn from Eastbound Los Osos Valley Road into Los Verdes Park 1 (north side of Los Verdes Drive). Residents agree that having median distinguishing the left turn entries into the park is preferred significantly over an open turn into/turn out of center lane. The feeling is that these turn medians provide a safer waiting place for residents turning left into the developments, as well as deter “turnaround” traffic within the neighborhoods. Additionally, continued use of medians would discourage truck/heavy equipment traffic along Los Osos Valley Road, lessening noise and air quality impacts and provide aesthetic value to the residential area, consistent with other parts of the City.
- b.* b. As traffic continues to increase along Los Osos Valley Road, due in part to growth of the southern and eastern portions of the City, residents’ home values have been significantly negatively impacted. Without mitigation measures for noise and air pollution, and with the removal of aesthetics (medians, etc.) this cycle will continue. While we welcome strategic growth of City, as residents in LVP, we feel we are taking the brunt of negative home value impact, while traffic planning elsewhere in the City encourages use

of Los Osos Valley Road as the major thoroughfare. Some suggestions for future consideration in traffic planning for the City include:

- i.* i. Inclusion of rerouting of LOVR Interchange traffic around the western and southern edges of Los Osos Valley Road, to connect with a planned extension of Buckley Road at South Higuera in the next City circulation plan, scheduled for 2009. This adjustment to the circulation plan offers a variety of benefits:

 1. Ability to return the Los Verdes Parks to a residential cul-de-sac connecting only to South Higuera Street.
 2. This short street could be used as a safe stopping point for school buses, public transportation, etc., which currently use Los Osos Valley Road for these stops.
 3. Safety, noise and air pollution concerns are immediately removed for residents.
 4. Quality of life and negative home value impacts are immediately removed for residents.
 5. Transient populations currently residing near the southwest corner of Los Verdes Park 2 would likely leave the area, reducing public safety concerns (a man was recently stabbed in this vicinity).
 - ii.* ii. Connection of South Higuera and Broad (Hwy 227) streets at Prado Road, regardless of Prado Road Overpass. At present, the only connections on the south side of the City between South Higuera and Broad are at Tank Farm and Buckley Roads. Since these routes are more easily traveled and more southerly located (closer to new development area), they are preferred over South Street and Downtown connections. Providing a second thoroughfare between South Higuera and Broad at Prado Road would relieve traffic on Tank Farm Road, reduce traffic impacts from the current Buckley Road intersection and positively alter traffic patterns at the Los Osos Valley Road interchange.
 - iii.* iii. Prior to approving development projects, complete the update to the circulation plan, as necessitated by the Prado Road Overpass not being built anytime in the foreseeable future. Allocate funding generated by these projects to implement specific traffic flow improving road changes in advance (like those noted above), rather than to general funding or funding for the Prado Road overpass.
- I.6* 6. Land Use and Circulation Element concerns
- a.* a. These suggestions are addressed above, as part of the negative property value impacts discussed in 5-b.

- I.7 7. Cumulative effects of the project, when paired with other planning and circulation decisions made at the City, County and State levels.
- a. a. Again, I feel these concerns can be mitigated with the suggestions provided in 5-b, above.

As a longtime resident of the City of San Luis Obispo and lifelong resident of San Luis Obispo County, I understand the challenges facing our community for desired economic growth and the impacts that come with it. I am thrilled to see all that the City is doing to encourage this growth and what it means for our economy. However, the lack of communication between the City and the residents most impacted by specific projects is disheartening. As a homeowner in Los Verdes Park 1, I want to know that the City is willing to listen and incorporate suggestions from those who live amidst the challenges everyday. In this statement, I know I am echoing the concerns of my neighbors, and similarly affected residents in other parts of the City.

As I heard Dave Garth, of the SLO County Chamber of Commerce, say, “You have to be a creative person to be able to make a living and afford to live in San Luis Obispo.” I would hope the City takes it to heart, and recognizes and taps into the creativity of its citizens. We all live here, and we all encounter the same issues at some point or another. And, collectively, I firmly believe we can find solutions that keep everyone satisfied.

- II. Second, as a member of the San Luis Obispo Chamber of Commerce Tourism Council, a member of the San Luis Obispo County Visitors & Conference Bureau, a former marketing representative for the City of San Luis Obispo (via employment with a contracted agency), and a local business operator in the Tourism, Wine and Media industries, I have specific concerns with regard to signage and aesthetics proposed in the Los Osos Valley Road / US 101 Interchange Improvement Project, which I would also like to have addressed.

When I became aware of the details of the project, I sent a note out to wineries and related businesses that I work with in the airport and Edna Valley areas of the City. Additionally, with knowledge of the City’s marketing plans, current proposed projects and current approved projects within the tourism sector, I felt it necessary to provide feedback from those that I spoke with in regard to the project. Below is an outline of the concerns, as well as suggestions for inclusion during the planning stages of the project.

- II.1. 1. Traffic Flow to Edna Valley from within City Limits – Improved signage to direct visitors to Edna Valley Wine Country has been a topic in City marketing discussions for years. Edna Valley Wine Country is a significant marketing point for the City when it comes to attracting visitors. With the construction of new hotels (Marriot and those planned) along Calle

Joaquin, and while improvements to sidewalks, lighting and other infrastructure are being integrated into the plan, now is an appropriate (and cost-effective) time to include signage improvements for routing travelers in the southern portions of the City. A majority of the wineries I spoke with (all but one, in fact) direct travelers to get on US 101, then exit at Los Osos Valley Road, proceeding to South Higuera to take Vachelle Lane to Buckley Road to Edna Valley.

- a. a. Vachelle Lane is an awkward turn from South Higuera, which tends to stop up traffic into the intersection of Los Osos Valley Road and South Higuera. Proper signage guiding visitors from the LOVR off ramp to South Higuera to Tank Farm Road to Hwy 227 would make the path easier for visitors, and reduce traffic back up on Los Osos Valley Road.
 - b. b. For traffic coming from the Calle Joaquin and Madonna Road areas (at existing, and approved hotel properties), the route includes Madonna and LOVR, over US 101 to South Higuera to Vachelle to Buckley.
 - c. c. Suggested sign points:
 - i. i. US 101 Southbound off ramp for LOVR: change Los Osos Valley Road to Los Osos Valley Road / Edna Valley Wine Country [HWY SIGN 1]
 - ii. ii. LOVR off ramp and LOVR intersection signal: directional sign, Edna Valley Wine Country directing traffic eastward (left) on LOVR [ST SIGN 1]
 - iii. iii. LOVR Eastbound at Calle Joaquin: lane marking / directional sign directing traffic straight on Los Osos Valley Road [ST SIGN 2]
 - iv. iv. LOVR Eastbound at South Higuera Intersection: lane marking/directional sign directing traffic northward on South Higuera [ST SIGN 3]
 - v. v. South Higuera Northbound at Tank Farm Road: directional sign directing traffic eastward onto Tank Farm Road [ST SIGN 4]
- II.2. 2. Traffic Flow from north of the City limits – Again, most of the wineries and businesses I spoke with in Edna Valley use LOVR as the preferred route (1 directed traffic through downtown to Broad Street).
- a. a. Suggested sign points:
 - i. i. Same as those noted for traffic within City limits.
- II.3. 3. Traffic Flow from South of the City limits (Avila / Shell Beach areas) – Most wineries directed visitors to use the LOVR off ramp from northbound US 101.
- a. a. Suggested sign points:
 - i. i. US 101 Northbound off ramp for LOVR: change to Los Osos Valley Road / Edna Valley Wine Country [HWY SIGN 2]

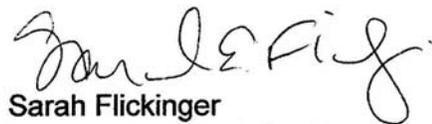
workshop, and received an incorrect date for the meeting on announcement materials. The LVP homeowners were left for four years without significant interaction with the City, in which time significant changes to traffic flow in the City and near the neighborhoods occurred. As a public relations practitioner, I was appalled that the specific plans were difficult to locate (no mention of project on CalTrans Web site), and the time allowed for the review of materials for those of us who purchased LVP property recently (within 4 years), was short for the volume of materials to review.

I would suggest reaching out to homebuyers who purchase property between now and the project beginning, as well as having regular (every three months or so) informational sessions with the homeowners to keep them informed on the progression of the project, and, eventually, to prepare them for impacts during the construction process. We experienced R. Burke trucks and equipment in our developments during the improvements near the Irish Hills development on LOVR (trucks staging in our entrances), and I know I called to complain to the City, as they are private drives, paid for and maintained by the homeowners.

Communication is the key to making this a successful project for all involved, and I encourage the City and CalTrans to be more forthcoming with keeping LVP and impacted businesses informed of what is going on.

Thank you for your time and consideration of these concerns. I look forward to receiving your response, and to working with our community to make this as smooth a transition as possible.

Sincerely,



Sarah Flickinger
Los Verdes Park 1 Resident

Response:

- I. Thank you for your comment. As outlined in your letter the responses to your comments are discussed individually below.

I.1 Noise Impacts

- a. The locations of the modeled receptors in the Noise Impact Analysis follow the Traffic Noise Analysis Protocol and are consistent with Caltrans, federal, and city noise guidelines. Modeled receptors were located at exterior areas where frequent human activity occurs. The Noise Impact Analysis modeled sensitive land uses in the project vicinity. Based on results of the noise modeling for traffic conditions in the existing, future no-build, Alternative 3, and Alternative 6 scenarios, long-term impacts generated by the project would be similar with or without the project.
- b. The study area boundaries in the Noise Impact Analysis were selected based on the location of representative sensitive noise receptors. The receptor sites are representative of human use areas most sensitive to changes in roadway noise levels. The study area was selected based on

the Traffic Noise Analysis Protocol and the Technical Noise Supplement. Inclusion of the additional areas of the Los Verdes Parks I and II would not change the outcome of the modeled noise conditions as they are subject to lower levels of noise than the modeled representative receptors.

- c The environmental assessment, Traffic Operations Report, and Noise Study Report assumptions are consistent with the City’s Circulation Element and San Luis Obispo Council of Governments’ Regional Transportation Plan. The San Luis Obispo Citywide Traffic Model (SLOCTM) was used to develop traffic projections at the US 101/Los Osos Valley Road interchange and study intersections under General Plan Build-out Conditions. General Plan Build-out conditions reflect traffic conditions about 20 years in the future and include land use changes and growth that may occur within that timeframe. Since the 20-year build-out scenario of the traffic model is consistent with the Caltrans 20-year “after project” scenario requirement (in this case, the year 2035) the City’s build-out model forecasts are considered proper for use in the design year conditions for the Los Osos Valley Road interchange project assessments.
- d With respect to CEQA, Caltrans defines a 12 dBA increase due to the project as significant noise impact. Since the proposed project does not increase noise levels by 12 dBA or more, it would not result in a significant noise impact (see noise discussion in the beginning of Chapter 2). However, the project would use alternative paving techniques, which may include open-grade or rubberized asphalt between South Higuera and San Luis Obispo Creek bridge on Los Osos Valley Road for Los Verdes Parks I and II as an environmental enhancement measure. Rubberized and open-grade asphalt is known as “quiet pavement” because it reduces the audible noise emanating from traffic.

Temporary construction noise minimization measures NOI-1 through NOI-3 would reduce construction noise impacts for sensitive receptors adjacent to the project site and are explained in Section 2.4 of the environmental document.

I.2 Air Quality

- a As discussed in the Air Quality Technical Report (2008), air quality monitoring locations were selected by choosing areas representing the nearest sensitive receptors in the vicinity of the modeled roadway segments. These locations represent the sensitive receptors subject to the greatest air quality impacts.

Under the no-build option, increased traffic congestion would inevitably create more air pollution than if Alternative 3 or Alternative 6 were chosen.

It was determined that National Air Quality Standards would be met, no generation of notable levels of mobile sources of air toxics (MSATs) would result from the project, and emissions would not exceed the City of San Luis Obispo County Air Pollution Control Standards. For temporary impacts, minimization measures for construction-related air impacts have been included to protect the resident from construction pollution. Please see the minimization measures for Air Quality in Section 2.4 under the Construction Air Quality heading of the Initial Study.

Air quality impacts would be mitigated by Minimization Measures AQ-1 through AQ-3. The proposed project would implement a dust control plan, measures for construction emissions,

and toxic control measures for naturally occurring asbestos. In addition the proposed project would utilize Best Management Practices.

The City of San Luis Obispo provided monetary compensation to Los Verdes Parks I and II residents to purchase dual-pane windows and air conditioning units in 1986. This was a mitigation measure for noise impacts from a bridge and traffic project at the time.

- b Thank you for your offer, please refer to response “a” above.

I.3. Safety at Los Osos Valley Road and Los Verdes Parks

- a. Traffic Study of the Los Verdes driveways along Los Osos Valley Road did not indicate that increased traffic control was warranted as part of the project. There is no four-way stop currently included in designs for Los Verdes Park I or II. The City is studying potential alternatives to the driveway locations and will continue to monitor this as part of its Annual Traffic Safety report process. This process annually checks the city for problematic traffic locations and makes recommendations for mitigation based on traffic collision review and observations.

Adding signals at the Los Verdes Parks I and II driveways onto Los Osos Valley Road has been considered. The Traffic Operations Report concluded that the Los Verdes Parks I and II driveways do not meet signal warrants at this time, nor would they meet signal warrants at the design year of 2035 per requirements of the State Manual on Uniform Traffic Control Devices.

- b. Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from South Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single-lane approach may temper speeds of vehicular traffic approaching the location of driveways. This effort, in conjunction with adjustments to signal timing, could provide gaps in the traffic flow on Los Osos Valley Road resulting in improved access for Los Verdes Park I and II residents.
- c. The City has reviewed the signal timing at the intersection of Higuera/Los Osos Valley Road and has concluded that additional pedestrian timing for crossing Los Osos Valley Road is possible; the timing changes would be implemented before the interchange project is built. This change would also improve traffic timing as mentioned in response “b” above.
- d. The City and Caltrans will evaluate the possibility of adjusting future signal timing for the Los Osos Valley Road/ Northbound US 101 and the Los Osos Valley Road/South Higuera Street intersections to allow additional gaps in traffic for exiting the Los Verdes Parks.
- e. All intersections with signals would include pedestrian crossing controls unless determined unsafe or detrimental to traffic conditions. As an added safety enhancement, the final design may include street print (stamped/imprinted asphalt or concrete) for pedestrian crosswalks with signals. Intersections with signals would also include bicycle detection for the Class II bike lanes. The City has also reviewed the signal timing at the intersection of Higuera/Los Osos Valley Road and has concluded that additional pedestrian timing for crossing Los Osos

Valley Road is possible; the timing changes would be implemented before the interchange project were built.

- f. Thank you for your comment. The City will evaluate the possibility of future signal timing and signage for the Tank Farm/South Higuera and South Higuera/Prado Road Los Osos Valley Road/Northbound US 101 and the Los Osos Valley Road/South Higuera Street intersections to allow additional gaps in traffic for exiting the Los Verdes Parks.

I.4 Safety at Los Osos Valley Road and South Higuera Street

- a. Please refer to responses for “I.3” above.

I.5 Community Character, Quality of Life and Property Value concerns

- a. Removal of medians on Los Osos Valley Road

The Los Osos Valley Road interchange is defined in the City of San Luis Obispo 1994 Circulation Element and the April 4, 2006 amendment (Resolution No. 9785) as an entryway to the community of San Luis Obispo. The Traffic Management section states that “segments of these routes leading into San Luis Obispo should include landscaped medians and roadside areas to better define them as community entryways.” Additionally, the Scenic Roadways section establishes a policy to “preserve and improve views of important scenic resources from streets and roads.”

The median, which is 170 feet long, would be removed to provide space for the two additional traffic lanes and maintain the Class II bike lanes. While removal of the median does include the removal of three existing street trees, its impact is considered less than the removal of the Los Verdes Park street trees or landscaping that would be required if the road must be widened beyond the existing curb-to-curb area.

- i The cross section of Los Osos Valley Road adjacent to Los Verdes Parks I and II was developed and installed as part of the subdivisions for the two residential areas that occurred in the 1970s. The current curb-to-curb dimensions do not allow for installation of the additional needed travel lanes while maintaining the bicycle lanes that are needed for future conditions. To accomplish this, the roadway must be widened or existing lanes narrowed to obtain the needed cross section for the future roadway lane assignments. Widening to the outside and narrowing to the inside were both considered for this section with the conclusion that reducing the raised median area and installing the two-way left-turn lane alternative was the most appropriate along this segment. This alternative does not bring automobile traffic closer to the residences of Los Verdes Park I and II and maintains the sidewalk areas and substantial landscape screening along the Los Verdes Park frontage of Los Osos Valley Road.

The widening would result in four 12-foot through-lanes, bike lanes, sidewalks (on both sides), and a median 5 feet to 16 feet wide, which would be used for left turns where needed. Restriping Los Osos Valley Road from two lanes to four lanes in front of the Los Verdes Parks I and II driveways would provide additional gaps in traffic to allow turns from or into the Los Verdes driveways due to the increased capacity and reduction in backups on Los Osos Valley Road. Based on public comment, the City is considering that the project initially maintain one lane of traffic on Los Osos Valley Road from Higuera Street toward the US 101 freeway and then transition to two lanes north of the Los Verdes driveways. The single lane approach may temper speeds of vehicular traffic approaching

the driveways. Speed tempering will provide traffic calming and should compensate removal of the raised median.

- ii As stated in response “i” removal of the median and installation of a two-way left turn lane, allows traffic to remain the same distance from the Los Verdes Parks I and II maintaining the sidewalk areas and substantial landscape screening along the Los Verdes Parks frontage of Los Osos Valley Road, lessening noise and air quality impacts while maintaining aesthetic value to the residential area.
- iii. Please refer to the responses to “i” and “ii” in this section.

b. Home values, noise and air pollution, aesthetics

- i Thank you for your suggestion, the City will consider your suggestion of including the rerouting Los Osos Valley Road around the western and southern edges of Los Verdes Park in the next General Plan Circulation Element update. In regard to your suggestion Alternative 2 was developed during the Project Study Report (PSR) phase of the project, and provides an alternative similar to that which you propose. Alternative 2 proposed a new roadway alignment connection between South Higuera west of the Los Verdes development and the Los Osos Valley Road interchange. This alternative embraced a larger need and purpose than originally proposed for the project and was met with mixed public support. Additionally the cost of Alternative 2 was twice that of Alternative 3 and presented substantial environmental impacts to Conservation/ Open Space land and San Luis Obispo Creek. The alignment was also strongly opposed by some residents of the Los Verdes developments who did not want a major road along the west and northwest sides of their development unless Los Osos Valley Road was terminated. This alternative does not exist in any regional transportation plan or City planning document at this time.

Due to the high cost, environmental impacts, mixed public opinion, and scope outside the projects purpose and need, Alternative 2 was dropped from the list of viable alternatives studied in the environmental document. However, as part of the City Council direction of developing all project alternatives for the US 101/Los Osos Valley Road interchange project, each of the proposed alternatives do not preclude this alternative from being built at a future time should this project be included in the next update of the City’s Circulation Element or the County’s Regional Transportation Plan.

- ii. Your comments regarding Prado Road east of the interchange study area as well as the other regional facilities and locations are noted, but those issues are considered beyond the scope of the impact of the Los Osos Valley Road interchange alternatives assessment area. Both the City’s General Plan and the Regional Transportation Plan include recommendations for and analysis of these areas as part of the overall circulation system needs of the city and county. Connecting Prado Road between South Higuera and Broad Street (Hwy 227) is shown as project A.1 in the City’s Circulation Element as a part of the Prado Road Interchange Project. The Prado Road Interchange Project is a City project with Caltrans oversight and is identified in the City General Plan Circulation Element as Projects A.1, A.2, B.4 and C.1. The General Plan states that the City will ensure that changes to Prado Road (Project A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. Specifically, these projects would be built if funding is secured from the airport area, Dalidio area and other development projects within the City. The Prado road projects are driven by specific development projects, which have not yet occurred.
- iii. Your comments regarding excluding the Prado Road Interchange Project as a project occurring in the foreseeable future from the Circulation Element of the City’s General

Plan before approving development projects is noted, but that issue is considered beyond the scope of the impact of the Los Osos Valley Road interchange alternatives assessment area. The City reviews each development project that is proposed for various impact possibilities, including both project-specific and cumulative effects. Whether or not private development may occur before any infrastructure improvement need (such as the Prado Road Interchange) is dependent on each project's impact and associated pro rata share of that impact on existing facilities. Both the City's General Plan and the Regional Transportation Plan include recommendations for and analysis of these areas as part of the overall circulation system needs of the city and county. Traffic volume forecasts are based on General Plan build-out conditions for the City of San Luis Obispo. Project specific study areas are selected in consultation with City of San Luis Obispo and Caltrans staff per the requirements set forth in the December 2002 Caltrans Guide for the Preparation of Traffic Impact Studies.

Before adopting or revising any general plan element, the City Planning Commission and the City Council hold public hearings (noticed in the local newspaper at least 10 days prior to the hearing date) and prepares environmental documents to encourage public review in the planning process. During this phase the City welcomes comments regarding General Plan updates.

I.6 Land Use and Circulation Element Concerns

- a. Please refer responses above in section "b" of "I.5."

I.7 Cumulative effects

- a. Please refer responses above in section "b" of "I.5."

II. Thank you for providing these comments and suggestions. The City of San Luis Obispo will continue to work with the public to address appropriate signage and placement. The City will consider your suggestions for appropriate signage and placement directing traffic towards the Edna Valley wineries. If feasible the City will work with you and other members of the community to coordinate implementation of these signs. Please contact the City Public Works Department to continue this dialogue at (805) 781-7200.

III. Points from responses to survey

III.1 Please refer to response to "I.5a" for discussion of raised medians on Los Osos Valley Road.

III.2 The City has noted that respondents to your survey were not in favor of a monument sign at Los Osos Valley Road.

III.3 Thank you for your offer. Please contact the City Public Works Department to continue this dialogue at (805) 781-7200 and refer to response "II" for signage discussion.

IV. Concerns of lack of communication throughout the planning process

The City of San Luis Obispo met with the Los Verdes Parks I and II Home Owners Association boards and Caltrans held a public hearing to meet CEQA requirements. Public input was received either at the hearings/meetings or during the circulation period. The meeting on July 8, 2008 satisfies CEQA requirements for public input. In addition to the public hearings, several public meetings were held with Los Verdes I and II Homeowners

Association. The City Council also received project status updates during the development of the project.

Multiple meetings were held throughout the project development phase: meetings with the general public, meetings specifically with members of the Los Verdes Parks, other project update and funding discussions by the City Council, and the required public hearing for CEQA discussion. The public hearing was conducted in an open format style. Public input was received either at the hearings/meetings or during the circulation period. In addition, Caltrans staff was on hand at the hearing to answer questions and listen to comments by the public. A partial list of these meetings is provided below. It is our conclusion that CEQA public involvement requirements have been met. A court reporter was present at the public hearing on July 8, 2008 to record comments for the formal administrative record, and all of the comments are incorporated into the final report.

- Public Scoping Meeting #1: March 27, 2003
- Public Scoping Meeting #2: July 1, 2004
- Los Verdes Home Owners Association Meeting: March 11, 2003
- Los Verdes Home Owners Association Meeting: July 1, 2008
- Public Hearing: July 8, 2008

The public meetings, City Council presentations, and public hearings were advertised in *The Tribune* newspaper. In addition, notices of the public hearing were sent to interested parties and occupants/tenants within about 2,000 feet of the interchange.

The purpose of the public hearing was to obtain public comment and to ensure that transportation decisions are consistent with the goals and objectives of federal, State, and local entities.

The meetings provided opportunities for members of the public to see the final proposed alternatives and provide their input. The meetings were well attended by the members of the public and homeowners near the project.

As part of project development, two individual working group meetings with the Los Verdes Home Owners Association were held: one on March 11, 2003 and another on July 1, 2008. While the time between these meetings was longer than expected, the delay in the meetings was a result of the studies and technical reviews conducted for the project alternatives in the interim.

Project alternatives were considered and evaluated during the Project Study Report (approved February 27, 2004) phase of the project. Seven alternatives were considered by the Project Development Team and evaluated based on project cost, level of service and other traffic data, and specific environmental impacts (including public input). Two of these Alternatives (3 and 6) met the purpose and need of the project and had the least environmental impacts. Based on public comments received and the environmental impacts associated with Alternative 6, Caltrans selected Alternative 3 as the preferred alternative. Please refer to Section 1.3 of the environmental document for a discussion of public involvement in the selection of Alternatives.

List of Technical Studies that are Bound Separately

- Air Quality Report
- Noise Impact Analysis
- Natural Environment Study
- Wetland Delineation
- Biological Assessments for California Red-legged Frog and Steelhead Trout
- Location Hydraulic Study
- Historical Property Survey Report
 - Archaeological Survey Report
- Hazardous Waste Report
 - Initial Site Assessment
- Scenic Resource Evaluation/Visual Assessment