

Route 46 Corridor Improvement Project

SAN LUIS OBISPO COUNTY, CALIFORNIA
DISTRICT 5 – SLO – 46, KP 51.8/90.6 (PM 32.2/56.3)
3307U0 & 330800

Environmental Assessment with Finding of No Significant Impact/Final Environmental Impact Report



by the
U.S. Department of Transportation
Federal Highway Administration
and
State of California Department of Transportation



May 2006



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GENERAL INFORMATION ABOUT THIS DOCUMENT

What's in this document?

This document contains a Finding of No Significant Impact and a Final Environmental Impact Report, which examine the environmental effects of a proposed project on Route 46 in San Luis Obispo County.

The Environmental Assessment/Draft Environmental Impact Report was circulated to the public from March 2003 until May 17, 2003. Responses to the circulated document are shown in the Comments and Responses section of this document. Throughout this document, a line in the margin indicates changes from the draft document.

What happens after this?

The proposed project is environmentally cleared after the circulation of this document. When funding is approved, the California Department of Transportation and the Federal Highway Administration can design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Larry E. Bonner, Environmental Planning, 50 Higuera St., San Luis Obispo, CA 93401; (805) 549-3063 Voice, or use the California Relay Service TTY number, 805-549-3259.

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**FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR
State Route 46 Corridor Improvement Project
San Luis Obispo County, California**

The Federal Highway Administration (FHWA) has determined that this project will not have any significant impact on the human environment. This finding of no significant impact is based on the attached Environmental Assessment, which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the environmental assessment.

05/19/06
DATE



For
Gene K. Fong
Division Administrator
Federal Highway Administration

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ROUTE 46 – CORRIDOR IMPROVEMENT PROJECT
SAN LUIS OBISPO COUNTY, CALIFORNIA

FINAL ENVIRONMENTAL IMPACT REPORT

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

THE STATE OF CALIFORNIA
Department of Transportation

5/10/06
Date of Approval

Cheryl Willis
Cheryl Willis
Acting District Director, District 5
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ROUTE 46 – CORRIDOR IMPROVEMENT PROJECT
SAN LUIS OBISPO COUNTY, CALIFORNIA

ENVIRONMENTAL ASSESSMENT/DRAFT ENVIRONMENTAL IMPACT REPORT

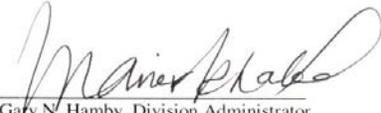
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U.S. Department of Transportation
Federal Highway Administration
and
State of California Department of Transportation

1-31-03
Date of Approval


John Luchetta, Chief
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2/25/03
Date of Approval

for 
Gary N. Hamby, Division Administrator
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Summary

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under CEQA and the FHWA is lead agency under NEPA.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, it is quite often the case that a “lower level” document is prepared for NEPA. One of the most commonly seen joint document types is an Environmental Assessment/Environmental Impact Report (EA/EIR).

Caltrans has determined to certify the EIR and FHWA has determined to issue a Finding of No Significant Impact (FONSI).

This Environmental Assessment/Final Environmental Impact Report (EA/FEIR) assesses the environmental impacts of constructing and operating the Route 46 Corridor Improvement Project and includes all comments made on the Environmental Assessment/Draft Environmental Impact Report. In addition, this EA/FEIR includes the responses made to each of the comments from federal, state, and local agencies, and members of the public. Any changes to the document, as a result of the comments or further development of the project design, are marked by a vertical line in the outside margin.

The purpose of the proposed project is to minimize fatal accidents, improve safety, and reduce congestion on State Route 46 between Paso Robles and Cholame, a critical east-west corridor connecting the Central Coast and Central Valley areas of California. The project limits are from Airport Road, just east of Paso Robles (KP 51.8, PM 32.2) to the eastern most junction of State Routes 46 and 41 (KP 90.6, PM 56.3), commonly known as the “Wye”, a distance of approximately 38.8 kilometers (24.1 miles). The new roadway will be a four-lane, access controlled, divided expressway. It will be constructed mostly on the existing alignment with a few sections of the new expressway on new alignments. Right of way will be purchased throughout the entire project.

The overall accident rate on this segment of State Route 46 is below the statewide average. One intersection, however, is higher than the statewide average. This intersection exceeds the statewide average by more than three times. Traffic, through the project area, averages 12,500 vehicles per day and is expected to increase to 20,800 vehicles per day by the year 2025. Currently, the peak hour Level of Service (LOS) is a substandard “E”. Without the project, it is forecast to decrease to “F” by 2025; with the construction of a four-lane divided expressway, it is expected to be “C” by 2025.

The alternatives proposed for this project included the build alternatives and the no-build alternative. Because of the length of this project and the common elements in different portions of the project,

Summary

the project and the build alternatives have been arranged into four sections. The four sections and their limits for the project include:

Estrella Section -----Kilopost 51.8 to 66.3 (Postmile 32.2 to 41.2)

Shandon Section-----Kilopost 66.3 to 80.8 (Postmile 41.2 to 50.2)

Cholame Section-----Kilopost 80.8 to 88.1 (Postmile 50.2 to 54.8)

Wye Section-----Kilopost 88.1 to 90.6 (Postmile 54.8 to 56.3)

The Estrella, Shandon, and Cholame sections each had two build alternatives for comparison. The Wye section had six build alternatives to compare. The build alternatives within each section have their own numbering system. Each alternative within each section can link together with any other build alternative in an adjoining section. This allowed the decision makers to select the least environmentally damaging alternative for each section. Only the no-build alternative applied to the entire project. The no-build alternative could not be preferred if any of the build alternatives were preferred in any of the four sections.

Selection of Preferred Alternative

The preferred alternative chosen by the project development team for this project, after consideration of all comments received from federal, state, and local agencies, and the general public is:

Estrella Section, Alternative 8N
Shandon Section, Alternative 1
Cholame Section, Alternative 1
Wye Section, Alternative 8b

In the Estrella section of the project, Alternative 8N was chosen as the preferred alternative over Alternative 9N because it did not result in direct impacts to special status bat species, impacted substantially less Fremont cottonwood woodland habitat, and improved habitat connectivity for the western spadefoot toad. Alternative 8N has a lower cost than Alternative 9N, mainly due to a reduced amount of excavation in the Estrella grade portion of this section. This reduced amount of excavation also resulted in the preferred alternative having substantially less temporary air and water quality impacts. Finally, this alternative eliminates left-turn movements from Whitley Gardens drive reducing the potential for driver mistakes resulting in collisions.

In the Shandon Section of the project, Shandon Section, Alternative 1 was chosen as the preferred alternative. Alternative 1 was chosen over Alternative 2 because it impacts less non-wetland Other Waters of the United States and less San Joaquin kit fox and other upland species habitat. There are no wetland impacts in this section. Alternative 1 has no impacts to gypsum-loving larkspur, a rare plant, versus Alternative 2, which would have impacted one stand of the plant. The preferred alternative in this section has a lower cost than Alternative 2, mainly due to a reduction in the amount of excavation throughout the section. The substantially lower amount of excavation with Alternative 1, 530,000 m³ (693,000 yds³) compared to the 1,000,000 m³ (1,308,000 yds³) of excavation needed for Alternative 2, also reduces temporary air and water quality impacts

substantially. Finally, the realigned portion of roadway with Alternative 1 will result in substantial improvements to existing and future water quality in Cholame creek.

In the Cholame section of the project, Alternative 1 was chosen as the preferred over Alternative 2 because it has fewer impacts to San Joaquin kit fox and other upland species habitat. The habitat for the western spadefoot toad and the southwestern pond turtle will be greatly improved with Alternative 1's proposed realignment around the Tosco oil pumping plant and away from the existing encroachment upon Cholame creek. The cost for the preferred alternative is less than Alternative 2, mainly associated with fewer miles of utility pipelines that would need to be relocated. Lastly, existing and future water quality will be greatly improved for Cholame creek with Alternative 1 by realigning the roadway around the Tosco plant and away from Cholame creek. This realignment will also save future impacts to the environment and roadway maintenance funds by eliminating the existing longitudinal encroachment, which has proven to be problematic. There were no wetland impacts in this section.

In the Wye section of the project, Alternative 8b was chosen as the preferred alternative over the other five alternatives because it has the least impacts to wetlands. Alternative 8b also does not isolate large blocks of habitat, provides an additional crossing structure to decrease habitat fragmentation, and improves corridor movements for the San Joaquin kit fox and other upland species, pronghorn antelope, and the western spadefoot toad. The preferred alternative provides for better floodplain functioning with two new, longer bridges to the north of the existing bridge and provides an additional bridge over the lowest point in the valley to restore hydrologic connectivity. Lastly, this alternative would place the two new bridges furthest from the San Andreas Fault reducing the potential for damage to the bridges from ground displacement in the event of a seismic event.

General Setting

The environmental setting is a portion of unincorporated northeastern San Luis Obispo County, just east of the city of Paso Robles. The project corridor is an east-west path beginning near the city of Paso Robles, extending through the Estrella River area, the Shandon area and ending in the Cholame Valley. The surrounding area is characterized by rolling hills and mountainous terrain. The land use is predominantly agricultural (vineyards) and grazing, with some limited rural residential spread throughout and two small communities, Whitley Gardens near the western end of the project and Shandon near the center of the project area.

The project area has a great diversity of plant communities, including: Central Coast Scrub, Serpentine Scrub, Coast Live Oak Woodland, Central Coast Live Oak Riparian Forest, Central Coast Riparian Scrub, Sycamore Alluvial Woodland, and Central Coast Cottonwood-Sycamore Riparian Forest, in addition to vast areas of non-native grassland. The proportion of oaks to grassland decreases as one moves east through the project area with the majority of the oak woodlands occurring west of Shandon. Portions of these plant communities have been substantially impacted by human influence.

Activities such as grape production for winemaking, farming, and livestock grazing have modified much of the wildlife habitat within the vicinity of State Route 46. Habitat quality for most

Summary

mammalian and reptilian wildlife in the western portion of the project area is generally considered to be poor, but improves going east through the project area. Habitat quality in the Cholame and Wye sections is generally good for most mammals, reptiles, and avian species. Certain features such as Cholame Creek, Cholame valley, and the large alkali salt flat in the Wye section offer unique habitat that specialized plant species are dependent upon for survival.

The project area is rich in cultural history. The Wye area has long been a junction where different Native American tribes have historically met to trade goods from their respective areas. Coastal tribes met with valley tribes and the tribes of the Sierra Nevada to exchange food, materials for tools, and ceremonial pieces. The project area is mostly rural except for the two communities mentioned above and other smaller communities such as at Vintage Hills Way in the Estrella Section of the project.

Many utilities are located adjacent to or near the existing highway. Underground pipelines are used to transport various petroleum products such as oil and gas, jet fuel, and to house fiber optic cables. Above ground lines, including telephone and electrical, are also present.

Identified Impacts

The most important environmental impacts from the proposed project are in the areas of biological resources. Biological impacts would result from the construction of the preferred alternative. This would require the acquisition and disturbance of land throughout the entire length of the project. Some of this land includes habitat for threatened and endangered species and wetlands. No impacts to any publicly owned parks or recreation areas, wildlife refuges, or historic sites of national significance¹ by any of the build alternatives were identified.

Impacts to wetlands and waters of the U.S. include the removal of wetland habitats, alteration of wetland hydrology, and changes in wetland species composition. Construction of the project would permanently impact 1.85 hectares (4.58 acres) of wetlands, as defined by the U.S. Army Corps of Engineers. Positive impacts to wetlands resulting from the Wye section build alternative includes the reconnection and restoration of previously fragmented wetland areas. This is expected to improve both the function and value of the wetlands in the Wye area. The CEQA determination found that no significant impacts would result from any of the build alternatives to jurisdictional wetlands and other waters of the U.S.

Principal impacts to special status wildlife species include habitat loss for the San Joaquin kit fox, pronghorn antelope, western spadefoot toad, southwestern pond turtle, San Joaquin coachwhip, California horned lizard, western burrowing owl, mountain plover, California horned lark, grasshopper sparrow, Tulare grasshopper mouse, San Joaquin pocket mouse, and 6 species of bats. In addition to habitat and potential habitat impacts, the project could increase the barrier to migration effect of the highway, which would result in an impact to the migration of some of these species. However, measures included in the design of the project would reduce the barrier effect of the highway and will likely improve the permeability of the highway corridor from its existing state.

¹ These resources are considered Section 4(f) resources as defined in the Department of Transportation Act.

Impacts to special status plant species and special status plant communities include impacts to crownscale, gypsum-loving larkspur, valley sink scrub, and Fremont cottonwood woodland. In addition, blue oak woodlands, primarily in the Estrella section, would be affected by the preferred alternative. Estrella Section Alternative 8N would remove approximately 1.43 hectares (3.53 acres) of blue oak woodland. Approximately 236 blue oaks would be removed as a result of the construction of the selected Estrella section alternative (8N).

On December 12, 2005 the United States Fish and Wildlife Service issued a Biological Opinion that the State Route 46 Improvement Project is not likely to jeopardize the continued existence of the federally endangered San Joaquin kit fox, the federally threatened California tiger salamander, and the California red-legged frog in accordance with section 7 of the Endangered Species Act of 1973, as amended.

Farmland would be taken with this project. One property would have its acreage reduced below the minimum threshold for reestablishing a Williamson Act Contract. A total of 13.3 hectares (32.9 acres) of designated farmland would be taken with construction of the preferred alternative. A total of 35.7 hectares (88.2 acres) of farmland designated as preserve would be removed by the project and a total of 40.3 hectares (100.0 acres) of farmland under Contract would be removed. However, based on the comparisons of impacts to the total amounts of designated farmland and farmland under preserve and Contract in the study area and in the County, the CEQA determination found that no significant impacts to farmland would result from the proposed project.

Each of the build alternatives in the Estrella and Cholame sections would displace residences. Four residences would be displaced with Estrella Section, Alternative 8N, the selected Estrella section alternative. One residence would be displaced with the selected Cholame section alternative (Alternative 1). Adequate relocation resources exist within the project area for the displaced residents. No residents would be displaced with construction of the selected Shandon or Wye section alternatives. The preferred alternative for each section would improve access, circulation, emergency response time, and is expected to reduce accident rates. The CEQA determination found that no significant impacts to communities would result from the proposed project.

With construction of the preferred alternative, roadway features such as bridges, cuts, and fills would be noticeable in the visual landscape. Areas of interest included the proposed Estrella River bridges, the large cuts in the Estrella grade area, and the Wye section (separated grade interchange). The CEQA determination found that with the incorporation of the proposed mitigation no significant visual impacts would result from the construction of the preferred alternatives.

Although prehistoric sites were found in the vicinity of the proposed project, the project design team was successful in avoiding any impacts to those resources. No historic or architectural historic properties exist within the area of potential effect for the project. On April 3, 2002, the State Historic Preservation Officer (SHPO) concurred with the findings presented in the technical studies. The SHPO identified a concern for possible impacts to buried prehistoric sites. Additional studies were conducted and several areas were identified as having the potential for buried prehistoric sites. Environmental monitoring will occur during excavation in the areas identified as having potential for buried sites. In addition, mitigation has been incorporated into the project in the event that a buried prehistoric site is disturbed during construction.

Summary

The potential for encountering paleontology resources is low throughout most of the project. Some specific areas of the project, however, are rated as high probability of encountering paleontology resources. For these areas, additional studies by a professional paleontologist will be conducted after the release of this document to determine the likelihood of encountering these resources. Procedures for handling resources discovered during construction are provided in the Paleontology Resources section.

None of the proposed alternatives showed a predicted increase in the base flood elevation, and impacts were determined to be minimal. Current problems associated with flooding in the Wye section will be corrected with the selected Wye section alternative. Additional hydraulic studies were conducted and a new bridge was added to the selected Wye section alternative in order to restore the functioning of the floodplain and to provide hydrologic connectivity. This new bridge is included in the description of this alternative in Chapter 2. The CEQA determination found that no significant floodplain impacts would result from any of the build alternatives.

The two main receiving surface bodies of water for the project area are the Estrella River and Cholame Creek. Impacts from the preferred alternative would primarily be related to the increase in the amount of impervious surface and an increase in sources of pollutants. Increased amounts of storm water runoff could degrade water quality if best management practices are not implemented. Temporary impacts to water quality during construction of the project would be possible as well but with compliance with Caltrans' National Pollutant Discharge Elimination System permit, implementing best management practices, and coordinating with the Regional Water Quality Control Board, potential impacts would be minimized to the maximum extent practicable. The CEQA determination found that no significant impacts to water quality would result from any of the build alternatives.

Hazardous waste impacts were determined to be minimal under all of the build alternatives, including the preferred alternative. No hazardous waste sites were found during preliminary investigations and special provisions would be included in the construction package for dealing with any hazardous spills or hazardous materials encountered during construction. The highest probability of encountering hazardous materials during construction would be during the utility relocation phase, specifically pipeline relocation. The preferred alternatives in the Shandon, Cholame, and Wye sections will require the relocation of existing underground pipelines. The CEQA determination found that no significant impacts with regards to hazardous waste would result from any of the proposed build alternatives.

San Luis Obispo County is in the South Central Coast Air Basin (SCCAB). The San Luis Obispo Air Pollution Control District (SLOAPCD) which regulates air quality in San Luis Obispo County is in attainment for all federal ambient air quality standards; therefore, no State Implementation Plan (SIP) conformity is required for the project. The SLOAPCD is non-attainment for state ambient air quality standards for PM₁₀ (fine particulate matter less than 10 microns in diameter). Construction of the preferred alternatives for the project is expected to result in short-term impacts to air quality. The CEQA determination found that these are expected to be less than significant with the use of Best Management Practices and through the use of post-combustion emission control devices on construction equipment. The Department worked closely with staff from the SLOAPCD, as a result

of comments to the Environmental Assessment/Draft Environmental Impact Report to define best management and mitigation measures to reduce impact to air quality. These better defined and new measures are included in the air quality section of this document. It has been determined after conducting the air quality analysis that, under CEQA, no significant impacts to air quality would result from any of the build alternatives.

Noise analysis found that background noise levels, measured at sensitive receptors along the corridor, ranged from a low of 54 decibels to a high of 73 decibels during peak hour traffic. Noise abatement for sensitive receptors would be considered when noise levels approach or exceed 67 decibels. One earthen berm is being proposed to reduce noise levels. Under any of the build alternatives, no receptor had greater than a 12 decibel increase above the existing background levels. Therefore, under CEQA, no significant impacts with regards to noise would result from any of the build alternatives.

Cumulative and growth inducing impacts was determined to be similar for any of the build alternatives. Due to the limited access of the expressway, none of the alternatives would encourage unplanned growth. Growth in the rural areas would be limited by the lack of adequate infrastructure (water and sewer). The proposed project would contribute to cumulative impacts in the areas of noise, farmland conversion, and habitat loss, but no substantial cumulative or growth inducing impacts would result from the construction of the preferred alternative.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Avoidance and minimization measures, best management practices, and proposed mitigation measures are discussed in detail within each section of Chapter 3, Environmental Setting, Impacts, and Mitigation Measures. Chapter 6, Best Management Practices and Mitigation Summary, provides a summary of all avoidance and minimization measures, best management practices proposed, and any mitigation proposed for the project. That chapter is organized by resource, for ease of review, and is included to help the public, reviewing agencies, and Caltrans to keep track of the proposed commitments for this large project.

Many avoidance and minimization measures were incorporated into the project design to reduce the level of impact to resources found within the project area. Best management practices have also been incorporated into the project design to minimize impacts and to expedite the permit process. Mitigation would offset substantial impacts to sensitive resources that would result from the project. For some resources, such as wetlands, mitigation would be done even though a substantial impact to wetland resources would not occur. This is because of permit requirements by the U.S. Army Corps of Engineers, under the Clean Water Act, that requires a “no net loss” of wetland resources to result from a proposed project.

Permits

Potential permits needed for this project include the following:

- 1602 Streambed Alteration Agreement
California Department of Fish and Game
- Section 401 Water Quality Certification
California Regional Water Quality Control Board
- Section 404 Nationwide and Individual Permits
United States Army Corps of Engineers
- Section 402 National Pollution Discharge Elimination System Permit
California Regional Water Quality Control Board

Many informal consultations through meetings and field reviews with representatives of the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency were conducted to help shape this project. These agencies formally concurred with the purpose and need statement and the reasonable range of alternatives to study for this project. This early and frequent coordination, a cornerstone of this process, has resulted in the reduction of many potentially significant environmental impacts. Through this process, impacts to wetlands were reduced below the threshold required to be in the process. As a result, Caltrans and the Federal Highway Administration (FHWA) withdrew from the MOU process. The preferred alternatives selected have the least impacts to jurisdictional wetlands and Caltrans and FHWA are committed to adhering to Executive Order 11990 regarding the no net loss of wetlands.

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List of Available Technical Studies

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E-mail: larry_bonner@dot.ca.gov
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Technical studies conducted for this project that are available for public review include:

- Air Quality Report
- Draft Relocation Statement
- Initial Site Assessment
- Location Hydraulic Study
- Natural Environment Study/Biological Assessment
- Noise Study Report
- Paleontology Study
- Preliminary Site Investigation
- Value Analysis Study
- Visual Impact Assessment
- Water Quality Report
- Wetland Delineation

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List of Abbreviated Terms

ABBREVIATION	TERM
AADT	Average Annual Daily Traffic
AAQS	Ambient Air Quality Standards
ACM	Asbestos Containing Materials
ASR	Archaeological Survey Report
BLMS	Bureau of Land Management Sensitive Species
BMP's	Best Management Practices
Caltrans	California Department of Transportation
CDF&G	California Department of Fish and Game
CDFG protected	protected under CDF&G code as a non-game species
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
COES	County Office of Emergency Services
CSC	California Special Concern species
DEIR	Draft Environmental Impact Report
EA	Environmental Assessment
EPA	Environmental Protection Agency
ESA's	Environmentally Sensitive Areas
FCIR	Farmland Conversion Impact Rating Form
FE	Federally listed as Endangered
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FSC	Federal Special Concern species (former Category 2 candidate)
FSS	Forest Service Sensitive species
FT	Federally listed as Threatened
HPSR	Historic Properties Survey Report
HSP	Hard Slope Protection
IIP	Interregional Improvement Plan
ISA	Initial Site Assessment
KP	Kilopost
kph	Kilometers per Hour
LOS	Level of Service
MNBMC	Migratory Non-game Birds of Management Concern
mph	Miles per Hour
MVM	Million Vehicle Miles
NCSC	Natural Community of Special Concern
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PA&ED	Project Approval and Environmental Document
PM	Postmile
PSI	Preliminary Site Investigation

List of Abbreviated Terms (continued)

ABBREVIATION	TERM
PSR	Project Study Report
RTIP	Regional Transportation Improvement Program
RWQCB	Regional Water Quality Control Board
SCCAB	South Central California Air Basin
SE	State listed as Endangered
SHPO	State Historic Preservation Officer
SIP	Statewide Implementation Plan
SLOAPCD	San Luis Obispo Air Pollution Control District
SLOCOG	San Luis Obispo Council of Governments
SRRA	Safety Roadside Rest Area
SSRRA	Shandon Safety Roadside Rest Area
ST	State listed as Threatened
STA	Engineering Station
STIP	Statewide Transportation Improvement Program
TMP	Traffic Management Plan
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
VIA	Visual Impact Assessment
VOC's	Volatile Organic Compounds
WBWG	Western Bat Working Group

Chapter 1: Purpose of and Need for Project

1.1 Background

In 1997, the San Luis Obispo Council of Governments (SLOCOG) proposed a project to widen State Route 46 from Airport Road to the easternmost State Routes 46/41 junction (locally referred to as the “Wye”). The proposal was to widen the existing two-lane conventional highway to a four-lane divided expressway. Funding for construction of the project was programmed in the 1998 Regional and Statewide Transportation Improvement Programs (RTIP and STIP). The present study began in January 1999.

1.2 Purpose

The basic project purpose is to minimize fatal accidents, improve safety, and reduce existing and future peak-hour congestion on State Route 46 between Paso Robles and Cholame, a critical east-west corridor connecting the Central Coast and Central Valley areas of California.

State Route 46 is one of the few east-west routes connecting Interstate 5 to U.S. Highway 101 and is a designated Focus Route² in the State’s Interregional Transportation Strategic Plan. It primarily serves interregional and interstate traffic, although it is used daily by residents of the communities of Paso Robles, Cholame, Shandon, and Whitley Gardens. It is the major east-west route between Highway 166 to the south and Highway 156 to the north that can facilitate the movement of goods by truck.

1.3 Need

1.3.1 Traffic Capacity Problems

Traffic on this route, during peak hour congestion, is nearing capacity. “Peak hour” is defined as the interval of time during which the average daily traffic is heaviest. Exceedingly high traffic volumes, which contain the highest percentage of truck traffic for all routes in the region, and existing curvilinear alignments, that restrict sight distance, limit passing opportunities. A result is that traffic often backs up behind slower moving vehicles and trucks. Driver frustration, due to slower moving vehicles, sometimes leads to illegal passing creating conditions that have resulted in accidents. This creates undesirable conditions for motorists entering the highway from existing driveways and county road intersections.

² A Focus Route is a part of the Interregional Road System identified in the Interregional Transportation Strategic Plan for focused investment of State Transportation funds in the near term.

1.3.2 Present and Future Traffic and Level of Service

Currently, the existing Level of Service (LOS) of State Route 46 during the peak hour is “E”. The predicted LOS for construction year, 2009, is “E” and the predicted LOS for design year 2025 will be “F” during the peak hour if no improvements are made. Upon completion of the project, with a four-lane divided expressway, the peak hour projected LOS would be “B” and the projected design year 2029, LOS for Route 46, with a four-lane divided expressway would be “C”, which is the Caltrans target LOS for the Route 46 corridor. Figure 1.3.2-1 shows an example of LOS as it relates to congestion.

LEVEL OF SERVICE for Two-Lane Highways			
Level of Service	Flow Conditions	Percent Time Spent Following/ Average Travel Speed (mph)	Technical Descriptions
A		Less than 35% Greater than or equal to 55 mph	Free-flow conditions with a high level of passing opportunities. No delays
B		35 to 50% 51 to 55 mph	Free-flow conditions but presence of other vehicles is noticeable. Passing opportunities become more infrequent. No delays
C		50 to 65% 46 to 50 mph	Vehicles occur in a platoon most of the time. Passing demand exceeds passing capacity. Minimal delays
D		65 to 80% 41 to 45 mph	Unstable traffic flow with passing becoming extremely difficult. Passing demand is high, but passing capacity approaches zero. Delays
E		Greater than 80% Less than or equal to 40 mph	Conditions at or near capacity with a majority of time spent following other drivers. Nearly no passing opportunities. Significant delays
F		Nearly 100% Travel speed highly variable	Heavily congested flow with queues forming at locations where demand exceeds capacity. Vehicle speeds are highly variable. Considerable delays

Figure 1.3.2-1. Levels of Service and Traffic Conditions for Two-lane Highways

The Annual Average Daily Traffic (AADT) is the total number of vehicles passing a point in one year divided by the number of days in the year. In 1998, the AADT was 12,500 vehicles per day within the project limits. Of this AADT, 20.2% of the number of vehicles were trucks with 58% of the trucks being heavy trucks (defined as trucks having three or more axles). The projected AADT for the construction year (2009) is 14,300 vehicles per day and is projected to increase to an average of 20,800 vehicles per day by design year 2025. The hourly volume for design year 2029 averages 3,160 autos and trucks with a nearly 50% directional split near the State Routes 46/41 junction. A “50% directional split” means that approximately the same number of vehicles are traveling east and west on State Route 46. Nearly half of the traffic on State Route 46 travels east, towards the Central Valley while the other half travels west, towards the Central Coast. Tables 1.3.2-1 and 1.3.2-2 provide a breakdown of the number of cars by segment and show the breakdown of the types of vehicles using the highway.

Most other two-lane highways in the state average substantially less truck traffic than State Route 46 does. The high percentage of trucks (20.2%) on this route indicates the importance of this route for goods movement between the Central Valley and the Central Coast. This high percentage of trucks also affects operations and safety on this route. Due to their weight and size, trucks require more space and time than passenger vehicles do to speed up and slow down. In addition, trucks cannot maintain a high speed on steeper grades. Delays and frustration by faster motorists coming up behind the trucks result because passing opportunities are few. The large size of trucks can also restrict sight distance for vehicles that are passing, entering, or leaving the highway. Finally, the severity (fatalities and/or degree of injury) of high-speed accidents is usually greater when trucks are involved.

Table 1.3.2-1. Present and Future Traffic –SLO-46-51.8/90.6 (PM 32.2/56.3)

Kilopost (Post Miles)	1998 (vehicles/day)	2029 (vehicles/day)	Peak Hour %*	Autos, Med. Trucks, Heavy Trucks
51.74/56.33 (32.15/35.00)	15,000	37,400	11.6	80%, 8.2%, 11.8%
56.33/78.26 (35.00/48.63)	10,000	11,800	13.5	80%, 8.2%, 11.8%
78.26/88.67 (48.63/55.10)	10,000	13,200	13.5	85%, 4.6%, 10.4%

*“Peak Hour %” refers to the percentage of daily traffic that occurs in the peak hour.

Table 1.3.2-2. Vehicle Composition of Peak Hour Traffic

Kilopost (Post Miles)	Year	Autos*	Med. Trucks	Heavy Trucks
51.74/77.25 (32.15/48.00)	1998	1393	150	207
51.74/77.25 (32.15/48.00)	2025	3597	388	534
77.25/88.69 (48.00/55.11)	1998	1153	57	140
77.25/88.69 (48.00/55.11)	2025	1540	76	187

*Current volumes are taken from 1998 Traffic Volumes on California State Highways. Traffic composition is taken from 1998 Annual Average Daily Truck Traffic on the California State Highway System. Future traffic volumes were calculated based on traffic growth between 1985 and the present and were projected using a straight-line projection.

1.3.3 Safety

Table 1.3.3-1 shows the accident rate for each of the county road intersections within the project area and the entire project area for the five-year period from June 1994 to June 1999. The total accident rate within the project limits (0.42 per Million Vehicle Miles (MVM)) is lower than the statewide average for similar roadways (0.62 per MVM). The fatal accident rate (0.24 per MVM) for the entire project is slightly more than the statewide average (0.23 per MVM).

Table 1.3.3-1. Current Accident Totals and Rates (County Road and Highway Intersections)

Location	Kilopost (Postmile)	Total Number of Accidents			Actual (MVM or MV)*	Average (MVM or MV)*
		Total	Fatal	Injuries		
<i>State Route 46 (entire project)</i>	<i>51.8/90.6 (32.2/56.3)</i>	206	12	86	0.42	0.62
Mill Road	52.55 (32.65)	2	0	1	0.07	0.22
Jardine Road	55.75 (34.64)	6	0	2	0.20	0.22
Branch Road	58.00 (36.04)	0	0	0	0.00	0.22
Geneseo Road	59.61 (37.04)	5	0	3	0.20	0.22
Union Road	62.14 (38.61)	6	0	3	0.26	0.33
Estrella Road	64.18 (39.88)	6	2	4	0.27	0.33
Whitley Gardens Road	64.66 (40.18)	1	0	0	0.05	0.33
McMillan Canyon Road	73.19 (45.48)	3	0	1	0.15	0.33
Route 46/41 West Junction	78.26 (48.63)	4	0	3	0.19	0.22
Lucy Brown Road	81.37 (50.56)	2	0	2	0.05	0.22
Bitterwater Road	84.97 (52.80)	0	0	0	0.00	0.22
Davis Road	88.21 (54.81)	3	0	0	0.16	0.22
Cholame Valley Road	88.47 (54.97)	4	0	1	0.21	0.22
Route 46/41 East Junction	88.69 (55.11)	17	0	12	0.82	0.22

* Denotes Million Vehicles used in accident rates.

Bold type indicates intersections with higher than average accident rates.

Although the overall accident rate for the entire project (0.42 MVM) is below the statewide average (0.62 MVM), the easternmost State Routes 46/41 junction where Caltrans proposes to construct the

separated grade interchange is more than three times (0.82 MV) the statewide average (0.22 MV). The total number of fatal accidents in the project area between 1994 and 1999 is 12, which is below the statewide average. However, the number of people who lost their lives in the 12 “fatal accidents” is 24. There were 206 accidents during this five-year period, 86 of them being injury accidents that resulted in 198 injuries. Accidents within the project area resulted in injury or fatality 46% of the time. Clearly the risk of injury, if involved in an accident within the project area, is high.

1.3.4 Current Deficiencies

Design Standards

Caltrans design standards are criteria developed for the most basic parts of the roadway (lane widths, curve radii, sight distance requirements, etc.). The standards have been developed and tested over time to maximize driver safety and standardize drivers’ expectations. When highway users know what to expect at an interchange or intersection or along a roadway, they can pay more attention to their driving task, resulting in safer roadway travel. Caltrans uses design standards because it is responsible for providing a safe and pleasurable driving experience by building a facility that best utilizes the public funds.

State Route 46 within the project limits is a two-lane conventional highway with 3.66 meter (12 foot) lanes and outside shoulder widths varying from 1.22 to 3.05 meters (4 to 10 feet). Because of the proposed change from a two-lane highway to an expressway, the existing two-lane highway with its corresponding design speed and horizontal and vertical curves must be upgraded in order to meet Caltrans’ mandatory design standards that are required for an expressway. In addition, the easternmost Route 46 to Route 41 at-grade intersection, referred to as the “Wye”, is no longer an appropriate type of intersection given the accident rate, existing traffic counts, turning movements, and traffic conditions. A separated grade intersection is recommended to improve operational and safety characteristics.

Local Access

The project vicinity varies from an urban setting in the west to rural in the east, with many access openings to the highway within the project limits. The access openings consist of 14 county roads and one state highway (State Route 41) and various business and private driveways. Movements onto and off of the highway can be difficult during peak traffic times. In some locations, the lack of deceleration and acceleration lanes and left turn pockets creates hazardous conditions. For example, hazardous conditions occur when vehicles turning left off of the highway have to wait in the travel lane for a break in traffic.

1.3.5 Community Concerns

Considerable media attention has been given to several high profile, multi-vehicle, multiple fatality accidents that have occurred within the project limits on State Route 46 East in San Luis Obispo County. Since late 1995, safety improvement projects have been proposed and implemented in

attempts to increase driver awareness. In January 1996, a grassroots committee called FIX 46³ was established by concerned citizens to facilitate the construction of safety projects, and ultimately, the conversion of the roadway from a two-lane highway to a four-lane divided expressway. Efforts have included receiving grants for increased law enforcement along the route, increasing fines for motorists caught driving in an unsafe manner, the installation of temporary concrete median barrier in areas of high accident concentration, and the designation of the project area as a daytime headlight zone.

Public support of the project is very strong among residents of not only San Luis Obispo County, but the Central Valley as well. Much of the weekend traffic consists of families who live in the metropolitan areas of Fresno and Bakersfield vacationing along the Central Coast. This is shown by the nearly equal number of drivers traveling to and from the Fresno and Bakersfield areas. For this portion of the public, State Route 46 offers the only feasible corridor to travel to the coast. On holiday and summertime weekends, travelers coming from the Fresno and Bakersfield areas converge on State Route 46 at the eastern end of the project limits causing extreme traffic delays, which result in an LOS of “E” and sometimes “F” throughout the length of the proposed project area.

³ “FIX 46” is a local citizen action committee whose support has been instrumental in achieving the many safety improvement projects and this Corridor Improvement project.

Chapter 2: Description of the Project and Alternatives

Caltrans and the Federal Highway Administration developed the project alternatives in coordination with the San Luis Obispo Council of Governments and regulating and permitting agencies with input from the public received as comments after the open house held in December 1999. Alternatives were further refined as a result of agency and public comments on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR) and as a result of discussions with the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers under the National Environmental Policy Act 404 Memorandum of Understanding (NEPA 404 MOU) process. The project vicinity map can be seen in Figure 2.0-1. The project location can be viewed in Figure 2.0-2 and landscape views of the project alternatives can be viewed in Figures 2.3.2-1, 2.3.3-1, 2.3.4-1, and 2.3.5-1 through 2.3.5-6. For detailed mapping of the project alternatives, please refer to Volume II, Project Mapping, of the Environmental Assessment/Final Environmental Impact Report (EA/FEIR).

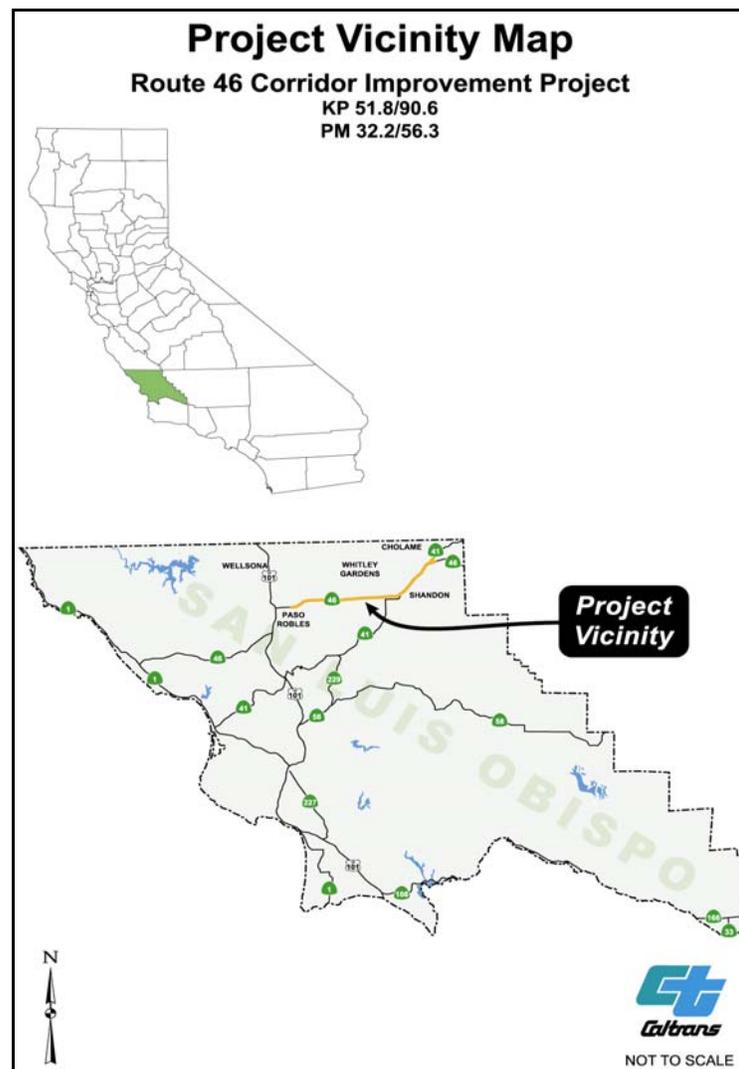


Figure 2.0-1. Project Vicinity Map

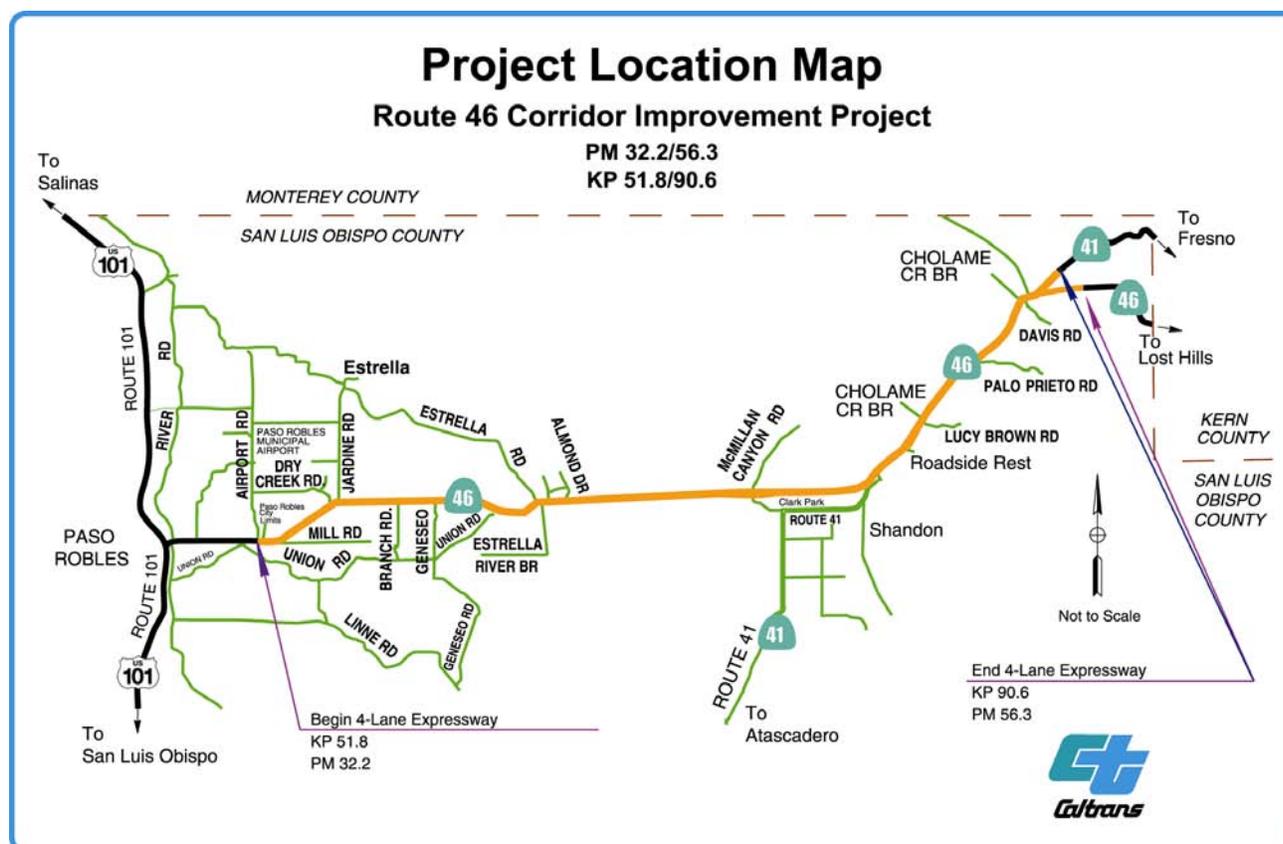


Figure 2.0-2. Project Location Map

2.1 Brief Description

This project would improve safety and provide congestion relief on State Route 46 between KP 51.8 and 90.6 (PM 32.2/56.3). This would be accomplished by creating an additional travel lane in each direction (east and west), separating the east and west-bound lanes by a median, improving inside and outside paved shoulder widths, and by providing left-turn channelization at all public road intersections within the project limits. Safety would also be improved in the Wye section by eliminating the State Routes 46/41 junction, which is an at-grade intersection, and constructing an interchange for the connection.

2.2 History of the Project

2.2.1 Related Projects

Several smaller transportation safety and congestion improvement projects have been completed in the past decade along this route. Most of these projects were built as a result of recommendations from the State Route 46 Safety Task Force. The resulting effect of these projects has been to reduce the number of accidents and fatalities. A summary of those safety improvement projects can be found in Table 2.2.1-1.

Table 2.2.1-1. Project Action History on State Route 46

DATE INITIATED	PROBLEM DEFINITION	ACTION	DESIRED RESULT	STATUS
1982	Head-on collisions and limited passing between Airport Road and Cholame	Add two passing lanes	Improve operations and safety and provide passing opportunities	Completed in 185
1983	Congestion at the 46/101 interchange and Salinas River bridge	Widen the 46/101 interchange and the Salinas River bridge to accommodate four lanes of travel	Improve the capacity of the 46/101 interchange and Salinas River bridge	Complete in 1992
1984	Congestion in urban area between 46/101 interchange and Airport Road	Widen to accommodate four travel lanes and center turn lanes	Improve capacity and operations	Completed in 1992
1990	Head-on collisions	Add one passing lane	Improve passing opportunities	Completed
December 1995	Head-on collisions and vehicles passing with oncoming traffic	Daylight headlight section from Airport Road to the Wye	Increase the visibility of the oncoming car	Installed December 22, 1995
December 1995	Vehicles running off road and crossing over centerline due to inattention or falling asleep	Traffic striping demonstration project. Install raised profile thermoplastic striping	Provide buffer between lanes and alert drivers when they enter the median area or run off the road	Completed July 10, 1996
January 1996	Vehicles crossing over the centerline into opposing lanes	Place black raised markers in addition to existing markers through all locations where passing is not permitted	Alert drivers that they have crossed the centerline	Completed September, 1996
March 1996	Lane drops at the end of passing lanes not consistent	Reconfigure lane drops at PM 47.0 and 57.8 so traffic merges to the left	Reduce potential driver confusion by maintaining consistency in passing lane drops	Completed November, 1996
January 1996	Unusually high number of fatal collisions in 1995	Increase law enforcement, distribute informational brochures, daylight headlight regulations	Reduce the overall speeds of drivers and reduce the fatal accident rate	Action initiated in March 1996. Action is ongoing.
August 1996	No decrease in average speeds of motorists	Initiate the project area as a double fine zone	Raise awareness and reduce the speeds of drivers	Action initiated in September 1996. Action is ongoing.
April 1999	Cross-centerline accidents occurring at similar locations	Install "K" rail median barrier	Eliminate cross over accidents at this location	Completed April, 2000
January 2003	Rear-end accident concentrations at Eberle Winery	Reduce shoulder widths and re-stripe to proved left-turn pocket	Remove traffic waiting to make left turn from the traveled way	Completed March, 2005
January 2003	Rear-end accident concentrations at Vintage Hills Way	Reduce shoulder widths and re-stripe to proved left-turn pocket	Remove traffic waiting to make left turn from the traveled way	Completed March, 2005

2.2.2 Project Development

Between September 1997 and January 2003, Caltrans initiated a series of projects to improve safety and congestion along State Route 46 East. The result has been the development of the Route 46 Corridor Improvement Project. This Environmental Assessment/Draft Environmental Impact Report is the result of the local transportation planning effort and the proposal to improve this portion of the Route 46 corridor. This document is a legal requirement of the California Environmental Quality Act (CEQA), a state law, and of the National Environmental Policy Act (NEPA), a federal law.

In September 2000, a team consisting of representatives from various Caltrans departments, the City of Paso Robles, the San Luis Obispo Council of Governments (SLOCOG), and the FIX 46 Committee was formed to evaluate the project for its value relative to its cost. This “Value Engineering Study” proved to be very effective. The goal of the team was to help design a project with the least environmental impacts, that uses the public funds wisely and maintains the Caltrans design and safety requirements. This Value Engineering Study was successful in its efforts by developing two new alternatives and modifying several others to meet the goals of the team.

2.3 Alternatives Under Consideration

By looking at the entire corridor, long-term improvements can be made and environmental resource impacts analyzed using an ecosystem management approach to solving the problem. Small, incremental projects may alleviate safety and congestion problems temporarily but the larger issue of corridor improvement will remain. If no median separation is built between the directions of travel, the potential for cross-centerline (head-on) accidents will remain and will continue to increase as traffic volumes increase. As accidents increase, more median barrier would be placed along the centerline similar to what is currently in the Cholame Section of State Route 46. It is for these reasons that the build alternatives, the environmental resource analysis, and analysis of impacts focus on the conversion of the roadway from a two-lane highway to a four-lane divided expressway.

All of the build alternatives presented in this section would impact environmental resources in some capacity. To meet the objectives of this project, it is necessary to construct a four-lane divided expressway. Increasing passing lane lengths or adding new passing lanes may reduce congestion in a short portion of the project however, these can create a safety concern when motorists are forced to merge from two lanes back into one. In addition, the separation of the two directions of travel by the construction of a wide median is the most optimum method of preventing cross-centerline accidents.

The project alternatives proposed for study include the build alternatives and the no-build alternative. Because of the length of this project and the common elements in different portions of the project, the project and the build alternatives have been arranged into four sections. The build alternatives within each section have their own numbering system and contain at least two alternatives that have been studied that meet the conditions of the purpose and need. Each alternative within each section can link together with any other build alternative in an adjoining section. Alternatives are referred to as follows: Section Name, Alternative # (*example*: Estrella Section, Alternative 8N). Detailed plan maps of the various alternatives are available in the Environmental Assessment/Final Environmental Impact Report, Volume II. Table 2.3-1 defines the

section limits and number of alternatives for each section. Many more alternatives were developed, discussed and subsequently dropped from consideration for various reasons. The section titled, “Alternatives Considered but Withdrawn”, describes the alternatives and reasons for their withdrawal. A description of each build alternative and the alternatives considered but withdrawn follows.

Table 2.3-1. Alternatives under Consideration by Section

Section Name	Kilopost (PM)	# of Alternatives	Alternatives to be analyzed
Estrella	51.80/66.30 (32.15/41.20)	2	8N* , 9N
Shandon	66.30/80.79 (41.20/50.20)	2	1 , 2
Cholame	80.79/88.13 (50.20/54.76)	2	1 , 2
Wye	88.13/90.60 (54.76/56.32)	6	4, 5, 7, 8, 8b , 9

* **Bold** type denotes the preferred alternative for each section.

For this project, a build alternative had to be selected for each section unless the preferred alternative by a decision-maker was the no-build. It should be noted that the no-build alternative applied to the entire project. The no-build alternative could not be preferred if any of the build alternatives are preferred in any of the four sections. When reviewing and commenting on this document, it was acceptable to comment on only one or two sections of the project but it was stated that in the other sections there was no preference over the remaining build alternatives in the sections without comment. All of the build alternatives were interchangeable.

2.3.1 Major Design Features of the Build Alternatives

Features common to all of the build alternatives for each section under consideration are:

- 3.6 meter (11.8 feet) wide travel lanes
- 1.5 meter (4.9 feet) wide inside shoulders
- 3.0 meter (9.8 feet) wide outside shoulders
- 18.6 meter (61.0 feet) wide median
- 14.1 meter (46.3 feet) wide median in areas with sensitive environmental resources⁴
- All public road intersections would be constructed to Caltrans full expressway standards.
- A design speed of 130 kilometers per hour (kph) (80 miles per hour (mph)) is used to define both horizontal and vertical curve radii.

Figure 2.3.1-1 shows a typical cross section of the proposed expressway facility in an area where a roadway cut and fill would need to be constructed in order to build the new lanes. Note: The existing highway lanes would be rehabilitated for either the westbound or eastbound lanes in the

⁴ This feature, while still meeting Caltrans design standards, requires an advisory design exception (conditionally approved).

different sections of the project. Figure 2.3.1-2 shows a typical cross section for any of the bridges that would be built under any of the proposed alternatives.

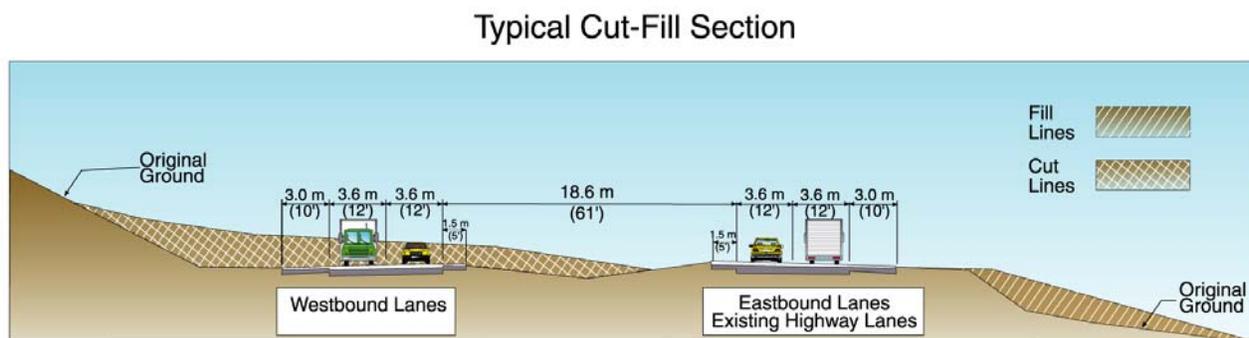


Figure 2.3.1-1. Typical cross section for an area of proposed cut-fill

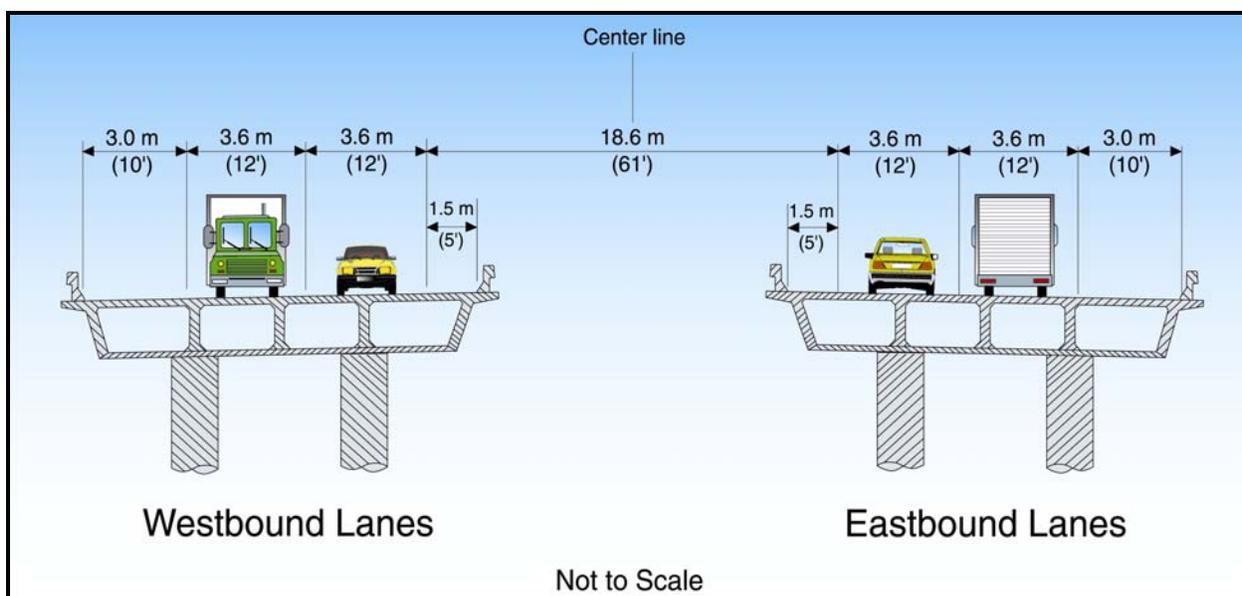


Figure 2.3.1-2. Typical cross section of bridge design

2.3.2 Estrella Section Alternatives Under Consideration

Estrella – Alternative 8N (Preferred Alternative)

This alternative proposes to construct two new eastbound lanes south of the existing State Route 46 roadway, which would be rehabilitated into two westbound lanes for State Route 46. Alternative 8N includes a 14.1 meter (46.3 feet) median width between kilopost 51.8 and 55.3 (PM 32.2 to 34.4) to minimize environmental impacts. The grade west of Estrella road would be reconstructed from the existing 6% to 4%. The existing roadbed segment from 350 meters (1148 feet) west of Estrella Road to Estrella Road at its current location with State Route 46 would be rehabilitated back to a natural condition. Figure 2.3.2-1 shows the plan for the Estrella section.

Access to State Route 46 for Estrella Road would be rerouted under the two new bridges over the Estrella River, via the existing Estrella River Bridge to Whitley Gardens Drive. The access to State

Route 46 from the Vintage Hills community is currently via Vintage Hills Road (located just west of Branch Road on the north side of State Route 46). Vintage Hills Road’s access to State Route 46 would be closed under this alternative. Access, for this community, to the highway would be via an extension of Branch Road to the north. This extension would connect to Burgundy Lane, Merlot Lane, and Champagne Lane (see Volume II, Appendix A.1, Sheets E8 and E8a).

Two new bridges would be built over the Estrella River. They would be approximately 19 meters (62.3 feet) higher and would be constructed south of the existing bridge over the river. Access to Estrella Road from State Route 46 would be provided via a frontage road located under the new structures. Estrella Road would also be routed under the new bridges. At the State Route 46 and Whitley Gardens Drive intersection, no median opening would be provided, eliminating all left turn movements (see Figure 3.3.7-1 in Section 3.3.7). All access to the Whitley Gardens area would be via right turn movements from State Route 46.

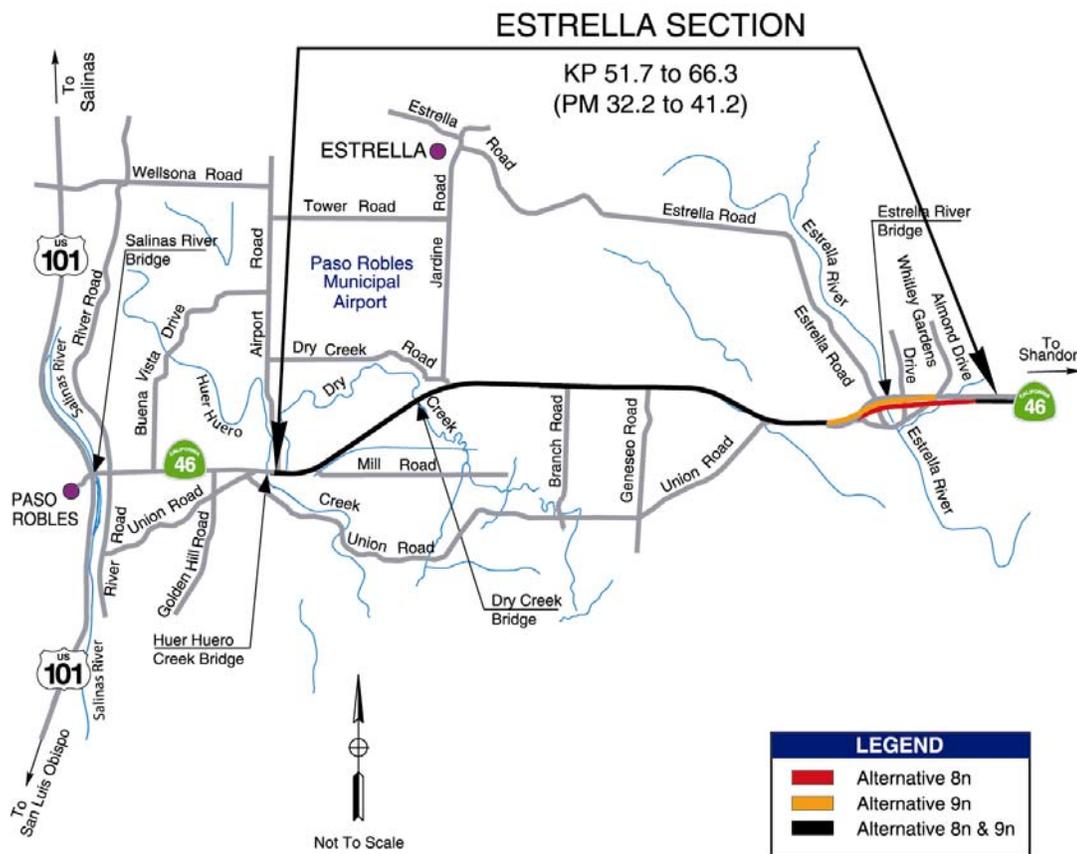


Figure 2.3.2-1. Map showing Estrella section alternatives under consideration

This alternative would require an estimated 1,080,000 cubic meters (1,413,000 cubic yards) of excavation to complete. Of that, 790,000 cubic meters (1,033,000 cubic yards) would be used to construct this alternative, resulting in approximately 290,000 cubic meters (379,000 cubic yards) of excess material. Several utilities, including electrical, telephone, and gas, would need to be relocated outside of the state’s right of way as part of this alternative.

Estrella – Alternative 9N

This alternative is similar to Estrella Section, Alternative 8N in that it also proposes to construct two new eastbound lanes south of the existing State Route 46 roadway, which would similarly be rehabilitated into two westbound lanes for State Route 46. Alternative 9N also contains a 14.1 meter (46.3 feet) median width between kilopost 51.8 and 55.3 (PM 32.2 to 34.4) and between kilopost 61.9 and 65.6 (PM 38.5 to 40.8) in order to minimize environmental impacts. Alternative 9N differs from Alternative 8N in the Estrella Grade area. This alternative proposes to maintain the existing 6% grade and include a westbound truck-climbing lane. Figure 2.3.2-1 shows the plan for the Estrella section.

The access to State Route 46 from the Vintage Hills community is currently via Vintage Hills Road. Vintage Hills Road's access to State Route 46 would be closed under this alternative. For this community, access to the highway would be via an extension of Branch Road to the north. This extension would connect to Burgundy Lane, Merlot Lane, and Champagne Lane.

Two new bridges would be constructed over the Estrella River. These would be raised approximately 3 meters (9.8 feet). Estrella Road and Whitley Gardens Drive would continue to have direct access to State Route 46.

This alternative would require an estimated 2,250,000 cubic meters (2,940,000 cubic yards) of excavation to complete. Of that, 510,000 cubic meters (667,000 cubic yards) would be used to construct this alternative, leaving approximately 1,740,000 cubic meters (2,275,000 cubic yards) of excess material. Several utilities, including electrical, telephone, and gas, would need to be relocated outside of the state's right of way as part of this alternative.

2.3.3 Shandon Section Alternatives Under Consideration

Shandon – Alternative 1 (Preferred Alternative)

Shandon, Alternative 1 mostly follows the existing highway alignment and proposes to widen the highway from two lanes to four with an 18.6 meter (61.0 feet) median throughout its length. The proposed widening occurs first to the south of the existing roadway (from KP 66.3 to 67.0/PM 41.2 to 41.6), then to the north (from KP 67.0 to 78.8/PM 41.6 to 49.0), and finally back to the south (from KP 78.8 to 80.8/PM 49.0 to 50.2). Between KP 74.0 and 75.3 (PM 46.0 and 46.8), the highway alignment is shifted to the north to reduce environmental impacts to the Estrella River. The maximum distance between the existing centerline and the new centerline in this area is 13.7 meters (44.9 feet). Figure 2.3.3-1 shows the plan for the Shandon section.

Two new bridges would be constructed over Cholame Creek using a design speed of 110 kph (68 mph) versus the project standard of 130 kph (80 mph). The lower design speed is proposed to reduce environmental impacts, required right of way and project cost. Due to the use of the lower design speeds in this area design exceptions would be required.

Shandon, Alternative 1 would also re-construct portions of the Shandon Safety Roadside Rest Area (SSRRA). The rest area exit would be constructed farther to the south because of the widening

project. New right- and left-turn lanes, along with a paved median crossover, would be constructed for the rest area from State Route 46. A new road would also be constructed to access the expressway from the rest area. Shandon, Alternative 1 proposes to replace the existing leach field and septic tank and add 11 new semi-truck parking spaces at the SSRRA.

This alternative would require an estimated 530,000 cubic meters (693,000 cubic yards) of excavation to complete. In total, 570,000 cubic meters (746,000 cubic yards) of material would be needed to construct this alternative resulting in the need to import approximately 40,000 cubic meters (52,000 cubic yards) of material.

Several utilities, including electrical, telephone, gas, jet fuel, and oil, would need to be relocated outside of the state's right of way as part of this alternative.

Shandon – Alternative 2

Shandon, Alternative 2 is similar to Shandon, Alternative 1 in most aspects. Shandon, Alternative 2 also follows the existing highway alignment and proposes to widen the highway from two lanes to four with an 18.6 meter (61.0 feet) median throughout its length. The proposed widening occurs first to the south of the existing roadway (from KP 66.3 to 67.0/PM 41.2 to 41.6), then to the north (from KP 67.0 to 78.8/PM 41.6 to 49.0), and finally back to the south again (from KP 78.8 to 80.8/PM 49.0 to 50.2). This alternative does not shift the alignment where the Estrella River parallels the highway. Figure 2.3.3-1 shows the plan for the Shandon section.

Two new bridges would be constructed over Cholame Creek. Shandon, Alternative 2 differs in the location of the two new bridges. The two new bridges for this alternative would be located slightly North of the existing bridges (see Figure 2.3.4-1). This alternative is a full standard alternative designed throughout its length to the 130 kph (80 mph) design speed with no design exceptions proposed to reduce environmental impacts or project cost.

Shandon, Alternative 2 would also re-construct portions of the Shandon Safety Roadside Rest Area (SSRRA). The rest area exit would be constructed farther to the south because of the widening project. New right- and left-turn lanes, along with a paved median crossover, would be constructed for the rest area from State Route 46. A new entrance road alignment would also be constructed to access the expressway from the rest area. Shandon, Alternative 2 also proposes to replace the existing leach field and septic tank and add 11 new truck parking spaces at the SSRRA.

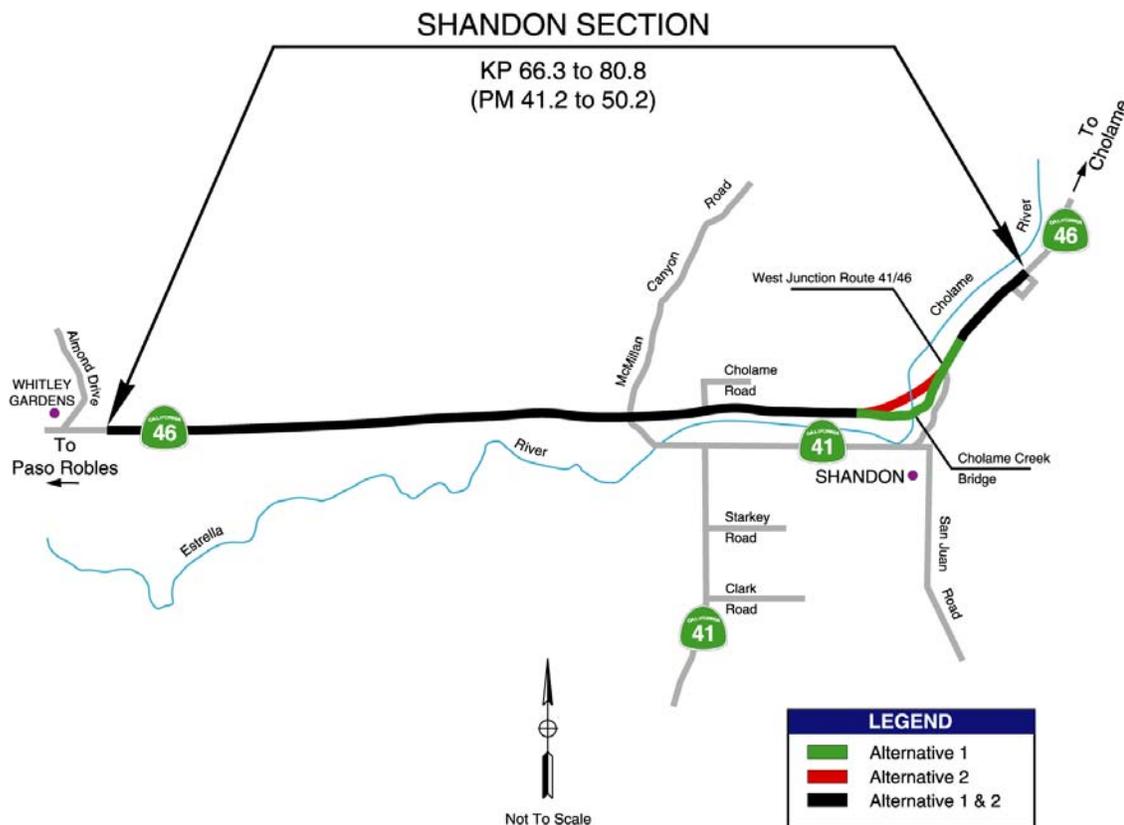


Figure 2.3.3-1. Map showing Shandon section alternatives under consideration

This alternative would require an estimated 1,000,000 cubic meters (1,308,000 cubic yards) of excavation to complete. Of that, 540,000 cubic meters (706,000 cubic yards) of material would be needed to construct this alternative, leaving approximately 460,000 cubic meters (602,000 cubic yards) of excess material.

Several utilities, including electrical, telephone, gas, jet fuel, and oil would need to be relocated outside of the State’s right of way as part of this alternative.

2.3.4 Cholame Section Alternatives Under Consideration

Cholame – Alternative 1 (Preferred Alternative)

Cholame, Alternative 1 begins at KP 80.8 (PM 50.2) and proposes the largest realignment of any section throughout the project. Beginning at KP 80.8 (PM 50.2), this alternative proposes to construct four lanes of traffic around the existing Tosco Oil Pumping Plant to reduce impacts to Cholame Creek and the Tosco Oil Pumping Plant. The new alignment rejoins the existing route at KP 84.0 (PM 52.2) and follows the existing alignment with the widening occurring to the north of the current alignment until KP 86.2 (PM 53.6). The existing roadway in this area would be reconstructed into the expressway’s eastbound lanes with the two new westbound lanes separated by the standard 18.6 meter (61.0 feet) median. From KP 86.2 to the end of the Cholame section at KP 88.1 (PM 53.6 to 54.8), the roadway would be widened to the south, with the existing roadway

converted into the two westbound lanes and the two new eastbound lanes separated by an 18.6 meter (61.0 feet) median. Figure 2.3.4-1 shows the plan for the Cholame section.

This alternative requires the construction of two new bridges over Cholame Creek at KP 81.5 (PM 50.6), approximately 0.26 kilometers (0.16 miles) north of the existing crossing. The existing Cholame Creek Bridge (No. 49-29) would be removed as this structure has been identified as being structurally deficient. Existing rock slope protection used to protect this bridge will be removed and the creek bank restored back to its original slope. Appropriate erosion control shall be used to minimize sedimentation into Cholame creek. The existing roadway to the west of Bridge No. 49-29 would remain for property access purposes. The existing roadway from east of the existing bridge to where the new alignment rejoins the existing roadway at engineering station⁵ 141+00 (see Volume II, Appendix A.3, Sheets C3-C5) would be removed and the land restored for wildlife habitat.

This alternative would require an estimated 300,000 cubic meters (392,000 cubic yards) of excavation to complete. In total, 520,000 cubic meters (680,000 cubic yards) would be needed to construct this alternative, resulting in the need to import approximately 220,000 cubic meters (288,000 cubic yards) of material.

Several utilities, including electrical, telephone, gas, jet fuel, and oil, would need to be relocated outside of the state's right of way as part of this alternative.

Cholame – Alternative 2

Cholame, Alternative 2 begins at KP 80.79 (PM 50.2) and is similar to Cholame, Alternative 1, in most aspects. Cholame, Alternative 2, however, proposes only a partial realignment of State Route 46 around the Tosco Oil Pumping Station. Beginning at KP 80.0 (PM 49.7), two new westbound lanes would be constructed around the existing Tosco Oil Pumping Plant. This alternative proposes to reconstruct the existing roadway into the two eastbound lanes, splitting the expressway around the Tosco Oil Pumping Plant. The westbound lanes rejoin the existing route at KP 84.0 (PM 52.2) with all four lanes following the existing alignment with the widening occurring to the north of the existing alignment until KP 86.2 (PM 53.6). The existing roadway in this area would be reconstructed into the expressway's eastbound lanes with the two new westbound lanes separated by the standard 18.6 meter wide (61.0 feet) median. From KP 86.2 to the end of the Cholame section at KP 88.1 (PM 53.6 to 54.8), the roadway would be widened to the south with the existing roadway converted into the two westbound lanes and the two new eastbound lanes separated by an 18.6 meter (61.0 feet) median. Figure 2.3.4-1 shows the plan for the Cholame section.

This alternative requires the construction of a new bridge over Cholame Creek at KP 81.5 (PM 50.6), approximately 0.28 kilometers (0.16 miles) north of the existing crossing. The existing Cholame Creek Bridge (No. 49-29) would be removed and replaced with a wider structure as the bridge has been identified as being structurally deficient. Existing rock slope protection used to protect this bridge will be removed and the creek bank restored back to its original slope. Appropriate erosion control shall be used to minimize sedimentation into Cholame creek.

⁵ An engineering station is an arbitrary reference number used by engineers to design the project. This information can be found on the map sheets in Volume II and is located along the centerline of the proposed roadway.

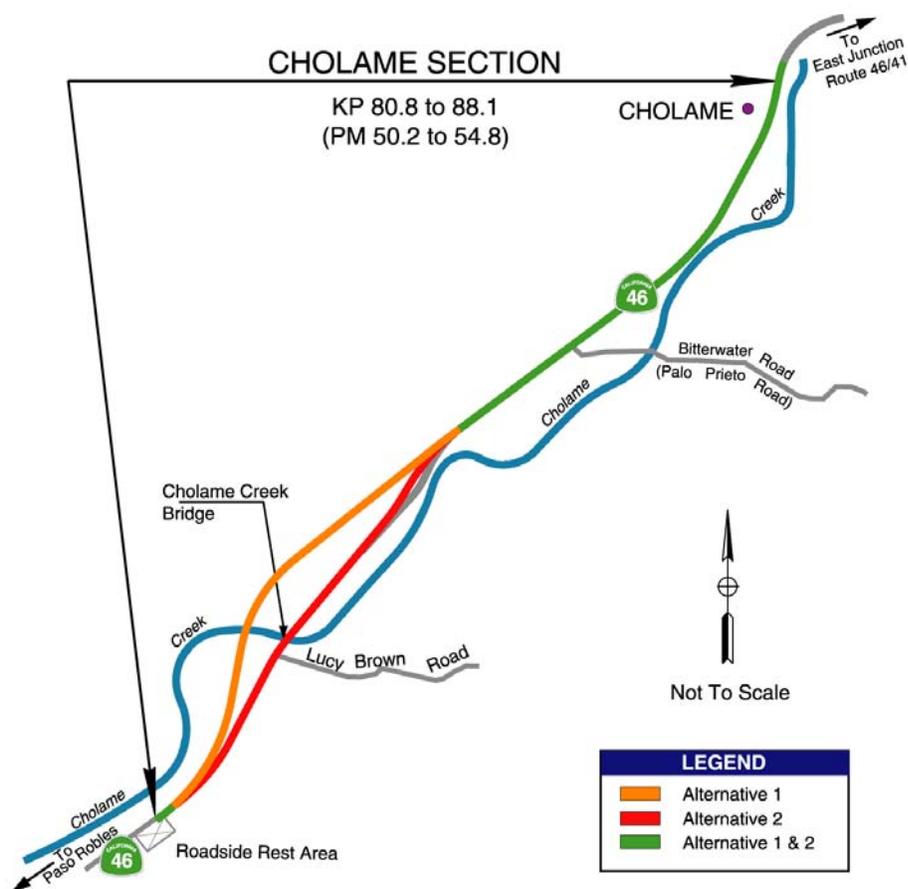


Figure 2.3.4-1. Map showing Cholame section alternatives under consideration

This alternative would require an estimated 160,000 cubic meters (209,000 cubic yards) of excavation to complete. In total, 280,000 cubic meters (366,000 cubic yards) would be needed to construct this alternative resulting in the need to import approximately 120,000 cubic meters (157,000 cubic yards) of material.

Several utilities, including electrical, telephone, gas, jet fuel, and oil, would need to be relocated outside of the state’s right of way as part of this alternative.

2.3.5 Wye Section Alternatives Under Consideration

Wye – Alternative 8b (Preferred Alternative)

Wye, Alternative 8b proposes to construct a separated grade interchange in the Cholame Valley in the area locally known as the Wye. Wye, Alternative 8b shifts the new alignment off of the existing State Route 46 alignment. The new State Route 46 alignment curves back through the Wye section’s floodplain region to meet up with the existing State Route 46 alignment near KP 90.6 (PM 56.3). The new eastbound and westbound lanes for State Route 46 would be separated with an 18.6 meter (61.0 feet) median. State Route 41 would leave its existing alignment near KP 73.0 (PM 45.4) and would sweep down through the foothills to connect with State Route 46 near KP 89.4 (PM 55.6).

The existing State Route 41 roadway between KP 70.6 and 71.9 (PM 43.9 and 44.7) would be removed and the land rehabilitated to its natural condition. Wye, Alternative 8b's footprint pushes into the southwest foothills of the Wye section and is located farther east than any of the other Wye section alternatives. This alternative has been moved further east than the other alternatives to reduce environmental impacts on the Cholame Valley floor. Figure 2.3.5-1 shows the basic plan for this alternative. For the details of Wye Section, Alternative 8b please see Volume II, Appendix A.4.

Branch connections include southbound State Route 41 to westbound State Route 46, westbound State Route 46 to northbound State Route 41, and eastbound State Route 46 to northbound State Route 41. A structure would be required for the eastbound State Route 46/northbound State Route 41 movement, as it would be constructed over the new eastbound and westbound State Route 46 lanes. A connection is also proposed to link southbound State Route 41 and eastbound State Route 46.

This alternative would remove the existing Cholame Creek Bridge (#49-36), which would have to be lengthened and raised to reduce flooding potential. This bridge would be replaced with two structures that would carry eastbound and westbound traffic for State Route 46. A second bridge, called an overflow, would be built beginning at KP 89.4 (PM 55.6). This bridge would be 40 meters (131 feet) in length and would partially span the wetlands on the Cholame valley floor. This alternative would require constructing three structures for the interchange. Under this alternative, the replacement structures for the Cholame Creek Bridge would not be located over a mapped surface rupture, but would be located within the San Andreas Fault Zone.

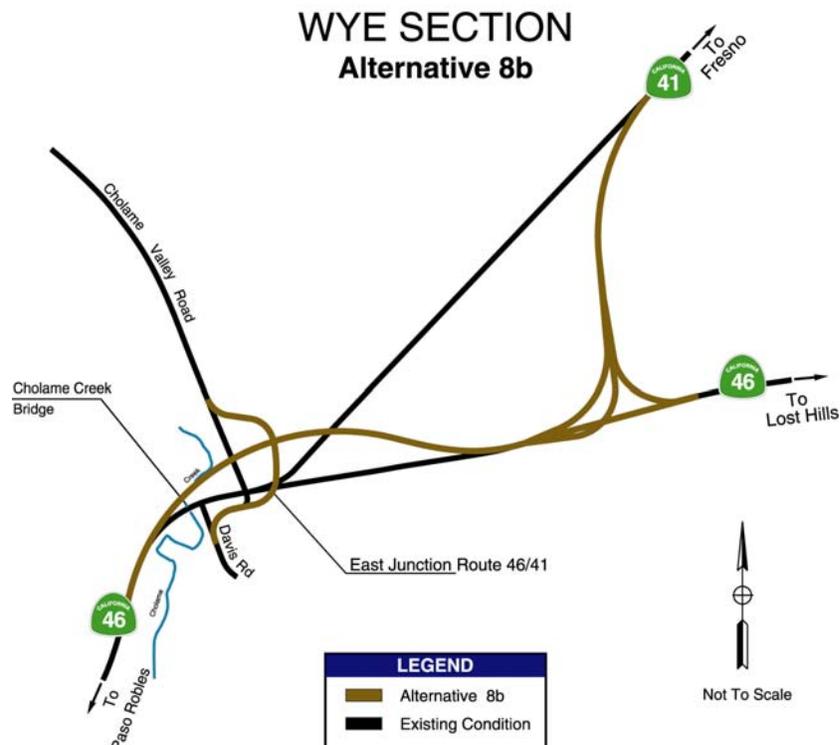


Figure 2.3.5-1. Map showing Wye Section, Alternative 8b

This alternative would require an estimated 665,000 cubic meters (870,000 cubic yards) of excavation to complete. In total, 1,389,000 cubic meters (1,817,000 cubic yards) of material would be needed to construct this alternative, resulting in the need to import approximately 724,000 cubic meters (947,000 cubic yards) of material.

Wye – Alternative 4

Wye, Alternative 4 proposes to construct a separated grade interchange in the Cholame Valley in the area locally known as the Wye. This alternative would realign the roadway for State Route 46 to the north of the existing Routes 41 and 46. The existing State Route 41 would be rehabilitated to transport southbound traffic from State Route 41 to State Route 46. The new eastbound and westbound lanes for State Route 46 would be constructed over State Route 41 and tie back into the existing State Route 46 roadway near KP 90.4 (PM 56.2). Figure 2.3.5-2 shows the basic plan for this alternative. For the details of Wye Section, Alternative 4 please see Volume II, Appendix A.4.

Branch connections include eastbound State Route 46 to northbound State Route 41 and southbound State Route 41 to eastbound State Route 46. The existing State Route 46 roadway between KP 88.3 and 90.4 (PM 54.9 to 56.2) would be removed under this alternative and the land restored to the natural condition. An additional connection would be made between southbound State Route 41 and the eastbound and westbound lanes of State Route 46 via Cholame Valley Road near KP 88.5 (PM 55.0).

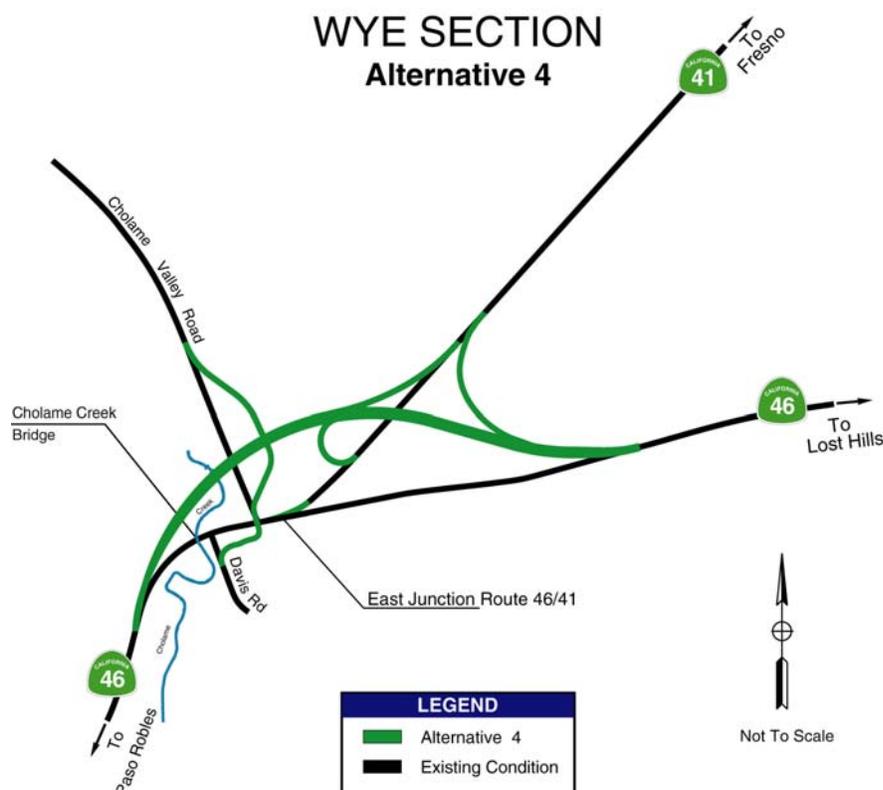


Figure 2.3.5-2. Map showing Wye Section, Alternative 4

Wye, Alternative 4 would require an estimated 40,000 cubic meters (52,000 cubic yards) of excavation to complete. In total, 60,000 cubic meters (78,000 cubic yards) would be needed to construct this alternative, resulting in the need to import approximately 20,000 cubic meters (26,000 cubic yards) of material.

Wye – Alternative 5

Wye, Alternative 5 proposes to construct a separated grade interchange in the Cholame Valley in the area locally known as the Wye. This alternative would rehabilitate the existing State Route 41 lanes into southbound lanes for State Route 41. State Route 41’s northbound lanes would be constructed parallel and 18.6 meters (61.0 feet) to the south. State Route 41 would tie into State Route 46 near Cholame Valley Road (KP 88.5, PM 55.0). The existing State Route 46 roadway between KP 88.3 and 90.4 (PM 54.9 to 56.2) would be removed and the land restored to the natural condition. The interchange footprint for this alternative is smaller than the footprint for Wye, Alternative 4 and has been shifted west, away from the floodplain region and into the foothills of this section. Figure 2.3.5-3 shows the basic plan for this alternative. For the details of Wye Section, Alternative 5 please see Volume II, Appendix A.4.

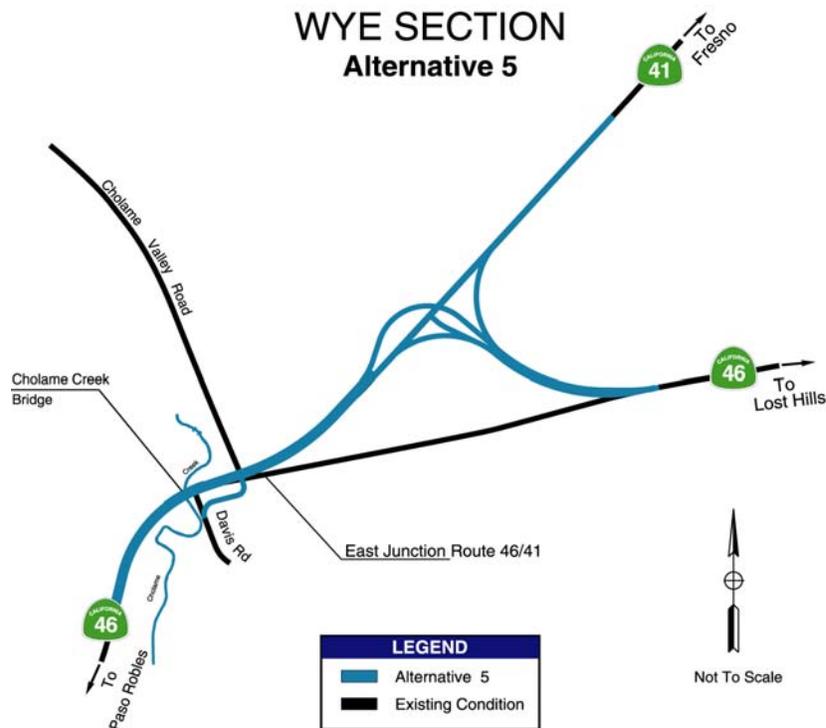


Figure 2.3.5-3. Map showing Wye Section, Alternative 5

Branch connections include westbound State Route 46 near KP 90.6 (PM 56.3) to southbound State Route 41/westbound State Route 46, northbound State Route 41 to eastbound State Route 46 and westbound State Route 46 to northbound State Route 41. A structure would be required for the westbound State Route 46 movement, as it would be constructed over the northbound and

⁶ A “mapped surface rupture” refers to an open fault line, identified on a map, resulting from earthquake activity.

southbound State Route 41 lanes. Additionally, a left-turn is proposed to connect southbound State Route 41 and eastbound State Route 46.

This alternative proposes to remove the existing Cholame Creek Bridge (#49-36) which would have to be lengthened and raised to reduce flooding potential. This bridge would be replaced with two structures that would carry eastbound and westbound traffic between State Route 46 and State Route 41. This alternative would require the construction of three structures for the interchange. Under this alternative, the replacement structures for the Cholame Creek Bridge would cross a mapped surface rupture from the 1966 earthquake on the San Andreas Fault.

Wye, Alternative 5 would require an estimated 35,000 cubic meters (46,000 cubic yards) of excavation to complete. In total, 700,000 cubic meters (916,000 cubic yards) of material is needed to construct this alternative, resulting in the need to import approximately 665,000 cubic meters (870,000 cubic yards) of material.

Wye – Alternative 7

Wye, Alternative 7 also proposes to construct a separated grade interchange in the Cholame Valley in the area locally known as the Wye. Wye, Alternative 7 would parallel the existing State Route 46 alignment with new eastbound and westbound lanes for State Route 46. The new State Route 46 alignment would be located almost directly north of the existing alignment and would include an 18.6 meter (61.0 feet) median. The existing State Route 46 roadway between KP 88.3 and 90.3 (PM 54.9 to 56.1) would be removed and the land rehabilitated to its natural condition. The existing State Route 41 roadway between KP 70.63 and 72.3 (PM 43.9 to 44.9) would also be removed and the land rehabilitated to its natural condition under this alternative. The new State Route 46 alignment would tie into the existing State Route 46 roadway near KP 90.3 (PM 54.9). The interchange footprint has been positioned away from the floodplain region into the southwest foothills of the Wye section. Figure 2.3.5-4 shows the basic plan for this alternative. For the details of Wye Section, Alternative 7 please see Volume II, Appendix A.4.

Branch connections include westbound State Route 46 near KP 90.5 (PM 56.2) to westbound State Route 46, southbound State Route 41 to westbound State Route 46, and eastbound State Route 46 to northbound State Route 41. A structure would be required for the westbound State Route 46 movement, as it would be constructed over the northbound and southbound State Route 41 lanes. Additionally, a left-turn is proposed to connect southbound State Route 41 and eastbound State Route 46, and a right-turn is proposed to connect westbound State Route 46 with northbound State Route 41.

This alternative proposes to remove the existing Cholame Creek Bridge (#49-36) which would need to be lengthened and raised to reduce flooding potential. This bridge would be replaced with two structures that would carry eastbound and westbound traffic between State Route 46 and State Route 41. This alternative requires constructing three structures for the interchange. Under this alternative, the replacement structures for the Cholame Creek Bridge would cross a mapped surface rupture from the 1966 earthquake on the San Andreas Fault.

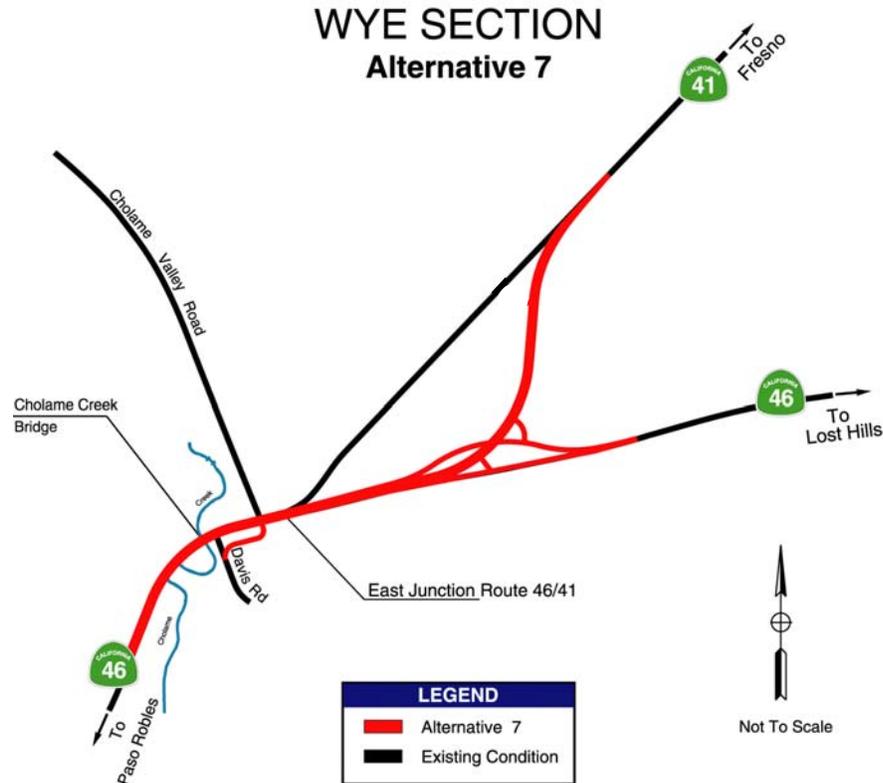


Figure 2.3.5-4. Map showing Wye Section, Alternative 7

Wye, Alternative 7 would require an estimated 55,000 cubic meters (72,000 cubic yards) of excavation to complete. In total, 390,000 cubic meters (510,000 cubic yards) of material would be needed to construct this alternative, resulting in the need to import approximately 335,000 cubic meters (438,000 cubic yards) of material.

Wye – Alternative 8

Wye, Alternative 8 proposes to construct a separated grade interchange in the Cholame Valley in the area locally known as the Wye. Wye, Alternative 8 would rehabilitate the existing State Route 46 lanes into new eastbound lanes for State Route 46. The new westbound lanes would be constructed 18.6 meters (61.0 feet) parallel and to the north of the eastbound lanes. State Route 41 would diverge from its existing alignment near KP 73.0 (PM 45.4) and would sweep down through the foothills to connect with State Route 46 near KP 89.4 (PM 55.6). The existing State Route 41 roadway between KP 70.6 and 71.9 (PM 43.9 and 44.7) would be removed and the land rehabilitated to its natural condition. Wye, Alternative 8 locates the interchange away from the floodplain region (similar to Wye Section, Alternative 7). The difference is that Wye, Alternative 8 shifts the interchange even farther up into the foothills than Wye Section, Alternative 7. Figure 2.3.5-5 shows the basic plan for this alternative. For the details of Wye Section, Alternative 8 please see Volume II, Appendix A.4.

Branch connections include southbound State Route 41 to westbound State Route 46, westbound State Route 46 to northbound State Route 41, and eastbound State Route 46 to northbound State

Route 41. A structure would be required for the eastbound State Route 46/northbound State Route 41 movement, as it would be constructed over the new eastbound and westbound State Route 46 lanes. A connection is also proposed to link southbound State Route 41 and eastbound State Route 46.

This alternative proposes to remove the existing Cholame Creek Bridge (#49-36), which would need to be lengthened and raised to reduce flooding potential. This bridge would be replaced with two new structures that would carry eastbound and westbound traffic for State Route 46. This alternative requires constructing three structures for the interchange. Under this alternative, the replacement structures for the Cholame Creek Bridge would cross a mapped surface rupture from the 1966 earthquake on the San Andreas Fault.

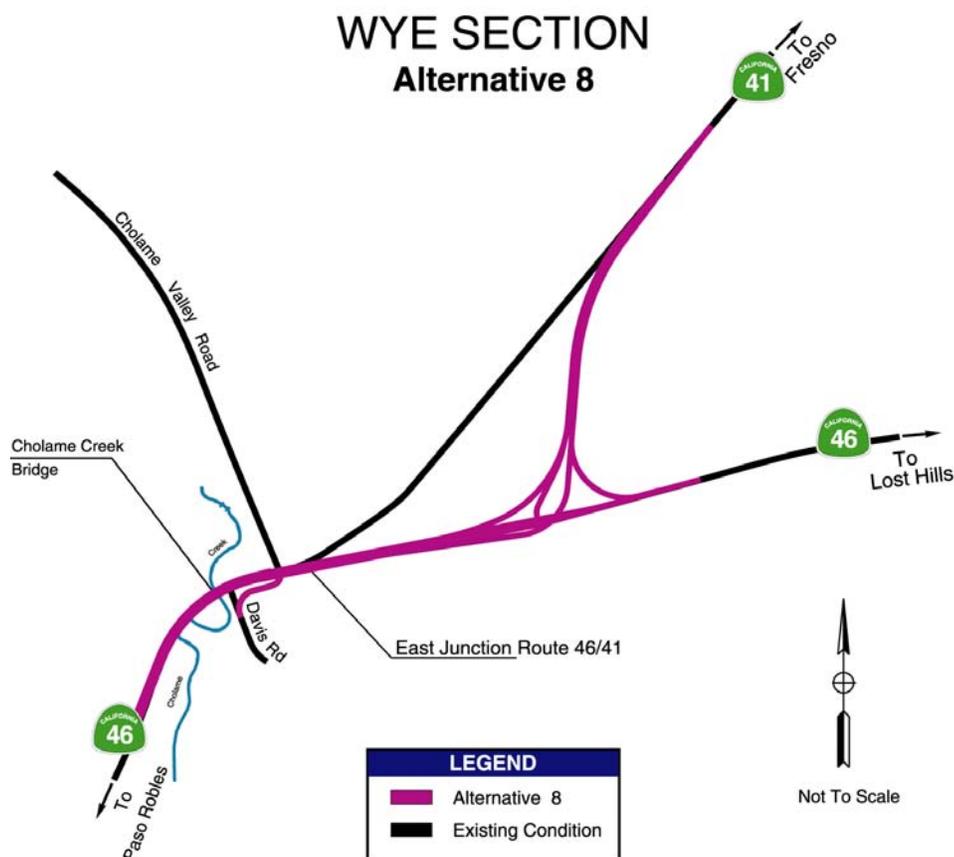


Figure 2.3.5-5. Map showing Wye Section, Alternative 8

Wye, Alternative 8 would require an estimated 175,000 cubic meters (229,000 cubic yards) of excavation to complete. In total, 830,000 cubic meters (1,086,000 cubic yards) would be needed to construct this alternative, resulting in the need to import approximately 655,000 cubic meters (857,000 cubic yards) of material.

Wye – Alternative 9

Wye, Alternative 9 proposes to construct a separated grade interchange in the Cholame Valley in the area locally known as the Wye and is similar to Wye, Alternative 8. Wye, Alternative 9 has the same

roadway alignments for Routes 41 and 46 as those proposed in Wye, Alternative 8. The difference with this alternative occurs near KP 89.7 (PM 55.7) on State Route 46. Instead of the branch connection from eastbound State Route 46 to northbound State Route 41 being constructed over State Route 46, Wye, Alternative 9 proposes to have the eastbound and westbound lanes of State Route 46 go over the branch connection. The interchange footprint has been pushed into the southwest foothills of the Wye Section. Under this alternative, the replacement structures for the Cholame Creek Bridge would cross a mapped surface rupture from the 1966 earthquake on the San Andreas Fault. Figure 2.3.5-6 shows the basic plan for this alternative. For the details of Wye Section, Alternative 9 please see Volume II, Appendix A.4.

Branch connections include southbound State Route 41 to westbound State Route 46 and from eastbound State Route 46 to northbound State Route 41. Two turns are proposed to connect southbound State Route 41 to eastbound State Route 46 and westbound State Route 46 to northbound State Route 41.

This alternative proposes to remove the existing State Route 46 bridge over Cholame Creek, the bridge would have to be lengthened and raised to reduce flooding potential. This bridge would be replaced with two structures that would carry eastbound and westbound traffic for State Route 46. This alternative requires constructing four structures for the interchange.

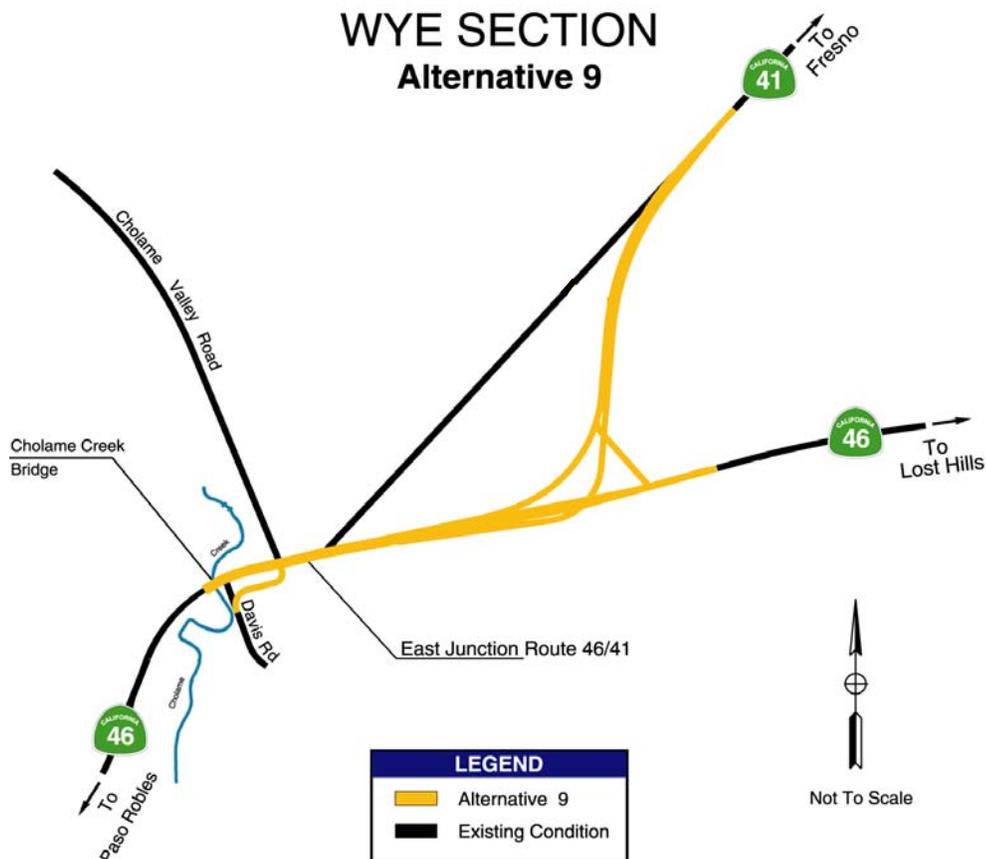


Figure 2.3.5-6. Map showing Wye Section, Alternative 9

Wye, Alternative 9 would require an estimated 35,000 cubic meters (46,000 cubic yards) of excavation to complete. In total, 480,000 cubic meters (628,000 cubic yards) of material would be needed to construct this alternative, resulting in the need to import approximately 445,000 cubic meters (582,000 cubic yards) of material.

2.3.6 Cost Comparison of the Alternatives

Increased energy costs that affect everything from the price of road building materials to the costs of actual construction have substantially increased the estimated cost for this project. The current estimates range from \$71.8 million to \$100.4 million higher than those shown in the Project Study Reports completed between September 1997 and April 1999. The current estimated costs for each alternative of the project are shown in Table 2.3.6-1 on the following page.

Table 2.3.6-1. Estimated Project Costs

Cost* of the Alternatives Under Consideration				
(in Millions of Dollars)				
		**Right of Way	Construction	Total
Estrella	Alternative 8N	21.8	86.7	108.5
	Alternative 9N	18.9	99.0	117.9
Shandon	Alternative 1	7.5	65.3	72.8
	Alternative 2	7.6	70.5	78.1
Cholame	Alternative 1	25.3	47.3	72.6
	Alternative 2	42.2	48.4	90.6
Wye	Alternative 4	8.1	36.6	44.7
	Alternative 5	7.7	53.0	60.7
	Alternative 7	7.3	43.1	50.4
	Alternative 8	9.2	53.5	62.7
	Alternative 8b	7.2	69.1	76.3
	Alternative 9	8.6	45.7	54.3

* The cost shown is in 2005 dollars, not adjusted for inflation. Construction cost includes all anticipated project costs except right of way acquisition; it includes landscaping, revegetation and some project mitigation costs

** The cost indicated includes utility relocation costs, a significant percentage of the cost in this category, and some project mitigation costs.

2.3.7 Funding and Programming

The Route 46 Corridor Improvement Project within the California Department of Transportation is actually two projects. Due to the necessity to select logical termini for the project and to avoid segmentation concerns when evaluating environmental impacts, this document treats both projects as one. Logical termini are defined as a project that has a logical starting and ending point. This means that a project must have independent utility. If a project, by itself, could not function except for the construction of another project than the first, and most likely the second, project would not contain “logical termini”. Projects that do not have independent utility or logical termini may be considered segmented. To avoid segmentation and have logical termini this document analyzes the environmental effects of both projects.

For the purposes of funding and programming, however, the proposed project is being treated as two projects. The first project, identified by its expenditure authorization number (EA) 3307U0 includes the Estrella and Shandon sections of the project. The second project, EA 330800, includes the Cholame and Wye portions of the project.

The two projects covered by this environmental document would be financed through the Statewide Transportation Improvement Program (STIP) with a combination of both Regional Improvement Plan (RIP) and Interregional Improvement Plan (IIP) funds.

For EA 05-3307U0, the funding currently is 47% RIP and 53% IIP with \$51,800,000 for construction and \$10,400,000 for right of way acquisition currently programmed in the STIP. In addition, there are \$39,100,000 of Federal Demonstration Project funds specifically earmarked for this project. Current estimates for the project are construction costs of \$152,100,000 and right of way costs of \$29,300,000. After approval of both the final environmental document and the Project Report, additional right of way and construction funding would be sought in future STIP cycles and from federal transportation funding sources.

EA 05-330800 is 100% IIP funded and is currently funded only through the Project Approval and Final Environmental Document Approval (PA&ED) portion of project development. The project is listed and the construction phases are programmed in the year-2000 20 year Regional Transportation Plan. After approval of both the final environmental document and the Project Report, IIP funding would be sought for the construction and right of way acquisition portions of this project in future STIP cycles.

Approval of the project by the appropriate state and federal agencies is expected early in 2006. Due to the size and cost of this project, construction would be done in phases. To expedite delivery of the project, construction would not necessarily always proceed from west to east. As appropriate fundable, usable and constructable roadway segments are identified, they would be split out as separate construction projects and moved through the final design and bidding phase and into the construction phase. Construction for the first phases is expected to begin in the spring of 2007 and is expected to be complete in 2009.

2.3.8 The Preferred Alternative

Based on the comments received from federal, state, and local agencies, and the public, the California Department of Transportation, in conjunction with the Federal Highway Administration has selected a build alternative from each of the four sections of the project. This preferred, or selected, alternative consists of the following alternative from each section: Estrella Section, Alternative 8N, Shandon Section, Alternative 1, Cholame Section, Alternative 1, and Wye Section, Alternative 8b. Each of these alternatives, selected for construction, satisfies the purpose and need of the project and will accomplish the goals of the public, the Federal Highway Administration, the San Luis Obispo Council of Governments, and the California Department of Transportation. Based on this preferred alternative, the Final Environmental Impact Report will be signed and certified.

In the Estrella section of the project, Alternative 8N was chosen as the preferred alternative over Alternative 9N because it did not result in direct impacts to special status bat species, impacted

substantially less Fremont cottonwood woodland habitat, and improved habitat connectivity for the western spadefoot toad. Alternative 8N has a lower cost than Alternative 9N, mainly due to a reduced amount of excavation in the Estrella grade portion of this section. This reduced amount of excavation also resulted in the preferred alternative having substantially less temporary air and water quality impacts. Finally, this alternative eliminates left-turn movements from Whitley Gardens drive reducing the potential for driver mistakes resulting in collisions.

In the Shandon Section of the project, Shandon Section, Alternative 1 was chosen as the preferred alternative. Alternative 1 was chosen over Alternative 2 because it impacts less non-wetland Other Waters of the United States and less San Joaquin kit fox and other upland species habitat. There are no wetland impacts in this section. Alternative 1 has no impacts to gypsum-loving larkspur, a rare plant, versus Alternative 2, which would have impacted one stand of the plant. The preferred alternative in this section has a lower cost than Alternative 2, mainly due to a reduction in the amount of excavation throughout the section. The substantially lower amount of excavation with Alternative 1, 530,000 m³ (693,000 yds³) compared to the 1,000,000 m³ (1,308,000 yds³) of excavation needed for Alternative 2, also reduces temporary air and water quality impacts substantially. Finally, the realigned portion of roadway with Alternative 1 will result in substantial improvements to existing and future water quality in Cholame creek.

In the Cholame section of the project, Alternative 1 was chosen as the preferred over Alternative 2 because it has fewer impacts to San Joaquin kit fox and other upland species habitat. The habitat for the western spadefoot toad and the southwestern pond turtle will be greatly improved with Alternative 1's proposed realignment around the Tosco oil pumping plant and away from the existing encroachment upon Cholame creek. The cost for the preferred alternative is less than Alternative 2, mainly associated with fewer miles of utility pipelines that would need relocated. Lastly, existing and future water quality will be greatly improved for Cholame creek with Alternative 1 by realigning the roadway around the Tosco plant and away from Cholame creek. This realignment will also save future impacts to the environment and roadway maintenance funds by eliminating the existing longitudinal encroachment, which has proven to be problematic. There were no wetland impacts in this section.

In the Wye section of the project, Alternative 8b was chosen as the preferred alternative over the other five alternatives because it has the least impacts to wetlands. Alternative 8b also does not isolate large blocks of habitat, provides an additional crossing structure to decrease habitat fragmentation, and improves corridor movements for the San Joaquin kit fox and other upland species, pronghorn antelope, and the western spadefoot toad. The preferred alternative provides for better floodplain functioning with two new, longer bridges to the north of the existing bridge and provides an additional bridge over the lowest point in the valley to restore hydrologic connectivity. Lastly, this alternative would place the two new bridges furthest from the San Andreas Fault reducing the potential for damage to the bridges from ground displacement in the event of a seismic event.

2.4 Alternatives Considered and Withdrawn

Eleven alternatives in the Estrella Section, five alternatives in the Shandon section, three alternatives in the Cholame section, and seven alternatives in the Wye section were considered but rejected for various reasons. These alternatives and their reasons for being withdrawn are described below:

2.4.1 Estrella Section Alternatives Withdrawn from Consideration

Estrella – Alternative 1 (PSR)

Estrella, Alternative 1 was originally proposed in the Estrella Section Project Study Report (PSR), September 1997. This alternative proposed to widen the highway to four lanes with a 13.8 meter (45.3 foot) median. This alternative proposed to widen mostly to the south except between the Estrella River and Almond Drive. This alternative did not adjust the slope of the Estrella Grade to 4%. This alternative was eliminated due to substandard design, construction staging problems, large earthwork excavation quantities that would result in excessive environmental impacts, traffic impacts, and excessive costs.

Estrella – Alternative 2 (PSR)

Estrella, Alternative 2 was originally proposed in the Estrella Section Project Study Report, September 1997. This alternative proposed to widen the highway to four lanes with a 10.8 meter (35.4 foot) median. This alternative widened primarily to the south of the existing alignment and did not adjust the Estrella Grade to a 4% slope. This alternative was also eliminated from further study due to substandard design, construction staging problems, and large earthwork excavation quantities that would result in excessive environmental impacts, traffic impacts, and excessive costs.

Estrella – Alternative 3 (PSR)

Estrella, Alternative 3 was originally proposed in the Estrella Section Project Study Report, September 1997. This alternative proposed to widen the highway to four lanes with a 13.8 meter (45.3 foot) median. The alignment for this alternative proposed widening the roadway to the south of the existing alignment except between Union Road and Estrella Road where a new alignment was proposed 0.25 kilometers (0.16 miles) north of the existing alignment. This alternative was eliminated from further study due to substandard design, construction staging problems, large earthwork excavation quantities that would result in excessive environmental impacts, traffic impacts, and excessive costs.

Estrella – Alternative 4 (PSR)

Estrella, Alternative 4 was originally proposed in the Estrella Section Project Study Report, September 1997. This alternative proposed to widen the highway to four lanes with a 13.8 meter (45.3 foot) median and included reducing the Estrella Grade to a slope of 4%. This alternative was eliminated from further study due to substandard design, construction staging problems, large earthwork excavation quantities that would result in excessive environmental impacts, traffic impacts, and excessive costs.

Estrella – Alternative 1

Estrella, Alternative 1 updated the Project Study Report's Alternative 1 with full standard median widths and design speed criteria including reducing the grade of the Estrella Grade to 4%. This alternative was eliminated due to construction staging problems that could not be resolved. Construction staging was not feasible from an engineering standpoint and would have resulted in excessive costs and environmental impact.

Estrella – Alternative 2

Estrella, Alternative 2 updated the Project Study Report's Alternative 2 with full standard median widths and design speed criteria including reducing the grade of the Estrella Grade to 4%. This alternative was eliminated due to construction staging problems that could not be resolved. Construction staging problems with this alternative would result in excessive costs.

Estrella – Alternative 3

Estrella, Alternative 3 updated the Project Study Report's Alternative 3 with full standard median widths and design speed criteria including reducing the grade of the Estrella Grade to 4%. This alternative was eliminated due to construction staging problems that could not be resolved. Construction staging was not feasible from an engineering standpoint and would have resulted in excessive costs and environmental impact.

Estrella – Alternative 4

Estrella, Alternative 4 updated the Project Study Report's Alternative 4 with full standard median widths and design speed criteria. This alternative maintains the existing Estrella Grade at the current 6% but adds a truck-climbing lane. This alternative was eventually eliminated because of the excessive earthwork excavation quantities and impacts to existing properties and to sensitive environmental resources located near the beginning of the project (Airport Road to Jardine Road). Portions of this alternative were combined with Estrella, Alternative 5 resulting in Estrella Section, Alternative 9N, a viable alternative.

Estrella – Alternative 5

Estrella, Alternative 5 followed the same alignment as Estrella, Alternative 4, but used a reduced median width of 14.1 meters (46.3 feet) to minimize right of way and environmental impacts. This alternative was eliminated from further study because it used a nonstandard median width throughout the entire section. Portions of this alternative were combined with Estrella, Alternative 4 resulting in Estrella Section, Alternative 9N, a viable alternative.

Estrella – Alternative 6

Estrella, Alternative 6 is essentially the same as Estrella, Alternative 5 except that it proposed to widen the highway primarily to the north of the existing roadway between Airport Road and Jardine

Road. This alternative was eliminated because it substantially increased the amount of right of way required for construction and substantially impacted a vernal pool, an environmentally sensitive resource.

Estrella – Alternative 7

Estrella, Alternative 7 proposed to widen the existing highway to four lanes with a variable median width to meet the full design standards. This alternative would widen the highway primarily to the south of its existing alignment and would reduce the Estrella Grade to 4%. This alternative would raise the Estrella Bridge by 12 meters (39.4 feet). It was proposed by the Value Engineering Team to close access from Whitley Gardens Drive to State Route 46 and provide local access through Estrella Road. This alternative was eliminated from further study because no acceptable engineering design could be developed to create the required on and off ramps at Estrella Road.

2.4.2 Shandon Section Alternatives Withdrawn from Consideration

Shandon – Alternative 1 (PSR)

Shandon, Alternative 1 (PSR) proposed to widen the highway to four lanes with a 13.8 meter (45.3 feet) median. This alternative was eliminated because of substandard design features.

Shandon – Alternative 2 (PSR)

Shandon, Alternative 2 (PSR) also proposed to widen the highway to four lanes with a 13.8 meter (45.3 feet) median. This alternative was similar to Shandon, Alternative 1 (PSR) except that it proposed standard design features for the 110 kph (68 mph) design speed. This alternative was withdrawn from consideration based on its substandard design features.

Shandon – Alternative 3 (PSR)

Shandon, Alternative 3 (PSR) proposed to widen the highway to four lanes with a 10.8 meter (35.4 feet) median. This alternative was withdrawn from consideration because of its substandard median width.

Shandon – Alternative 4 (PSR)

Shandon, Alternative 4 (PSR) proposed to widen the highway to four lanes with a 13.8 meter (45.3 feet) median. This alternative was also withdrawn from consideration because of its substandard median width.

Shandon – Alternative 5 (PSR)

Shandon, Alternative 5 (PSR) proposed to increase the length of the two existing passing lanes to 3.2 kilometers (2.0 miles). The westbound passing lane is currently located from KP 71.8 to 69.7 (PM 44.6 to 43.3) and the eastbound passing lane is currently located from KP 73.9 to 75.8 (PM 45.9 to 47.1). This alternative would help to increase passing safety in this area but would not alleviate

future congestion. This alternative was withdrawn from consideration because it did not adequately meet the purpose and need of the project.

2.4.3 Cholame Section Alternatives Withdrawn from Consideration

Cholame – Alternative 4 (PSR)

Cholame, Alternative 4 (PSR) proposed to widen the highway to four lanes with an 18.6 meter (61.0 feet) median and full design standards throughout. This alternative proposed to realign the highway through the Tosco property between KP 81.3 and 82.0 (PM 50.5 to 51.0). This alternative would require removing and/or relocating both the Tosco Pumping Plant and the Jack Ranch Café. This alternative was eliminated due to the high costs to remove and/or relocate the Tosco Pumping Plant and due to public support to avoid adversely impacting the Jack Ranch Café.

Cholame – North Alignment Option (PSR)

This option was proposed for each of the alternatives presented in the PSR. It offered the option of widening the highway to the north of the existing alignment between KP 83.0 and 88.13 (PM 51.6 to 54.7). The eastbound lanes would be constructed from the existing roadway and new westbound lanes would be constructed parallel and 18.6 meters (61.0 feet) to the north. This option would shift the alignment away from the encroaching Cholame Creek, but would require removing and/or relocating the Jack Ranch Café. This option was withdrawn from consideration due to public support to avoid adversely impacting the Jack Ranch Café.

Cholame – Alternative 3

Cholame, Alternative 3 closely followed the existing State Route 46 alignment to avoid impacting the Tosco Pumping Plant. The existing State Route 46 roadway would be constructed into the eastbound lanes, and the westbound lanes would be constructed 18.6 meters (61.0 feet) to the north. Due to the proximity of the new eastbound lanes to Cholame Creek, an extended bridge structure (viaduct) would be required for the eastbound lanes. This alternative was withdrawn from consideration because of excessive costs, potentially significant floodplain encroachment, and substantial environmental impacts associated with the construction and location of the viaduct.

2.4.4 Wye Section Alternatives Withdrawn from Consideration

Wye – Alternative 1

Wye, Alternative 1 proposed to construct a full standard, double flyover interchange (similar to what would be found on a full standard freeway type of interchange). Most of the footprint for the interchange was situated in the sensitive wetland/alkaline salt-flat area of the Cholame Valley. This alternative was withdrawn from consideration due to the large wetland impacts and excessive structure costs.

Wye – Alternative 2

Wye, Alternative 2 also proposed to construct a full standard, double flyover interchange. The main difference was the shape of the interchange. This alternative was also proposed in the sensitive wetland/alkaline salt-flat area of the Cholame Valley and was withdrawn from consideration due to the large wetland impacts and excessive structure costs.

Wye – Alternative 3

Wye, Alternative 3 is similar to Wye, Alternative 2 except that the footprint for the interchange was shifted east, toward the foothills, in an attempt to reduce the impacts to wetlands. Substantial adverse impacts to wetlands were unavoidable under this alternative and as a result, this alternative was withdrawn from consideration.

Wye – Alternative 6

This alternative was similar to Wye, Alternative 3 described above except that instead of a fully separated interchange, branch connections for eastbound State Route 46 to northbound State Route 41 and southbound State Route 41 to eastbound State Route 46 were combined onto one structure. This alternative was withdrawn from consideration because of the potential operational conflicts and reduced level of safety that could occur from combining the two branch connections.

Wye – Alternative 8a

Wye, Alternative 8a is similar in design to viable Wye Section, Alternative 8 but proposed a larger radius curve near Cholame Creek. This alternative was withdrawn from consideration because the safety benefits of this slightly larger radius curve were deemed inconsequential compared to the increased impacts to wetlands that would occur by constructing this alternative.

Wye – Alternative 10

Wye, Alternative 10 is similar to the viable Wye Section, Alternative 8 except that this alternative proposed shifting the footprint of the interchange west, away from the foothills and towards the flat floodplain region. This alternative was withdrawn from consideration because of its greater impacts to wetlands.

Wye – Alternative 8b (viaduct)

Wye Section, Alternative 8b (viaduct) is similar to the viable Wye Section, Alternative 8b except that this alternative proposed the construction of a 300 meter (984 foot) bridge over the delineated wetland area. The purpose of this bridge feature was to promote wildlife crossing opportunities, restore floodplain connectivity, and reduce impacts to wetlands. This alternative was withdrawn from consideration because it is impracticable due to construction cost, future maintenance and replacement costs, seismic risk, and reduced traffic safety, while offering little gain in resource protection.

The wetland avoidance that the viaduct would achieve offers little public benefit at great expense. It would degrade the wetlands that it would avoid, would not achieve any additional, measurable benefit for floodplain or wildlife habitat connectivity, and would not provide for any wetland restoration beyond what was already proposed. Lastly, the viaduct variation of Alternative 8b would compromise the purpose and need for the project by introducing additional fixed objects and vertical drops in the clear recovery zone reducing the safety for the traveling public.

The viaduct would add an estimated minimum of \$8.5 million to the project. That equates to more than \$2 million per acre of wetland that the viaduct would avoid. This was considered an unreasonable expenditure and, therefore, impracticable under federal regulations (CFR 23 Section 777).

The 1.59 hectares (3.93 acres) of wetlands that the viaduct design variation would have avoided contribute relatively little to the hydrologic and biogeochemical functions of the many hundreds of acres of wetlands in this complex, and would contribute even less when placed under a bridge. Indirect impacts from shade to these wetlands that would have been avoided would result in the loss of the vegetation under the bridge. Ultimately, the impacts from shade would result in bare ground as it is under the existing Cholame Creek Bridge. Due to the loss of the vegetation below the proposed bridge, there would be little benefit compared to the overflow variation.

The wetlands that this alternative would have protected have surface waters only in heavy rainfall years. The fact that these wetlands are considered an ideal corridor for pronghorn antelope, an upland species specific to arid grasslands, is a testament to the marginal wetland hydrology and infrequency of surface waters. Most of the hydrology is subsurface and related to the high groundwater table, which is supported by the large watershed that drains into this very flat valley. The hydraulics studies conducted for this project concluded that the features included in any variation of Alternative 8b would restore and enhance the floodplain functions. The viaduct design variation is not justified by any hydraulic analysis.

Because the overflow variation selected as the preferred alternative achieves the goals of habitat connectivity, the viaduct has diminished returns. The extra costs needed to construct the viaduct design variation will provide no measurable benefits as compared to the overflow variation for the pronghorn antelope population that exists in the Cholame Valley. The overflow variation of Alternative 8b, selected as the preferred alternative best achieves the purpose and need for the project while minimizing impacts to the environment and making the best use of public funds. It is for all these reasons that the viaduct design variation of Alternative 8b has been considered yet rejected.

2.4.5 Alternatives Presented at the Initial Meeting

At the initial public scoping meeting in December 1999, several alternatives were displayed for public review and comment. The Shandon and Cholame section alternatives presented at that time are still under consideration with the exception of Cholame, Alternative 3. Estrella, Alternatives 1, 2 and 3, presented at the initial meeting, have been withdrawn from consideration for the reasons explained in the above section. Wye Section, Alternatives 1, 2, and 3 have also been withdrawn from consideration for the reasons explained in the above section.

2.5 The No-build Alternative

The no-build alternative would not expand any portion of the existing two-lane highway to a four-lane divided expressway. This alternative would not alleviate traffic congestion or bring the roadway up to design standards for safety. Due to the present and foreseeable future congestion problems, the funding of minor projects for left-turn lanes, passing lanes and concrete median barriers would continue.

Impacts to biological, physical, social, and cultural resources would not occur under the no-build alternative. However, the necessary smaller safety and congestion relief projects would have incremental impacts to some or all of these resources. Under CEQA, the resources analysis for each of the smaller projects would likely result in a less than significant impact. But by avoiding attention to the entire project corridor, these smaller projects could cumulatively result in significant impacts. On smaller projects, mitigating for a significant cumulative impact is difficult due to lack of funding on these lower budget projects. By looking at potential impacts on a larger corridor analysis level impacts can more easily be avoided and minimized. When mitigation in the form of compensation is required, higher budgets from a larger project help to adequately offset not only the project impacts but potential cumulative impacts as well.

The no-build alternative does not satisfy the purpose and need for the project. As discussed in the Purpose and Need Section, if the improvements to State Route 46 were not constructed, traffic volumes in the year 2025 would theoretically increase to 24,500 vehicles per day as compared to the existing 12,500. In addition, the level of service (LOS) for this route would decrease to a substandard “F” from the existing LOS of “E”. As the number of vehicles per day increases and the level of service decreases, drivers would become less patient and more frustrated. Opportunities for passing and for making left-turns from businesses, homes, and county roads would become increasingly more difficult and dangerous.

Due to the increases in population in the Central Valley and along the Central Coast of California, a safe and efficient east/west connection from Interstate 5 to State Route 101 is necessary. The designation of State Route 46 as the main connector between these two large regions of the state further decreases the viability of the no-build alternative.

Chapter 3: Environmental Setting, Impacts, and Mitigation Measures

This section evaluates the affected environment, potential impacts, and proposed mitigation measures (including avoidance, minimization, and best management practices) for environmental resources for each section and alternative in the project. In cases where the impacts and mitigation measures are the same, the discussion will state that it applies to all alternatives. In cases where the impacts differ, the impacts and mitigation measures will be discussed separately for each alternative.

As a result of comments on the Environmental Assessment/Draft Environmental Impact Report from federal, state, and local agencies, and the public, new information has been added, additional studies undertaken, and additional avoidance, minimization, and mitigation measures added. This new information can be easily found by observing the text with the vertical line in the margin.

3.1 Physical Environment

3.1.1 Air Quality

Affected Environment

Meteorology

San Luis Obispo County is part of the South Central Coast Air Basin (SCCAB), which also includes Santa Barbara and Ventura counties. The climate of the San Luis Obispo area is strongly influenced by its proximity to the Pacific Ocean. Warm, dry summers and cool winters with occasional rainy periods characterize the Mediterranean climate of the project area. Maximum summer temperatures in the county average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Minimum winter temperatures in the county range from the low 30s near the coast to the low 20s inland.

Airflow around the county plays an important role in the movement and dispersion of pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific high pressure system and other global weather patterns, topographical factors, and circulation patterns that result from temperature differences between the land and the sea. The region is also subject to seasonal “Santa Ana” winds. These are typically hot, dry northerly winds that blow offshore at 15-20 mph, but can reach speeds up to and over 60 mph. Two types of temperature inversions (warmer air on top of cooler air) are created in the area: subsidence and radiation. The subsidence inversion is a regional effect created by the Pacific high pressure cell in which air is heated as it is compressed when it flows from the high pressure to the low pressure areas inland. This type of inversion generally forms at about 300 to 600 meters (1,000 to 2,000 feet) and is most frequent during summer months. Radiation inversions (often referred to as surface inversions) occur most often during the winter and are formed by the more rapid cooling of air near the ground during the night. Both types of inversions limit the dispersal of air pollutants within the regional airshed. The more stable the air (low wind speeds, uniform temperatures), the lower the amount of pollutant dispersion.

Pollutants

The federal and state Environmental Protection Agencies (EPA) designate the pollutants that are considered primary and secondary criteria pollutants. Through studies, they establish the regulatory standards for these pollutants. The regulatory standards established are the levels of the pollutants in the atmosphere that are determined to be acceptable and the threshold level in the atmosphere at which these pollutants are considered to have polluted the air. California EPA standards tend to be more restrictive than the federal EPA standards for pollutants. Primary criteria pollutants are emitted directly from a source, such as an automobile or exhaust stack for a factory into the atmosphere. Primary criteria pollutants include carbon monoxide (CO), reactive organic gases (ROG), nitric oxide (NO_x), fine particulate matter (PM₁₀), sulfur dioxide (SO₂), and lead (Pb). Secondary criteria pollutants are created by chemical and photochemical reactions that occur in the atmosphere. Secondary pollutants include oxidants, ozone (O₃), and sulfate and nitrate particulates. It is these oxidants that are commonly referred to as “smog”.

Regulatory Agencies

The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate the emission of airborne pollutants and have established ambient air quality standards for the protection of public health. The United States Environmental Protection Agency (EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent in California. Local control in air quality management is provided by the CARB through county-level or regional Air Pollution Control Districts (APCD's). The CARB establishes air quality standards and is responsible for control of mobile emissions sources, while the local APCD's are responsible for enforcing standards and regulating stationary sources. The CARB has established 14 air basins statewide. The county is located in the South Central Coast Air Basin and is within the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD).

Current Ambient Air Quality

The SLOAPCD is in attainment for all federal ambient air quality standards (AAQS) and is non-attainment for State AAQS for PM₁₀ (fine particulate matter less than 10 microns in diameter). Sources of reactive organic gases and nitrogen oxide, the principle components of ozone, are motor vehicles, fossil fuel combustion, and industrial processes. PM₁₀ may be composed of several types of fine solid or liquid particles, including dust, smoke, ash, mist, and fumes. Sources of particulates include combustion of fuels, agricultural practices, construction activities, road dust, industrial processes, along with natural sources such as sea spray, forest fire smoke, and wind-blown dust.

Environmental Impacts

In General

This discussion of impacts to air quality applies to all of the alternatives.

Emissions due to construction operations for all alternatives would exceed the thresholds established by the San Luis Obispo Air Pollution Control District (SLOAPCD). Therefore best management practices would be used for construction of any of the preferred alternatives. Specific minimization and mitigation measures for each sub-phase of construction would be determined by Caltrans in conjunction with staff at the SLOAPCD prior to the bidding process for each sub-phase of construction.

Discussion

Short-term impacts to local air quality are expected during construction of the proposed project. Construction would be done in phases and it is expected that each of the four phases would last two to three years. Unpleasant odors from construction activities, such as diesel exhaust and fumes from fresh asphalt-concrete used in road building may, at times, be present. These odors would not be present for long periods of time and would quickly dissipate.

Greater than 243 hectares (600 acres) of surface area would be disturbed during the 10 to 12 years of construction. Project emissions estimates suggest that the project would exceed quarterly and daily emissions thresholds for NO_x established by the SLOAPCD. Tables 3.1.1-1, 3.1.1-2, 3.1.1-3, and 3.1.1-4 show the expected emissions from construction for each section of the project based on the estimated quantities of construction work for each section.

Table 3.1.1-1. Estimated Construction Emissions (Vehicles)

FACTOR	SLOAPCD THRESHOLD		Estrella* (tons per quarter)	Shandon (tons per quarter)	Cholame (tons per quarter)	Wye (tons per quarter)
	DAILY (Pounds)	QUARTERLY (Tons)				
CO	NA	NA	4.7	4.8	3.3	2.0
ROG	185 lb	2.5-6 tons	1.5	1.8	2.2	2.1
NO _x	185 lb	2.5-6 tons	18.0	21.9	26.1	25.0
PM ₁₀	185 lb	2.5 tons	0.8	1.0	1.2	1.1

* These figures include all construction vehicles that would commonly be used on a project.

Table 3.1.1-2. Estimated Construction Emissions (Asphalt Use)

FACTOR	Estrella	Shandon	Cholame	Wye
Total asphalt concrete (tons)	232,265	202,000	120,000	70,000
Emulsion Tons	700	480	300	270
Asphalt (6% of AC, 65% of emulsion) (tons)	14,391	12,432	7,395	4,376
ROG (.04 lb/ton ac) (lb.)	576	457	272	161
Days paving	116	101	78	70
Daily emissions of ROG (lb.)	5.0	4.5	3.5	2.0
Quarterly emissions of ROG (Tons)	0.17	0.15	0.12	0.07

Table 3.1.1-3. Estimated Construction Emissions (PM₁₀ from Grading)

Activity	Estrella	Shandon	Cholame	Wye
Total area to grade (Acres)	200	230	160	160
Exposed for (Quarters)	8	8	8	8
Active daily grading (Acres)	1.5	1.6	1.4	1.4
Quarterly PM ₁₀ (Tons)	3.4	3.6	3.1	3.1
Total PM ₁₀ (Tons)	27	29	25	25

Table 3.1.1-4. Estimated Construction Emissions Total Quarterly (Tons)

Pollutant	Estrella	Shandon	Cholame	Wye
CO	4.7	4.8	3.3	2.0
ROG	1.7	2.0	2.3	2.2
NO _x	18.0	21.9	25.1	26.0
Pm ₁₀	4.2	4.6	4.3	4.2

Table 3.1.1-5, Post Combustion Retrofit Schedule, describes the number of pieces of equipment that the SLOAPCD recommends to be equipped with after-treatment control devices based on the projected amount of project emissions. The table also shows the expected quarterly project emissions for each section of the proposed project. Because the projected quarterly emissions of NO_x for the project exceed the highest threshold established by the SLOAPCD, the number and type of pieces of equipment that would be equipped with after-treatment control devices would be discussed and agreed to in conjunction with the SLOAPCD staff. This agreement would be made prior to the start of each phase of construction.

Table 3.1.1-5. Post Combustion Retrofit Schedule

SLOAPCD Thresholds for Overall Project Quarterly Emissions of ROG, NO _x , and PM ₁₀ (tons/quarter)	Recommended Number of Pieces of Construction Equipment to Control		
<2.5	None		
2.5-6.0	1		
6.0-7.0	2		
7.0-8.0	4		
>8.0	Discuss with SLOAPCD Staff		

Section Name	Expected Project Quarterly Emissions (tons)		
	ROG	NO _x	PM ₁₀
Estrella	1.7	18.0	4.2
Shandon	2.0	21.9	4.6
Cholame	2.3	25.1	4.3
Wye	2.2	26.0	4.2

General plans are written, analyzed, and approved in order to structure the way land is used and will be used in the future in a county or city. When these plans are written, projects specifically called out in the plans have been analyzed in terms of their effect on the environment. The environmental impacts from these projects, including air quality impacts, have been accounted for through this planning process. Projects such as this, which are called out specifically in the San Luis Obispo County General Plan, that have some air quality impacts have been accounted for in the planning by

the local air pollution control district. A project found in the general plan should be justified by a defensible purpose and need statement at the time of proposal and its impacts should be minimized and mitigated even though they may have been accounted for by other agencies in their planning as well.

The existing level of service of this highly used route justifies the purpose and need for the project (see Section 1.3.2). Also, the proposed project can be found in several community and local agency plans (see Section 3.3.4) and Caltrans growth analysis shows that the proposed project would not influence growth or promote land use changes (see Section 3.3.4). Further, the project as proposed would not negatively affect the county’s South Central Coast Air Basin attainment designation for Carbon Monoxide, Particulate Matter, and Ozone.

The California Air Resources Board revised its PM₁₀ standards in June 2002. It did not adopt a daily standard for PM_{2.5} because errors were discovered in the software used to develop health risk values. However, an annual standard for PM_{2.5} was adopted.

Table 3.1.1-6. Current Daily and Annual Thresholds for PM₁₀ and PM_{2.5}

State	Criteria	National
20 ug/m ³	PM ₁₀ (annual arithmetic mean), not to be exceeded	50 ug/m ³
50 ug/m ³	PM ₁₀ (24 hour average)	150 ug/m ³
12 ug/m ³	PM _{2.5} (annual arithmetic mean), not to be exceeded	15 ug/m ³
65 ug/m ³	PM _{2.5} (24 hour average)	65 ug/m ³

Table 3.1.1-6 shows that standards for PM_{2.5} are higher than those for PM₁₀. In dealing with construction emissions, PM_{2.5} is always a fraction of PM₁₀. Therefore, by minimizing emissions of total suspended particulate below the level of significance, emissions of PM_{2.5} and PM₁₀ will likewise be reduced below the level of significance.

Construction activities for the proposed project will be spread out over about 12 years. Work will be done in four phases with each phase lasting about 3 years. Recent conversations with the Resident Engineer for the proposed project have determined that it is a reasonable assumption that construction grading will not exceed 1.6 hectares (4.0 acres) per day of active grading/excavating for any phase of the project. This amount is within the 1.6 hectares (4.0 acres) per day that is allowed in the SLOAPCD CEQA Guide to remain within the 2.5 tons per quarter PM₁₀ threshold. This is a more accurate estimate of quarterly grading than was used in the draft environmental document, because it was based on a conversation with the probable Resident Engineer for the project. The quarterly grading estimates will be further refined for consultation with SLOAPCD after design quantities and construction phasing are better understood.

Total suspended particulate emissions will be reduced below a level of significance by implementing Caltrans Standard Specification and by using emission reduction measures recommended by the SLOAPCD. Reduction of total suspended particulate emissions below a level of significance will correspondingly minimize emissions of the PM₁₀ and PM_{2.5} fractions of total suspended particulate.

The CEQA determination found that no significant long-term air quality impacts would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

A Caltrans field inspector or a qualified individual designated by Caltrans shall be responsible for ensuring that the identified air quality measures are implemented. In addition to these measures, the inspectors will be responsible for identifying and ordering operation changes to ensure that excessive simultaneous operation of diesel construction equipment does not occur, particularly if that equipment is fairly localized. Their duties may include holidays and weekends when work may not be in progress. This individual shall have a current Visible Emissions Certificate to enforce the 20% opacity threshold for fugitive dust emissions. The name, contact number, and qualifications of this person shall be supplied to the San Luis Obispo Air Pollution Control District (SLOAPCD) prior to the beginning of each construction phase and any time that there is a change in the person designated. This individual shall notify the Air Pollution Control District should they observe and are unable to correct significant inconsistencies with their air quality oversight responsibilities.

In addition, Caltrans will work proactively and cooperatively with staff at the Air Pollution Control District to determine the most appropriate methods to reduce air quality emissions during each sub-phase of construction. Caltrans shall supply emissions estimates to the SLOAPCD prior to the release of bid packages for each sub-phase of construction so that SLOAPCD and Caltrans staff can work together to identify the appropriate air quality mitigation to reduce the impacts to less than significant levels. SLOAPCD will work with Caltrans to define the applicable number and type of after-treatment control devices to be included in the bid specifications for each sub-phase.

Caltrans will also work with SLOAPCD staff to determine the best haul routes for each sub-phase of construction. A special provision will be written for each sub-phase of construction designating routes and areas where the contractor cannot haul. These non-haul routes and areas shall be designated to minimize impacts to communities and sensitive receptors.

One of the major pollutants that would be emitted during construction is particulate matter (PM). PM₁₀ comprises about 65% of the different types of particulate matter. Caltrans Standard Specifications contains measures for controlling emissions of dust and air pollution from construction sites. Implementation of these measures is required on all Caltrans construction projects. In addition, implementation of the following measures would be used to minimize emissions of particulate matter on this project.

PM₁₀ Minimization Measures:

- The amount of disturbed areas would be reduced where possible.
- Water trucks or sprinkler systems would be used in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 25 mph. Reclaimed (non-potable) water would be used whenever possible.
- All dirt stock-pile areas would be sprayed as needed to prevent airborne dust from leaving the site.
- Permanent dust control measures identified in the approved project re-vegetation and landscape plans would be implemented as soon as possible following completion of any soil disturbing activities.
- All roadways, driveways, sidewalks, etc. to be paved would be completed as soon as possible.

- All trucks hauling dirt, sand, soil, or other loose materials on public roads are to be covered or would maintain at least two feet of freeboard in accordance with California Vehicle Code Section 23114.
- Any visible soil carried onto adjacent paved roads would be swept at the end of each day. Water sweepers with reclaimed water would be used where feasible.
- Fugitive dust emissions from any source during this project will not exceed 20% opacity, with the exception of specific pieces of equipment that are allowed to emit at higher opacity limits under a permit. Should 20% opacity be exceeded, the Contractor must expand their dust control effort to bring the emissions to below the limit.
- Caltrans would use after-treatment control devices on some of the most highly used and high emitting pieces of construction equipment. The determination of the number and type of equipment that shall be retrofitted with these devices shall be discussed and agreed to in conjunction with the SLOAPCD staff prior to the bidding process for each sub-phase of construction.

All PM₁₀ minimization measures would be shown in the contract specifications. In addition, the contractor would designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent the transport of dust offsite. Their duties would include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons would be provided to the SLOAPCD prior to the beginning of project construction.

The following best management practices would be implemented to help further reduce construction emissions of nitrogen oxides, reactive organic gases, and PM₁₀.

- Schedule truck trips to minimize impacts to traffic flow.
- Should Caltrans and the SLOAPCD review of emission estimates indicate that planned construction activities would be substantially greater than the APCD's Tier 3 emission threshold, then phasing of construction activities will be one option for emission reduction.

The following measures to further reduce construction emissions were recommended by the SLOAPCD staff⁷ and would be included in the contractor's bid package so they can account for capital and labor in their costs.

- Operate construction equipment in proper tune according to manufacturer's specifications.
- Use only California Air Resources Board approved fuel for all diesel-powered equipment used during construction.
- To the extent feasible, use electric grid power to replace diesel-powered generators and to power air compressors and light sources.
- Diesel equipment shall not be allowed to idle for more than 10 minutes.
- Install catalytic converter after-treatment control devices on some of the project's higher usage, higher emitting pieces of non-road, diesel-powered construction equipment⁸ during each sub-phase of the construction project. The determination of the number and type of equipment that

⁷ Response to Notice of Preparation letter prepared by SLOAPCD staff, dated January 25, 2000.

⁸ The number of after treatment control devices and the type of equipment they would be used upon shall be determined by representatives of Caltrans and the San Luis Obispo Air Pollution Control District and shall be identified prior to the bidding process for each sub-phase of construction.

shall be retrofitted with these devices shall be based on finalized emissions estimates calculated for each sub-phase. Caltrans and the Air Pollution Control District shall work together to determine the appropriate level of control prior to the opening of the bidding process for each sub-phase of construction.

To reduce the potential for impacts associated with naturally occurring asbestos, geologic evaluations shall be sent to the SLOAPCD for review and concurrence on issues dealing with naturally occurring asbestos during the design phase of the project. Any naturally occurring asbestos found during geologic evaluations shall be delineated in the construction contract as such and excavated in conformance with the appropriate requirements.

3.1.2 Geology/Seismic and Soil Types

Affected Environment

San Luis Obispo County is located in the Central Coast of California. It is one of the largest counties (in area) in California and contains many minor mountain ranges and valleys. Soils in Cholame Valley, in the area of the proposed interchange locations, are comprised of unconsolidated stream and floodplain deposits. Unconsolidated stream and floodplain deposits refer to a type of geologic formation that is uncemented, that is the particles of this formation are not bound together by heat, pressure, or strongly cemented by agents such as clay. The ground water level is very close to or at the ground surface in the study area. Water levels range from the ground surface to approximately 2.0 meters (6.6 feet) below the ground surface. Loose, unconsolidated, and saturated soils may liquefy during an earthquake. Liquefaction potential under the existing soil and ground water conditions in the Wye section is considered moderate to high. Liquefaction is a characteristic of soil whereby the soil behaves like a liquid during major ground motion associated with earthquakes. This is important because, if liquefaction impacts are not considered in the design of the roadway or structures, they could be damaged by strong earthquake shaking.

State Route 46 within the project limits crosses flat to slightly rolling terrain along the Estrella River and Cholame Creek floodplains. The project borders the western face of the Temblor Range of the Coast Range Province. Natural earth materials exposed within the project limits include Quaternary age Plio-Pleistocene deposits of the non-marine Paso Robles formation, Quaternary river and stream terrace deposits, and Quaternary recent alluvium. In general, the materials are uncemented mixtures of sand, silt, and clay with some portions of weakly cemented Paso Robles formation.

The San Andreas Fault Zone is centered approximately 0.40 kilometers (0.25 miles) west of the existing State Routes 46/41 junction, which places the zone within the project limits. It crosses the route within Cholame Creek where bridge #49-36 crosses the creek. The San Andreas Fault is considered “active” by Caltrans. The maximum credible earthquake⁹ that the San Andreas Fault is capable of is 7.50 on the Richter scale. The White Canyon Fault crosses State Route 46 approximately 2.6 kilometers (1.6 miles) west of the Cholame Creek Bridge #49-36. The White Canyon Fault is considered “potentially active” and is capable of an earthquake of 7.0 in magnitude.

⁹ Maximum Credible Earthquake is defined as the severest earthquake that is believed to be possible at the site on the basis of geological and seismological evidence, New Mexico State Office of Seismic Design and Evaluation of Dams, Appendix D.

The San Andreas Fault, in this region, has been categorized into the Parkfield segment and the Cholame segment, with State Route 46 being defined as the boundary between the southern end of the Parkfield segment and the northern end of the Cholame segment. The fault separates into several branches within the Cholame Valley. The mapped fault rupture zones precisely follow these branches and, during major earthquakes, any one of the branches may accommodate some of the land surface displacement that can occur along the fault.

Recent studies on the Southern California segment of the San Andreas fault have identified at least 12 major earthquakes that have occurred in the last 2000 years. Historical accounts of faulting in the project area begin with the Fort Tejon earthquake that occurred on January 9th, 1857. This event resulted in approximately 3.5 meters (11.5 feet) of slip on the northern Cholame section near the project area. Since the 1857 event, five significant earthquakes have affected the project area: 1881, 1901, 1922, 1934, and 1966. All of these earthquakes occurred along the Parkfield segment and ranged in magnitude between 5 and 6 on the Richter scale. During these earthquakes, strong ground motions were generally felt within the entire project area. Surface ground movements were noted in each of these events often in the form of cracks in the ground and within private homes, fallen chimneys, broken oil pipelines, and a displaced centerline for State Route 46. The event in 1966 displaced the white centerline on State Route 46 by 119.4 millimeters (4.7 inches).

Soil Types

According to the Natural Resources Conservation Service,¹⁰ there are 35 different soil types within the project area. These soils vary greatly according to their drainage, liquefaction, and erosive characteristics and their suitability for large structure construction. Their suitability for use as a construction material or for highly productive cropland also varies greatly.

The soil types found within the project area that are considered highly productive for cropland and that meet the criteria for prime farmland include the following:

- Arbutle fine sandy loam, 0 to 2 percent slopes
- Arbutle fine sandy loam, 2 to 9 percent slopes
- Elder loam, flooded, 0 to 5 percent slopes
- Hanford and Greenfield gravelly sandy loams, 0 to 2 percent slopes
- Mocho clay loam, 0 to 2 percent slopes
- Mocho clay loam, 2 to 9 percent slopes
- Pico fine sandy loam, 2 to 9 percent slopes
- Rincon clay loam, 2 to 9 percent slopes
- San Emigdio fine sandy loam, 0 to 2 percent slopes
- San Emigdio fine sandy loam, 2 to 9 percent slopes
- Sorrento clay loam, 2 to 9 percent slopes

The soil types in the Wye section, where the Cholame Creek bridges are proposed for reconstruction over the San Andreas Fault, include the Capay silty clay, Clear Lake clay, Mocho clay loam, 2 to 9 percent slopes, and the Balcom – Nacimiento association, moderately steep. The Capay and Clear Lake soils are rated by the soil survey manual as poor for use as roadfill construction material due to

¹⁰ Soil Survey, San Luis Obispo County, CA, May, 1983

a low strength rating and high shrink-swell potential. The Mocho soil is rated as fair for use as roadfill construction material. The Balcom and Nacimiento soils are also both rated as poor for use as roadfill material due to their shallow depth to bedrock and low strength rating.

Environmental Impacts

In General

This discussion of impacts to geology, seismic, and soil types applies to all of the alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of geology, seismic, and soil impacts were conducted on a project basis and not separate for each alternative. Site specific recommendations for slope steepness for cuts and fills would occur for any of the alternatives. All build alternatives would be constructed across potentially active earthquake faults within the project area, and any structures for those alternatives would be constructed to current Caltrans standards for seismic safety. Soil would be disturbed during construction of any of the alternatives and best management practices measures would be used to minimize soil erosion during and after construction of the proposed project.

Discussion

All of the build alternatives for the project would result in exposed cut and fill slopes that would be subject to erosion. These areas would be treated with appropriate erosion control material: erosion control blankets installed with fiber, compost, seed, fertilizer, and stabilizing emulsion in a hydroseed application, with fiber rolls installed on the slopes to stabilize the soil. Additional soil amendments may also be used as needed to stabilize the soil. Seeds of plants indigenous to the area would be used to re-vegetate the exposed cut slopes. Duff¹¹ may be collected and used in some areas.

Bridges would be constructed over the Estrella River in the Estrella section of the project (two new bridges under Alternative 8N and two new bridges under Alternative 9N). In the Shandon section, bridges would be constructed over Cholame Creek (two new bridges under both alternatives). In the Cholame section, bridges would also be constructed over Cholame Creek (two new bridges under both alternatives). Each of the six Wye section alternatives propose the construction of bridges that serve as flyovers over the expressway. In that section, the greatest seismic hazard would be ground displacement and ground shaking. Liquefaction is also a substantial seismic hazard. All bridges would be designed to withstand the maximum credible earthquake associated with nearby faults without catastrophic failure. The design of these bridges would be site specific to each bridge location.

Additional, site specific, paleoseismic¹² studies would be completed after the selection of the preferred alternative in the Wye section to provide the best available technical information to the

¹¹ “Duff” is material containing organic matter and plant seeds. It is used to control soil erosion and to reestablish native ground cover.

¹² “Paleoseismic” refers to the history of seismic events determined by looking at the layers of rock beneath the surface and how they have been shifted by earthquakes in the past.

designers. This information would be used to recommend special design features to be incorporated into the design of the structures in the Wye section.

Site specific geotechnical studies would be conducted to assure that the integrity of project features would not be compromised by unstable soils. Cut slopes and embankments (fill slopes) would be designed to minimize the potential for offsite landslides, subsidence of offsite structures, or damage from lateral spreading. Project structures would be designed to withstand ground motion or liquefaction of the foundation soils from earthquake activity on the nearby faults. If any foundation soils are found to be expansive, as defined in Table 18-1-B of the Uniform Building Code (1994), appropriate measures would be taken to prevent damage to project facilities.

At the Shandon Roadside Rest Area, a portion of the leach field would be removed and new leach lines constructed adjacent to the remaining lines. The soils in this area have been used for the septic system since the construction of the roadside rest area and have functioned normally during that time for septic system use. A percolation test would be conducted, prior to the construction of the new portion of the leach field, to ensure the suitability of the soils for that purpose. No other septic tank or alternative wastewater disposal systems are proposed and no soils incapable of adequately supporting the use of septic tanks would be used.

The CEQA determination found that no significant geology, seismic hazard, or soil impacts would occur as a result of the construction of any of the build alternatives. In addition, no known geotechnical conditions exist that would preclude the construction of any of the build alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Caltrans Standard Specifications (Section 20) contains provisions to prevent the erosion of soil during and immediately following construction activities. In addition, Caltrans National Pollutants Discharge Elimination System Permit serves to protect water quality by preventing soil erosion.

Caltrans would minimize potential seismic impacts to all proposed structures through the standard practice of site specific bridge design. All bridges and other structures would be designed to withstand the maximum credible earthquake associated with nearby faults without catastrophic failure.

At the Shandon Roadside Rest Area, a percolation test would be done on the soils in the area designated for the new leach field prior to construction to ensure the suitability of the soil for that purpose.

3.1.3 Hazards and Hazardous Materials

Affected Environment

An Initial Site Assessment (ISA) was conducted for this project. This included a records check and initial and secondary field reviews of the project impact area of each of the viable alternatives, including the existing highway.

In addition to the route itself, several features throughout the project area could involve potential areas of hazardous waste contamination. The features capable of producing areas of hazardous waste are summarized in Table 3.1.3-1 and explained in the Environmental Impacts section.

Table 3.1.3-1. Potentially Hazardous Project Features/Areas

Potentially Hazardous Project Features Within the Project Study Area	
<u>Project Feature</u>	<u>Project Location</u>
Tosco Oil Pipelines	Shandon and Cholame Sections
Chevron Oil Pipelines	Shandon and Cholame Sections
U.S. Navy Jet Fuel Pipeline	Shandon and Cholame Sections
Tosco Oil Pumping Plant	Cholame Section
Cockrum’s Garage	Cholame Section
Agricultural fuel tanks	Various spot locations
State Route 46 – outside shoulders (ADL) *	Entire Project
Five State Route 46 Bridges – lead-based paint and asbestos	KP 64.29, 68.24, 77.76, 81.53, 88.14 (PM 39.95, 42.40, 48.32, 50.66, 54.77)

* Aerial Deposited Lead

The Paso Robles Municipal Airport is located near the beginning (western end) of the proposed project. Airport Road, commonly referred to as the beginning of the Route 46 Corridor Improvement Project, is a county road used for access to the airport. The first kilometer (0.62 miles) of the proposed project is within the two-mile boundary of the airport.

The San Luis Obispo County Office of Emergency Services plans for and implements large scale evacuations for all or portions of San Luis Obispo County in the event of an emergency. Different types of procedures are developed for many different types of emergency situations. This applies to the Route 46 Corridor Improvement Project most directly in that state highway routes are often designated as escape routes during emergencies. These routes must potentially move large amounts of citizens to safer areas during disasters.

The discussion of the Paso Robles Municipal Airport and the San Luis Obispo County Office of Emergency Services is included in this section to comply with questions on the CEQA Checklist found in Chapter 5 of this document.

Environmental Impacts

In General

This discussion of impacts to hazards and hazardous materials applies to all of the alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of hazardous materials and hazards impacts was conducted on a project basis and not separate for each alternative. All alternatives would potentially result in the discovery of contaminated materials. Underground petroleum product pipelines would need to be relocated for any of the build alternatives. This would be the most likely area for encountering hazardous

materials during construction. All alternatives would include special contingency plans in the event that suspected hazardous materials were encountered during construction. All alternatives would have the same effect with regards to the Paso Robles Municipal Airport and San Luis Obispo County Office of Emergency Services.

Discussion

Hazardous Materials

Several areas of potential chemical contamination were identified in an Initial Site Assessment prepared for this project. A Preliminary Site Investigation (PSI) was conducted in the areas identified in the ISA as having the potential for chemical contamination. The areas that required further investigation included the following:

- Tosco oil pipeline
- Chevron oil pipeline
- U.S. Navy jet fuel line
- Cockrum's Garage
- State Route 46
- Five State Route 46 bridges

The Tosco and Chevron oil pipelines and the U.S. Navy jet fuel line are all found within the project area and would require partial relocation under all of the "build" alternatives in the Shandon, Cholame, and Wye sections. These pipelines have been preliminarily tested using a passive soil-gas sampling technique. Only one sampled area of the pipelines resulted in substantial levels of contamination. This area, near the existing State Routes 46/41 junction has been recommended for a more detailed follow-up investigation. This investigation would be conducted after the selection of the preferred alternative.

A few of the samples taken for the pipelines indicated small levels of petroleum products. However, no large areas of contamination were found during the investigation. Due to the length of lines to be tested and time and budget constraints, the initial sampling was not conducted at a statistically significant level. Therefore, areas of substantial contamination could be discovered during the construction phase of the project under all of the build alternatives in the Shandon, Cholame, and Wye sections. No pipeline relocation would be necessary in the Estrella section of the project.

The records check portion of the Initial Site Assessment revealed that no substantial contamination events have occurred at the Tosco Oil Pumping Plant. Secondary testing was conducted at the Cockrum's Garage location based on recommendations in the Initial Site Assessment. The secondary investigation results coincided with the initial investigation results. There are very low concentrations of diesel and motor oil in the soil at Cockrum's Garage. The levels of contamination are below the thresholds where soil use restrictions would apply.

The potential for encountering aerial deposited lead along State Route 46 was identified in the Initial Site Assessment. A subsequent investigation was done to determine the presence or absence of aerial deposited lead. The result of the study indicated that the levels of lead in the soil within the

project limits are below the standard regulatory thresholds and that the soil is non-hazardous and may be managed without restrictions.

The five existing bridges within the project area have been tested for asbestos and lead based paint contamination. Tests revealed that chrysotile asbestos is present in trace amounts in Bridges #49-36 and #49-29. No asbestos was detected in the three remaining bridges. Lead was detected in two samples of white paint collected from guardrails on Bridge #49-95 and in two samples of silver paint collected from the superstructure of Bridge #49-33. No contamination was detected in the three remaining bridges or in the soil below the five bridges within the project area.

None of the proposed alternatives would propose the routine transport, use, or disposal of hazardous materials. No hazardous materials would be handled within one-quarter mile of an existing or proposed school. No alternatives would be located on a hazardous materials site pursuant to Government Code Section 65962.5 and therefore would propose no disturbance to said site or sites.

Hazards

The western portion of the proposed project is found within 3.2 kilometers (two miles) of the Paso Robles Airport. Caltrans Aeronautics Program¹³ reviewed the proposed project and found that because no structures are proposed in the area near the airport that PUC Section 21655 does not apply to the project. If the construction of the alternatives in the Estrella section of the project require the use of any temporary structures, cranes, or towers within 3.2 kilometers (two miles) of the Paso Robles Airport boundary, the airport manager and the Division of Aeronautics must be notified. In addition, the Federal Aviation Administration (FAA) would be notified via FAA Form 7460-1 before construction of the project would begin. The project would not result in a safety hazard for people residing or working in the project area.

In addition, no private airstrips are located within the vicinity of the proposed project, so the alternatives would not create a safety hazard for people residing or working in the project area.

State Route 46 is not a pre-designated evacuation route by the County Office of Emergency Services (COES) but could be used in the event of an emergency. The Emergency Services staff stated that prolonged, single-lane control (where one lane is used temporarily for both directions of traffic under the control of a flagperson) might affect emergency services in the event of an emergency. This practice during construction would be avoided to the maximum extent possible to prevent major traffic backups along the route. In addition, discussion with COES staff also revealed that, upon completion of any of the build alternatives, the proposed project would be a benefit to their office and the public in the event of an emergency. The project would not impair the implementation of any adopted emergency response or emergency evacuation plans.

Finally, the proposed project would not expose people or structures to any wildfires.

The CEQA determination found that no significant impacts by exposing humans to hazards or hazardous materials or by generating hazardous waste would occur from the construction of any of the build alternatives.

¹³ Caltrans Aeronautics Program, Site Investigation Response Memo, February 22, 2000.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

If suspected contaminated soil is discovered during construction of the project, all work would stop in the suspected contaminated area. The material would be sampled in place to determine the content and concentration of the hazardous material. All hazardous materials found would be removed, handled, and disposed of in accordance with state and federal regulations. If any other suspected hazardous materials are discovered during construction operations, formal procedures specified by the Caltrans Headquarters Hazardous Waste Management Section would be implemented immediately. All hazardous materials involvement would be coordinated with the appropriate federal, state, and local regulatory agencies.

If asbestos-containing materials (ACM) identified on Bridges #49-36 and #49-29 would be disturbed during construction, they would be treated as a hazardous material and disposed of by a licensed and certified asbestos abatement contractor. This would be done before any construction activities that would disturb the ACM to a point at which it could possibly become airborne.

A Notification for Renovation and Demolition of Asbestos Containing Materials would be submitted to the Regional Air Pollution Control District 10 days prior to the beginning of the project.

Peeling, lead-containing paint on Bridge #49-95 would be removed and disposed of by a certified and licensed abatement contractor in conjunction with any planned demolition work associated with this project. All painted surfaces on Bridge #49-33 would be treated as lead-containing and handled using the same procedure described above for Bridge #49-95. This would occur only during any maintenance, demolition, or renovation activities associated with this project.

A notification of construction would be filed with the FAA, using FAA Form 7460-1, prior to the beginning of construction activities.

During construction, single-lane traffic control would be minimized to the maximum extent feasible so that emergency services would have the most free flow traffic conditions available in the event of an emergency.

3.1.4 Hydrology, Floodplains, and Water Quality

Affected Environment

Hydrology and Floodplains

There are several rivers and creeks throughout the project area. According to the Floodplain Insurance Rate Maps for San Luis Obispo County prepared by the Federal Emergency Management Agency (FEMA), State Route 46 crosses the following identified floodplains: Dry Creek, Estrella River, Pine Creek, Shimmin Canyon, McMillan Canyon, Cholame Creek (three crossings), and White Canyon.

According to FEMA, all of these floodplains are designated as Zone A. This means they are Special Flood Hazard Areas that are capable of being inundated by a 100-year flood. Because detailed

studies have not been conducted by FEMA for Zone A-type floodplains, base flood elevations and flood hazard factors have not been determined.

The two main floodplains within the project area are Cholame Creek and the Estrella River. Beginning at its headwaters, Cholame Creek flows about 20.9 kilometers (13 miles) southeasterly through mountainous terrain and canyon walls, gradually moving into more level terrain and flowing via a wide channel for 20.1 kilometers (12.5 miles). Cholame Creek then changes directions and flows in a southwesterly direction for 12.1 kilometers (7.5 miles) through foothills to where it joins the Estrella River. State Route 46 runs roughly parallel to the creek, which meanders back and forth under the highway. State Route 46 has three existing bridges (Bridges #49-94, #49-29, and #49-36) that cross Cholame Creek. Between KP 81.6 and 83.7 (PM 50.7 to 52.0), State Route 46 runs directly parallel and very close to Cholame Creek. Due to the proximity of the creek and highway in this location, Cholame Alternatives 1 and 2 propose to reroute all or a portion of State Route 46 away from the creek.

Near KP 77.2 (PM 48.0), Cholame Creek discharges into the Estrella River, which is the ultimate outfall¹⁴ for the project. The other minor floodplains mentioned above have the Estrella River as their direct outfall except for White Canyon, which discharges directly into Cholame Creek.

The Estrella River meanders in a southwesterly direction through the project site roughly parallel to State Route 46 on its south side. State Route 46 crosses the Estrella River floodplain with Bridge #49-33. Ultimately, the Estrella River merges into the Salinas River several miles downstream of that bridge.

Water Quality

Water quality depends mainly on the hydrologic characteristics of the drainage basin, the makeup of the soils in the watershed, and sources of pollution in the watershed. The quality of storm water varies greatly depending on climatic and land use conditions. Urban and industrial runoff generally contains more pollutants than rural runoff. Storm water may contain unacceptable levels of many pollutants including:

- Petroleum hydrocarbons (gasoline and diesel)
- Oils
- Brake material
- Organic material
- Pesticides
- Heavy metals (copper, lead, cadmium, and zinc)
- Fertilizers
- Trash
- Sediment
- Nutrients
- Phosphates

Caltrans National Pollutant Discharge Elimination System (NPDES) permit does not allow for Caltrans to affect a beneficial use or exceed water quality standards designated by the Regional

¹⁴ This means that all of the water that flows from or through the project area ultimately ends up in the Estrella River.

Water Quality Control Board (RWQCB) in the Central Coast (Region 3) Water Quality Control Plan, also known as the Basin Plan (November 1998). Not all drainages or tributaries to the main surface bodies of water are assigned a beneficial use designation¹⁵. It is assumed that if a surface body of water is not specifically identified within the Basin Plan to have beneficial uses, it is given the beneficial use designations of the river or creek that it empties into. When a creek’s or river’s beneficial use is threatened by pollution, the State Water Resources Control Board or the Environmental Protection Agency puts it on a list. This list is known as the 303(d) list and it identifies the pollutant(s) that are impairing the beneficial use for that body of water. The creeks or rivers found in the project area are not on the 303(d) list. Table 3.1.4-1 identifies the assigned beneficial uses for the creeks and rivers in the project area. Table 3.1.4-2 identifies the meaning of the abbreviations used for the beneficial use designations and contains the definitions of the designations. Also included are examples of the uses identified as beneficial uses.

Table 3.1.4-1. Designated Beneficial Uses of the Creeks and Rivers in the Project Area

Drainage	Beneficial Use Designation									
	MUN	AGR	GWR	REC1	REC2	WILD	WARM	SPWN	RARE	COMM
Estrella River & Dry Creek	X	X	X	X	X	X	X	X		X
Cholame Creek & McMillan Creek	X	X	X	X	X	X	X		X	X
Huer Huero Creek	X	X	X	X	X	X	X		X	X

The proposed project is located within the Estrella Basin watershed. The watershed drains a 245,594 hectares (606,873 acre) area, with 2,271 kilometers (1,411 miles) of naturally occurring waterways. There are no dams within the watershed. There are 1,143 stream crossings within the watershed and 896 kilometers (557 miles) of near-stream roads. The land use within the watershed varies, but is predominantly used for agricultural and ranching activities with small areas of clustered development (towns and communities) and scattered single family homes.

¹⁵ A beneficial use designation is a declaration of what a river or creek is used for. The standards are defined for water quality based on the beneficial uses designated for the water body in question.

Table 3.1.4-2. Definitions of the Assigned Beneficial Uses in the Project Area

Abbreviation	Beneficial Use	Definition
MUN	Municipal & Domestic Water Supply	Community, military, or individual water supply systems including, but not limited to, drinking water supply.
AGR	Agricultural Supply	Farming or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for grazing.
GWR	Ground Water Recharge	Natural or artificial recharge of ground water for purpose of future extraction or maintenance of water quality.
REC1	Contact Water Recreation	Recreational activities involving body contact with water, where ingestion of water is reasonably possible. Example: swimming, fishing, & wading.
REC2	Non-Contact Water Recreation	Recreational activities close to water, but not normally involving body contact with water. Example: picnicking, hiking, & boating.
WILD	Wildlife Habitat	Terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, and wildlife.
WARM	Warm Freshwater Habitat	Warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife.
SPWN	Spawning Habitat	High quality habitats suitable for reproduction or early life stages of fish. This use is applicable only for the protection of anadromous ¹⁶ fish.
RARE	Rare, Threatened, or Endangered Species	Habitats necessary for the survival of plant and animal species identified under state or federal law as rare, threatened, or endangered.
COMM	Commercial & Sport Fishing	Commercial or recreational collection of fish or other organisms including, but not limited to, uses of the organism for human consumption or bait.

Storm drainage systems consist of many different features associated with a highway, expressway, or freeway. Drainage ditches, dikes, culverts, drop inlets that direct water to culverts, retention basins and detention basins are some of the features commonly seen along the highway. Culverts that cross under a highway typically carry water from a drainage ditch on one side of the highway to another drainage ditch on the other side or to a creek or river. The maintenance and design of these features are important to water quality. If ditches are not vegetated or paved, the water flowing through them can gather sediment from the ditch itself and transfer that sediment to a natural body of water causing a type of water pollution known as sedimentation. Another example is how culverts are designed, specifically at their outlet. If no rock or hard surfaces are placed at the outlet of a culvert, the water, which has been concentrated in the culvert, has more energy to cause erosion when it reaches the ground surface. All of these features are needed on a highway project. If designed correctly and maintained, they can effectively transport the water from storms to a natural water body while not degrading (and sometimes improving) the quality of that water.

The two main floodplains within the project area are Cholame Creek and the Estrella River. Near KP 77.2 (PM 48.0), Cholame Creek empties into the Estrella River, which is the ultimate receiving body of water for the project. Ultimately, the Estrella River merges into the Salinas River several miles downstream of the project area.

¹⁶ Anadromous fish are born in fresh water, live their life in salt water (the ocean), and return to fresh water to reproduce.

Three main surface bodies of water are located within or near the Estrella Section: Huer Huero Creek, Dry Creek, and the Estrella River. Huer Huero Creek is a northerly flowing seasonal creek that empties into the Salinas River. Dry Creek is a branch of Huer Huero Creek and crosses the highway through a box culvert at approximately KP 54.9 (PM 34.1). Field analysis resulted in the identification of many areas of erosion and deficiencies in the existing storm drainage system. A lack of energy dissipaters at the outlet of culverts and water crossings has caused erosion downstream. In addition, biofiltration swales¹⁷ are in place to reduce pollutants from entering the creeks and rivers. The existing biofiltration swales were designed to accommodate water flow and not for water quality. Recent changes to the standards that show how to construct biofiltration swales have resulted in the designation of those along the route as having a substandard design.

Within the Shandon Section, there are two surface bodies of water: McMillan Canyon Creek and Cholame Creek. McMillan Canyon Creek ultimately flows into Cholame Creek and currently crosses State Route 46 through a box culvert at approximately KP 73.5 (PM 45.7). Both Shandon Section alternatives propose to replace the existing box culvert with a bridge to carry the eastbound and westbound lanes of traffic. The existing bridge over Cholame Creek in the Shandon Section has substantial erosion problems and has been identified by Caltrans as scour critical¹⁸. Field analysis resulted in the identification of many areas of existing erosion and drainage problems. A lack of energy dissipaters at the outlet of culverts and water crossings has caused localized erosion. In addition, only biofiltration swales are in place to reduce pollutants from entering the creeks.

Within the Cholame Section, there is one main surface body of water, Cholame Creek, which flows to the west, parallel to the highway on the south side before crossing State Route 46 at KP 81.5 (PM 50.6). After crossing the highway the creek flows parallel along the north side of the existing State Route 46. Field analysis resulted in the identification of many areas of existing erosion and drainage problems. A lack of energy dissipaters at the outlet of culverts and water crossings has caused downstream erosion problems. In addition, many of the biofiltration swales and roadside ditches lack sufficient vegetation to effectively filter pollutants.

Between KP 81.6 and 83.8 (PM 50.7 to 52.0) Cholame Creek runs parallel and directly adjacent to the existing State Route 46. Previous projects have been constructed to stabilize the creek channels in this area to prevent the creek from eroding the highway fill. Figure 3.1.4-1 shows the area in discussion. You can see the previous hard slope protection (HSP) projects that have been constructed to eliminate erosion of the highway fill. Those projects have ultimately failed to stabilize the creek channel. Currently the HSP is severely undermined and no longer working effectively. Because of the close proximity of the creek to the highway in this area, there is little to no vegetation between the highway and the creek to filter pollutants before they enter the creek. Sheet flow, during storm events, could move roadway pollutants directly into the creek.

¹⁷ A biofiltration swale is an engineered, vegetated drainage ditch designed to retain water for the purpose of filtering out sediment and chemical pollutants.

¹⁸ Scour critical is a designation given to a bridge when Caltrans Structures Maintenance branch determines that a major storm event could cause a bridge's foundation to become unstable.

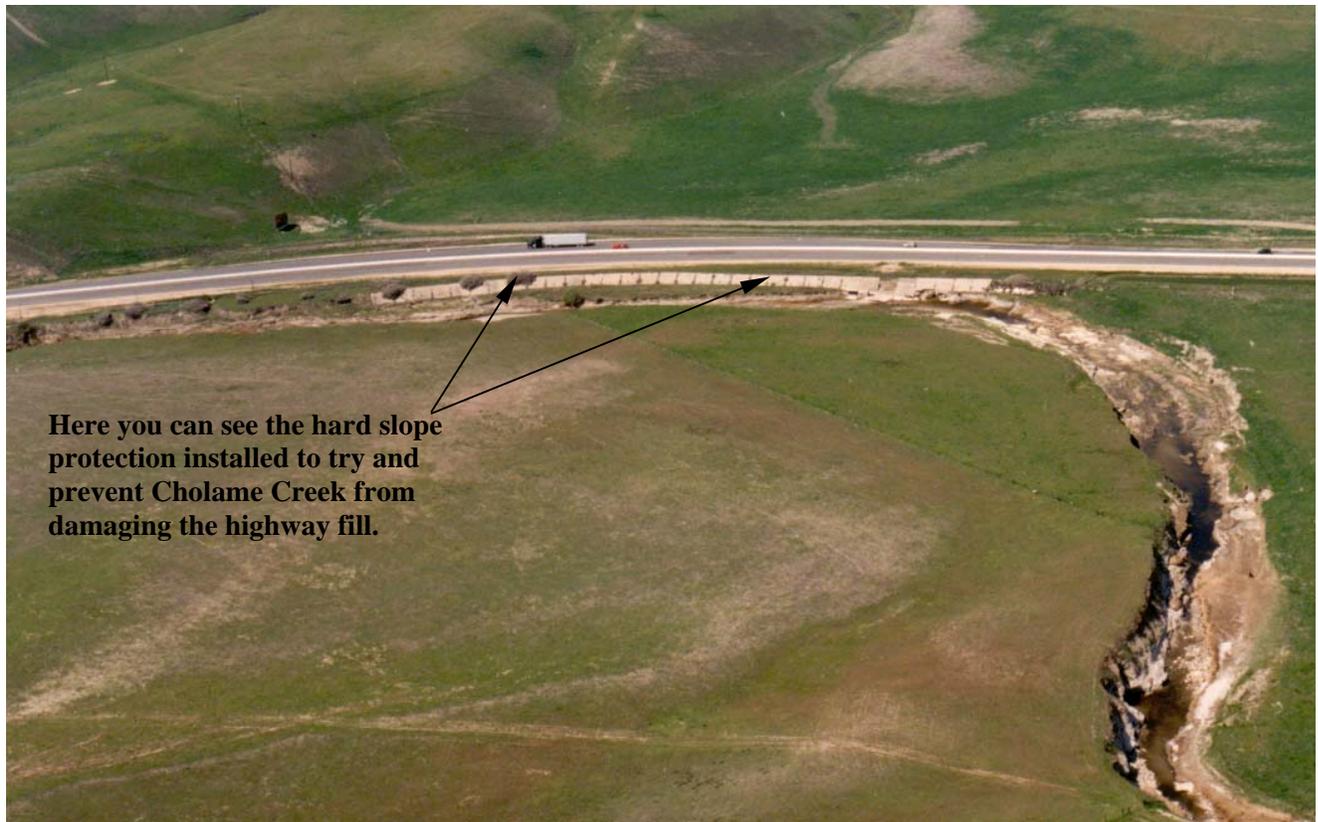


Figure 3.1.4-1. Cholame Creek in the vicinity of Route 46 in the Cholame Section

The Wye section of the project has one main surface body of water, Cholame Creek. The Wye section also has a large wetland¹⁹ area within it. Field analysis resulted in the identification of many areas of existing erosion and drainage problems. A lack of energy dissipaters at the outlet of culverts and water crossings has caused downstream erosion problems. In addition, many of the biofiltration swales and roadside ditches lack sufficient vegetation to operate effectively.

Regulatory Setting

Caltrans operates under a permit that regulates storm water that flows from Caltrans properties. The National Pollutant Discharge Elimination System (NPDES) permit requires Caltrans to implement best management practices (BMPs) to reduce pollutants in stormwater to the maximum extent practicable for industrial activities and to use BMPs that meet the best conventional technology/best available technology criteria for construction activities. The NPDES permit also states that Caltrans must not contribute to or cause harm to the beneficial uses or exceed water quality standards assigned to a surface body of water. The Regional Water Quality Control Board (RWQCB) has a Water Quality Control Plan (Basin Plan) that establishes beneficial uses for water bodies and identifies water quality objectives to protect water quality under the federal Clean Water Act.

¹⁹ The function and value of the wetlands in the Wye section and in the rest of the project are discussed in the Biological Resources Section, 3.2.1.

The RWQCB was consulted during the development of this project and during the preparation of the water quality technical report. Coordination would continue throughout the project including during BMP selection, construction of the project, and for long-term maintenance issues. At this time, the Central Coast RWQCB has not identified any special requirements for the proposed project.

Environmental Impacts

In General

This discussion of impacts to hydrology and floodplains applies to all of the alternatives. The discussion of impacts to water quality is separate for each alternative.

Hydrology and floodplain resource impacts are similar for all of the project alternatives, therefore, the analyses of hydrologic and floodplain impacts were conducted on a project basis and not separate for each alternative. Designated floodplains would be crossed with all of the build alternatives. Structures and roadway proposed in the floodplain areas would be designed to avoid impacts to the capacity of the floodplain²⁰. Hydrologic analysis would be conducted for culverts and bridge locations to identify the proper size that these water conveyance structures should be to avoid impacts to the floodplain and/or the highway facility.

Water quality impacts are also very similar for most of the project alternatives. Water quality impacts to the Estrella section, Shandon section, and Wye section alternatives are very similar, although the analysis conducted was separate for each alternative. Adverse impacts to water quality would result from the addition of impervious surfaces (two new lanes). Beneficial impacts to water quality would result from the opportunity to upgrade the storm drainage system to current standards and to incorporate BMPs that include both design pollution prevention BMPs and treatment BMPs to reduce potentially polluted storm water that flows from Caltrans property. Within the Cholame Section, water quality impacts were substantially different between Alternative 1 and Alternative 2. Cholame section, Alternative 1 would result in an overall benefit to water quality by realigning a section of the highway substantially farther from Cholame Creek. Cholame Section, Alternative 2 also realigns the highway farther from Cholame Creek but it only proposes to realign the westbound lanes. The eastbound lanes would remain on the current alignment along the creek.

Discussion

Hydrology and Floodplains

A Floodplain Evaluation/Location Hydraulic Study was conducted for the proposed project. The approved Floodplain Evaluation Report Summaries can be found in Volume II, Appendix D of this Environmental Assessment/Draft Environmental Impact Report.

As a part of the design process, the existing culvert capacities would be analyzed in order to be upgraded, extended, or replaced as necessary to follow the Caltrans cross-culvert criteria and federal

²⁰ When material is placed in an area prone to flooding, the size of the floodplain is reduced. During a flood event, water will go elsewhere, often into areas not prepared for a flood.

standards for the proposed roadway widening. By following these criteria, impacts or encroachments to these floodplains would be minimized to less than substantial levels.

The individual discharges at each ephemeral and intermittent creek crossing are not expected to have appreciable secondary or cumulative effects to aquatic ecosystems. Nearly all sediment input during precipitation events would still come from the intensively managed agriculture fields, vineyards that lack groundcover, and heavily grazed arid grasslands that surround the project. Conveying this runoff from one side of the road to the other is not expected to appreciably affect the aquatic ecosystems of ephemeral drainages and creeks. Conveyance of intermittent creeks would be under bridges, where flows are unimpeded and floodplains retained, so those aquatic ecosystems are expected to remain intact as well.

Throughout the project existing culverts will need to be extended. Each culvert location is site specific and no one design or treatment will work for all of the culverts in the project area. In general, Caltrans is aware that culverts concentrate and increase the velocity of the flow at their outlets. This condition will be improved at the existing culverts and at the new culvert locations by the use of flared end section treatments and rock slope protection (RSP) to dissipate and reduce the velocity of the flow. Surface roadway water, including that from bridges and bridge abutments, will be conveyed to basins or swales for treatment, according to the NPDES permit, and released without exceeding the existing flows to avoid changes to the up and down stream conditions. Culverts to be extended that have existing vertical drop-offs due to scour erosion at the inlet or outlets will be rehabilitated to correct the condition.

A few of the specific crossings in each section were discussed in detail with the US Environmental Protection Agency. Table 3.1.4-3 describes these crossings, the existing condition, and the agreed upon treatment with the new highway project. New culverts would be oversized and buried below grade with energy dissipation constructed at the outfall to prevent scouring and erosion.

All build alternatives within the proposed project would require the construction of new bridges and widening of existing bridges. Also, existing bridges may be removed and reconstructed in other locations due to horizontal alignment changes, capacity changes, or scour problems. The design of all new, widened, and re-constructed bridges would use the Caltrans bridge design guidelines and federal floodplain standards and would comply with state and federal criteria. Use of these design processes and established criteria would minimize impacts to designated floodplains.

The existing Cholame Creek Bridge (Bridge #49-36), near the State Routes 46/41 junction has been inundated in the past during extreme storm events. Because this route is considered essential for interstate and regional commerce, both of the Cholame section alternatives and all of the Wye section alternatives propose to raise the vertical profile to minimize the potential for future flooding.

Within the Cholame section, the length and height of the two new bridges proposed in Cholame Section, Alternative 1 and Cholame Section, Alternative 2 would be increased to mitigate for potential rises in water-surface in Cholame Creek associated with a raised highway in this area. In addition to increasing the length and height of the bridge, a series of box culverts placed under State Route 46 is proposed to mitigate against potentially unacceptable backwaters associated with the

raising of the highway. These box culverts would be installed under either of the proposed build alternatives.

Table 3.1.4-3. Specific Culvert Locations and Agreed Treatments

Section	JD* Label	Common Name	Proposed Action
Estrella	OW 4	None	Culvert Extension and new 12' x 12' box culvert for wildlife passage and overflow. Box culvert to be buried below stream grade, bat roosts to be added where temperatures are feasible for bat habitat.
Estrella	OW 12	None	Culvert to be extended and biostabilization methods to be used instead of rock slope protection to stabilize area. Where river meander is to be shortened, rock slope protection shall be minimized to the extent practicable and vegetation used for scour protection as much as possible. Oaks may be planted on the top of bank if feasible.
Estrella	OW 15	Pine Creek	If culvert is to be extended, the perched outfall shall be corrected. If culvert is to be replaced, new culvert will be installed below stream grade.
Shandon	OW 18	Shimmin Canyon	If culvert to be replaced, new culvert will be installed below grade. Revegetation plan shall look at a mix with goal to establish coyote brush and salt bush for wildlife habitat.
Shandon	OW 19	None	If culvert is to be extended, the perched outfall shall be corrected. If culvert is to be replaced, new culvert will be installed below stream grade. Crevices for bat roosts to be added where temperatures are feasible for bat habitat.
Shandon	OW 20	McMillan Canyon	Existing culvert to be replaced with a bridge structure.
Cholame	OW 26/27	White Canyon	If culvert to be replaced, new culvert will be installed below stream grade.

*Jurisdictional Delineation

A supplemental Floodplain Hydraulics Study²¹ was conducted for the Wye Section at the request of the Environmental Protection Agency. Three different treatments for floodwaters for Wye Section, Alternative 8b were analyzed. The three different treatments included the original proposal of a series of box culverts and two different bridge lengths. The overflow variation included a bridge 40 meters (131 feet) in length and the viaduct variation included a bridge 300 meters in (984 feet) in length.

The HEC-1 program, a commonly accepted method to model stormflow in the Watershed Modeling System program, was used to determine the flow for 6 different design storms: 100 year, 50 year, 25 year, 10 year, 5 year, and 2 year. The quantities of flows for each storm are shown in Table 3.4.1-4.

Table 3.4.1-4. Watershed Flows in the Cholame Valley from Two Watersheds

Watershed Flow	Storm Frequency					
	100 year	50 year	25 year	10 year	5 year	2 year
Total (m ³ /s)	387	301	239	159	113	58

The main feature controlling the floodwater elevations within the Wye area is the reduction of the width of the valley just downstream of the existing Cholame Creek Bridge. The valley narrows from

²¹ See Appendix H for the full report referenced in this section.

about 1600 meters (5240 feet) wide in the northern part of the valley to 200 meters (660 feet) wide in the southern part of the valley, southwest of the existing highway and bridge. The rapid narrowing of the valley, a natural topographic feature, constricts the flow backing it up into the Wye area, making the flow deeper there than it would normally be. Although the highway has a small effect on floodwater elevation, the narrowing of the valley is the controlling factor that sets the floodwater elevation in the Wye area, not the bridges as is common in other floodplains.

Table 3.1.4-5 shows the difference in water surface elevations for each of the alternatives in the Wye section for each of the six design storms modeled. The difference is calculated by subtracting the water elevation at the outlet side of the bridge from the inlet side of the bridge. Differences in elevation are compared rather than comparing the elevations themselves in order to remove the bias of the location of the alternatives in the valley. Comparing the differences in elevation removes influence of the location of the highway and shows the effect of the highway itself on the water surface elevation.

Table 3.1.4-5. Difference in Water Surface Elevation Up- and Downstream of the Highway

Alternative (8b variation)	Storm Frequency											
	100 year		50 year		25 year		10 year		5 year		2 year	
	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft
Existing Condition	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.07*	0.23	0.13	0.43	0.12	0.39
Alt. 4	0.13	0.43	0.11	0.36	0.12	0.39	0.13	0.43	0.14	0.46	0.14	0.46
Alts. 5, 7, 8, & 9	0.07	0.23	0.05	0.16	0.05	0.16	0.06	0.20	0.06	0.20	0.05	0.16
Alt. 8b (original)	0.05	0.16	0.03	0.10	0.04	0.13	0.03	0.10	0.03	0.10	0.04	0.13
Alt. 8b (overflow)	0.04	0.13	0.03	0.10	0.03	0.10	0.03	0.10	0.03	0.10	0.03	0.10
Alt. 8b (viaduct)	0.00	0.00	0.01	0.03	0.01	0.03	0.01	0.03	0.02	0.07	0.03	0.10

*Roadway is overtopped

For the existing conditions, the 100 year, 50 year, 25 year, and 10 year storms overtop the highway high enough that the highway has little effect on the floodwater elevation. The highway affects floodwater elevations more during the 2 and 5 year design storms, when water does not overtop the highway. Alternative 8b (original) and Alternative 8b (overflow) have about the same effect on floodwaters, which is about 3 centimeters or just over one inch. Alternative 8b (viaduct) has the least effect on the floodwater elevation, except during the more frequent 2 year and 5 year storms when the effect is closer to that of the overflow and original alternatives. This is because little water is flowing through the viaduct during these smaller storms.

For Alternatives 5, 7, 8, and 9 there is a slightly higher effect. Alternative 4 has the greatest effect because it has two bridges (the existing bridge remains) through which the flow must pass. In all, the bridges have very little effect on backwater created during storm events. The differences in elevations are insignificant due to the natural narrowing of the valley downstream from the proposed project area.

To show how small the effect of each alternative is, Table 3.1.4-6 shows the difference in water surface elevation between the narrow portion of the valley and the outlet side of the bridge area. There are no bridges or culverts between the areas modeled. The difference in water surface elevation is due solely to the topography of the creek.

Table 3.1.4-6. Difference in Water Surface Elevation due to Natural Topography

Alternative	Storm Frequency											
	100 year		50 year		25 year		10 year		5 year		2 year	
	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft
All Alternatives	0.66	2.17	0.64	2.10	0.71	2.33	0.77	2.53	0.81	2.66	0.93	3.05

The main difference between these two tables is that in Table 3.1.4-5 the water is backed up and slow and in Table 3.1.4-6 the water is somewhat faster and free flowing. If the narrowing of the valley did not already back up the water, the alternatives would have a greater effect on the water surface elevation in the Wye area.

This can be illustrated by mapping the extent of flooding in the Wye area for each alternative. When the water surface elevations for the different alternatives are plotted on a contour map, the lines are too close together to show a difference. Effectively, the extent of the flooding in the Wye area is the same for all alternatives. The extent of the flooding can be seen on the maps included in Volume II, Appendix D of the EA/FEIR.

Of the three design variations for Wye Section Alternative 8b, all have been shown to maintain and enhance flood control functions in the Cholame Valley floor. Thus, in terms of flooding and hydraulics, there is little difference between the variations. In terms of floodplain connectivity, however, Alternative 8b with the overflow or viaduct variation would provide a natural substrate and greater hydrologic connectivity. This is due to the proposed structures in the low point of the valley instead of the proposed culverts seen with the other alternatives, including the original Alternative 8b design. Given this, the overflow variation of Wye Section, Alternative 8b would have greater benefits to the natural connectivity of the floodplain than the remaining alternatives. This is one of the reasons why the overflow bridge has been included in the design of Wye Section, Alternative 8b.

Based on preliminary design, the following policies under the CFR, Title 23, Part 650 would be followed and upheld: incompatible use and development of floodplain would be avoided; longitudinal and significant impacts would be avoided; the project would preserve natural and beneficial floodplain values; and a base flood increase of more than 0.3 meters (1 foot) would also be avoided.

This project would not propose the placement of any housing. Therefore, no housing would be proposed within a 100-year flood hazard area.

The CEQA determination found that no significant impacts to hydrologic or floodplain resources would result from the construction of any of the alternatives.

Water Quality

Impacts from the proposed alternatives would primarily be related to an increase in the amount of impervious surface and an increase in sources of pollutants. Construction of the proposed project would not result in an increase in traffic. However, projected increases in traffic (see Section 1.3.2) would result in an increase in pollutants such as litter, heavy metal from brake and exhaust materials, and petroleum related pollutants. Additionally, any of the alternatives would result in an increase in the amount of pavement in the corridor. This would result in an increase in the amount of storm water runoff and an increase in potential for storm water pollution. Table 3.1.4-7 lists sources of typical storm water pollutants from highways and maintenance activities on highways and the associated pollutant that could be expected in storm water runoff.

Table 3.1.4-7. Typical Pollutants Found in Storm Water Runoff from Highways

Product/Source	Pollutants
Exhaust products	Oil and grease, volatile organic compounds (VOC's)
Brake pad dust	Heavy metals
Tire residues	Heavy metals
Leaks/spills of fuel, oil, antifreeze, solvents	Oil and grease, VOC's
Fertilizers and pesticides	Nutrients (nitrates, phosphates), VOC's
Litter, vegetation debris	Gross solids, sediment

Estrella Section, Alternative 8N would affect water quality. Adverse impacts to water quality would result from the creation of additional impervious surfaces²² leading to an increase in storm water runoff. New cuts, until stabilized with erosion control, would result in an increase in the potential for sediment discharges. Flow conveyance systems, resulting in point source discharges would increase the velocity of storm water runoff, which could affect downstream stability. The additional bridge over the Estrella River would create more storm water runoff, which could potentially carry pollutants that would drain to the Estrella River; however, stormwater on the bridge would be collected and conveyed along the bridge to a vegetated swale. This would prevent any direct discharge of stormwater from the bridge to the river. The elimination of the Estrella Road and State Route 46 at-grade intersection and the elimination of left-turns from Whitley Gardens Drive onto State Route 46 would potentially benefit water quality. Eliminating these turning movements from this alternative would reduce the potential for accidents near the Estrella River, which would reduce the potential for pollutants that could be spilled during an accident from entering the river. Beneficial impacts to water quality would also result from the opportunity to improve the overall storm drainage system and to fix areas with erosion problems. By improving the overall safety of the route, the potential for accidents would decrease and thus reduce the potential for pollutant spills as a result of an accident. In addition, the construction of new bridges with this alternative would provide an opportunity to repair existing scour problems associated with the existing bridge.

²² Impervious surfaces (pavement) often trap pollutants that drop from vehicles and increase the amount of storm water runoff because they do not allow rain to become absorbed into the soil. The trapped pollutants are then carried via the storm water runoff to surface bodies of water, adversely affecting water quality.

Estrella Section, Alternative 9N would affect water quality. Adverse impacts to water quality would result from the creation of additional impervious surfaces leading to an increase in storm water runoff. The additional bridge over the Estrella River would create more storm water runoff, which could potentially carry pollutants that would drain to the Estrella River; however, stormwater on the bridge would be collected and conveyed along the bridge to a vegetated swale. This would prevent any direct discharge of stormwater from the bridge to the river. Beneficial impacts to water quality would result from the opportunity to improve the overall storm drainage system and to fix areas with erosion problems. By improving the overall safety of the route, the potential for accidents would decrease and thus reduce the potential for pollutant spills as a result of an accident. The construction of new bridges with this alternative would provide an opportunity to repair existing scour problems associated with the existing bridge.

Shandon Section, Alternatives 1 and 2 would both affect water quality. Adverse impacts to water quality would result from the creation of additional impervious surfaces leading to an increase in storm water runoff. The additional bridge over Cholame Creek would create more storm water runoff, which could potentially carry pollutants that would drain to Cholame Creek; however, stormwater on the bridge would be collected and conveyed along the bridge to a vegetated swale. This would prevent any direct discharge of stormwater from the bridge to the creek. The addition of several new large-vehicle parking spots at the Shandon Safety Roadside Rest Area would also increase the amount of impervious surface leading to an increase in storm water runoff. Replacing the box culvert at McMillan Creek with a bridge structure would also increase storm water runoff from the new bridge decks that could result in an additional source of pollution. Beneficial impacts to water quality from Shandon Section, Alternative 1 or 2 would also result. Water quality benefits would result from the opportunity to improve the overall storm drainage system and to fix areas with erosion problems, including the existing Cholame Creek Bridge, which is classified as scour critical, and the box culvert at McMillan Creek, which has erosion problems associated with it. Relocating a portion of the leach field at the Shandon Safety Roadside Rest Area would result in an opportunity to remove existing pollution problems associated with this leach field by bringing the leach field up to current standards and to an improved state of condition. By improving the overall safety of the route, the potential for accidents would decrease and thus reduce the potential for pollutant spills as a result of an accident.

The greatest benefit to water quality in the Shandon section would come with Shandon Section, Alternative 1. The proposed shift in alignment away from the Estrella River between kilopost 74.0 and 75.3 (postmiles 46.0 and 46.8) would correct the existing parallel encroachment on the creek in this section. By shifting the roadway away from the top of the creek bank, sheet flow from the roadway, which could carry contaminants, would have a vegetated area to filter through prior to entering the creek system. Vegetation is known to be effective at filtering out roadway pollutants. Further benefits would be gained in the event of an unforeseen accident. By creating a distance between the traveled way and the creek, the potential for vehicles or trucks in an accident to veer off the road and into the creek is reduced. Moving the highway away from the river would also avoid potential bank stabilization projects in the future by allowing the creek to pursue its natural meandering tendencies. Lastly, benefits to water quality would be obtained by providing area for vegetation to become established, helping to stabilize the creek bank and possibly, in the event trees become established, providing additional shade and riparian habitat to the creek.

Cholame Section, Alternative 1 would affect water quality. Adverse impacts to water quality would result from the creation of additional impervious surfaces leading to an increase in storm water runoff. The additional bridge over Cholame Creek would create more storm water runoff, which could potentially carry pollutants that would drain to Cholame Creek; however, stormwater on the bridge would be collected and conveyed along the bridge to a vegetated swale. This would prevent any direct discharge of stormwater from the bridge to the creek. Beneficial impacts to water quality from this alternative would also result. Water quality benefits would result from the opportunity to improve the overall storm drainage system and to fix areas with erosion problems. From KP 80.1 to 84.0 (PM 49.8 to 52.2), the eastbound and westbound lanes would be realigned away from the creek and the existing lanes, which directly parallel the creek (see Figure 3.1.4-1), would be removed with the roadbed restored to a more natural, vegetated condition. This realigned section would benefit water quality in several ways:

- Direct discharge of storm water, which could carry pollutants, from the highway to the creek would be eliminated. Storm water from this section would be able to be treated with conventional BMPs.
- Potential pollutants that currently could drain directly into the creek from vehicle accidents would be eliminated.
- Future bank stabilization projects to protect the highway, which could adversely impact water quality during construction and on a permanent basis, would be eliminated.

Realigning this section with Cholame Section, Alternative 1 would also provide an opportunity to restore riparian vegetation to this section of Cholame Creek. This would benefit water quality by providing shade to keep stream temperatures cooler, a natural source of nutrients for the creek system, and vegetation to filter pollutants. Finally, with improvement of the overall safety of the route, the potential for accidents would decrease and thus reduce the potential for pollutant spills as a result of an accident.

Cholame Section, Alternative 2 would affect water quality. Adverse impacts to water quality would result from the creation of additional impervious surfaces leading to an increase in storm water runoff. The addition of an extra bridge over Cholame Creek would create more storm water runoff, which could potentially carry pollutants that would drain to Cholame Creek; however, stormwater on the bridge would be collected and conveyed along the bridge to a vegetated swale. This would prevent any direct discharge of stormwater from the bridge to the creek. From KP 80.1 to 84.0 (PM 49.8 to 52.2), the westbound lanes would be realigned away from the creek and the existing lanes, which directly parallel the creek (see Figure 3.1.4-1), would be rebuilt to become the eastbound lanes. No overall benefits to water quality would result from the realignment of only a portion of the proposed four lanes. Beneficial impacts to water quality would result from the opportunity to improve the overall storm drainage system and to fix areas with erosion problems. In addition, by improving the overall safety of the route, the potential for accidents would decrease and thus reduce the potential for pollutant spills as a result of an accident.

The Wye Section alternatives would all affect water quality in a similar manner. Adverse impacts to water quality would result from the creation of additional impervious surfaces leading to an increase in storm water runoff. The additional bridge over Cholame Creek, for all alternatives, would create more storm water runoff, which could potentially carry pollutants that would drain to Cholame Creek; however, stormwater on the bridge would be collected and conveyed along the bridge to a

vegetated swale. This would prevent any direct discharge of stormwater from the bridge to the creek. Beneficial impacts to water quality would result from the opportunity to improve the overall storm drainage system and to fix areas with erosion problems. In addition, correcting the floodplain deficiencies in this section by raising the overall grade of the highway would improve water quality by reducing the chances of flooding that could cause extensive erosion of creek banks and highway fill. Wye Section Alternatives 4 and 8b are more beneficial to stream morphology and hydraulics because the new bridges would be located over a straighter reach of the creek. This would result in less potential for future bank stabilization projects and the potential for less scour during winter high flow events. With Wye Section Alternative 8b the addition of a bridge in a low point of the floodplain would further benefit water quality by providing a natural substrate and greater area for floodwaters to flow through, reducing the need for culverts and the potential for scour associated with them.

Temporary Impacts to Water Quality

Construction activities could affect water quality temporarily due to the potential for pollutants to be discharged to surface bodies of water or the storm drainage system. Soil and associated building material (road base and soil amendments) could enter a stream channel and cause an increase in suspended sediments, sedimentation of aquatic habitat, and introduce compounds that could potentially be toxic to aquatic organisms. Construction materials such as fuel, oil, paints, and concrete could be harmful to fish and other aquatic organisms if released into the environment. The extent of impacts related to construction activities depends upon how easily the soil being worked with erodes, the type of construction activities that are occurring, the extent and duration of disturbed areas, the timing of storm events, the proximity to stream channels, and the use of preventative BMPs. Large cuts and fills could be a source of sediment discharges if they are not adequately stabilized with both sediment and erosion control.

Caltrans compliance with the NPDES permit and General Construction permit would ensure that the project would have a less than substantial impact on water quality. Caltrans, District 5 has a full time stormwater coordinator who regularly inspects Caltrans construction sites for compliance with the statewide NPDES permit. Maintenance of installed BMPs is required of the contractor. The Resident Engineer also takes an active role in monitoring compliance with the NPDES permit and acts as a daily monitor of installed BMPs. The Resident Engineer has the authority to shut the job down should the contractor refuse to maintain the BMPs required as part of the Stormwater Pollution Prevention Plan.

The CEQA determination found that no significant impacts to floodplains, hydrology, or water quality would occur, as a result of this project, from any of the alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Hydrology and Floodplains

Existing culvert capacities would be analyzed to be upgraded, extended, or replaced as necessary to follow the Caltrans cross-culvert criteria and federal standards for the proposed roadway widening.

The design of all new, widened, and re-constructed bridges would use the Caltrans bridge design guidelines and Federal floodplain standards and would comply with state and federal criteria.

To minimize the potential for rises in water-surface elevations in Cholame Creek associated with raising the highway profile grade in the Cholame section area, the length and height of the two new bridges proposed in Cholame Section, Alternatives 1 and 2 would be increased. In addition to increasing the length and height of the bridge, a series of box culverts placed under State Route 46 would be proposed to minimize the effects of potentially unacceptable backwaters associated with the raising of the highway profile grade. These box culverts would be installed under any of the proposed build alternatives.

Water Quality

Caltrans is required by the NPDES permit to control the discharge of pollutants from Caltrans facilities, activities, and properties to the maximum extent practicable. To comply with these criteria Caltrans would incorporate approved design pollution prevention and treatment BMPs into the project design. The current detail of project design, however, does not allow for location specific BMPs to be identified in the environmental document. The project design team would work with the District Stormwater Coordinator and the RWQCB to identify appropriate location specific to minimize impacts to water quality to the maximum extent practicable. Examples of treatment BMP's that would be evaluated and incorporated into the project include:

- Biofiltration strips and swales²³
- Infiltration basins
- Detention basins

A Storm Water Pollution Prevention Plan (SWPPP) would be prepared, approved, and implemented prior to the start of any ground disturbing activities. The Resident Engineer would approve the SWPPP before construction begins. The SWPPP would identify the BMPs that would be implemented to reduce or eliminate the potential for short-term impacts to water quality as a result of construction.

BMP measures for construction would include the use of the following:

- Sediment control barriers (silt fences, hay bales, drain inlet protection) would be used.
- Existing vegetation would be preserved as much as possible.
- All disturbed areas would be stabilized with vegetation or hard-surface treatment upon completion of construction in any specific area.
- All inactive disturbed soil areas would be temporarily stabilized with both sediment and temporary erosion control 10 days before the beginning of the rainy season (October 15th).
- No more than 8 hectares (20 acres) of ground would be disturbed at any one time during construction.
- No more than 2 hectares (5 acres) of ground would be disturbed at any one time during the rainy season (October 15th to April 15th), unless approved by the resident engineer.

²³ Definition of these types of permanent treatment BMPs can be found in the Water Quality Technical Report, available upon request.

- Erosion control methods such as hydroseeding, erosion control blankets, and emulsion would be used during the rainy season.

Caltrans would submit a Notice of Construction (NOC) to the RWQCB 30 days prior to the start of construction.

To minimize impacts to water quality, temporary erosion and sediment control BMPs would be implemented at all times from October 15th to April 15th.

A BMP implementation schedule would be included in the SWPPP.

3.1.5 Noise

Affected Environment

Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound. Human response to noise is subjective and can vary greatly from person to person. Factors that can influence individual response include intensity, frequency, and time pattern of the noise; the amount of background noise present before the intruding noise; and the nature of work or human activity that is exposed to the noise. The adverse effects of noise include interference with concentration, communication, and sleep. At the highest levels, noise can induce hearing damage. Figure 3.1.5-1 shows decibel readings for common indoor and outdoor activities for ease of understanding.

Caltrans uses the A-weighted decibel (dBA) scale to measure environmental noise. Environmental noise typically fluctuates over time, and different noise descriptors are used to account for this variability. The noise descriptor used by Caltrans for this project is the energy-equivalent noise level (Leq). The noise level experienced at a receptor (such as a home, school, or park) depends on the magnitude of the initial sound, the distance between the source and the receptor, the presence or absence of noise barriers and other shielding features, and the amount of noise attenuation (lessening) provided by the natural terrain.

Noise level readings were recorded in the project area from October to December 2000. The measured existing, background noise levels within the project area range from 55 dBA Leq(h)²⁴ to 73 dBA Leq(h). When adjusted for peak hour traffic, the noise levels at most receptors increased from 1 to 4 dBA Leq(h). The Leq(h) noise descriptor represents the steady state equivalent of the time varying sound energy over the period of measurement (one hour).

²⁴ The equivalent steady state sound level, during the peak traffic hour, which contains the same acoustical energy as the time varying sound for the same period, measured in decibels (dB) on the “A-weighted” scale. (The average sound level during peak hour traffic.)

COMMON LEVELS OF NOISE

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	<u>Rock Band</u>
<u>Jet Fly-over at 300m (1000 ft)</u>		
	100	
<u>Gas Lawn Mower at 1 m (3 ft)</u>		
	90	<u>Food Blender at 1 m (3 ft)</u>
<u>Diesel Truck at 15 m (50 ft), at 80 km (50 mph)</u>		<u>Garbage Disposal at 1 m (3 ft)</u>
<u>Noisy Urban Area, Daytime</u>	80	
<u>Gas Lawn Mower, 30 m (100 ft)</u>		<u>Vacuum Cleaner at 3 m (10 ft)</u>
<u>Commercial Area</u>	70	<u>Normal Speech at 1 m (3 ft)</u>
<u>Heavy Traffic at 90 m (300 ft)</u>		
	60	<u>Large Business Office</u>
<u>Quiet Urban Daytime</u>		<u>Dishwasher Next Room</u>
	50	
<u>Quiet Urban Nighttime</u>		<u>Theater, Large Conference Room (Background)</u>
<u>Quiet Suburban Nighttime</u>	40	
		<u>Library</u>
<u>Quiet Rural Nighttime</u>	30	<u>Bedroom at Night,</u>
		<u>Concert Hall (Background)</u>
	20	<u>Broadcast/Recording Studio</u>
	10	
<u>Lowest Threshold of Human Hearing</u>		<u>Lowest Threshold of Human Hearing</u>
	0	

Figure 3.1.5-1. Common activities and their associated noise levels in decibels

Readings were taken at 19 locations to evaluate noise levels at 26 locations considered “sensitive receptors” throughout the proposed project area. Sensitive receptors are residences, businesses, and/or recreational areas that are within several hundred feet of the existing and/or proposed route. Noise measurements are taken at these locations to determine the level of impact, if any, from the proposed project. Noise receptor maps can be found in Volume II, Appendix B. Residences situated near the existing State Route 46 experience the highest ambient noise levels.

Environmental Impacts

In General

This discussion of impacts from noise is separate for each alternative.

The noise impacts from the proposed project alternatives would be different for each of the Estrella section alternatives. The noise impacts are very similar, however, for the Shandon section, Cholame section, and Wye section alternatives. Increased noise levels to sensitive receptors would result from the construction of any of the build alternatives in the Estrella and Shandon sections. Estrella section, Alternative 8N would result in noise increases to six sensitive receptors. Estrella section, Alternative 9N would result in noise increases to seven sensitive receptors. Increased noise levels to one sensitive receptor would result from the construction of both of the Shandon section alternatives. Increased noise levels to one sensitive receptor in the Cholame section would result from both Cholame section alternatives. No permanent impacts would result from any of the Wye section alternatives. Construction noise impacts would be temporary and would result during construction of the alternatives in their relative sections. Best management practices would be used for all alternatives to minimize construction noise levels to the greatest extent possible.

Discussion

Noise abatement measures are generally most effective when installed nearer the source or the receptor. Barriers are generally not feasible to build when residences are widely scattered, driveways open onto the highway, or when residences are farther than about 91.4 meters (300 feet) from the edge of the roadway. In this case, earthen berms are more effective than barriers at reducing traffic noise levels and are often more aesthetically pleasing.

Noise levels were recorded from October to December 2000. Noise levels are shown in Tables 3.1.5-1, 3.1.5-2, and 3.1.5-3. Since the predicted noise levels for current peak hour traffic exceed 67 decibels at some residences, abatement of these impacts would be considered. In cases where individual or widely scattered residences are exposed to excessive traffic noise levels, an earthen berm would be recommended wherever possible to attenuate some of the traffic noise. Where several residences are located close to each other, as occurs at Whitley Gardens and near Branch Road, one or more soundwalls would be considered. At no location was a substantial noise increase, defined as an increase of 12 decibels or more, caused by any of the proposed alternatives for the project. Receptors 2, 13, 14, 14A, 16, 16A, and 22 would have a lower noise level after construction of the alternatives than what is current. The reason for this is that all or part of the traffic would be moved farther away from the receptor than it is currently. This would result from the construction of the wider medians and proposed realignments. Please see Volume II, Appendix B for maps showing the locations of the sensitive receptor readings.

Table 3.1.5-1. Ambient (Background) and Predicted Noise Levels – Estrella Section

Bold letters indicate levels that approach or exceed the Noise Abatement Criteria.

Receptor #	Existing Receptor Peak Hour (dBA Leq _h)	Build 2005 Alt 8N (dBA Leq _h)	Build 2025 Alt 8N (dBA Leq _h)	Build 2005 Alt 9N (dBA Leq _h)	Build 2025 Alt 9N (dBA Leq _h)
1	61	65	69	65	69
2	73	69	70	69	70
3 (j)*	67	67	68	67	68
3 (h)*	55	55	60	55	60
4a	56	56	60	56	60
4b	68	68	69	68	69
5	65	66	67	66	67
6	58	take ²⁵	take	take	take
7	63	56	57	55	56
8	65	take	take	take	take
9	not used				
10	68	take	take	68	69
11	59	58	59	58	59
12	63	61	62	62	63
13	71	66	67	68	69
14	60	57	58	59	60
14A	60	58	59	61	62
15	55	54	55	55	56
16	73	69	70	68	69
16A	56	53	54	53	54

* Contribution from Jardine Road (j), highway (h)

Table 3.1.5-2. Ambient (Background) and Predicted Noise Levels – Shandon Section

Bold letters indicate levels that approach or exceed the Noise Abatement Criteria. See Appendix B for receptor maps.

Receptor #	Existing Receptor Peak Hour (dBA Leq _h)	Build 2005 Alt 1 (dBA Leq _h)	Build 2025 Alt 1 (dBA Leq _h)	Build 2005 Alt 2 (dBA Leq _h)	Build 2025 Alt 2 (dBA Leq _h)
17	65	67	68	67	68
18	54	56	57	56	57
19	55	57	58	57	58
20	56	62	63	62	63
21	62	62	63	62	63

Table 3.1.5-3. Ambient (Background) and Predicted Noise Levels – Cholame Section

Bold letters indicate levels that approach or exceed the Noise Abatement Criteria. See Appendix B for receptor maps.

Receptor #	Existing Receptor Peak Hour (dBA Leq _h)	Build 2005 Alt 1 (dBA Leq _h)	Build 2025 Alt 1 (dBA Leq _h)	Build 2005 Alt 2 (dBA Leq _h)	Build 2025 Alt 2 (dBA Leq _h)
22	71	69	70	69	70

Table 3.1.5-4 describes information related to the receptor so that the information from Table 3.1.5-5 can be correlated to the location within the project area.

²⁵ “Take” means that under the associated alternative the sensitive receptor would be removed by the project.

Table 3.1.5-4. Receptor Location Information

Receptor #	Station	Section	Direction	APN	Address
1	51+40	Estrella	EB	026-211-036	-
2	68+00	Estrella	WB	015-031-027	-
3	86+00	Estrella	WB	015-082-001	-
4a	109+00	Estrella	WB	015-133-045	-
4b	109+00	Estrella	EB	015-191-064	-
5	115+20	Estrella	EB	015-191-061	825 Hwy 46 E
6	170+50	Estrella	EB	019-241-017	4690 Estrella Rd
6A	168+80	Estrella	EB	019-231-002	-
7	171+20	Estrella	EB	019-241-021	-
8	171+50	Estrella	EB	019-241-026	4940 Estrella Rd
9	175+00	Estrella	WB	019-251-024	-
10	175+40	Estrella	EB	019-241-014	-
11	176+00	Estrella	WB	019-251-024	-
12	177+80	Estrella	WB	019-251-017	-
13	179+20	Estrella	WB	019-251-018	-
14	180+70	Estrella	WB	019-261-002	-
14A	181+70	Estrella	WB	019-021-026	-
15	182+60	Estrella	WB	-	125 Almond Dr
16	186+00	Estrella	WB	019-261-012	10580 Hwy 46 E
16A	184+80	Estrella	WB	019-261-011	-
17	121+70	Shandon	EB	019-151-018	-
18	168+00	Shandon	WB	-	On McMillan Canyon Road
19	209+00	Shandon	WB	017-163-066	-
20	220+20	Shandon	WB	017-163-058	-
21	223+60	Shandon	WB	017-163-055	-
22	171+20	Cholame	WB	017-101-004	Jack Ranch Cafe

At Receptors 2 and 13, noise levels have been predicted to be greater than 67 decibels and it has been determined that a sound barrier at this location is either unreasonable or unfeasible. Volume II, Appendix C contains the Worksheets A and B that show the calculations and methodology used to determine whether noise abatement measures would be reasonable or feasible. Receptor 3 also has noise levels predicted to be greater than 67 decibels with no noise abatement proposed. The dominant noise source for this receptor has been determined to be from traffic on Jardine Road, a county road. Receptor 10 has been predicted to have noise levels greater than 67 decibels under Estrella Section, Alternative 9N, with no noise abatement proposed. A barrier at this location would not be feasible due to the access opening for Whitley Gardens Drive.

Table 3.1.5-5 shows the receptors along the proposed project that may be impacted by highway noise and the recommended measures to reduce noise impacts. When the impact would occur from more than one of the alternatives for that section, the alternatives that would result in an impact are shown in the “Alt” column.

Table 3.1.5-5. Potentially Impacted Receptors and Abatement Measures

Section	Alt	Receptor	Barrier size (feet)	Noise Reduction (dBA)	# of Residences	Noise abatement measure (metric station)
Estrella	8N 9N	1	302 x 8	3	1	Minimize amount of cut on eastbound side where possible. Barrier at this location would not be reasonable due to excessive costs.
Estrella	8N 9N	2	400 x 10	5	2	Barrier at this location would not be reasonable due to excessive costs.
Estrella	8N 9N	3	na	na	2	Barrier at this location would not be feasible because noise levels are attributed to Jardine Road.
Estrella	8N 9N	4b, 5	2493 x 6	6	8	Construct 6 feet tall earth berm between STA 109+40 and 117+00 on the eastbound side at the right of way line.
Estrella	8N 9N	10	na	na	1	Barrier at this location would not be feasible due to opening at Whitley Gardens Drive.
Estrella	8N 9N	13	787 x 10	5-6	2	Barrier at this location would not be reasonable due to excessive costs.
Estrella	8N 9N	16	280 x 10	5-6	2	Construct 10 feet tall sound wall between STA 185+60 and 187+65 on the westbound side at the right of way line. <i>Landowner subsequently requested no sound wall.</i>
Shandon	1 2	17	656 x 8	5	1	Reduce cut to the greatest extent possible between STA 119+00 and 121+40. Barrier at this location would not be reasonable due to excessive costs.

The project would be under construction for approximately 2 to 3 years per section. During this period, it is expected that local noise levels would increase when and where construction equipment is operating. Night work is not expected during the construction period, so no disturbance of local residents' normal sleep activities is expected. While paving operations proceed rather quickly, grading and application of road base materials can take longer. Pile driving activities can be very loud.

Temporary Impacts

A certain amount of sporadic disruptive noise due to construction is inevitable. Impacts from a pile driver striking a steel beam or reinforced concrete piles, or a jackhammer breaking up pavement, cannot be muffled. This type of work would be limited to daytime hours.

The number and location of structures that would require piles would not be known until test borings are taken to determine the exact composition of the underlying soils. If required pilings are proposed within 91.4 meters (300 feet) of residences, special considerations for these locations would be included in the construction contract to lessen the noise impact. These may include the use of temporary wooden noise barriers, which could be relocated as needed. Placement of permanent

barriers prior to the start of construction, when they would not interfere with construction activities, would be recommended to screen construction noise.

The CEQA determination found that no significant noise impacts would occur to sensitive receptors from any of the alternatives as a result of the proposed project.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

CEQA considers noise impacts to be a “significant effect” when a proposed project would substantially increase the background noise levels for adjoining areas. Noise abatement measures are applied to areas where noise can be intrusive: residences, parks, schools, hospitals, etc. (Category B activities). Caltrans noise policy, approved in October 1998, requires consideration of noise abatement measures when predicted noise levels from a Type 1 project²⁶ substantially exceeds existing noise levels, or when the project noise levels approach or exceed the noise abatement criteria shown in Table 3.1.5-6. A substantial increase is considered to be 12-dBA or more. When noise levels approach or exceed 67 dBA²⁷ Leq(h) on the A (weighted for the human ear’s response to sound) scale at receptors located within 91.4 meters (300 feet) of the highway, abatement of noise impacts would be considered when deemed reasonable and feasible and when desired by the affected residents.

Table 3.1.5-6. Categories of Noise and Their Activity Description

Activity Category	Leq (h)	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	NA	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

Soundwalls are the normal method of noise abatement used by Caltrans. Noise insulation can be considered only on a case by case basis when post construction noise levels equal or exceed 75 dBA. Noise abatement is recommended when it is found to be reasonable and feasible. Noise abatement is feasible when a sound barrier can reduce noise levels by 5 dBA or more. Reasonability is determined by considering current and future noise levels, existence of the residence prior to the construction of the highway, the number of residences that would benefit from the barrier, and the cost of the noise barrier relative to the cost per residence. Table 3.1.5-7 shows the reasonableness determination information and estimated costs. The figures in the “reasonable cost” column are the

²⁶ Type 1 project is a proposed federal or federal-aid project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or changes the number of through traffic lanes (Caltrans Highway Design Manual).

²⁷ Category B activities (Table 3.1.5-6).

values determined from Worksheets A and B²⁸. The final determination to construct a noise barrier is made by the project development team after soliciting input from the affected residents. If more than 50% of the immediately affected residents²⁹ are opposed to proposed sound barriers, the barrier would not be constructed.

Table 3.1.5-7. Reasonableness Determination for Noise Minimization Measures

Section, Alternative	Receptor #	Number of Residences	Barrier #	Reasonable Cost	Barrier Area in Square Meters (Sq. Ft.)	Estimated Cost
Estrella, Alternative 8N and 9N	1	1	7	\$48,000	224 (2,416)	\$79,700
Estrella, Alternative 8N and 9N	2	2	1	\$94,000	372 (4,000)	\$132,000
Estrella, Alternative 8N and 9N	4b, 5	8	2	\$384,000	1390 (14,960)	\$60,000
Estrella, Alternative 8N and 9N	13	2	4	\$48,000	731 (7,870)	\$259,700
Estrella, Alternative 8N and 9N	16	1	6	\$96,000	260 (2,800)	\$92,400 ³⁰
Shandon, Alternative 1 and 2	17	1	8	\$45,000	488 (5,248)	\$173,184

In Table 3.1.5-7, the estimated cost for Barriers 1 and 4 exceed the reasonable cost determined from Worksheets A and B. Because the estimated costs are greater than what is determined to be reasonable, Barriers 1 and 4 would not normally be considered. However, the receptors that would be protected by Barriers 1 and 4 would have an overall decrease in noise levels with the construction of either of the Estrella section alternatives. By dividing the traffic with an 18.6 meter (61.0 ft.) median, some of the vehicles, which generate the noise, would be moved farther from the receptors. This would cause a net decrease in noise levels for these receptors as noted in Table 3.1.5-1. If during final design these conditions substantially change, the abatement measures might not be provided. A final decision on the installation of abatement measures will be made upon completion of the project design and the public involvement process.

To reduce the level of impact to sensitive receptors, the following minimization measures are recommended.

For both Estrella section, Alternatives 8N and 9N:

- Receptor 1: Minimize amount of cut on eastbound side to the greatest extent possible.
- Receptors 4b and 5: Construct 6 foot tall earthen berm between engineering station³¹ (STA) 109+40 and 117+00 on the eastbound side at the right of way line (Estrella Section, map sheet E8 and E9, Appendix A.1 in Volume II).

²⁸ Worksheets A and B can be found in Volume II, Appendix C.

²⁹ “Immediately affected residents” is defined as the residents in the first row of homes adjacent to the highway.

³⁰ While barrier is reasonable, property owner did not want a barrier constructed.

- Receptor 16: Construct 10 foot tall soundwall between STA 185+60 and 187+65 on the westbound side at the right of way line (Estrella Section, map sheet E18, Appendix A.1 in Volume II). Between the draft environmental document and this final environmental document, Caltrans contacted the landowner at Receptor 16 to discuss the soundwall option. The landowner formally expressed opposition to this soundwall. Since this residence was the only one affected by the soundwall and Caltrans was formally requested to not construct it, no sound wall would be provided for Receptor 16. However, screen planting will be provided by the State to reduce the visual effect for this residence.

For Shandon section, Alternatives 1 and 2:

- Receptor 17: Reduce cut to the greatest extent possible between STA 119+00 and 121+40.

For all build alternatives within the project, the following minimization measures would be used to reduce construction noise impacts:

- The Resident Engineer would schedule the noisiest construction activities during times least likely to disturb local residents.
- The telephone number of the Resident Engineer would be provided to residents in the event that a complaint or concern arises during construction.
- Construction information would be posted in local news media before the start of each phase of construction.
- In areas where sensitive receptors are identified, temporary sound barriers consisting of sheet plywood on safety shape barrier may be used to reduce potential construction noise impacts.
- All equipment used in construction would have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational.
- All equipment operating on the project site would conform to the "Sound Control Requirements" of the Special Provisions that would be part of the contract and to Section 7-1.01I of Caltrans Standard Specifications.

3.1.6 Topography

Affected Environment

The topography of the project area is composed of flat agricultural plains, river bottom land, and rolling hills occasionally giving way to steeper terrain that is almost mountainous. The topography of the project begins within the Salinas River Valley and extends east through a topographic divide,

³¹ An engineering station is an arbitrary reference number used by engineers to design the project. This information can be found on the map sheet identified in the text and is located along the centerline of the proposed roadway.

referred to herein as the Estrella Grade, to the Estrella River Valley. From there the topography extends east towards the Cholame Creek Valley and through this region to the Cholame Valley where the current State Routes 46/41 junction is located and where the separated grade interchange is proposed.

Environmental Impacts

In General

This discussion of impacts to topography applies to all of the alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar the analyses of topography impacts were conducted on a project basis and not separate for each alternative. Changes to the topography in the project vicinity would result from the construction of any of the build alternatives. Construction techniques such as slope rounding would be used for all alternatives to minimize the effect of the new construction and newly exposed cut slopes.

Discussion

The topography would be changed by the construction of any of the build alternatives. Proposed cuts and fills³² would alter the topography throughout the project. In the Estrella and Shandon sections, the proposed widening occurs adjacent to the existing highway where the topography has already been altered by the construction of the original highway, which resulted in the existing condition. Additional impacts to the existing topography from the proposed alternatives would be lessened due to the existing disturbance. Most of the project would only expand the width of the route by moving an existing cut or fill. Changes to the existing topography are lessened because the major disturbance has already occurred. To compare moving an existing cut or fill to a situation where an unaltered hill is cut or an unaltered swale is filled, the degree of alteration of the topography is greater when disturbing new ground. In the Cholame and Wye sections, a portion of the proposed alternatives would be on new alignments. The portions with the new alignment would affect the topography more than when widening along the existing route.

All new cut and fill slopes shall incorporate slope-rounding and be finish graded with a rough appearance, where possible, to create the look of age. Slope-benches³³ would be minimized to the greatest extent possible in order to blend the new slopes in with the existing topography. The new cut and fill slopes would be contour graded and treated with erosion control to minimize erosion of the slope surface. Planting fast growing vegetation on freshly exposed bare soil surfaces is one method of erosion control. Other methods, such as the use of soil binders, which coat the exposed soil surface with a non-erodible material, may also be used.

The CEQA determination found that no significant impacts to topographical features in the project area would result from the construction of any of the proposed alternatives.

³² “Cuts” refer to areas of ground that were removed to build the highway. “Fills” refer to areas of ground where soil was added to build the highway.

³³ “Slope-benches” is defined as constructing a flat bench in the middle of a large cut to prevent erosion.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Slope rounding and contour grading would be used on all new cut and fill slopes.

Slope-benching would be minimized to the greatest extent possible.

3.1.7 Paleontology Resources

Affected Environment

Fossils recovered in place by qualified paleontologists can reveal important information about the history and changing environments of the area where people now live.

The proposed project is shown as having areas of high and low potential for encountering fossil resources. The formations encountered in the vicinity of the project and their corresponding sensitivities are shown in Table 3.1.7-1.

Table 3.1.7-1. Project Geologic Formations

Route	Kilopost (Postmile)	Sensitivity	Formation	Type of Rock
41	70.5/77.7 (43.8/48.3)	Low	QAL (Quaternary Alluvium)	Alluvial Deposits
46	51.8/53.4 (32.2/33.2) 64.2/66.5 (39.9/41.3) 67.9/90.0 (42.2/55.9)	Low	QAL (Quaternary Alluvium)	Alluvial Deposits
46	53.4/64.2 (33.2/39.9) 66.5/67.9 (41.3/42.2) 90.0/90.6 (55.9/56.3)	High	Paso Robles	Plio-Pleistocene non-marine sediments

According to the portion of the United States Geologic Survey Geologic Map of the San Luis Obispo Quadrangle, the sediments found within the limits of the project are largely Quaternary Alluvium. The project crosses through road-cuts of the Paso Robles Formation at several locations between Airport Road and Whitley Gardens. The Paso Robles Formation may contain Plio-Pleistocene non-marine sediments, which are soil materials that were deposited between 5 million and 10,000 years ago. These deposits may contain fossils of land based animals. Most of the project however is in fill or over Quaternary Alluvium and Quaternary Terrace Deposits.

Environmental Impacts

In General

This discussion of impacts to paleontology resources applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of paleontology resources impacts were conducted on a project basis and not separate for each alternative. Because certain portions of the project area could contain paleontology resources, site specific analysis to determine the potential for encountering fossils during construction would be conducted after the selection of the preferred alternative. Construction

monitoring may be required if this analysis determines that there is high potential for encountering fossils during construction.

Discussion

There appears to be a low probability of encountering paleontological resources through most of the project. In the Paso Robles Formation, because of the “high” probability rating (see Table 3.1.7-1), an evaluation would be performed by a professional paleontologist prior to the start of construction.

The CEQA determination found that no significant impacts would be expected to paleontology resources from the construction of any of the alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Proposed project areas within the Paso Robles Formation would be evaluated by a professional paleontologist upon the selection of a preferred alternative. The determination may be made that construction monitoring by a professional paleontologist would be required at certain locations during construction. Furthermore, if any plant or vertebrate fossil remains are found during construction operations, earth-moving operations would be halted immediately in the vicinity of the discovery and the District Archaeologist or District Paleontology Coordinator contacted immediately to review the discovery. Construction operations would not resume in the discovery area until a qualified archaeologist or paleontologist could evaluate the finds and recommend a course of action to preserve any important fossil remains. Mitigation of any discoveries would include removal, preparation, and curation of any important remains.

3.1.8 Mineral Resources

Affected Environment

The affected environment includes the length of the entire project and its footprint throughout.

Environmental Impacts

In General

This discussion of impacts to mineral resources applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of mineral resources impacts were conducted on a project basis and not separate for each alternative. Because no mining is proposed as a part of this project, no impacts would occur under any of the build alternatives.

Discussion

The alternatives would not propose any mining onsite or offsite the project area. In addition, no locally important mineral resource recovery sites have been delineated within the project footprint in the local general plan or any other land use plans.

The CEQA determination found that no significant impacts to a known mineral resource or a locally important mineral resource recovery site would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

No avoidance and minimization measures, BMP's or mitigation is proposed for mineral resource impacts.

3.2 Biological Environment

3.2.1 Biological Resources

On December 12, 2005 the United States Fish and Wildlife Service issued a Biological Opinion that the State Route 46 Corridor Improvement Project is not likely to jeopardize the continued existence of the federally endangered San Joaquin kit fox, the federally threatened California tiger salamander, and the California red-legged frog in accordance with section 7 of the Endangered Species Act of 1973, as amended.

Affected Environment

Regulatory Setting

All publicly funded projects must be evaluated to determine if any endangered or threatened species may be affected. The Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) are the federal and state laws that enforce protection of threatened and endangered species. The United States Fish and Wildlife Service (USFWS) is the agency primarily responsible for regulation of the FESA and the California Department of Fish and Game regulates the CESA. A species list was requested by Caltrans and was received from the USFWS on August 8, 2002. This list can be found in Volume II, Appendix J of the EA/DEIR.

Section 404 of the Clean Water Act covers protection of wetland resources. The United States Army Corps of Engineers regulates this section of the Clean Water Act and issues permits if wetland resources are affected by a proposed project. The California Department of Fish and Game (CDFG) also regulates wetland resources and riparian habitats. A Section 1600 Streambed Alteration Agreement must be obtained from this agency if work in wetlands or a riparian area is proposed.

For approximately three years, representatives of the USFWS and CDFG have been involved in the development of this project. Coordination with the USFWS has occurred formally under the National Environmental Policy Act 404 Memorandum of Understanding (NEPA 404 MOU) process

resulting in USFWS concurrence with the project at various stages. Joint field reviews of the project area with USFWS, CDFG, and Caltrans representatives have been valuable in the development of the project and particularly with the characterization of the biological resources and communities in and surrounding the project area. The coordination effort with these agencies will continue through the formal consultation process required by the FESA and CESA.

Vegetation

Vegetation within the study area exhibits human and domestic animal influences, including residential/commercial development and farming/ranching operations. These influences have resulted in the introduction of exotic (non-native) plant species that compete aggressively with the native species. The vegetation communities within the project can be divided into six different categories: California annual grasslands, riparian woodland, valley sink scrub, agricultural (cropland) areas, vineyards, and oak woodland/savanna. In addition, ruderal habitat exists along the existing route throughout the project area. Ruderal habitat is best described as a mix of native and introduced, weedy plant species resulting from road construction and recurring disturbance from maintenance and other activities.

In the Estrella section of the project, vineyards slightly predominate over oak woodlands and grassland communities. Tree species such as blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*) dominate the oak woodland, while western sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*), and willows (*Salix* spp.) are found in the riparian woodland along the Estrella River. The dominant ground cover in this section consists of vineyards, agricultural areas, and disturbed grasslands consisting mainly of non-native annual grasses and forbs (broad-leaved flowering plants).

The Shandon section of the project is composed fairly equally of vineyards, agricultural areas, and California annual grasslands. Historically grazed and used for row crops, vineyards are quickly becoming the dominant vegetation type within this section. The grasslands consist mainly of non-native annual grasses and forbs. Riparian woodland is also found in small patches along Cholame Creek.

The Cholame section of the project is predominantly characterized by disturbed grasslands. At the western end of this section, some dryland farming still occurs, although grazing is the historical as well as existing dominant land use. The disturbed grasslands in this section consist mainly of non-native annual grasses and forbs.

The Wye section of the project also contains grassland, yet a unique natural community known as valley sink scrub occurs within the project area. Valley sink scrub, in the Wye area, is characterized by low, open succulent shrublands dominated by alkali tolerant plant species such as frankenia (*Frankenia salina*), spear oracle (*Atriplex patula*), wedge scale (*Atriplex truncata*), alkali weed (*Cressa truxillensis*) and saltgrass (*Distichlis spicata*). Valley sink scrub soils are typically dark, sticky clay soils that often have a brilliant white salty crust over them. Grazing has altered much of this community in the Cholame Valley, where non-native annual grasses now dominate much of the Cholame Valley floor.

The California Natural Diversity Database (CNDDDB), the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDF&G), and publications by the California Native Plant Society (CNPS) were consulted to determine what threatened, endangered, or special concern plant species might be present within the project area. Table 3.2.1-1 describes the sensitive plant species that were listed as having potential to be found within the project area.

Plant surveys, conducted during each species’ blooming season, found three special status plants within the project area: crownscale, straight-awned spineflower, and gypsum-loving larkspur. Table 3.2.1-1 also describes the status of the plant species found in the project area.

Table 3.2.1-1. Potentially Occurring Sensitive Plant Species in the Project Area

Common Name	Taxon	Status	Bloom Season
Oval-leaved snapdragon	<i>Antirrhinum ovatum</i>	CNPS 4	May – November
Crownscale*	<i>Atriplex coronata</i> var. <i>coronata</i>	CNPS 4	April – October
Dwarf calycadenia	<i>Calycadenia villosa</i>	CNPS 1B	May – October
California jewel-flower	<i>Caulanthus californicus</i>	FE, SE, CNPS 1B	February – May
Straight-awned spineflower*	<i>Chorizanthe rectispina</i>	CNPS 1B	June – July
Hall’s tarplant	<i>Deinandra halliana</i> (formerly <i>Hemizonia halliana</i>)	CNPS 1B	April – May
Gypsum-loving larkspur*	<i>Delphinium gypsophilum</i> ssp. <i>gypsophilum</i>	CNPS 4	April – May
Recurved larkspur	<i>Delphinium recurvatum</i>	CNPS 1B	March – May
Kellogg’s horkelia	<i>Horkelia cuneata</i> ssp. <i>sericea</i>	CNPS 1B	April – September
Pale-yellow layia	<i>Layia heterotricha</i>	CNPS 1B	March – June
Munz’s tidy-tips	<i>Layia munzii</i>	CNPS 1B	March – April
Panoche pepper-grass	<i>Lepidium jaredii</i> ssp. <i>album</i>	CNPS 1B	February – June
Jared’s pepper-grass	<i>Lepidium jaredii</i> ssp. <i>jaredii</i>	CNPS 1B	March – May
Showy madia	<i>Madia radiata</i>	CNPS 1B	March – May
Shining navarretia	<i>Navarretia nigelliformis</i> ssp. <i>raidans</i>	CNPS 1B	May – June
Rayless ragwort	<i>Senecio aphanactis</i>	CNPS 2	January – April
Mason’s neststraw	<i>Stylocline masonii</i>	CNPS 1B	March – April

FE Federally listed as Endangered
 SE State listed as Endangered.
 CNPS 1B, 2, 4: California Native Plant Society lists.
 * Observed during project studies in the project area.

Crownscale was found in only one location within the project area, although it occurs throughout the Cholame Valley. This plant was found in abundance in the Wye section of the project and scattered along Cholame Creek in the Cholame section. The largest patch of crownscale was found south of the existing State Route 41 and north of the existing State Route 46 in the middle of the Wye.

The straight-awned spineflower was found in several locations near the intersection of Bitterwater Road and State Route 46. Although the plant was found outside of the project impact area, it was close to the proposed cut and fill lines.

Gypsum-loving larkspur was found in 12 large patches (stands³⁴) and as two isolated plants in open oak woodland and grassland on steep northeast facing slopes. The westernmost patch was found on a north-facing slope above the Estrella River in the Estrella section of the project. Another patch was found on a north slope above Cholame Creek, just north of Shandon in the Shandon section. Two patches were found on a north facing slope near Davis Road and the remaining eight were found in a cluster in the Wye section.

Wildlife

The CNDDDB, USFWS, and CDF&G were consulted to determine which threatened, endangered, or species of concern might be present within the project area. Table 3.2.1-2 identifies the species that were identified by one or more of the sources listed above as having potential to be found within the project area.

Biological surveys for the species in Table 3.2.1-2 found several sensitive wildlife species within the project area: pronghorn antelope, pallid bat, Yuma myotis (a bat), big brown bat, Townsend's big-eared bat, western pipestrelle, Mexican free-tailed bat, California horned lizard, San Joaquin coachwhip, southwestern pond turtle, western burrowing owl, and vernal pool fairy shrimp. In addition to those species observed during project studies in the project area, suitable habitat for the following species was found within the project area and it has been determined that these species are or could be present: Tulare grasshopper mouse, San Joaquin kit fox, San Joaquin pocket mouse, California tiger salamander, California red-legged frog, western spadefoot toad, California horned lark, and grasshopper sparrow. Table 3.2.1-2 also describes the status of the animal species found in the project area.

The existing highway is a wildlife migration barrier for wildlife. The barrier effect increases with the increased size and use of a road; likewise, the number of successful wildlife crossing events decreases with the size and use of a road (Brandenburg 1996, Forman and Alexander 1998). The existing route, being mostly in a rural setting, is frequently crossed by many species of wildlife. This is most evident, unfortunately, by the varied and frequent wildlife species found dead along the highway. The existing project area acts as a barrier for migration for many small animal species such as San Joaquin kit fox, American badger, coyote, California horned lizard, and other amphibian, mammal, and reptile species. The Wye section of the project bisects important movement corridors for larger wildlife species as well as smaller animals. The pronghorn antelope and blacktail deer use this north/south trending valley area to move north and south. The area surrounding the Wye section of the project also serves as an important potential movement corridor for an expanding herd of Tule elk. As this herd of Tule elk increases in numbers, it will require a larger home range to survive. Individuals have been observed crossing the highway in this location and would likely continue to cross the highway to move south toward larger, undeveloped lands.

The entire project area is listed on the California Natural Diversity Database as within the range for the San Joaquin kit fox. Radio-collared foxes from Camp Roberts have been tracked as they moved through the project area toward the Carrizo Plain and the project vicinity. For the San Joaquin kit

³⁴ A "stand" is a grouping of plants defined by some arbitrary border. This may be a change in vegetation type, a physical feature such as a creek, ridge line, or rock outcropping, or based on a coordinate location. For these stands of gypsum-loving larkspur, a change in vegetation (where the larkspur was no longer found) defined the stand boundaries.

fox, the existing route acts as a barrier between the species core population and satellite populations (defined as a partially isolated population that is within a group of other populations of the same species). The project area bisects the link between the Carrizo Plain core population and the southern Salinas Valley satellite population. The project area also crosses the link between the Antelope Valley/Blackwell's Corner satellite population and the southern Salinas Valley satellite population (satellite populations are sub-populations that depend upon immigration of species from the core population for survival). The project area is identified in the USFWS Upland Species Recovery Plan as an important link between these populations of endangered San Joaquin kit fox. This link, and the kit fox, is also being affected by habitat loss as traditional cattle rangelands are converted to vineyards and subdivisions.

Table 3.2.1-2. Potentially Occurring Sensitive Animal Species in the Project Area

	Common Name	Scientific Name	Status
Mammals	giant kangaroo rat	<i>Dipodomys ingens</i>	SE, FE
	Tulare grasshopper mouse	<i>Onychomys torridus tularensis</i>	FSC, CSC
	pronghorn antelope*	<i>Antilocapra americana</i>	Protected game species
	San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE, ST
	San Joaquin pocket mouse	<i>Perognathus inornatus inornatus</i>	FSC, BLMS
	pallid bat*	<i>Antrozous pallidus</i>	CSC, FSS, BLMS, WBWG, CDFG protected
	big brown bat*	<i>Eptesicus fuscus</i>	CDFG protected
	Yuma myotis*	<i>Myotis yumanensis</i>	FSC, BLMS, CDFG protected
	Townsend's big-eared bat*	<i>Corynorhinus townsendii</i>	CSC, FSC, FSS, BLMS, WBWG, CDFG protected
	Western pipistrelle*	<i>Pipistrellus hesperus</i>	CDFG protected
Mexican free-tailed bat*	<i>Tadarida brasiliensis</i>	CDFG protected	
Amphibians	California red-legged frog	<i>Rana aurora draytonii</i>	FT, CSC
	California tiger salamander	<i>Ambystoma californiense</i>	FT, CSC
	Western spadefoot toad	<i>Scaphiopus hammondi hammondi</i>	FSC, CSC
Reptiles	California horned lizard*	<i>Phrynosoma coronatum fontale</i>	FSC, CSC
	blunt-nosed leopard lizard	<i>Gambelia silus</i>	FE
	San Joaquin coachwhip*	<i>Masticophis flagellum ruddockii</i>	FSC, CSC
	Southwestern pond turtle*	<i>Clemmys marmorata pallida</i>	FSC, CSC
Birds	mountain plover (wintering)	<i>Charadrius montanus</i>	CSC
	burrowing owl (burrowing sites)*	<i>Athene cunicularia</i>	FSC, CSC
	California horned lark	<i>Eremophila alpestris actia</i>	CSC
	grasshopper sparrow	<i>Ammodramus savannarum</i>	MNBMC
	prairie falcon (nesting)	<i>Falco mexicanus</i>	CSC
Invertebrates	Conservancy fairy shrimp	<i>Branchinecta conservitio</i>	FE
	longhorn fairy shrimp	<i>Branchinecta longientenna</i>	FE
	San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	FE
	vernal pool fairy shrimp*	<i>Branchinecta lynchi</i>	FT
	vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	FE

BLMS – Bureau of Land Management Sensitive species

CDFG protected – protected under CA Fish and Game code as a non-game species

CSC – California Special Concern species

FE – Federally listed as Endangered

FSC – Federal Special Concern species (former Category 2 candidate)

FSS – Forest Service Sensitive species

FT – Federally listed as Threatened

MNBMC – U.S. Fish and Wildlife Service Migratory Non-game Birds of Management Concern

SE – State listed as Endangered

ST – State listed as Threatened

WBWG – Western Bat Working Group

* Observed during project studies in the project area.

Surveys for California red-legged frogs did not find any frogs within the biological study area for the proposed project, although presence is assumed based on known occurrences at the eastern end of the Wye section. It was found that some components of high quality habitat do exist adjacent to and within the project area, although no dispersal corridors³⁵ exist due to the existing traffic levels. The dates of the USFWS protocol surveys for California red-legged frogs and the personnel who conducted those surveys can be found below.

³⁵ Dispersal corridors are areas that animals use to move between patches of habitat. A heavily traveled highway, for instance, can prevent young frogs from crossing, limiting the direction they can go to seek out new habitat.

<u>Date</u>	<u>Personnel</u>
10/11/01 (night)	Dave Hacker, Larry Bonner
10/18/01 (night)	Dave Hacker, Ryan Todaro
10/22/01 (day)	Dave Hacker, Brandy Russ
10/23/01 (night)	Dave Hacker, Mitch Dallas
10/24/01 (night)	Dave Hacker, Mitch Dallas
10/26/01 (day)	Dave Hacker, Mitch Dallas
5/15/02 (night)	Dave Hacker, Dr. Norman J. Scott Jr.
8/22/02 (night)	Dave Hacker, Tom Edell

Surveys for bats identified six different species using the existing structures along and adjacent to State Route 46. The Estrella River Bridge (Bridge #49-33), the two Cholame Creek bridges near Shandon and the Tosco Plant (Bridges 49-36 and 49-29 respectively), and abandoned house were found to be habitat for the six bat species listed in Table 3.2.1-2. The abandoned house has since been destroyed by the private property owner.

General Biological Environment Discussion

The project crosses portions of the state that contain populations of many rare, threatened, and endangered species that occur only in California and are important features of California's natural heritage. These species have been affected by large-scale agricultural conversion and urban development and persist in the project area because cattle ranching and limited grain crops are the primary land uses (when considering the project as a whole). Large, private landholdings still provide habitat for these species despite rapidly changing land uses, including conversion of grazing land to vineyards. These lands provide vital links between large, undeveloped public and private lands south and north of the project area.

Several specific areas that the project crosses were identified as important wildlife habitat for many species. Riparian woodland at the Estrella River crossing near Whitley Gardens is an important migratory bird nesting and stopover area. An important bat roost and a large population of southwestern pond turtles were found in the Cholame section. Several kilometers of permanent pools in Cholame Creek are important foraging area for these bats. Grasslands, valley sink scrub, and the tall grasses and forbs in the south end of the Cholame Valley (all in the Cholame Section of the project) provide important habitat for pronghorn antelope, tule elk and many of the species listed in Table 3.2.1-2.

Of approximately 14,164 hectares (35,000 acres) of land within one mile of the project limits, there are roughly 2,064 hectares (5,100 acres) of vineyards, 2,145 hectares (5,300 acres) of other croplands, and 688 hectares (1,700 acres) of residential or commercial use. The remaining 9,267 hectares (22,900 acres) are mostly used for rangeland and roads. Figure 3.2.1-1 illustrates the land uses surrounding the project used for the biological analysis. The segments described on this figure were developed and used for analysis of impacts to many species in the project area and were specifically developed to analyze potential impacts to San Joaquin kit fox. As can be seen in the figure, Segment 2 is the most developed and fragmented portion of the surrounding project area. This segment contains the lowest habitat quality in the surrounding project area. Segments 1 and 3 are similar in their fragmentation and intensity of development. Segment 4 is clearly the least

developed portion of the surrounding project area. This area contains a greater diversity of native wildlife species and higher quality of habitat for those different species.

Land-use intensity and disturbance adjacent to the right-of-way are greatest in the west and least to the east. Most of the right-of-way in the Estrella section is mowed regularly and is dominated by non-native annual species. From Airport Road to Whitley Gardens, the dominant land uses are vineyard, residential, and golf course. Wildlife habitat is highly fragmented by roads, vineyards, wildlife exclusion fencing around vineyards, and other incompatible features that have dominated the landscape since the early 1990s. The dominant land uses between Whitley Gardens and Shandon are cattle grazing, vineyards, and annual crops such as alfalfa and barley. This area is quickly converting to vineyards, and several large tracts of grazing land were converted during 1999 and 2000. From Shandon to the Tosco Oil Pumping Plant, the dominant land use is a mosaic of grazing land and annual crops. Land use in the remainder of the project area, from the Tosco plant through the Wye Section, is primarily grazing. The lack of intensive land use has resulted in the lowest degree of habitat fragmentation for wildlife, making this part of the project area the most diverse and valuable for wildlife and plants alike.

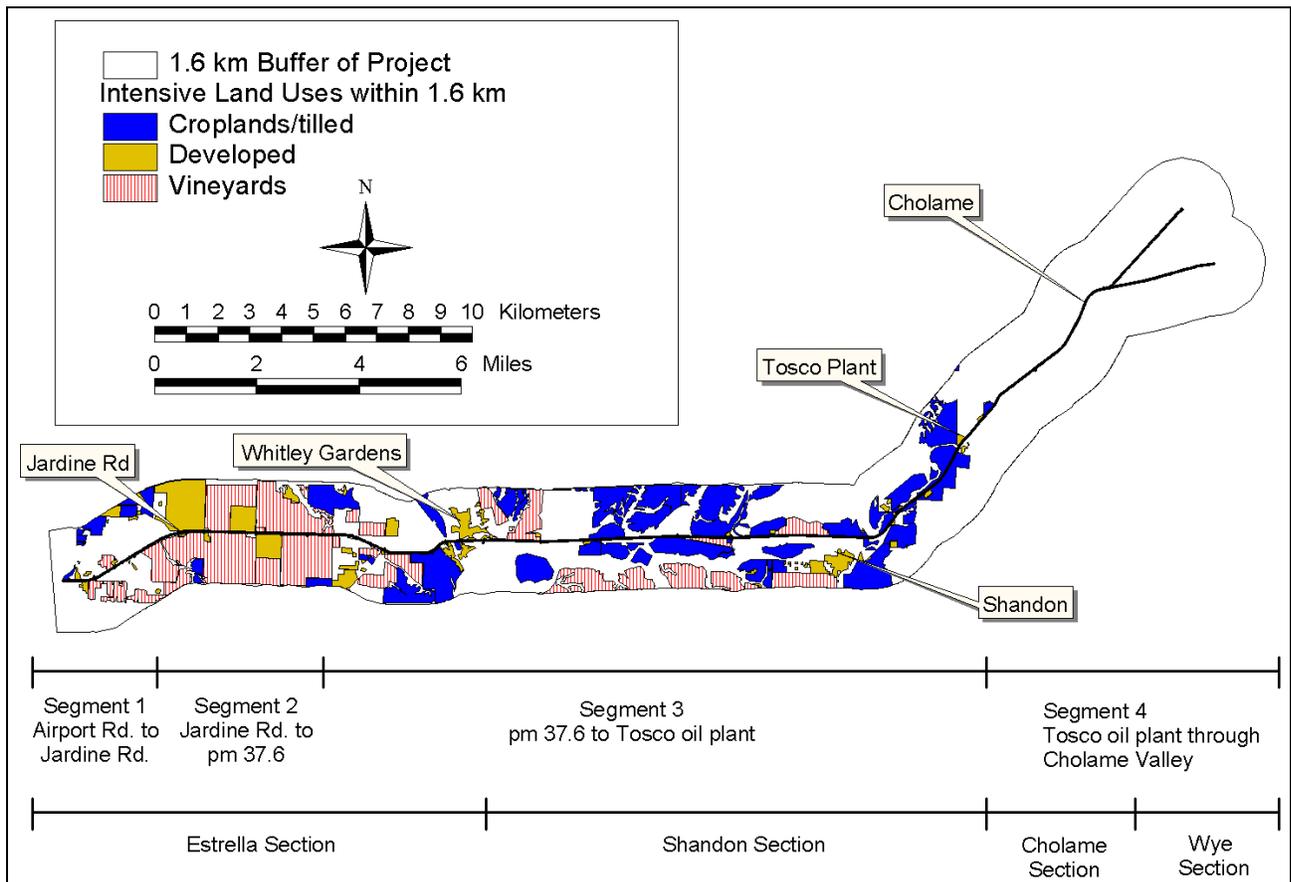


Figure 3.2.1-1. Existing land use within one-mile of the project area

Wetlands & Vernal Pools

The U.S. Army Corps of Engineers San Francisco District verified a Jurisdictional Wetland Delineation for the proposed project on February 22, 2002 and on September 22, 2004. This delineation identified several areas with wetlands varying in value and function. Wetlands' "value" is described in terms of quality and relative role of importance in the ecosystem in the general area. Wetlands' "function" refers to how altered or degraded the wetland area is as compared to a "pristine" wetland in a similar area. Most of the wetland areas within the project limits are associated with natural, seasonal creeks and streams. Some of the wetland areas are located adjacent to the existing route and are associated with the existing highway drainage. The largest wetland area is in the Wye section of the project. Figure 3.2.1-2 shows an aerial view of the wetlands in the Wye area. This wetland area exists north of the existing State Route 46, within the "wye" (between existing Routes 46 and 41), and south of the existing State Route 46.

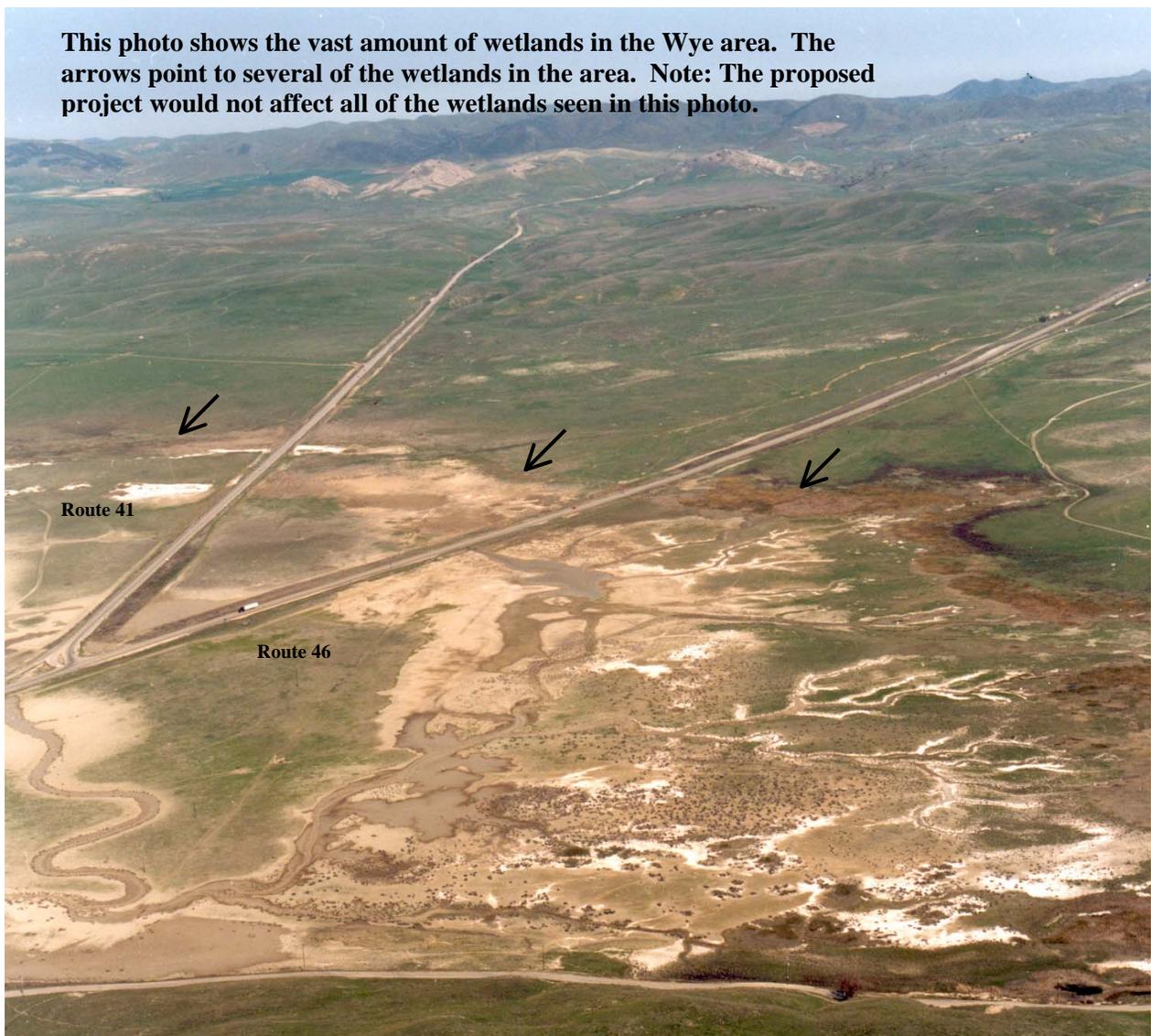


Figure 3.2.1-2. Wetlands in the Wye area

The wetlands found within the project area were largely seasonal. They have standing water during the winter and early spring, and they dry out in summer. Except in the Wye section, wetlands found were seasonal, palustrine, emergent wetlands associated with grassy swales and degraded intermittent channels. The seasonal wetlands are largely dominated by Mediterranean barley, perennial ryegrass and rabbit's foot grass. Most of the seasonal wetlands in the Estrella section contained wetland grasses such as Mediterranean barley.

The wetlands in the Wye section of the project contain the greatest function and value within the entire project. These alkaline wetlands of the Cholame valley are a mixture of palustrine and lacustrine emergent wetlands and scrub-shrub wetlands. The wetlands south of the existing State Route 46 have greater habitat value than the wetlands in between the existing Routes 46 and 41 and north of the existing State Route 41. The wetlands that exist north of the existing State Route 41 and in between the existing Routes 46 and 41 in the Wye section are highly degraded. They are continually disturbed by grazing and contain a large component of annual grasses. In addition, the existing Routes 46 and 41 have contributed to the lack of function and value in these areas, interrupting the natural hydrology by bisecting historically connected wetland areas. The wetlands south of the existing State Route 46 have a higher function and value associated with them. Open surface water is present there during most years and persists for a longer period of time than in the wetland areas north of the existing State Route 46. These wetlands contain a greater diversity of native plants. The wetland areas south of the existing State Route 46 contain a high percentage of permanent wetland vegetation, native grasses, and forbs, which are favorable for wildlife. These wetland areas are important for migratory birds and are a fawning ground for the local herd of pronghorn antelope.

In addition to wetlands, the Jurisdictional Wetland Delineation identified several areas of Other Waters of the United States (Other Waters). Other Waters are most simply defined as the area between the ordinary high water mark from the edge of the near bank to the ordinary high water mark on the opposite bank of a non-tidal creek, river, or stream³⁶. An example of Other Waters would be the Estrella River.

Three potentially affected vernal pools exist within the project limits. A vernal pool is a small temporary pool that forms in a depression on the ground. Vernal pools are flooded during the rainy season and may fill and empty several times during one rainy season. Vernal pools often contain specialized plants and animals that have adapted to this pattern of wet and dry conditions. Water collects in these pools because it cannot move deeper into the ground due to a hardpan that is found in the soil. A hardpan is a layer of clay or mineral that water cannot pass through easily.

The first vernal pool occurs in the Estrella section of the project south of State Route 46, east of Mill Road (see Figure 3.2.1-3). This vernal pool covers approximately 0.75 acres and contains a federally protected species of fairy shrimp: Vernal pool fairy shrimp (*Branchinecta lynchi*). Spike rush (*Eleocharis macrostachya*), water pygmy weed (*Crassula aquatica*), and coyote thistle (*Eryngium* sp.) were the dominant plants in the pool. The pool has been regularly disturbed in the

³⁶ Simple definition derived from U.S. Army Corps of Engineers Final Summary Report: Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest, page 7. In addition to the definition described above, tidal waters are also Waters of the United States.

past, evidenced by disking up to the pool boundary, and therefore contains a number of non-native, weedy plant species in addition to the ones described above.



Figure 3.2.1-3. Vernal pool located south of Route 46 and north of Mill Road

Two other vernal pools are located in the Estrella section of the project north of State Route 46, directly across the highway from the eastern end of the Hunter Ranch Golf Course. The vernal pool closest to State Route 46 covers approximately 0.04 hectares (0.09 acres) while the other vernal pool covers approximately 0.01 hectares (0.03 acres). Vernal pool fairy shrimp (*Branchinecta lynchi*), federally listed as threatened, were found in low numbers in the larger pool. Native popcorn flower (*Plagiobothrys* sp.), Mediterranean barley, and other non-native, weedy species dominate this shallow, heavily disturbed pool. Cattle grazing continually disturbs these pools.

Table 3.2.1-3 shows the total amount of wetlands, vernal pools, and other Waters of the US that were found within the study limits.

Table 3.2.1-3. All Waters of the United States Found in the Study Limits

Project Section	Wetlands		Vernal Pools # of pools	Other Waters of the US	
	acres	hectares		acres	hectares
Estrella	0.48	0.19	4	2.03	0.82
Shandon	0.00	0.00	0	9.08	3.67
Cholame	0.06	0.02	0	7.79	3.15
Wye	66.01	27.71	0	6.25	2.53

Environmental Impacts

In General

This discussion of impacts to biological resources is separate for each proposed alternative.

Impacts to special status plants, plant communities, wildlife species, wetlands and other other waters would result from the construction of any of the proposed build alternatives. Impacts to biological resources in the Estrella section differ only slightly between alternatives, although the analysis was separate for each alternative. Impacts to biological resources in the Shandon section are similar for each alternative and differ mainly at the Cholame Creek crossing near Shandon where a population of a rare plant would be more affected under Shandon Section, Alternative 2 than Shandon Section, Alternative 1. Shandon Section, Alternative 2 would also result in greater impacts to San Joaquin kit fox habitat than Alternative 1. The Cholame section alternatives have the greatest differences in impacts. Cholame Section, Alternative 2 would generally affect a greater amount of habitat for many of the discussed species than Cholame Section, Alternative 1. In addition, Cholame Section, Alternative 1 would provide an opportunity to restore a substantial amount of upland habitat along a portion of Cholame Creek. This strip of upland habitat is currently degraded due to the proximity of the existing highway to Cholame Creek and would be beneficial to many of the species in the project area. The Wye section alternatives have similar impacts to many of the species discussed in this section and differ greatly only in their impacts to wetlands, gypsum-loving larkspur, and San Joaquin kit fox habitat. In general, Wye Section, Alternative 4 would have greater impacts to San Joaquin kit fox and wetlands, while Wye Section, Alternative 8b would result in greater impacts to gypsum-loving larkspur.

Note: The Avoidance, Minimization, and Mitigation Measures discussion, for the Biological Resources section, is contained within each species impacts discussion.

Discussion

Vegetation

The project would affect three natural communities of special concern and two sensitive plant species. The Natural Environment Study prepared for this project concluded with determinations of the severity of impact for each species listed in Table 3.2.1-1. Some species were observed directly during studies for this project. Some species were not observed during studies for this project, but it was determined that suitable habitat conditions were present and that the species were potentially present. Both of these factors were considered when making a determination of affect for the alternatives proposed. For this discussion, only the species that were confirmed or assumed to be present will be discussed in detail. A summary table (Table 3.2.1-6) is included at the end of this section that identifies each species, the determination of impacts from the proposed project, and a brief rationale for the determination.

Blue Oak Woodland – California Senate Resolution 17 declares that state agencies must “undertake, in the performance of their duties and responsibilities, to preserve and protect native oak woodlands to the maximum extent feasible and consistent with the performance of their duties and

responsibilities, or provide for replacement plantings where blue, Engelmann, valley or coast live oak are removed from woodlands...”

Blue oak woodland was found in patches throughout the project area. In addition, solitary oaks and small groups of oaks were scattered throughout the project area. Estrella Section Alternatives 8N and 9N would permanently remove 1.43 hectares (3.53 acres) of blue oak woodland, containing 147 blue oaks of all age classes excluding saplings. Most of the blue oaks that would be impacted are mature. Estrella Section Alternatives 8N and 9N would also affect an additional 89 blue oaks that are either isolated or found in small groups. A total of 236 blue oaks would be removed as a result of the construction either of Estrella Section Alternative 8N or 9N.

With the proposed mitigation incorporated for impacts in the Estrella section, the CEQA determination found that no significant impacts to blue oaks or blue oak woodland would result from the construction of any of the alternatives in the Estrella, Shandon, Cholame, or Wye sections.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Estrella Section Alternatives 8N and 9N were both altered to include a narrower median 14.1 meters, (46.3 feet) to minimize impacts to blue oak woodland. Narrowing the median from the recommended 18.6 meters (61.0 feet) decreased the impacts to blue oak woodland in the Estrella section.

Impacts to blue oaks and blue oak woodland would be mitigated by restoring degraded blue oak woodland and conserving existing blue oak woodland in eastern San Luis Obispo County. Degraded blue oak woodland would be restored so that at least 147 mature trees would be established at a density similar to that of the affected stands. In addition, sufficient blue oaks would be planted to ensure the establishment of an additional 89 blue oaks to mitigate the loss of the individual trees in the project area.

The District Landscape Architect would determine the number of plantings required to establish at least 147 mature trees at a density similar to the affected stands and the 89 additional blue oaks.

Environmentally Sensitive Areas (ESAs) would also be established to minimize oak woodland and oak tree impacts. The final project plans would delineate ESAs around the driplines of all oak trees that the project would not remove within the proposed right of way and temporary construction easements. No vehicle access within these ESAs would be permitted. The dripline is the outline of a tree’s canopy. During construction, the Resident Engineer and environmental monitor would determine and agree upon the exact placement of ESA markers, based on the project plans, and would determine and agree upon the appropriate method for marking the ESAs.

Fremont Cottonwood Woodland – Fremont cottonwood woodland was found at the Estrella River in strips on either side of the river channel. Estrella Section, Alternatives 8N and 9N would impact Fremont cottonwood woodland through the relinquishment of right of way and bridge construction. Both Estrella section alternatives would also degrade the quality of migratory bird habitat inherent in Fremont cottonwood woodland by the construction of the new bridges over the Estrella River, which may affect the number of migratory birds using the Fremont cottonwood woodland.

Estrella Section, Alternative 9N would remove the existing bridge and place two new bridges over the cottonwood woodland. Three of four bridge piers for the new bridges would be placed directly within the cottonwood woodland. In total, 0.3 hectares (0.7 acres) would be temporarily impacted by construction access. The bridges would permanently displace 0.3 hectares (0.8 acres) and would permanently degrade 0.1 hectares (0.2 acres) of Fremont cottonwood woodland by subjecting it to shade, noise, and periodic maintenance activities. Removing the existing bridge under this alternative would allow for some restoration of cottonwood woodland and the new bridges, which are substantially taller than the existing, would allow greater growth and habitat connectivity under the bridge than what exists currently.

Estrella Section, Alternative 8N would also place two new bridges over the Fremont cottonwood woodland, however the existing bridge would be left in place. 0.3 hectares (0.7 acres) would be temporarily impacted by construction access. The alternative would permanently displace 0.003 hectares (0.008 acres) and would permanently degrade 0.3 hectares (0.7 acres) of woodland subjecting it to continuous shade, noise, and periodic maintenance activities. The proposed connector road on the east side of the Estrella River would further degrade the cottonwood woodland by increasing noise levels and directing headlights into the woodland at areas that are currently unlit. This would result in an indirect effect, particularly for nesting migratory birds and nocturnal animals. This alternative would retain the existing bridge, resulting in three bridges across the river, and would degrade a larger area than Estrella Section, Alternative 9N.

With the proposed mitigation incorporated for impacts in the Estrella section, the CEQA determination found that no significant impacts to Fremont cottonwood woodland would result from the construction of any of the alternatives in the Estrella, Shandon, Cholame, or Wye sections.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Fremont cottonwood woodland in the construction area and temporary construction access routes would be trimmed down to the ground, leaving the root structures in place so that the vegetation could re-sprout. These trimmed areas would be covered by a layer of clean river substrate (sand or cobble) to prevent damage to the underlying soil and root structure. This substrate would be removed upon completion of construction activities.

Construction access would be limited to the minimum area required for bridge construction, and areas beyond that would be designated as Environmentally Sensitive Areas and off limits during construction. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Mitigation to replace Fremont cottonwood woodland would be required by the California Department of Fish and Game and the U.S. Army Corps of Engineers. Direct, permanent impacts (based on acreage) would be mitigated at a 3:1 ratio, with temporary impacts mitigated at a 1:1 ratio. Indirect permanent impacts would be mitigated at a ratio of 1:1. The goal of this mitigation effort would be to mitigate these impacts in the Estrella River watershed.

A potential mitigation site is located just upstream of both Estrella section alternatives. The site is a natural floodplain that has been degraded by disking and is at a confluence with a smaller drainage. Roughly 1.5 hectares (3.8 acres) would be suitable for cottonwood woodland planting. This site is contiguous with Fremont cottonwood woodland that would be unaffected by the proposed project. If this site were unavailable, then a suitable site would be purchased and cottonwood woodland would be enhanced or established and protected in perpetuity.

To minimize impacts from noise and light to Fremont cottonwood woodland, a screening technique would be used. Examples of appropriate screening techniques include earthen berms, walls, and vegetation screens. The project development team would determine the appropriate method of screening during the final phases of project design.

Valley Sink Scrub – Valley sink scrub is found within the Wye section of the project and is considered a rare, special community by the California Department of Fish and Game. Each of the Wye section alternatives would impact valley sink scrub and would also provide for opportunities to restore valley sink scrub onsite by removing abandoned roadbeds. Table 3.2.1-4 shows the area of permanent impact to valley sink scrub. Table 3.2.1-5 in the Avoidance, Minimization, and Mitigation Measures section describes the amount of valley sink scrub habitat that would be restored for each Wye section alternative by removing abandoned road sections.

Table 3.2.1-4. Valley Sink Scrub Impacts

Wye Section Alternative #	Permanent Impact hectares (acres)
4	2.0 (4.9)
5	2.0 (4.9)
7	0.8 (2.0)
8	6.5 (16.1)
8b	1.1 (2.7)
9	5.9 (14.6)

With the incorporation of the proposed mitigation for impacts in the Wye section, the CEQA determination found that no significant impacts to valley sink scrub would result from the construction of any of the alternatives in the Estrella, Shandon, Cholame, or Wye sections.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Within the Wye section, construction access would be limited to the minimum area required for construction, and areas beyond that would be designated as an ESA and off-limits. 4.6 meters (15.0 feet) of access beyond the cut and fill limits would be permitted through most of the Wye section, with more, if needed, at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Wye Section, Alternatives 7 and 8b have opportunities to remove existing roadbeds that would be abandoned. Caltrans would remove these sections of old roadbed and would restore the natural hydrology to promote the expansion of the valley sink scrub community. Table 3.2.1-4 shows the amount of restoration of valley sink scrub for each alternative.

Table 3.2.1-5. Onsite Potential Valley Sink Scrub Mitigation

Wye Section Alternative #	Potential Mitigation hectares (acres)
7	1.2 (2.9)
8b	1.2 (2.9)

In addition to direct mitigation efforts, Caltrans would designate the highway right of way in the Cholame Valley floor as a Vegetation Management Area (VMA). Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of valley sink scrub that would be incorporated in the new right of way. This would likely improve the quality and expand the range of valley sink scrub by protecting it from grazing.

Gypsum-loving Larkspur (CNPS 4) – Impacts to gypsum-loving larkspur would result from the construction of Shandon Section, Alternative 2, Wye Section, Alternative 8, and Wye Section, Alternative 8b. Shandon Section, Alternative 2 would impact a patch of gypsum-loving larkspur located on a north slope, just east of the Cholame Creek bridge. Approximately 0.19 hectares, or 7%, of a 2.7 hectare patch (0.46 acres of a 6.6 acre patch) would be impacted. Shandon Section, Alternative 1 was designed, in part, to avoid impacts to this stand of gypsum-loving larkspur and would not impact gypsum-loving larkspur.

Wye Section, Alternative 8 would impact 0.14 hectares (0.34 acre) of a 0.62 hectare (1.54 acre) patch, resulting in a loss of approximately 2.7% of the total area occupied by the species within the Wye section. Wye Section, Alternative 8b would impact 0.43 hectares (1.07 acres) of gypsum-loving larkspur from portions of three different patches within the Wye section. This would result in a loss of approximately 8.3% of the total area occupied by the species within the Wye section between existing Routes 41 and 46. Neither of these alternatives would remove entire patches or likely reduce a patch to below a self-sustaining level.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to gypsum-loving larkspur would result from construction of Estrella Section, Alternative 8N or 9N, Shandon Section, Alternative 1, or Wye Section, Alternatives 4, 5, 7, or 9.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Preserving and enhancing habitat for the San Joaquin kit fox may preserve habitat for the gypsum-loving larkspur. The larkspur appears common to north slopes in the vicinity, preserving any habitat with north slopes in the Estrella watershed is likely to preserve patches of gypsum-loving larkspur.

Caltrans would designate the highway right of way encompassing patches of gypsum-loving larkspur as a Vegetation Management Area. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of gypsum-loving larkspur that would be incorporated in the new right of way. This may improve the habitat quality and expand the range of gypsum-loving larkspur by protecting it from grazing and agricultural conversion.

Caltrans would also collect seed from the plants within the preferred alternatives’ footprint for two years prior to construction. These seeds and the affected plants would be planted on the new north-facing fill slopes. The species has colonized highway fill slopes along State Route 46 on Antelope Grade. Transplanting the affected plants and planting seeds may establish new patches of gypsum-loving larkspur on the north facing fill slopes.

Crownscale (CNPS 4) – Impacts to crownscale would result from constructing any of the Wye section alternatives. Each alternative would partially remove patches of crownscale and adversely affect the species. Wye Section, Alternative 4 would not only remove partial stands but would also further fragment suitable habitat for this plant. Wye Section, Alternatives 5, 7, 8, 8b, and 9 would remove abandoned roadbeds resulting in greater potential habitat connectivity and would leave approximately the same amount of potentially suitable habitat that now exists. The areas where abandoned road segments would be removed have crownscale stands on either side. It is assumed that after the abandoned road segments are removed that crownscale would colonize those areas, reconnecting patches. Wye Section, Alternatives 8, 8b, and 9 were designed, in part, to minimize impacts to crownscale. Table 3.2.1-6 quantifies the area of crownscale that would be permanently removed and temporarily impacted during construction.

Because no suitable habitat exists, no impacts to crownscale would result from the construction of any of the Estrella, Shandon, or Cholame sections.

Table 3.2.1-6. Impacts to Crownscale

Wye Section Alternative #	Permanent Impact hectares (acres)	Temporary Impact hectares (acres)
4	0.37 (0.91)	0.05 (0.13)
5	0.19 (0.48)	0.05 (0.13)
7	0.57 (1.40)	0.04 (0.09)
8	0.15 (0.37)	0.03 (0.08)
8b	0.44 (1.08)	0.05 (0.12)
9	0.07 (0.17)	0.03 (0.07)

With the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to crownscale would result from the construction of any of the Wye section alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Within the entire Wye section, construction access would be limited to the minimum area required for construction, and areas beyond that would be designated as an ESA and off-limits. 4.6 meters (15.0 feet) of access beyond the cut and fill limits would be permitted through most of the Wye section, with more, if needed, at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

To minimize impacts to crownscale, portions of the existing roadbeds would be removed and restored to match adjacent elevations. Crownscale would colonize the road removal areas naturally

because they are on the same floodplain as the mapped population and are between unaffected patches of crownscale.

In addition to the mitigation efforts described above, Caltrans would designate the highway right of way in the Cholame Valley floor as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of crownscale that would be incorporated in the new right of way. This may improve the habitat quality and expand the range of crownscale by protecting it from grazing.

Sensitive Plants and Plant Communities Summary – The CEQA analysis found that no significant impacts would occur to sensitive plants or plant communities from any of the proposed project alternatives. Table 3.2.1-7 describes each plant species of concern surveyed for this project, and gives a description of its habitat, the results of the survey, the determination of effect, and the rationale for that determination.

Table 3.2.1-7. Summary of Plant Species of Concern: Survey Results and Project Impacts

Common Name	Survey Results	Determination	Rationale
Oval-leaved snapdragon	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Crownscale	Identified within the BSA along Cholame Creek and floor of Cholame Valley.	may affect	within project footprint
Dwarf calycadenia	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
California jewel-flower	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Straight-awned spineflower	Identified within BSA between highway and Cholame Creek near Bitterwater Rd.	no effect	outside project footprint
Hall's tarplant	Habitat present, not observed during 1999 or 2000 surveys.	no effect	outside project footprint
Gypsum-loving larkspur	Identified within the BSA	may affect	within project footprint
Recurved larkspur	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Kellogg's horkelia	No habitat present in project area.	no effect	not present
Pale-yellow layia	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Munz's tidy-tips	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Panoche pepper-grass	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Jared's pepper-grass	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Showy madia	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Shining navarretia	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present
Rayless ragwort	No habitat present in project area.	no effect	not present
Mason's neststraw	Habitat present, not observed during 1999 or 2000 surveys.	no effect	not present

Wildlife

The proposed project would affect species of concern. The Natural Environment Study prepared for this project determined the severity of impact for each species listed in Table 3.2.1-2. Suitable habitat was found for some species that were not observed during studies, but have been historically documented in the area. These species were considered to be potentially present and affected by the project. Other species were observed directly during studies for this project. Both situations were

considered when making a determination of affect for the alternatives proposed in this project. For this discussion, only species that were confirmed or assumed to be present will be discussed in detail. A summary table (Table 3.2.1-18) is included at the end of this section that identifies each species, the determination of impacts from the proposed project, and a brief rationale for the determination.

California Tiger Salamander (FT) – Known populations occur within a few miles north and south of the project area, these populations would not be affected. However, several permanent ponds and temporary pools that offer potential breeding habitat were found nearer to State Route 46. Ponds and pools are concentrated at the east and west ends of the project area. The ponds at the east end are located 5.5 to 10.5 kilometers (3.4 to 6.5 miles) from the nearest known populations and the west-end locations are much farther from any known populations. Figure 3.2.1-4 shows the locations of the pools relative to the project area. No salamanders were observed during surveys within the project area, although no surveys were specifically conducted for California tiger salamander.

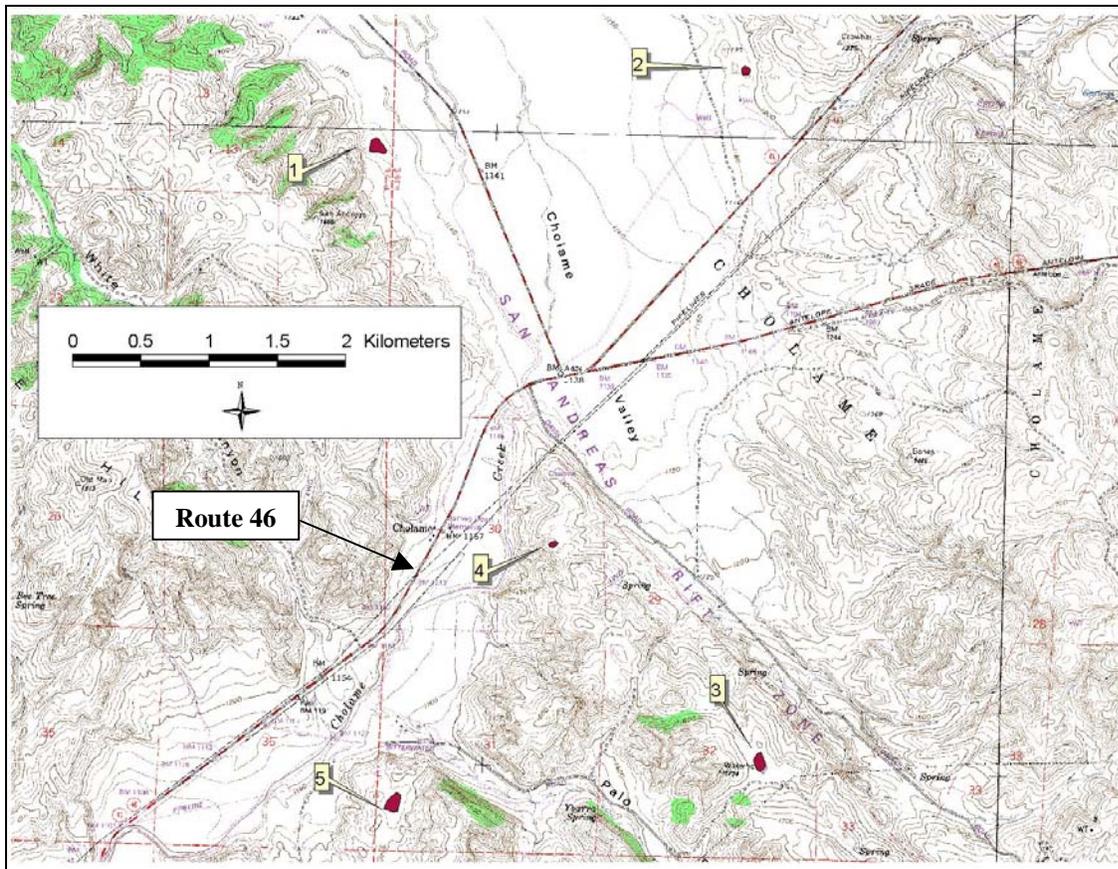


Figure 3.2.1-4. Locations of California tiger salamander pools in relation to State Route 46.

The project would not affect tiger salamanders in the Estrella Section because the pools there do not provide suitable habitat. The Shandon section would not affect California tiger salamanders because no potential breeding sites occur near the Shandon section. The Cholame and Wye alternatives may affect, and are likely to adversely affect, a small portion of potential populations by slightly reducing available uplands and underground refugia and by direct mortality during construction. If salamanders are present in the pools near the Cholame and Wye sections, then the Cholame and Wye

alternatives would probably affect only far-dispersing individuals according to current dispersal distance estimates. The effects would be similar for all Wye and Cholame alternatives. Adverse effects to inter-pond dispersals are not expected because the existing highway's traffic is already a substantial, if not complete barrier. The nearest known populations between which dispersal events could cross the highway are 15 km (9 miles) apart, not accounting for slope, which would make that distance much greater. The proposed bridges in the Wye section would improve inter-pond dispersal potential.

Table 3.2.1-8 summarizes the distances to each potential breeding pool from the limits of each alternative's earthwork. Distances were measured only where earthwork would affect habitat in which California tiger salamanders might utilize underground refugia, e.g. if earthwork would be isolated from pool by existing highway, then it was not considered to have potential to affect salamanders.

Table 3.2.1-8. Percent of Potential California Tiger Salamander Population Residing in Uplands as Far from Pools as where Construction Activities Would Occur

Cholame Area Pool #	Distance of Construction Activities from Potentially Inhabited Pools ¹	Percent of Potential Population Residing at that Distance from Pool ²
1	1.7 km (1.1 miles)	0.23 %
3	2.8 km (1.7 miles)	0.01 %
4	0.75 km (0.5 miles)	3.23 %
5	1.3 km (0.8 miles)	0.69 %

1. Distances are map distances that do not account for slope; the actual distances on the ground are greater due to slope.

2. Based on equation from Trenham et al. (2001) where dispersal probability= $(0.264)e^{-0.0026 \cdot \text{distance}}$

The proposed project is beyond the 670 meters (2,198 feet) that Trenham et al. estimated for normal upland movement patterns. Trenham's equation for predicting dispersal probability based on distance (dispersal probability= $(0.264)e^{-0.0026 \cdot \text{distance}}$), was applied to the distances in Table 3.2.1-8. The results in the third column show that very small percentages of the population are expected to utilize the uplands as far from pools as where construction would occur. An even smaller percentage of the population would occur within the construction area, because construction would affect only small portions of the uplands at the given distances. Most of the construction would occur at much greater distances from the pools, where dispersal probabilities approach zero. The small potential effect would not affect any of the potential populations' viability, unless a population depends on inter-pond dispersal across the highway to maintain its numbers, which is highly unlikely for two reasons.

The first reason is that inter-pond dispersal distances would have to be great for the highway to affect such movements. The shortest potential inter-pond dispersal that the project could affect would be between pools 1 and 4, a distance of 3.1 kilometers (1.9 miles), which is beyond the 670 meters (2,198 feet) maximum estimated as the normal upland movement distance.

The second reason is that the existing road is almost certainly a complete dispersal barrier due to the high traffic volumes. The 10 PM to 4AM Highway 46 traffic counts at the San Luis Obispo/Kern County line averaged 39 cars/hour between January 11 and 18, 2000 (see California red-legged frog methodology for more details). It is important to note that these traffic counts came from east of the 41/46 intersection, and the traffic counts are much higher west of that intersection (nearest most of the pools) where the highway carries the traffic from both the 46 and 41. The traffic counts would

also be much higher if all darkness hours, when California tiger salamanders might disperse, were included (the traffic analysis included only 10 PM – 4 AM). Therefore, the proposed project would not exacerbate or create any dispersal barriers.

With the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to California tiger salamanders would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Caltrans would designate the highway right of way in the Cholame Valley floor as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm California tiger salamanders if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Equipment and material storage areas shall be located in areas with no small mammal burrows or areas greater than 671 meters (2200 feet) from potential breeding pools.

California Red-legged Frog (FT) – Surveys detected no California red-legged frogs within the biological survey area, although suitable habitat and previously known occurrences were found in the project vicinity.

None of the Estrella, Shandon, or Cholame section alternatives would adversely affect California red-legged frogs. No potential dispersal corridors were identified across the existing highway due to the current traffic levels. The Estrella River at Whitley Gardens contains suitable habitat for red-legged frogs although it does occasionally go dry during the summer months and supports predatory fish and bullfrogs. Although Cholame Creek provides abundant year-long aquatic habitat in approximately 5.5 kilometers (3.4 miles) of creek, from near the Tosco oil pumping plant to near the Jack Ranch Cafe, it contains non-native predatory fish that make Cholame Creek unsuitable breeding habitat for red-legged frogs.

In the Wye section, the creek that crosses State Route 41, east of the Wye, is intermittent but has six permanent pools along a 450 meter (1,476 feet) stretch. These pools provide potential breeding habitat and permanent water sources for red-legged frogs. California red-legged frogs have been observed in similar pools, in the same creek, less than 1.6 kilometers (1 mile) upstream. Thus, the six pools near Wye Section, Alternative 8b were considered to be potential aquatic habitat.

Only Wye Section, Alternative 8b would include activities near likely California red-legged frog habitat. Placing fill for two new lanes between the existing highway and the six pools in the Wye section would not affect red-legged frogs directly. Direct effects to individual frogs during construction would not be anticipated given the measures detailed in the Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures section. Figure 3.2.1-5 shows the proximity of Wye Section, Alternative 8b to the potential aquatic habitat.

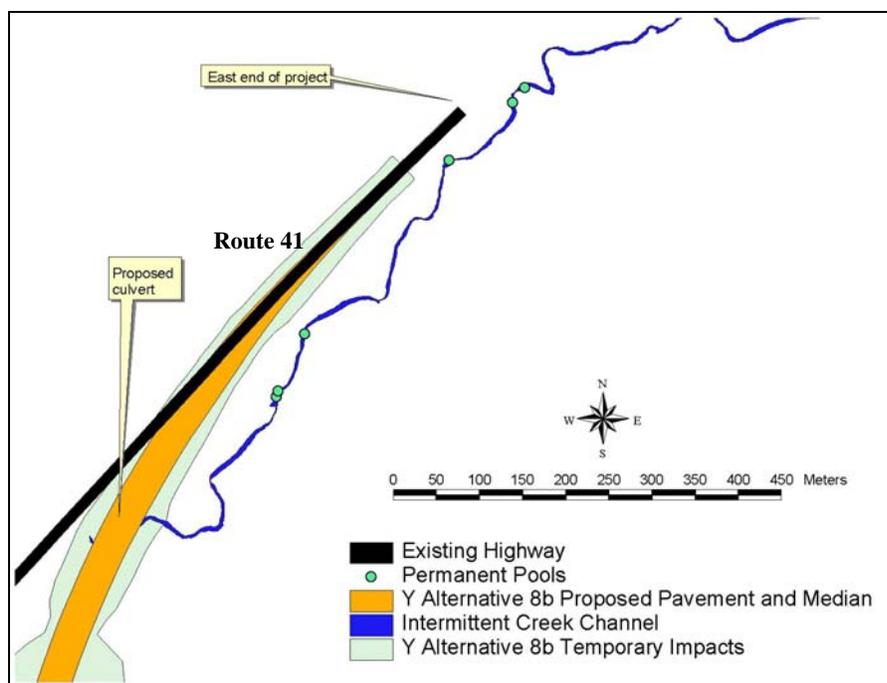


Figure 3.2.1-5. Upland Impacts Near Potential California Red-legged Frog Aquatic Habitat

With the proposed avoidance and minimization measures, the CEQA determination found that no significant impacts to California red-legged frogs would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Within the entire Wye section, construction access would be limited for all alternatives to the minimum area required for construction, and areas beyond would be designated as an ESA. 4.6 meters (15.0 feet) of access beyond the cut and fill limits would be permitted with more if needed at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Since Wye Section, Alternative 8B was selected the following measures have been incorporated into the project:

- Earthwork within 82 meters (270 feet) of potential aquatic habitat between STA 29+00 and 42+00 (kiloposts 73.1 to 74.0/postmiles 45.4 to 46.0) would occur between May 1 and October 31. Construction access would be limited to 4.6 meters (15.0 feet) beyond the cut and fill lines.
- A qualified biologist will conduct pre-construction surveys for California red-legged frogs within the project area within two days of initiation of project construction.
- Any California red-legged frogs encountered will be reported to the Service immediately or as soon as practicable (e.g., the following business day if encountered at night). California red-legged frogs found in harm's way will be captured and relocated to appropriate habitat as determined after discussions with Service staff.

- All new sightings of California red-legged frogs within the project areas will be reported to the Service and the CNDDDB.
- Pre-construction meetings with the construction contractor and crew will be conducted to brief them on the potential presence of California red-legged frogs in the project areas, and educate onsite workers in the identification and habitat requirements of California red-legged frogs, as well as the ramifications of take of listed species. The minimization measures outlined here will also be discussed.
- To the maximum extent practicable, contractors will avoid all project-related activities including road construction, within 91.4 meters (300.0 feet) of all wetlands/water courses that provide suitable breeding and foraging habitat for the California red-legged frog.
- Pesticide application will be avoided within 152.4 meters (500.0 feet) of all wetlands/watercourses.
- Bank slope protection placed on creek channel banks will be designed for erosion control by means of riparian function enhancement. Designs utilizing native topsoil and riparian local stock are preferred (biotechnology, logs, willow wattles, potted willows, terracing, etc.).
- Prior to commencing construction, Caltrans will coordinate with the CDFG to prepare a riparian vegetation replacement program for the project. Riparian vegetation removed as a result of the project will be replaced at a 3:1 ratio.
- California native species (local stock preferred) will be utilized in re-vegetation and habitat enhancement efforts associated with the project.
- Within 91.4 meters (300 feet) of potential California red-legged frog breeding habitat, only water will be used for dust abatement.

Western Spadefoot Toad (FSC, CSC) – Several potential breeding locations (permanent ponds and temporary pools) were surveyed for western spadefoot toads within and adjacent to the project area. Table 3.2.1-9 shows the locations and dates of the visual/dipnet surveys. No spadefoot toads were observed during surveys, although one toad was heard at the vernal pool near Mill Road in the Estrella section. Suitable habitat was found at several places within each of the four project sections. The combination of two vernal pools, a temporary pond, and a permanent pond all within close proximity on the Black Ranch, within the Estrella section of the project, make this property a potential western spadefoot toad breeding location. In the Cholame section, five temporary pools likely support breeding spadefoot toads. These areas meet both the upland and aquatic habitat requirements for the species and are near known occurrences of the species.

All alternatives for each of the four sections of the proposed project would displace potential upland habitat. Potential aquatic habitat would be displaced only at the Estrella River, under both Estrella section alternatives, and within the Wye section under Alternative 4. Estrella Section, Alternatives 8N and 9N would displace upland habitat as close as 25 meters (82 feet) to the vernal pool near Mill

Road. This entire upland habitat is within the existing right of way and most of it consists of a steep roadcut. The two new bridges at the Estrella River would displace small amounts of potential aquatic habitat under either Estrella section alternative by placing new piers. Bridge approach fills and abutments³⁷ would displace potential upland habitat adjacent to the river. The bridges would displace very little of the total aquatic habitat available in that part of the Estrella River and would not result in substantial adverse impacts.

Both Shandon Section Alternatives 1 and 2 may temporarily affect some western spadefoot toads by disturbing their upland habitat. No impacts to potential breeding pools would result from either of the Shandon section alternatives. The new bridges in this section would span a substantial portion of floodplain, improving habitat connectivity.

No impacts to aquatic habitat or potential breeding pools would result from either of the Cholame section alternatives. The nearest potential pool is west of Bitterwater Road, south of the highway and Cholame Creek. This pool is approximately 0.75 km (0.47 miles) from proposed construction, so it is unlikely that construction would affect many toads that breed in or have dispersed from that pool. The new bridges would span a substantial portion of floodplain, improving habitat connectivity. Western spadefoot toads are likely to burrow in uplands around Cholame Creek. Because Cholame Section, Alternative 1 would move the highway away from the creek, it would result in the least impacts to western spadefoot toads.

Table 3.2.1-9. Western Spadefoot Toad Dipnet/Visual Survey Locations and Dates

Location #	Description	Date
1	Cholame Creek at Route 46 bridge near Jack Ranch Café	2/4/02, 4/11/02
2	Cholame Creek channel at Cholame Valley road, 1 st culvert outlet, 0.3 km north of Route 46	2/4/02, 4/11/02
3	Cholame Creek channel at Cholame Valley road, first bridge (1.9 km) north of Route 46	2/4/02, 4/11/02
4	Cholame Creek, pools, wetlands at McMillan Canyon road and Cholame Valley road	2/4/02, 4/11/02
5	Cholame Creek at Route 46 bridge near Tosco Plant	2/4/02, 4/11/02
6	Estrella River between Route 46 bridge and trestle bridge upstream	2/04/02, 4/11/02, 5/8/02
7	rainpool at southeast corner of Branch road/Route 46 intersection	2/4/02, 4/11/02
8	culvert outlet at southwest corner of Mill road/Route 46 intersection	2/4/02, 4/11/02
9	culvert outlet pool on north side of 46, between Airport road and Mill road, postmile 32.6	2/4/02, 4/11/02

All of the proposed Wye section alternatives would include removing the easternmost Cholame Creek Bridge. This would temporarily disturb this potential breeding location and associated uplands. Wye Section, Alternative 8b would permanently displace potential upland habitat for

³⁷ Bridge approach fills and abutments are the foundations constructed on either side of a river to support the ends of a bridge.

western spadefoot toads within 60 meters (197 feet) of a potential breeding pool. If spadefoot toads breed here, then this alternative would likely bury burrowed spadefoot toads. The pool would probably still remain a viable breeding location if the culvert under Cholame Valley Road remains in place; removing the culvert would likely cause the pool to fill in. Wye Section, Alternative 4 would displace a potential breeding pool for the spadefoot toads.

The loss of habitat from the proposed project would not result in substantial impacts to the species because it is a comparatively small amount when looking at the available habitat in the spadefoot toad's range, including the project area. In addition, this linear loss of habitat would not likely displace entire populations or even individual home ranges, as would a project that removed similar acreage in a block-like fashion.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to western spadefoot toads would result from the construction of any of the proposed alternatives. With any alternative but Wye Section, Alternative 4, known breeding locations would not be displaced or degraded to the point that they would not be able to support western spadefoot toads.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Within the entire Wye section, construction access would be limited to the minimum area required for construction, and areas beyond would be designated as an ESA. Additional ESAs would be established, in the Estrella section, between STA 50+80 and 54+80 westbound, 55+00 and 65+00 eastbound, and 69+00 and 86+00 eastbound. 4.6 meters (15.0 feet) of access beyond the cut and fill limits would be permitted with more if needed at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Preserving and enhancing habitat for the San Joaquin kit fox may also preserve and enhance habitat for the western spadefoot toad. Many spadefoot toad specimens and observations have been documented in the Estrella River and Cholame Creek watersheds, so preserving kit fox habitat within this watershed may also preserve spadefoot toad habitat.

Caltrans would designate the highway right of way in the Cholame Valley floor as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm western spadefoot toads if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Southwestern Pond Turtle (FSC, CSC) – Many southwestern pond turtles were observed on several different occasions in the Cholame section of the project area in Cholame Creek. In addition, six southwestern pond turtles were observed in the Estrella River. No pond turtles were observed in the Shandon or Wye sections of the biological survey area.

Any of the Estrella and Cholame section alternatives may affect southwestern pond turtles. Most impacts would occur to potential upland habitat. In total, 1.9 hectares (4.7 acres) of potential nesting and refuge habitat would be lost from either of the Cholame section alternatives. Most of this grassland is located between 40 and 200 meters (131 and 656 feet) from the creek channel. This is a very small portion of the uplands that are available to this southwestern pond turtle population.

Cholame Section, Alternative 1 would remove portions of the existing lanes between postmiles 50.7 and 52.1 and restore upland habitat for southwestern pond turtles. In total, 3.4 hectares (8.5 acres) of upland habitat adjacent to permanent and intermittent waters in Cholame Creek and adjacent to the southwestern pond turtle population would be restored.

Cholame Section, Alternative 2 would keep two lanes of traffic adjacent to Cholame Creek. The creek banks there are vertical, unstable, and near the existing two lanes. Future bank stabilization projects that would affect southwestern pond turtles should be expected with this alternative. In addition, this alternative would not provide an opportunity to restore upland habitat adjacent to the southwestern pond turtle population in the Cholame section.

Both Estrella section alternatives may affect southwestern pond turtles that could potentially be nesting in uplands near the Estrella River. The turtles in this section however were observed in pools approximately 0.4 kilometers (0.3 miles) from the project area. It is more likely that turtles would be found nearer to these pools than to the construction area.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts would result to southwestern pond turtles or their habitat.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Cholame Section, Alternative 1 would remove portions of the existing lanes adjacent to Cholame Creek. This would compensate for impacts to southwestern pond turtles by restoring upland habitat adjacent to permanent and intermittent waters in the creek. This area of upland habitat is also adjacent to a portion of a southwestern pond turtle population.

San Joaquin Coachwhip (FSC, CSC) – One San Joaquin coachwhip (a snake) was observed in the Cholame section. A museum specimen was also collected from that area in 1995. All non-tilled grasslands east of the Tosco oil pumping plant appear to provide suitable habitat in large blocks that could support this species, which requires large home ranges. The patchy natural habitat in the Shandon and Cholame sections may also support the San Joaquin coachwhip.

Estrella Section, Alternative 8N or 9N would not affect the San Joaquin coachwhip or its habitat. Every other alternative may affect the San Joaquin coachwhip by permanently displacing potential habitat and creating a greater barrier to movements across State Route 46. Table 3.2.1-10 shows the amount of area that would be permanently impacted for the Shandon, Cholame, and Wye section alternatives.

Table 3.2.1-10. Estimated Potential San Joaquin Coachwhip Habitat Impacts

Section, Alternative	Temporary Impacts* hectares (acres)	Permanent Impacts hectares (acres)
Shandon, Alternative 1	45 (111)	38 (94)
Shandon, Alternative 2	50 (123)	39 (97)
Cholame, Alternative 1	25 (61)	29 (71)
Cholame, Alternative 2	20 (50)	37 (92)
Wye Section (all alternatives)	12-20 (30-50)	24-28 (60-70)

* includes construction area buffer equal to 3 meters (10 feet)

The loss of habitat from the proposed project would not result in substantial impacts to the species because it is a comparatively small amount when looking at the available habitat in the coachwhip’s range, including the project area. In addition, this linear loss of habitat would not likely displace entire populations or even individual home ranges, as would a project that removed similar acreage in a block-like fashion.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to the San Joaquin coachwhip would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Dry culverts placed specifically for animal crossings would minimize the barrier effect of the existing and proposed highway. Culverts placed for wildlife passage would perforate the highway and facilitate the coachwhip’s movement under the highway, potentially reducing the barrier effect of the highway. The proposed longer bridges and enlarged culverts would improve habitat connectivity.

Preserving and enhancing habitat for the San Joaquin kit fox would also preserve and enhance habitat for the San Joaquin coachwhip. The habitats of the kit fox and coachwhip are very similar. It is likely that the property preserved for kit fox would be suitable habitat for the San Joaquin coachwhip. This habitat would be preserved and enhanced to offset impacts to habitat in the project area.

California Horned Lizard (FSC, CSC) – California horned lizards were observed during surveys in the Shandon, Cholame, and Wye sections. Most observations were made in sandy floodplains and drainage areas. Based on the observations made during surveys, these areas were considered to be the highest quality habitat within the surveyed area.

Every alternative proposed for the project may affect California horned lizards by potentially displacing horned lizards in uncultivated lands. Every alternative would displace approximately the same amount of potential habitat. The additional lanes proposed for each alternative may create a greater barrier to movement, although the existing highway is most likely already a barrier.

Direct losses of habitat in the high quality areas would result from constructing new bridge crossings or extending culverts. This would occur at Pine Creek (kilopost 65.2, postmile 40.5), Shimmin Canyon (kilopost 68.1, postmile 42.3), an unnamed drainage at kilopost 69.8 (postmile 43.4),

McMillan Canyon (kilopost 73.2, postmile 45.5), Cholame Creek bridges #49-29 and #49-95, and White Canyon (kilopost 85.5, postmile 53.1). The total direct loss of high-quality habitat is estimated to be 0.3 hectares (0.7 acres). Only temporary impacts would result from the construction of the Cholame Creek bridges. Connectivity would likely improve for this species with the construction of the new bridge at McMillan Canyon.

High quality California horned lizard habitat would be affected only at the crossing of sandy drainage areas. These crossings would be perpendicular to the drainage, which minimizes the amount of high-quality habitat affected and leaves intact habitat in place upstream and downstream of the project area. Direct impacts, from the construction of any of the alternatives, to California horned lizards would be minimized by capturing individual lizards and relocating them prior to construction. A strategy to accomplish this is provided in the Avoidance, Minimization, and Mitigation Measures section.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to California horned lizards would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

ESAs would be established at all drainages to minimize impacts to Other Waters. This would also minimize impacts to California horned lizard habitat. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Culverts placed for wildlife passage would perforate the highway and facilitate the movement of California horned lizards under the highway, potentially reducing the barrier effect of the highway. The proposed bridges to replace the culvert at McMillan Canyon Creek and the larger culverts proposed at most drainages would improve habitat connectivity, compensating for the habitat losses resulting from road widening and culvert extensions.

Pitfall traps with drift fences would be placed within construction areas in the seven drainages identified in the environmental impacts section for several days prior to construction. Captured lizards would be relocated to avoid direct mortality from construction.

Initial habitat disturbance in these drainages would occur between April and October to ensure that horned lizards are active on the surface, and therefore able to be captured and relocated.

Preserving and enhancing habitat for the San Joaquin kit fox would also preserve and enhance habitat for the California horned lizard. It is likely that the property preserved for kit fox would contain sandy drainages that are habitat for California horned lizard. This habitat would be preserved and enhanced to offset impacts to habitat in the project area.

Caltrans would designate the highway right of way from STA 135+00 in the Cholame section to the end of the project as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities

that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm California horned lizards if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Burrowing Owl (burrow sites) (FSC, CSC) – Two burrowing owls were observed during biological surveys in the project area. One burrowing owl was observed at an unnamed creek near State Route 41, east of the Wye. The second burrowing owl was found using a burrow complex between State Route 46 and State Route 41 east of the intersection, within the Wye area.

Burrowing owls could occupy the numerous ground squirrel burrows and badger dens throughout the eastern project area at any time, including habitat within the existing right of way. Much potential habitat was observed in the Shandon, Cholame, and Wye sections in and near the Cholame Valley. All Shandon, Cholame, and Wye section alternatives may affect burrowing owl burrowing sites. Because of a lack of suitable habitat for burrowing owls, no effects to burrowing owls would occur from either of the Estrella section alternatives.

Wye Section Alternatives 5 and 8b would disturb ground approximately 50 meters (164 feet) from the identified burrow complex between State Routes 46 and 41. This would likely disturb the owls and possibly cause owls to leave the complex, possibly adversely affecting owl reproduction. Construction, however, would not occur for several years in that area; the burrows may not be occupied at that time. Conversely, many burrows found unoccupied may have burrowing owls using them by the time construction begins.

Standard minimization and mitigation efforts per the Santa Cruz Predatory Bird Research Group's burrowing owl mitigation guidelines would be implemented to avoid and minimize substantial adverse effects to burrowing owls. These measures are described in detail in the Avoidance, Minimization, and Mitigation Measures portion of this section as well as in Chapter 6, of this EA/DEIR.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to burrowing owls would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

All disturbance within 50 meters (164 feet) of occupied burrows would be mitigated per the Santa Cruz Predatory Bird Research Group's burrowing owl "on-site mitigation guidelines," which are summarized below (<http://www2.ucsc.edu/scpbrg/mitigation.htm>). If these guidelines are updated prior to construction, the updated guidelines should be implemented.

- All uncultivated grounds to be disturbed during construction should be surveyed for potential burrows less than 30 days prior to ground disturbance.
- Occupied burrows must be avoided between February 1 and August 31 due to nesting activities, unless California Department of Fish and Game personnel verify that egg-laying has not begun or that juveniles are capable of independent foraging.

- Any burrow encountered between September 1 and January 31 should be carefully excavated by hand after placing one-way doors at entrances for 48 hours. Flexible plastic pipe should be inserted into burrows during excavation to provide an escape route for any remaining owls or other occupants.
- Disturbed burrows shall be replaced with artificial burrows at a 1:1 ratio within 50-75 meters (164-246 feet) of the disturbed burrows, but at least 50 meters (164 feet) from the construction area.

Artificial burrows would be constructed on property purchased for kit fox habitat mitigation.

In addition, Caltrans would designate a VMA from STA 135+00, in the Cholame section, to the end of the project. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm burrowing owls if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Mountain Plover (CSC) – No mountain plovers were observed during biological surveys of the project area. The species is believed to be declining, and it is unknown if plovers still winter in the Cholame Valley, where, substantial, apparently suitable, habitat still exists. Because of a lack of suitable habitat, none of the Estrella, Shandon, or Cholame section alternatives would affect mountain plover.

All of the Wye section alternatives may affect wintering mountain plovers. Construction of any of the Wye section alternatives may create temporary noise or other indirect disturbances that may cause wintering mountain plovers to use another part of the Cholame Valley. Permanent effects of highways are unknown due to a lack of information regarding mountain plovers. Potential permanent impacts would include a wider strip of unsuitable habitat near the highway due to traffic noise on the proposed wider facility. These potential impacts would be similar for all Wye section alternatives. The Cholame Valley, in general, would still remain suitable mountain plover habitat during and after construction of any chosen Wye section alternative.

All Wye section alternatives except for Wye Section, Alternative 4 may mitigate these impacts by consolidating the highway into a more compact area within the Cholame Valley floor, thus reducing habitat fragmentation within the Cholame Valley. Wye Section, Alternative 4 would isolate a large area on the valley floor between the eastbound and westbound lanes.

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to mountain plover would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Preserving and enhancing habitat for the San Joaquin kit fox may benefit mountain plovers as well. If the kit fox mitigation property is within the Cholame or San Juan Creek watersheds, it may support wintering mountain plovers. In addition, Caltrans would designate a VMA from STA 135+00 in the Cholame section to the end of the project. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm wintering mountain plovers if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

California Horned Lark (CSC) – Flocks of up to several hundred juvenile and adult horned larks were observed during biological surveys. It was not possible to reliably identify the birds in the flock to a subspecies level. Although no nests were observed, horned larks are known to nest in the vicinity of the project area and probably nest within the biological survey area. Habitat immediately adjacent to the existing highway could possibly contain horned lark nests.

All alternatives in the Shandon, Cholame, and Wye sections may affect horned larks. The effect would be a direct loss of potential nesting or foraging habitat. Neither of the Estrella section alternatives would affect the horned lark. The loss of habitat would be linear in shape and would result in less of an impact to the horned lark population than if the same amount of habitat were taken in one large block of habitat. Proposed measures to avoid and minimize impacts to the horned lark as described in the Avoidance, Minimization, and Mitigation Measures section would further reduce the severity of the affect to the California horned lark and its habitat. Table 3.2.1-11 quantifies the estimated habitat losses as a result of the proposed project alternatives in the Shandon, Cholame, and Wye sections.

Table 3.2.1-11. Estimated Potential California Horned Lark Habitat Impacts

Section, Alternative	Temporary Impacts* hectares (acres)	Permanent Impacts hectares (acres)
Shandon, Alternative 1	30 (75)	35 (86)
Shandon, Alternative 2	35 (86)	35 (86)
Cholame, Alternative 1	21 (52)	23 (58)
Cholame, Alternative 2	17 (42)	26 (64)
Wye Section (all alternatives)	12-20 (30-50)	24-28 (60-70)

* includes construction area buffer equal to 3 meters (10 feet)

With the incorporation of the proposed best management practices, the CEQA determination found that no significant impacts to California horned lark would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

At all locations east of Whitley Gardens, pre-construction surveys would be performed where grasslands, including those within the existing right of way, are to be cleared with machinery between March 15 and July 31. If a nest is found, vegetation would not be cleared within 50 meters

(164 feet) of the nest until the nest is abandoned or a permit is obtained from the USFWS to remove the nest.

Preserving and enhancing habitat for the San Joaquin kit fox may also benefit California horned larks. If the kit fox mitigation property is within the Cholame or San Juan Creek watersheds, it may support horned larks.

In addition, Caltrans would designate a VMA from STA 135+00, in the Cholame section, to the end of the project. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm California horned larks if they occur within the right of way and would protect habitat that is now subject to potentially harmful, unregulated activities.

Grasshopper Sparrow (MNBMC) – No grasshopper sparrows were seen or heard during biological surveys, although several grasshopper sparrows were seen and heard within the State Route 46 right of way approximately one mile east of the project area. In addition, several museum specimens have been collected from the Cholame and Shandon areas. Suitable habitat is found within the project area in the Shandon, Cholame, and Wye sections. Habitat quality is best east of Bitterwater Road through the Cholame Valley. Although no nests were observed, grasshopper sparrows are known to nest in the vicinity of the project area and probably nest within the biological survey area. Habitat immediately adjacent to the existing highway could possibly contain grasshopper sparrow nests.

All alternatives in the Shandon, Cholame, and Wye sections may affect grasshopper sparrows. The effect would be a direct loss of potential nesting or foraging habitat. Neither of the Estrella section alternatives would affect the grasshopper sparrow. The effect on the grasshopper sparrow would be minimized due to the shape of the impacted habitat. The loss of habitat would be linear in shape and would result in less of an impact to the grasshopper sparrow population than if the same amount of habitat were taken in one large block of habitat. Proposed measures to avoid and minimize impacts to the grasshopper sparrow as described in the Avoidance, Minimization, and Mitigation Measures section would further reduce the severity of the affect to this species. Table 3.2.1-12 quantifies the estimated habitat losses as a result of the proposed project alternatives in the Shandon, Cholame, and Wye sections.

Table 3.2.1-12. Estimated Potential Grasshopper Sparrow Habitat Impacts

Section, Alternative	Temporary Impacts* hectares (acres)	Permanent Impacts hectares (acres)
Shandon, Alternative 1	30 (75)	35 (86)
Shandon, Alternative 2	35 (86)	35 (86)
Cholame, Alternative 1	21 (52)	23 (58)
Cholame, Alternative 2	17 (42)	26 (64)
Wye Section (all alternatives)	12-20 (30-50)	24-28 (60-70)

* includes construction area buffer equal to 3 meters (10 feet)

With the incorporation of the proposed best management practices, the CEQA determination found that no significant impacts to grasshopper sparrow would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

At all locations east of Whitley Gardens, pre-construction surveys would be performed where grasslands, including within the existing right of way, are to be cleared with machinery between March 15 and July 31. If a nest is found, vegetation would not be cleared within 50 meters (164 feet) of the nest until the nest is abandoned or a permit is obtained from the USFWS to remove the nest.

Preserving and enhancing habitat for the San Joaquin kit fox may also benefit grasshopper sparrows. If the kit fox mitigation property is within the Cholame or San Juan Creek watersheds, it may support horned larks.

In addition, Caltrans would designate a VMA from STA 135+00, in the Cholame section, to the end of the project. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm grasshopper sparrows if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Tulare Grasshopper Mouse (FSC, CSC) – No Tulare grasshopper mice were captured or observed during biological surveys. However, specimens have been collected from the Shandon and Cholame areas. In addition, large areas of suitable habitat were found in the Cholame and Wye sections. Potential habitat was assumed present from just east of Whitley Gardens, south of the existing highway, to the Cholame Creek Bridge near Shandon, and in the Cholame and Wye sections of the project area.

All of the Shandon, Cholame, and Wye section alternatives may affect the Tulare grasshopper mouse by permanently displacing potential habitat. Table 3.2.1-13 quantifies the amount of potential habitat that would be taken for each of the proposed alternatives in those sections. No impacts would occur from either of the Estrella section alternatives. Culverts proposed for wildlife passage would reduce the barrier effect of the proposed project. The impacts to habitat for the Tulare grasshopper mouse would be linear in shape and would be less of an impact than if the same amount of area taken were in the shape of a large block of habitat.

Table 3.2.1-13. Estimated Potential Tulare Grasshopper Mouse Habitat Impacts

Section, Alternative	Temporary Impacts* hectares (acres)	Permanent Impacts hectares (acres)
Shandon, Alternative 1	30 (75)	35 (86)
Shandon, Alternative 2	35 (86)	35 (86)
Cholame, Alternative 1	21 (52)	23 (58)
Cholame, Alternative 2	17 (42)	26 (64)
Wye Section (all alternatives)	12-20 (30-50)	24-28 (60-70)

* includes construction area buffer equal to 3 meters (10 feet)

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to the Tulare grasshopper mouse would result from any of the proposed build alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Caltrans would designate the highway right of way from STA 135+00 in the Cholame section to the end of the project as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm Tulare grasshopper mice if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

San Joaquin Pocket Mouse (FSC) – No San Joaquin pocket mice were captured or observed during biological surveys. However, many San Joaquin pocket mouse specimens have been collected from the Shandon and Cholame areas. In addition, suitable habitat was found in all uncultivated lands surveyed in the project area.

All of the Shandon, Cholame, and Wye section alternatives may affect the San Joaquin pocket mouse by permanently displacing potential habitat. Table 3.2.1-14 quantifies the amount of potential habitat that would be taken for each of the proposed alternatives in those sections. No impacts would occur from either of the Estrella section alternatives. Culverts proposed for wildlife passage would reduce the barrier effect of the proposed project. The impacts to habitat for the San Joaquin pocket mouse would be linear in shape and would be less of an impact than if the same amount of area taken were in the shape of a large block of habitat.

Table 3.2.1-14. Estimated Potential San Joaquin Pocket Mouse Habitat Impacts

Section, Alternative	Temporary Impacts* hectares (acres)	Permanent Impacts hectares (acres)
Shandon, Alternative 1	30 (75)	35 (86)
Shandon, Alternative 2	35 (86)	35 (86)
Cholame, Alternative 1	21 (52)	23 (58)
Cholame, Alternative 2	17 (42)	26 (64)
Wye Section (all alternatives)	12-20 (30-50)	24-28 (60-70)

* includes construction area buffer equal to 3 meters (10 feet)

With the incorporation of the proposed minimization and mitigation measures, the CEQA determination found that no significant impacts to the San Joaquin pocket mouse would result from any of the proposed build alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Caltrans would designate the highway right of way from STA 135+00 in the Cholame section to the end of the project as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize

activities that could harm San Joaquin pocket mice if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

San Joaquin Kit Fox (FE, ST) – No San Joaquin kit foxes were observed during biological surveys in the project area. However, the project vicinity is known to have supported kit fox in the grasslands and blue oak woodlands along the entire project’s length. In addition, at least three San Joaquin kit foxes have been documented moving between the southern Salinas Valley (Camp Roberts) satellite population and the Carrizo Plain core population. These observations were made in the spring of 2000 and also in 2001.

All undeveloped land within the biological survey area was found to be potential kit fox habitat for foraging or denning³⁸, although some areas of the Estrella and Shandon sections have only low quality habitat due to expansive vineyards. Most of the Cholame and Wye sections are non-tilled rangeland and probably offer the highest quality habitat in the project vicinity. From Paso Robles to Shandon (about two-thirds of the project length), most of the available habitat surrounding the project area has been converted to large blocks of vineyards or other incompatible uses within the last decade.

Habitat quality was evaluated using the California Department of Fish and Game “San Joaquin Kit Fox Habitat Evaluation Form.” This required that the surrounding land uses be mapped to help with the assessment of habitat. Figure 3.2.1-1 in the Affected Environment portion of this section shows the mapped land uses for the kit fox habitat evaluation. The results of the habitat evaluation form are used by the CDF&G to determine the ratios for mitigation of impacts to kit fox habitat; mitigation ratios differ based on the evaluation results. The corridor was divided into four segments based on the amount of uncultivated or undeveloped lands next to the highway. The rationale for dividing the corridor into the four segments was discussed with the USFWS and CDF&G staff and they concurred with this assessment of habitat in the project corridor. Most factors on the form were equal, leaving habitat isolation and fragmentation the main difference in the four segments (see Figure 3.2.1-1).

All of the proposed project alternatives for each of the four sections would likely adversely affect the San Joaquin kit fox by displacing habitat and potentially affecting movement of animals between populations. Habitat impacts would affect a linear strip, much of which is already isolated by vineyards and degraded by highway maintenance and operation, and by agricultural activities such as pesticide use or even tilling within the right of way. The nature of the habitat loss is such that it would not likely displace a resident fox’s home range or substantially decrease its foraging opportunities, unless its home range was split by the proposed project and the fox stopped crossing the highway. Table 3.2.1-15 summarizes the temporary and permanent San Joaquin kit fox habitat impacts of each alternative. Note that the figures in Table 3.2.1-15 do not reflect the amount of habitat that would be returned on-site by removing abandoned road segments.

³⁸ “Denning” refers to the use of underground areas or dens by kit fox to rest or hide from predators, raise pups, and escape extreme temperatures during the winter and summer.

Table 3.2.1-15. Estimated Direct San Joaquin Kit Fox Habitat Impacts

Section, Alternative	Temporary Impacts* hectares (acres)	Permanent Impacts hectares (acres)
Estrella, Alternative 8N	38 (94)	37.5 (93)
Estrella, Alternative 9N	38 (94)	37.5 (93)
Shandon, Alternative 1	30 (75)	38 (94)
Shandon, Alternative 2	35 (86)	39 (97)
Cholame, Alternative 1	21 (52)	31 (77)
Cholame, Alternative 2	17 (42)	37 (92)
Wye Section (all alternatives)	12-20 (30-50)	24-28 (60-70)
Total Impacts	97-114 (241-282)	131-142 (324-352)

* includes construction area buffer equal to 3 meters (10 feet)

Each of the Estrella section alternatives and the Shandon section alternatives would have similar impacts to kit fox. The Cholame section alternatives, however, would have substantial differences. Although Cholame Section, Alternative 1 would realign the entire expressway in one area, this would impact fewer acres than Cholame Section, Alternative 2, which would realign two new lanes and utilize the two existing lanes. Cholame Section, Alternative 2 would impact more acres than Alternative 1 because it would isolate a large block of habitat between the two highway lanes, causing the habitat between the lanes to be less usable for kit fox.

The Wye alternatives fall into two categories: those that isolate large blocks of habitat between highway lanes and those that do not. Alternatives that isolate large habitat blocks directly affect greater habitat areas and create greater dispersal barriers, which increase habitat fragmentation. Wye Section, Alternative 4 would isolate a large area between the State Route 41 eastbound lanes and the remaining lanes. Wye Section, Alternatives 5, 7, 8, 8b, and 9 have more compact footprints that do not isolate habitat blocks; these alternatives all have similar direct habitat impacts. Alternative 8b has one advantage over this group of alternatives: a second crossing structure in the central part of the valley. The overflow bridge structure is designed specifically for reestablishing hydrologic connectivity in the floodplain area but would also benefit San Joaquin kit fox and other upland species. Therefore, Wye Section, Alternative 8b would result in the least impacts with regards to San Joaquin kit fox and other upland species because it has a compact footprint and provides the best wildlife habitat connectivity.

In addition to the direct impacts to San Joaquin kit fox habitat, indirect impacts could result from all of the proposed build alternatives by increasing the barrier effect of the highway, further isolating satellite populations. Conversely, the project may increase safe crossing opportunities for all wildlife, including the kit fox, and reduce the highway's barrier effect by constructing culvert crossings specifically for wildlife in addition to the culverts used for water drainage and the longer bridges. Many of the existing culvert crossings would be enlarged to accommodate winter storm flows. In addition, all of the proposed bridges would be substantially longer, taller, and more open underneath, allowing for a better chance of crossing by wildlife.

The CEQA determination, in conjunction with the USFWS Biological Opinion, found that impacts to San Joaquin kit fox from the proposed project are less than significant with mitigation incorporated.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

On-site mitigation would be accomplished by removing abandoned road sections resulting from any of the Wye section alternatives, Cholame Section Alternative 1, Shandon Section Alternative 2, and Estrella Section Alternative 8N. These on-site restoration areas would amount to at least several acres each. Each acre of on-site mitigation would reduce the permanent impacts that must be mitigated by one acre³⁹. These acreage figures would be computed after the selection of the preferred alternative.

The April 1997 “USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance” would be incorporated into the project. The construction contractor would hire a qualified biologist full time to implement the standardized recommendations for kit fox. The biologist would also be responsible for other project biological monitoring requirements.

Culverts for wildlife passage would be incorporated into the project to minimize impacts to San Joaquin kit fox. Culverts for wildlife passage would be a minimum of 91 centimeters (36 inches) in diameter and would be placed, where topography would allow, at a minimum 0.5 kilometer (0.3 mile) intervals. Culverts would not be placed at 0.5 kilometer intervals where drainage culverts or bridges greater than 91 centimeters (36 inches) are already proposed. Also, large box culverts would be placed as cattle crossings on both State Routes 41 and 46, east of the wye, to facilitate livestock movement and to make the area within the Wye more accessible for wildlife.

1 meter wire mesh (with opening less than 5 centimeters or 2 inches) drift fencing would be placed parallel to the highway or angled away from the highway, for 25 meters (82 feet) from the inlets and outlets of drainage culverts and kit fox specific culverts to encourage their use.

Compensatory mitigation shall be accomplished at one location and in conjunction with the purchase of or adjacent to other protected habitat, and shall be purchased at one time, as construction funding is programmed. Piecemeal mitigation for this project would be more expensive because land would only increase in price over time. In addition, piecemeal mitigation not associated with larger pieces of protected habitat would lessen the value of the mitigation for kit fox.

Off-site mitigation would be accomplished primarily through funding conservation easement purchases or by purchasing credits in an approved mitigation bank in the project vicinity. Off-site compensatory mitigation ratios shall be 4:1 for permanent impacts between kilopost 60.5 (postmile 37.6) and kilopost 90.6 (postmile 56.3), 3:1 between Airport Road and Jardine Road, and 2:1 between Jardine Road and kilopost 60.5 (postmile 37.6). Temporary impacts shall be mitigated off-site at a ratio of one-third:one (1/3:1).

Enhancements proposed to reduce the impacts of the proposed project to San Joaquin kit fox include funding habitat preservation and enhancement. Habitat enhancement projects may include the construction of artificial dens. Artificial dens would be constructed on properties from which conservation easements are purchased as mitigation for impacts resulting from this project,

³⁹ Per conclusions reached during the meeting held on June 12, 2002, with the United States Fish and Wildlife Service, Ventura Field Office.

properties purchased outright for mitigation, on other private lands deemed suitable by the USFWS and the CDF&G, or on public lands.

In addition, Caltrans would designate the highway right of way from STA 135+00 in the Cholame section to the end of the project as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way. This would prevent or minimize activities that could harm San Joaquin kit fox if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Bats – Because the impacts are similar for each bat species, the following discussion addresses these species of bats: pallid bat (CSC/FSS/BLMS/WBWWG, CDFG protected), big brown bat (CDFG protected), western pipistrelle (CDFG protected), Mexican free-tailed bat (CDFG protected), and Yuma myotis (FSC). These bat species were found during biological surveys in the project area.

A night roost was found in Bridge #49-95 in the Shandon section of the project. Species using this roost were identified as pallid bats and big-brown bats. No potential for day roosts was found at this location.

A roost of 600 bats was found in Bridge #49-29 in the Cholame section of the project. The colony is likely a maternity colony and a potential year round roost. At least three species use this roost: pallid bats, Mexican free-tailed bats, and *Myotis sp.*

An abandoned house in the Cholame section also contained night roosting pallid bats and *Myotis sp.*, guano of Townsend's big-eared bat, and a potential maternity roost for long-eared myotis (*Myotis evotis*). Night roosting of bats in this house was moderate to heavy. However, since the release of the EA/DEIR this house has since been demolished by the landowner, destroying the bat habitat that existed.

All of the Estrella, Shandon, and Cholame alternatives may affect bats by removing day and/or night roosts. Both Estrella section alternatives would remove many oak trees with potential bat roosts. Estrella Section, Alternative 8N would not remove or alter the Estrella River Bridge, so direct impacts to bats on the Estrella River Bridge are not expected. Estrella Section, Alternative 9N, however, would remove and replace the Estrella River Bridge, which would eliminate day roosts and potential maternity roosts, and potentially harm bats.

Both Shandon section alternatives 1 and 2 would remove the Cholame Creek Bridge nearest Shandon (Bridge #49-95). This would displace night roosts that occur between the bridge girders and which are probably used as night roosts year round, including the maternity season. Pallid bats and big brown bats use this bridge at night.

Both Cholame section alternatives 1 and 2 would remove the large bat roost in Bridge #49-29 in this section. This would remove day roosts and displace a large colony of bats, including more than 600 pallid bats, Mexican free-tailed bats, and Yuma myotis. These species day roost here and most likely use the bridge as a maternity roost. This is an important roost because no other day roosts are known in the area. Pallid bats also use this bridge as a night roost.

No Wye section alternatives would affect any of the bat species found in the project area.

Avoidance and minimization measures and some compensatory mitigation would be required. With the implementation of the measures explained in the Avoidance, Minimization, and Mitigation measures section, the CEQA determination found that no significant impacts to any of the bat species would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

The following measures would reduce the effects to the following species of bats: pallid bat, big brown bat, western pipistrelle, Mexican free-tailed bat, and Yuma myotis.

In the Estrella Section, at least one week prior to tree removal, the on-site environmental monitor will construct one-way bat exclusion devices at all tree cavities that are potential bat roosts. The exclusion devices would likely be constructed from screen or other material as recommended in guidelines from Bat Conservation International. The one-way exclusion devices would allow any bats in tree cavities to exit at night, but would prevent re-entry and force the bats to re-locate to alternate roosts outside of the construction area.

For Estrella Section, Alternative 9N and for both Cholame alternatives if Bridge #49-29 were to be removed, bats would be excluded from roosts on the existing bridge between October and March prior to bridge demolition. Techniques to exclude bats from existing bridges can be found in the Natural Environment Study.

For both Shandon section alternatives, bridge deck removal of Bridge #49-95 would occur between October and March to avoid affecting night roosts during the maternity season.

For both Cholame section alternatives, if the Cholame Creek Bridge #49-29 were to be removed, construction of new roosts on the new bridges would occur prior to bats being excluded from the bridge. In addition, bats would be excluded between October and March. Techniques to exclude bats from existing bridges can be found in the Natural Environment Study.

To replace the lost night roost habitat resulting from bridge removals, all new bridges would incorporate bat-friendly features:

- **Minimized sandblasting:** A final surface treatment under box-girder bridges often includes sandblasting. This smooths the surfaces and, unfortunately, removes any surface irregularities and roughness that bats can grasp while roosting. If the bridge construction includes sandblasting or otherwise smoothing-out of external or internal surfaces under the bridges, all surfaces should be left rough within a few inches of the insides of corners that are 90 degrees or less. This can be accomplished by placing a small board in the corners while sandblasting to block the treatment.

- Construct grooves or ridges: Small grooves or ridges could be built into each corner underneath the bridges. Bats often grasp the slightest irregularities, such as the small ridges of concrete resulting from seams between boards used in the concrete forms.

Compensatory mitigation must be considered for Estrella Section, Alternative 9N because it would remove a bridge that contains a day roost and may be a maternity roost for California special concern species. One option is to design the new bridges with soffit openings to allow bats access into wooden boxes within the concrete box girder. Another option would be to construct bat roosts off site. A potential location would be at the proposed Fremont cottonwood woodland mitigation site adjacent to the Estrella River.

Compensatory mitigation must be considered for both Cholame alternatives if they would remove Bridge #49-29. This bridge contains at least 600 bats and is most likely a maternity roost for California special concern species. Each Cholame alternative has three options for compensatory mitigation:

1. Leave Bridge #49-29 in place.
2. Modify abandoned buildings to enhance them as bat roosts.
3. Construct bridges with modifications to allow bat roosting.

Leaving the bridge in place may not be acceptable for Alternative 2 because the bridge is structurally deficient. Alternative 1 would not keep traffic on the bridge, so the bridge could be left in place but relinquished to the County or retained as right-of-way, but not used for traffic.

Modifying buildings in the Cholame section may or may not work. Building modifications should take place prior to bridge removal, and the property would have to be maintained as State property for maintenance. Leaving vacant buildings as a mitigation site could present management problems such as vandalism and fire.

The new bridge designs for either Cholame section alternative could replace the bat roosts. Any bridge construction modifications that provide accessible interior spaces or crevices that allow bats close to the sun-heated bridge deck would create suitable habitat. Expansion joints in girder or box construction bridges create suitable habitat. Pre-cast twin-beam construction is known to provide maternity roosts for high concentrations of crevice-roosting bats such as those on the existing bridge. With a concrete box girder, bats would have to be allowed inside the box girder (but contained in wooden boxes) through modified weep holes or other openings, or external features would have to be added to create suitable crevices near the bridge deck.

Pronghorn Antelope – Pronghorn antelope cross the existing two-lane highway in the Cholame Valley, primarily within the Wye section of the project area. Widening to four lanes has been shown to almost completely prevent pronghorn antelope from crossing highways in Wyoming, Arizona, and Northern California. Based on experiences in those states, widening the highway to four lanes through the Cholame Valley has the potential to isolate approximately 50 pronghorn antelope north of the highway, threatening the viability of this isolated population and the remaining population south of the highway.

Construction related impacts would also impact pronghorn antelope. Pronghorn are wary of disturbance and would likely remain far from the active construction areas in the Wye and eastern portion of the Cholame sections. This would reduce their available foraging area and likely prevent any north-south movements across the highway. This may also limit use of a fawning area south of the Wye for one or more fawning seasons.

Section 15065 of the CEQA Guidelines clearly states that if a project will “substantially reduce the habitat of a fish and wildlife species, [or] cause a fish or wildlife population to drop below self-sustaining level,” then the project would have a significant impact. Because the project has the potential to isolate pronghorn and thereby threaten populations to drop below self-sustaining levels, avoidance or mitigation must be considered. Minimization and mitigation measures to reduce impacts to pronghorn antelope can be found in the Avoidance, Minimization, and Mitigation Measures section.

Wye Section, Alternative 8b was originally developed to include a vegetated wildlife overcrossing for pronghorn antelope because it was believed at the time that pronghorn would not use and undercrossing. Since the original design of Alternative 8b, new information has become available regarding the use of undercrossings by pronghorn.

A relative measurement of crossing structure size is called the openness factor, a number derived from a structure's height, width, and length. The openness factor is generally accepted as important for predicting use by many target species, but thresholds have not been accepted (Clevenger and Waltho 2000, Clevenger et al. 2001, Forman and Sperling et al. 2003)

The Cholame Creek bridges proposed with any Wye section alternative would have an openness factor of 46.2. Based on studies of other crossing structures, these bridges are assumed to be more than adequate to promote pronghorn movement under the highway (see Table 3.2.1-16). Successful crossings have been documented in research for undercrossings with an openness ration of as little as 3.5. However, the placement of this structure has come into question. For this reason, in combination with several other reasons (better floodplain connectivity and reduced wetland impacts), a second structure was considered. The overflow bridge was developed for Wye Section, Alternative 8b to provide a second structure that would benefit pronghorn antelope. The overflow structure would be a single-span bridge 41 meters (134 feet) in length and would have an openness factor of 14.6. This would facilitate the movement of this species under the highway.

Table 3.2.1-16. Summary of Known Pronghorn Use and Non-Use of Highway Undercrossings

Underpass	Openness Factor*	Height (ft)	Width (ft)	Through Length (ft)	Use by Pronghorn	Source
Box 3	0.3	10	10	393	no evidence	Ward et al. 1980
Box 4	0.4	10	10	282	no evidence	Ward et al. 1980
Box 2	0.4	10	10	280	no evidence	Ward et al. 1980
Box 1	0.7	10	10	153	no evidence	Ward et al. 1980
Machinery 2	3.5	13	30	110	1 occurrence of buck crossing in 6 year study	Ward et al. 1980
Nugget Canyon, Wyoming	3.5	10.5	20	60	11 crossing events in 8 month study, 70 of 89 pronghorn that	Plumb et al. 2003

Underpass	Openness Factor*	Height (ft)	Width (ft)	Through Length (ft)	Use by Pronghorn	Source
					approached structure passed	
Machinery 1	3.8	15	50	200	no evidence	Ward et al. 1980
Wyoming 1	4.0	12	20	60	1 occurrence of herd crossing	B. Rudd, Wyoming Game and Fish, personal communication
Peterson's existing Cholame Ck. Bridge	4.3	17	50	200	no evidence	Ward et al. 1980
	15.2	14	39	36	use for shade, possibly as undercrossing	personal observation; S. Sanders, Jack Ranch Manager, personal communication
Wyoming 2	26.3**	25**	75**	70**	unverified tracks found under bridge	M. McKinstry, US Bureau of Reclamation, J. Haschke personal communication
Wyoming 3	27.5**	30**	120**	131**	multiple crossing events known over multiple years	M. McKinstry, US Bureau of Reclamation, personal communication
proposed Cholame Ck. overflow	14.6	14.7	131	132	N/A	N/A
proposed Cholame Ck. undercrossing	46.2	16.4	394	140	N/A	CalTrans engineering drawings

*width x height / length

**dimensions are approximate

Caltrans explored the option of reducing median width in the Wye section to achieve a greater openness factor for the proposed bridges. The difference in wildlife crossing structure lengths between a highway with and 18.6 meter (61.0 foot) median and a 14.1 meter (46.3 foot) median would be only 4.5 meters (14.7 feet). Relative to the total length of the wildlife crossing structures, which would be approximately 45-50 meters (147-164 feet), a 4.5 meter (14.7 foot) reduction would not likely change their effectiveness as evidenced by the negligible change in openness factor.

Fencing near the crossing structure or structures would have to be modified to promote the use of the structure. Right of way fences that parallel the highway must not do so at the undercrossing. Fences would be built 0.40 kilometers (0.25 miles) or more away from the crossing structure. Modifying these fences would require consultation with the landowner and a change in the pasture design for cattle grazing. However, the crossing structure would facilitate moving cattle across the highway and would benefit not only wildlife species in the Cholame Valley but the movement of livestock as well.

In the Wye section of the project, any of the proposed alternatives would improve habitat connectivity for pronghorn antelope. However, Wye Section, Alternative 8b with the 41 meter (134 foot) overflow structure would provide two distinct points at which pronghorn could successfully cross under the highway. For this reason, Wye Section, Alternative 8b has been identified as the alternative with the least impacts to pronghorn antelope.

No impacts to pronghorn antelope would result from any of the Estrella, Shandon, or Cholame section alternatives.

Under CEQA, with the incorporation of effective crossing structures as mitigation, impacts to pronghorn antelope have been determined to be less than significant.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Wye Section, Alternative 8b was developed to include a second undercrossing structure for pronghorn antelope. Pronghorn are not known to use undercrossing structures such as box culverts but they may use an undercrossing if it was appropriately designed and constructed. It is theorized that an undercrossing would work for pronghorn antelope if it was sufficiently wide enough and tall enough to minimize the perceived linear barrier effect of the structure. Pronghorn antelope would need a clear line of sight under the structure in order to feel comfortable crossing under the highway.

The population of pronghorn antelope in the Wye section of the project would be monitored for a period of five years in order to determine the usage of the undercrossing structures. The large undercrossings proposed with this project will offer a good opportunity to further the knowledge of pronghorn behaviors in relation to roads and crossing structures.

Fencing near the crossing structure would have to be modified to promote the use of the structures. Right of way fences that parallel the highway must not do so at the undercrossing. Fences would be built 0.4 kilometers (0.25 miles) or more away from the crossing structure and must have smooth bottom wires at least 508 millimeters (20 inches) from the ground. Modifying these fences would require consultation with the landowner and a change in the pasture design for cattle grazing. However, the crossing structure would facilitate in moving cattle across the highway and would benefit not only wildlife species in the Cholame Valley but the movement of livestock as well.

Caltrans will commit \$20,000 towards the retrofit and/or the removal of abandoned fences on public lands within the range of the County's pronghorn antelope herd.

Migratory Birds – Many migratory birds were observed in the project area during biological surveys. Table 3.2.1-16 lists all of the protected migratory birds that were observed in the Estrella River riparian area. Birds observed during surveys on July 9th, 2002 were assumed to have nested in the vicinity.

Swallow nests were found on all three Cholame Creek bridges and the Estrella River Bridge, at the White Canyon box culvert at kilopost 85.6 (postmile 53.2), and box culverts at kiloposts 69.8 and 90.8 (postmiles 43.4 and 56.4). Measures to minimize impacts to migratory birds are detailed in the Avoidance, Minimization, and Mitigation measures section.

Table 3.2.1-17 Protected Migratory Birds Observed Near the Estrella River

Species	Observed May 7	Observed July 9
mallard	x	
Anna’s hummingbird		x
acorn woodpecker	x	x
downy woodpecker		x
Pacific slope flycatcher		x
black phoebe	x	x
ash-throated flycatcher		x
western kingbird	x	x
loggerhead shrike		x
cliff swallow	x	x
bushtit	x	x
white-breasted nuthatch	x	x
Bewick’s wren	x	x
northern mockingbird	x	x
common yellowthroat		x
California towhee	x	x
song sparrow	x	x
black-headed grosbeak		x
Bullock’s oriole	x	x
house finch	x	x
lesser goldfinch	x	x
great blue heron	x	
Nuttall’s woodpecker	x	
warbling vireo	x	
tree swallow	x	
Swainson’s thrush	x	
California thrasher	x	
orange-crowned warbler	x	
yellow warbler	x	
Wilson’s warbler	x	
yellow-breasted chat	x	
red-winged blackbird	x	

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Prior to removing riparian vegetation at the Estrella River between February 15 and July 15, the environmental monitor will survey the riparian vegetation for nesting birds. Any nesting birds found will be avoided until the birds have fledged. A 30 meter (100 foot) buffer will be applied to prevent birds from abandoning their nests due to construction activities.

Swallow netting would not be placed on the Cholame Creek Bridges (Bridges #49-29 and #49-95) and the Estrella River Bridge (Bridge # 49-33) because bats use these bridges. Swallow netting here would entangle bats and potentially cause mortality. At the Estrella River Bridge, riparian vegetation and oak trees that would be removed during construction would be removed between July 15 and February 15. Otherwise, surveys for nesting birds will have to be completed before vegetation removal, and construction would be delayed if nesting migratory birds were found.

The Cholame Creek Bridge decks would be removed between October 1 and February 28 to avoid the need to remove occupied nests and to avoid the bat maternity-roosting season.

At the Estrella River Bridge, the White Canyon culvert at kilopost 85.6 (postmile 53.2) and the culverts at kiloposts 69.8 and 90.8 (postmiles 43.4 and 56.4), nests would be removed prior to March 1 and then weekly thereafter as long as swallows attempt to nest.

Wildlife Movement – The proposed project’s greatest effect on the most species, rather than a direct loss of habitat, would be reduction of north-south movements across the 37 kilometer (23 mile) highway corridor. This area is known as an important wildlife corridor because of the links that it provides between large rural areas. Both Routes 46 and 41 are recognized as wildlife barriers. The proposed project would increase the barrier effect of the highway. It is nearly impossible to quantify the effect of highway expansion to wildlife. This project acknowledges this impact and proposes some solutions to minimize the highway barrier effect.

Minimum 914 millimeter (36 inch) culvert undercrossings have already been proposed as part of the project to mitigate for impacts to San Joaquin kit fox. These would be placed at the specified interval (see “San Joaquin kit fox” section, this chapter) and would include fencing to promote their use. Two bridges are included that have been designed to function as pronghorn antelope undercrossings in the Wye section. These features should suffice for those target species and most other species.

By incorporating the proposed wildlife crossing culverts, the enlarged drainage culverts, and the wildlife undercrossings, the CEQA determination found that the project would have a less than significant impact to migration of wildlife. With these mitigation measures (proposed in specific sections above) and with the following mitigation measures, the project may improve potential wildlife movements across the corridor.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

For deer, minimum 3.7 meter by 3.7 meter (12 foot by 12 foot) box culverts that would not carry drainage should be placed at two locations, coupled with deer fencing. This would maintain connectivity for deer and all other species in areas of concentrated resources and movement corridors. Providing these crossings would also reduce the chance of vehicle collisions with deer, which can be fatal both to drivers and deer.

Concentrations of deer kills were noted at kiloposts 52.9 and 60.7 (postmiles 32.9 and 37.7). In addition, these two locations were noted by residents in the project area as locations where “many deer have been hit or avoided” (FIX 46 Committee Member). These two locations occur at the two drainages with blue oak woodlands, an important forage resource for deer in this area and an important cover for many species. Dry Creek was not identified as a kill location, but many deer trails parallel the highway there and the existing culvert does not allow passage for any wildlife because of a large drop-off at the existing culvert outlet. The Dry Creek culvert will be modified to allow wildlife passage. After land uses were mapped around the project, it became apparent that all three of the above locations are on potential wildlife corridors that follow drainages and connect larger habitat areas. These three drainages serve as navigation corridors for deer and provide important forage and cover in blue oak woodlands.

Additional Avoidance & Minimization Measures (ESAs)

Additional measures to minimize impacts to sensitive plant and wildlife species found in the project area include the designation of Environmentally Sensitive Areas (ESAs). ESAs would be designated for grassland species throughout the Wye section, for blue oaks and blue oak woodland, gypsum-loving larkspur, wetlands, crownscale, valley sink scrub, Fremont cottonwood woodland, western spadefoot toad, and California horned lizard. In general, construction access would be limited to the minimum required area to work. Most ESAs would restrict access to areas farther than 3.0 meters (9.8 feet) from the cut and fill limits except where more space is required at, for example, bridge locations. Final project plans would include ESA locations for each construction phase segment. ESAs would be established in the field according to project plans and would be identified by a method agreed upon by the Resident Engineer and the Environmental Monitor. Methods of identifying ESAs include ESA fencing and staking or flagging the boundary of the ESA area.

Summary – Under CEQA impacts to wildlife, including the San Joaquin kit fox and pronghorn antelope, have been found to be less than significant with mitigation incorporated. Table 3.2.1-18 on the following page describes each wildlife species of concern surveyed for this project, the determination of effect, and the rationale for that determination.

Table 3.2.1-18. Summary Table of Wildlife Species of Concern Impacts

	Common Name	Determination	Rationale
<u>Mammals</u>	giant kangaroo rat	no effect	no evidence, not observed
	Tulare grasshopper mouse	may affect	suitable habitat, historic occurrence
	pronghorn antelope	may affect	could prevent road crossings
	San Joaquin kit fox	likely to adversely affect	suitable habitat, known to occur
	San Joaquin pocket mouse	may affect	suitable habitat, historic occurrence
	pallid bat	may affect	roosting in bridge 49-29
	big brown bat	may affect	possibly roosting in bridge 49-29
	Yuma myotis	may affect	possibly roosting in bridge 49-29
	Western pipestrelle	may affect	detected near bridge 49-29
Mexican free-tailed bat	may affect	roosting in bridge 49-29	
<u>Amphibians</u>	California red-legged frog	likely to adversely affect	suitable aquatic habitat and known occurrences near construction activities on east side of Cholame Valley
	California tiger salamander	may affect	known populations along San Andreas Rift Zone, loss of grasslands
	Western spadefoot toad	may affect	known occurrences and potential habitat
<u>Reptiles</u>	California horned lizard	may affect	observed
	blunt-nosed leopard lizard	no effect	not observed during protocol surveys
	San Joaquin coachwhip	may affect	observed
	Southwestern pond turtle	may affect	observed
<u>Birds</u>	mountain plover (wintering)	not likely to adversely affect	suitable habitat, historic occurrence, no take of birds anticipated
	burrowing owl (burrowing sites)	may affect	observed
	California horned lark	may affect	suitable habitat, nearby occurrence
	grasshopper sparrow	may affect	suitable habitat, nearby occurrence
	prairie falcon (nesting)	no effect	no potential nest sites w/in several km
<u>Invertebrates</u>	Conservancy fairy shrimp	no effect	no effects to vernal pools
	longhorn fairy shrimp	no effect	no effects to vernal pools
	San Diego fairy shrimp	no effect	no effects to vernal pools
	vernal pool fairy shrimp	no effect	no effects to vernal pools
	vernal pool tadpole shrimp	no effect	no effects to vernal pools

Wetlands, Other Waters of the United States, & Vernal Pools

Permanent and temporary impacts to wetlands and Waters of the U.S. would occur as a result of the proposed project. Many efforts have been made, through the design of the project, to minimize impacts to these resources. This includes aligning the new interchange so that it results in the least fragmentation and most reconnection of the wetlands in the Wye area. The addition of a second bridge, to span a portion of the wetlands is also included to minimize impacts and the use of best management practices such as ESA fencing to limit temporary impacts helps to reduce impacts.

Table 3.2.1-19 identifies, by alternative, the amounts of wetlands and Other Waters that would be permanently and temporarily impacted as a result of the proposed project. Permanent impacts to Other Waters of the U.S. that are not wetlands would range from 0.68 hectares (1.68 acres) to 1.33 hectares (3.28 acres) for all alternatives. Permanent impacts to wetlands would range from 1.85 hectares (4.58 acres) to 5.36 hectares (13.25 acres) for all alternatives.

Table 3.2.1-19. Wetland and Other Waters Impacted by the Proposed Build Alternatives

Section	Alternative	Permanent Impacts to Other Waters hectares (acres)	Permanent Impacts to Wetland hectares (acres)	Temporary Impacts to Other Waters hectares (acres)	Temporary Impacts to Wetland hectares (acres)
Estrella	8N	0.22 (0.54)	0.11 (0.27)	0.05 (0.13)	0.01 (0.02)
Estrella	9N	0.22 (0.54)	0.11 (0.27)	0.05 (0.13)	0.01 (0.02)
Shandon	1	0.40 (0.99)	0.00 (0.00)	0.12 (0.30)	0.00 (0.00)
Shandon	2	0.43 (1.07)	0.00 (0.00)	0.15 (0.36)	0.00 (0.00)
Cholame	1	0.01 (0.03)	0.00 (0.00)	0.04 (0.09)	0.00 (0.00)
Cholame	2	0.02 (0.05)	0.00 (0.00)	0.07 (0.18)	0.00 (0.00)
Wye	4	0.66 (1.62)	5.25 (12.98)	0.08 (0.19)	0.70 (1.72)
Wye	5	0.47 (1.16)	2.64 (6.53)	0.04 (0.10)	0.55 (1.35)
Wye	7	0.14 (0.34)	2.84 (7.03)	0.02 (0.05)	0.31 (0.76)
Wye	8	0.07 (0.17)	2.02 (4.98)	0.02 (0.06)	0.31 (0.76)
Wye	8b	0.30 (0.74)	1.74 (4.31)	0.06 (0.15)	0.47 (1.16)
Wye	9	0.05 (0.12)	1.94 (4.79)	0.01 (0.03)	0.30 (0.74)

Permanent impacts to the wetlands in the Wye section would occur for all alternatives to the wetlands shown in Figure 3.2.1-6. The wetland areas impacted are the most degraded and least valued wetlands in the area. The adjacent wetlands that would not be directly impacted may actually benefit, in the long term, by construction of the build alternatives. Onsite mitigation through the removal of existing roadbeds that would be abandoned would help to reconnect the wetland system, restoring function and value to these wetland areas currently bisected by the existing State Route 41 and 46. The proposed bridge over sections of the wetland areas with Alternative 8b would improve wetland health by helping to restore natural floodplain functions, which, along with a high groundwater table, contribute to the presence of the wetlands in the Cholame Valley. In addition, Wye Section, Alternative 8b would reduce wetland and other aquatic habitat fragmentation by moving the interchange out of the Cholame Valley floor. The current intersection isolates wetlands and other waters between Routes 41 and 46 and on either side of those highways. Wye Section,

Alternative 8b would move the intersection east, resulting in only one road across the wetlands, instead of two as it exists now.

The aquatic environments in the Wye area are intermittent. Species using the aquatic environments are mostly wading birds, waterfowl, and four species of amphibians. Western spadefoot toads use Cholame Creek, where no aquatic habitat would be displaced. California red-legged frogs and pacific tree frogs might use the easternmost, unnamed creek crossed by Route 41. At this location, a small amount of potential foraging habitat would be degraded with a culvert extension.

All Wye section alternatives except for Wye Section, Alternative 4 would improve wading bird and waterfowl habitat by concentrating the highway facility on one alignment across the valley floor, removing portions of the existing alignments which isolate a triangle-shaped habitat patch. Wye Section, Alternative 4 would isolate large habitat patches.

Temporary impacts to wetlands would result from the construction of a selected build alternative. Temporary impacts would most likely be from heavy equipment used in the construction of the roadway and structures. Temporary impacts would be minimized to the greatest extent possible by using environmentally sensitive area fencing to limit where equipment can operate. Restoration activities, if needed, would be conducted upon completion of the construction of the project to restore function and value to the impacted wetland areas back to their original condition.

Following project completion, in-stream or in-wetland maintenance would occur on an as-needed basis; no regular maintenance is anticipated. In-stream or in-wetland maintenance activities should decrease because the proposed structures are larger than existing structures and should result in less scouring and other flood-related problems. If structures do clog, then temporary artificial hydrologic environments may develop. These environments would be temporary because debris clogging the structures would be removed as needed.

Direct and indirect impacts to vernal pool resources within the project area were avoided through the design of the project. For the first vernal pool, located south of State Route 46, east of Mill Road, indirect impacts were avoided by proposing to construct the cut slope (STA 55+60 to STA 58+90) for the proposed highway at a 1:1.5 slope⁴¹ to avoid potential impacts to the hydrology of the pool. Figure 3.2.1-6 shows the watershed boundary of this pool and the proposed limits of disturbance by the project. Figure 3.2.1-6 shows the existing and proposed “catch point” for the existing and proposed cut slopes. A catch point is defined as the point at which a road-cut meets with the original ground or simply the top of the engineered slope.

An additional investigation to determine any impacts to subsurface clay layers has also been completed. Results of this additional investigation determined that no potential impacts to subsurface clay layers would occur from the proposed cut adjacent to the vernal pool shown in Figure 3.2.1-6.

⁴⁰ A watershed can be defined as nature’s boundary between different directions that water would flow. It is the area of land surface from which water would drain to a vernal pool, lake, wetland, river, or stream.

⁴¹ A 1:1.5 slope is a slope with a 34 degree angle to level ground.

Potential indirect impacts to the other two vernal pools were avoided by obtaining a variance for the relocation of utilities out of the state right of way, which would have caused impacts to this pool. In this location (STA 72+00 to STA 76+00) the above ground and underground utilities would remain in their current locations. No potential impacts through disturbance would occur to this pool as a result of the proposed project. In addition, low-velocity wetlands such as swales between vernal pools that might support vernal pool fairy shrimp or tadpole shrimp would be avoided.

The CEQA determination found that no significant impacts to wetlands, other waters, and vernal pools would result from any of the proposed alternatives as a result of the project.

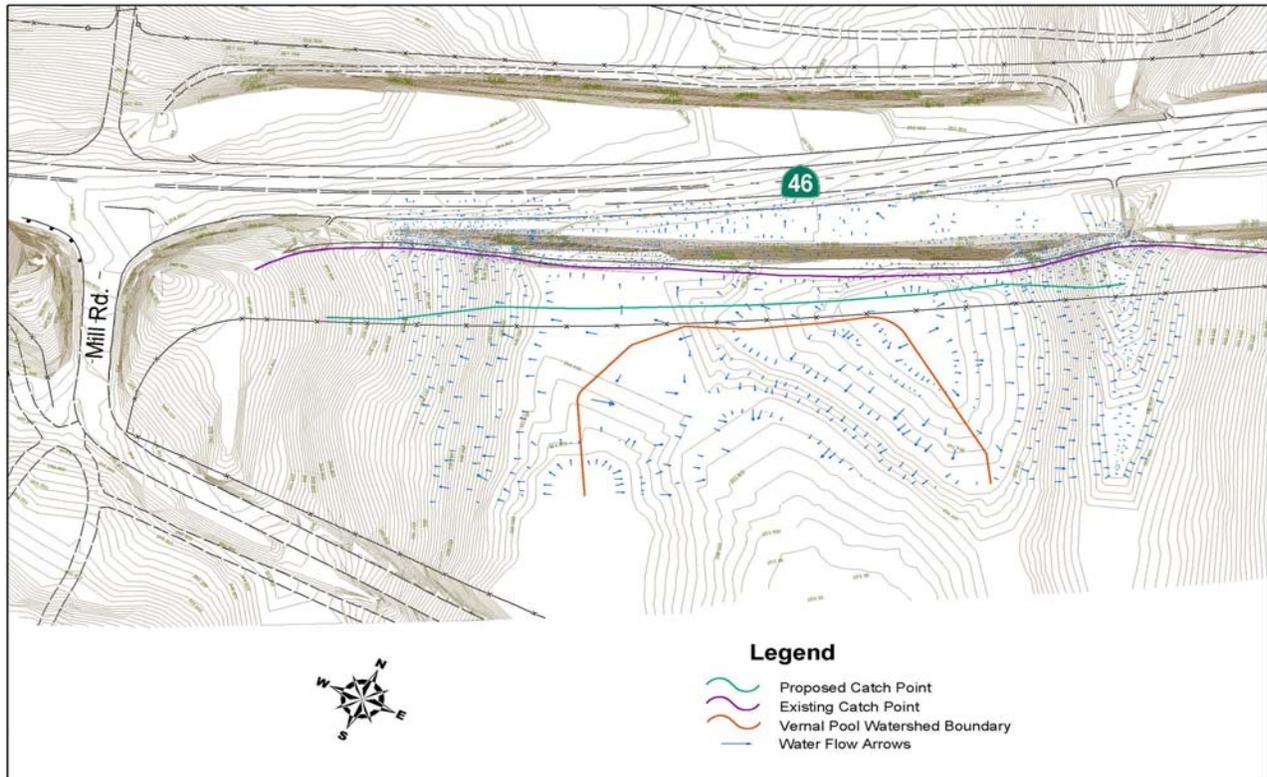


Figure 3.2.1-6. Vernal pool watershed boundary and extent of project impact.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Wetlands & Vernal Pools

All impacts to wetlands and Other Waters of the U.S. would be fully mitigated, in the project area, in accordance with the required United States Army Corps of Engineers Section 404 Permits.

Wetlands and Other Waters in the Wye section would be mitigated onsite to the maximum extent possible by removing unneeded sections of old roadbed upon completion of a selected build alternative. The existing roadbeds to be removed would be excavated to adjacent wetland elevations. Each Wye section alternative would provide an opportunity for different portions of the wetlands and waters in the Wye section to be reconnected and improved. Figure 3.2.1-7 shows an example of how this mitigation would be accomplished for Wye Section, Alternative 8b. For this

example, a total of 2.59 hectares (6.41 acres) of wetlands could potentially be replaced on site. This would result in an approximately 1.5:1 wetland replacement ratio for permanent losses. It is likely that more wetlands could be created on site through slight modifications to elevations in the vicinity of the mapped wetlands. However, grading to create wetlands in areas beyond the existing roadbeds could affect other sensitive resources, such as rare plants.

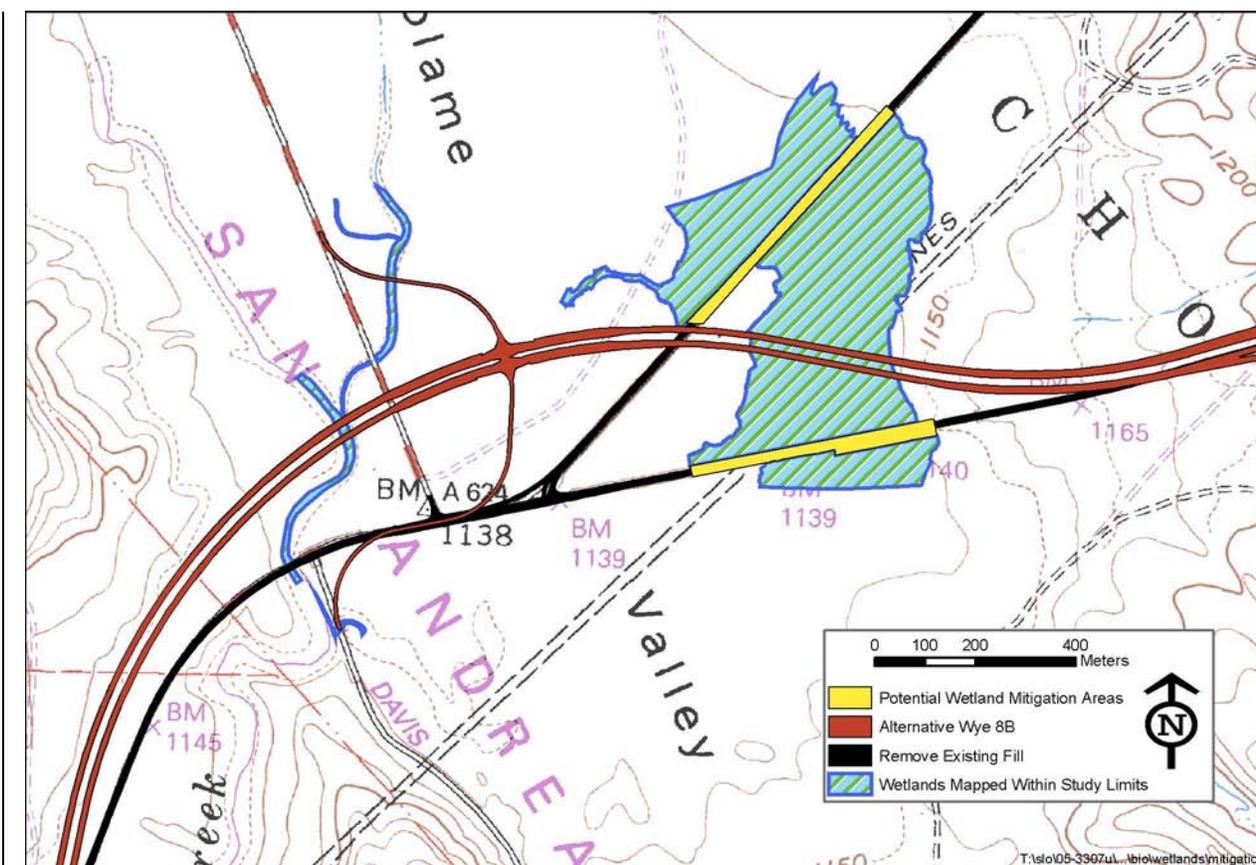


Figure 3.2.1-7. Example of potential wetland mitigation areas in the Cholame valley

Highway fills and deficient, small culverts currently impede flows in the Wye section. This isolates wetlands and adversely affects floodplain functions, alters surface water drainage patterns, affects sediment deposition and transport patterns, limits seed dispersal, and changes inundation periods. Removing the abandoned fills would reconnect those wetland areas that the highway isolates and would restore these functions and values to the larger wetland complex as a whole. With Wye Section, Alternatives 4, 5, 7, 8, or 9, batteries of new, large, box culverts would be placed under the new alignment to facilitate connectivity and flows across the new alignment. With Wye Section, Alternative 8b, a bridge would be built, in lieu of culverts, to facilitate connectivity and flows in the floodplain area. The net result of all these activities with Wye Section, Alternative 8b would be only one highway crossing the wetland complex instead of the current two. The benefit would be greater aquatic ecosystem connectivity and a reconnection and restoration of the functions and values of the remaining 23.48 hectares (58.01 acres) of fragmented wetlands in this part of the study area.

Caltrans would retain the wetland areas created by removing roads until success criteria are met. At that time, the property would be relinquished and offered first to the adjacent landowner and then to

other willing buyers. An easement would be retained on the property that would prohibit farming, grading, filling, mining, drilling, and subdividing.

For both Estrella section alternatives 8N and 9N: Construct south side cut slope from STA 55+60 to STA 58+90 at 1:1.5 slope to minimize potential impacts to hydrology of the vernal pool.

For both Estrella section alternatives 8N and 9N: Obtain a variance to leave above ground and underground utilities in current locations from STA 72+00 to STA 76+00.

For both Estrella section alternatives 8N and 9N: An environmentally sensitive area (ESA) would be designated on the project plans and then on the ground during construction in the vicinity of the first vernal pool, located south of State Route 46, east of Mill Road. The ESA would extend from the proposed cut slope catch point south to the limits of the proposed right of way or temporary construction easement, whichever is greater and would extend from STA 55+60 to STA 58+90.

For both Estrella section alternatives 8N and 9N: An ESA would also be designated on the project plans and then on the ground during construction in the vicinity of the other two vernal pools located between STA 72+00 and STA 76+00. The ESA would extend from the existing cut slope catch point north to the limits of proposed right of way or temporary construction easement, whichever is greater and would extend from STA 72+00 to STA 76+00.

With the removal of Bridge #49-29, the existing rock slope protection used to protect this bridge shall be removed and the creek bank restored back to its original slope. Appropriate erosion control shall be installed to prevent sedimentation into Cholame creek and to stabilize the disturbed creek bank.

3.3 Socio-Economic Environment

3.3.1 Visual Resources

Affected Environment

Throughout the length of the proposed project, State Route 46 is designated as Eligible for State Scenic Highway status. This designation means that the State of California has officially recognized State Route 46 as having the potential to become an Officially Designated State Scenic Highway. The San Luis Obispo County General Plan states that, “The rural areas of San Luis Obispo County have many attributes that contribute to the pleasure of driving through them...they play an important role in identifying the county as a special place”. The Paso Robles General Plan Land Use and Circulation Elements Update EIR defines State Route 46 near the western limits of the project as a “gateway” into the city of Paso Robles.

Overall, the landform of the region is characterized by flat to rolling topography framed by low rounded hills. This topography provides the project area with sweeping curves and allows for long-range views of the surrounding area. Figure 3.3.1-1 shows a typical view of the surrounding landscape from the highway. In general, the western end of the project, from Airport Road to Union Road, occurs in flatter terrain. From Union Road to near Almond Drive, the landform becomes

more hilly and undulating. From Almond Drive to the eastern end of the project, the land becomes predominantly flatter again providing views of the surrounding low hills.

Surface water does not play an important role in the visual character throughout the project area. Although surface water is not readily apparent, the riparian corridors of the Estrella River and Cholame Creek are visible at various locations along the project length.

The common vegetative feature of the area is the grass-covered valleys and hills. Scattered oak trees including some woodland is prevalent throughout the western portion of the project. As you move east of the Estrella River, oaks become scarce. Willows and Sycamores can be seen along the riparian corridors of the Estrella River and Cholame Creek, providing a distinct visual change from the grass covered hills and small valleys.



Figure 3.3.1-1. Typical landscape view from the highway

Throughout the project area, the “built” environment is a small component of the visual character. The highway itself is the primary development feature within the project area. In addition to the highway, the built environment consists of scattered ranches, homes, and occasional roadside retail businesses including wineries, a golf course, and a café. In general, the western portion of the project area is more developed than the eastern end. But, the man-made development throughout the project area does not dominate the views when seen in the context of the overall landscape.

Environmental Impacts

In General

This discussion of impacts to visual resources is separate for each proposed alternative.

The Estrella, Shandon, Cholame, and Wye section alternatives are similar in that they would result in a visual change from the rural two-lane highway environment to a more built-type of environment with the divided four-lane expressway. The alternatives do differ in certain degrees by which this

visual change would result. In the Estrella Section, Alternative 9N would generally result in a greater amount of visual change than Alternative 8N. Shandon Section, Alternative 2 would generally result in a greater impact to the visual setting than Shandon Section, Alternative 1. Cholame Section, Alternative 1 would result in a greater impact to the visual character of that section than Cholame Section, Alternative 2. For the Wye section alternatives, Wye Section, Alternative 5 would result in the greatest impact to the visual setting, while Wye Section, Alternative 9 would result in the least impact to the visual character of that section. All of the proposed build alternatives for the project would include the implementation of minimization measures and best management practices to reduce the level of impact to the visual character of that section.

Discussion

A Visual Impact Assessment (VIA) for this project was prepared using the process developed by the U.S. Department of Transportation Federal Highway Administration Office of Environmental Policy. A VIA establishes the visual environment of the project area, inventories the visual resources, identifies viewer exposure and sensitivity to those resources, and assesses viewer response to resource changes that would be introduced by the proposed project. Understanding the change in visual character, both adverse and beneficial, produced by the project allows the degree of visual impacts to be determined.

To assess potential visual impacts from the proposed project, two general viewer groups were considered for the evaluation of viewer response: those with views from the proposed project (motorists) and those with views of the proposed project (residents).

Highway users are the viewers from the road group. For this group, State Route 46 within the project limits offers distant views with the surrounding low hills as the horizon. The awareness of visual resources by these users is expected to vary with their specific activity. Tourists, which comprise a substantial number of viewers on State Route 46, generally have a high awareness of the visual resources around them, yet are less sensitive to specific changes to that resource because they do not drive the route day in and day out. Local residents and business owners are the most sensitive to aesthetic issues due to their familiarity as well as their personal investment in the area.

The group of viewers who would view the proposed project consists of all those who can see the project or any of its components from off-site locations. In the case of this project, the number of people viewing the road from off-site locations is less than those who would see the project while on the highway. The most notable features of the existing highway and proposed project for this group are the auto and truck traffic and occasional excavation slopes.

Photo simulations document the existing scenic resources and changes to them as a result of the proposed project, and are used to evaluate the effect of the proposed project. The images identify changes in the area's visual character as a result of the project. Figures 3.3.1-3 and 3.3.1-4 show an example of the photo simulations for this project. Figure 3.3.1-2 shows the current view is State Route 46. This photo was taken from the north side of State Route 46, looking west toward Paso Robles. This photo is in the Estrella section of the project, and the bridge over the Estrella River can be seen in the photo as well as the bottom portion of the Estrella grade. Figure 3.3.1-3 shows what this portion of the project would look like if Estrella Section, Alternative 8N were constructed, and

Figure 3.3.1-4 shows what this portion of the project would look like if Estrella Section, Alternative 9N were constructed. By creating these visual simulations, an analysis of impacts to the visual setting can more easily be conducted. Due to the numerous simulations created to assess impacts this figure is included here as an example of the simulation only. Please see Appendix E in Volume II of this document to view all of the photo simulations for the entire project.



Figure 3.3.1-2. Existing view in the Estrella Section



Figure 3.3.1-3. Same view but with the construction of Estrella Section, Alternative 8N



Figure 3.3.1-4. Same view but with the construction of Estrella Section, Alternative 9N

Eleven observer viewpoints were established throughout the project area to evaluate the project's existing visual character and any potential change in visual character from the proposed build alternatives. Ten of the observer viewpoints were located through the Estrella, Shandon, and Cholame sections of the project, and one was located within the Wye section.

As a result of the proposed project, changes in visual resources would occur within the project limits. These changes would be due primarily to the increased visibility of the "built" characteristics and the larger scale of the highway facility in general. The most evident changes to the typical viewer would be: twice as much pavement, newly disturbed cut slopes, landform alteration profiles, and a more open spatial character at certain locations. The removal of existing mature trees at a few locations would further contribute to the character change. In general, the project alternatives do not include elements that would substantially add or subtract from the overall viewing experience.

Post-construction and short-term adverse visual impacts would occur as part of the project. These temporary impacts are expected to diminish as the project site weathers and as mitigation components become established.

The proposed project alternatives would have the greatest impact on the visual environment at the following project locations:

The Estrella River Bridges/Whitley Gardens Area – Estrella Section

Approximate KP 63.5 to 64.1 (PM 39.7 to 40.1)

Both Estrella section alternatives proposed for this location would adversely affect the residential community in the area of the Estrella River Bridge. Estrella section, Alternative 8N would result in somewhat smaller cut slopes than Alternative 9N, which in combination with a narrower bridge structure and elevated viewing opportunities would benefit the highway user. Alternative 8N would construct two parallel bridges substantially higher than the existing bridge. As seen from off the highway, the size of these structures would visually dominate the adjacent community. Alternative 9N creates larger cut slopes and wider bridge decks, adversely affecting the views for the highway user. The bridges proposed with Alternative 9N would have a negative affect on the nearby residences, but the scale of impact would be less than that of Alternative 8N and would better accommodate Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures such as planting to further reduce its impacts. Please refer to the visual simulations in Volume II, Appendix E.

Proposed cut slope approximately 1 kilometer (0.6 miles) west of the State Route 41 intersection – Shandon Section, Alternative 2

Approximate KP 76.8 (PM 48.2)

The large cut slope associated with Alternative 2 at this location would result in a visible slope face approximately 34 meters (112 feet) high, including removing the top 8 meters (25 feet) of hilltop. The highly engineered excavation would appear inconsistent with the existing slopes along the route and its angular benched profile would be noticeable from long distances on and off the highway. Please refer to the visual simulations in Volume II, Appendix E.

Approximately 1.4 to 3.5 kilometers (0.9 to 1.9 miles) east of the Shandon Safety Roadside Rest Area – Cholame Section

Approximate KP 76.8/78.9 (PM 48.2/49.5)

With either of the proposed alternatives (1 or 2), the visual setting for the westbound highway traveler would change. Because the proposed new alignment would move the highway user farther from the existing roadside developments, views of the built environment would decrease. The new lanes would be at a higher elevation than the existing location, providing better long distance views of the surrounding hillsides. With either alternative, the viewing experience for the westbound highway user is expected to improve. For those traveling in the eastbound direction, the views associated with proposed Alternative 1 would also improve for the same reasons as the westbound viewer. Eastbound lanes of Alternative 2 would somewhat follow the existing alignment and, as a result, views would remain similar to the existing quality. Please refer to the visual simulations in Volume II, Appendix E.

The vicinity of the Jack Ranch Café – Cholame Section

Approximate KP 86.4 (PM 54.0)

Both alternatives propose the same road alignment in this area. The increased scale of the proposed project in relation to the setting of the café would result in visual impacts. The rural character would be reduced by the proximity of the traffic lanes to the café, the loss of existing trees, the increased parking area, and signage. The setting of the culturally important James Dean memorial would be adversely affected. Please refer to the visual simulations in Volume II, Appendix E.

The State Routes 46/41 Interchanges – Wye Section

Approximate KP 88.0/90.6 (PM 55.0/56.3)

The potential visual impacts shared by all alternatives are:

- Views of distant hills would be partially blocked.
- The scale of the bridge structure would decrease the rural character of the area.
- Additional pavement, signage, and other visible roadway components would decrease the rural character of the area.
- Views from atop the bridge structure would be more panoramic than current view locations.

Views to the proposed interchange locations from non-highway viewpoints are minimal.

The Wye section alternatives were ranked for comparison purposes. A numerical ranking of 1 indicates that the alternative has the fewest possible visual impacts, and a ranking of 5 means that the alternative would have the most visual impacts compared to the other alternatives. Table 3.3.1-1 shows the ranking comparison.

Table 3.3.1-1. Interchange Ranking Comparison

Wye Alternative	Ranking of alternative as seen from future alignment. (rank 1=fewest impacts, rank 6=most impacts)						Overall ranking of Wye section Alternatives
	Blockage of views	Visibility of engineered parts	Viewing opportunities from higher locations	Perceived size and mass of alternative	Relationship of the interchange to the existing topography	Numeric Average	
4	5	5	1	6	5	4.4	4
5	6	6	3	5	6	5.2	5
7	2	2	6	4	4	3.6	3
8	4	4	5	3	2	3.6	3
8b	3	3	4	1	1	2.4	2
9	1	1	2	2	3	1.8	1

* EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

The preliminary ranking shown in Table 3.3.1-1 indicates that Wye Section, Alternatives 8b and 9 would result in fewer impacts to visual resources than the other alternatives. When each alternative is considered by itself, Alternative 9 has the fewest impacts to visual resources.

Noise Barriers

Based on the findings of the Noise Impacts Study, two possible locations for noise barriers were identified. These barriers may have an effect on the visual environment. In general, none of the proposed noise barriers would cause a substantial adverse impact to visual resources, but measures to minimize potential visual impacts are recommended and included in the Avoidance and Minimization Measures, Best Management Practices, and Mitigation Measures section. These measures should be incorporated wherever possible to minimize impacts to visual resources associated with the noise barrier structures.

Construction Impacts

Visual impacts caused by construction activities are temporary effects that would end upon completion of the project. These temporary impacts such as bare (no vegetation) cut slopes, un-vegetated medians, and loss of mature trees would cause a degraded visual appearance from what exists now. These impacts, however, are temporary and most would dissipate within one year after construction is complete. Within a year, most vegetation would become established. Impacts from the loss of mature trees would take longer to dissipate, but would still be temporary, as new planted trees would grow to take their place. Re-vegetation of temporary construction staging areas and equipment use areas would occur when vegetation is removed by construction. The impacts of removal would also be temporary, but in some cases would last up to three to five years after construction until replacement plantings grow sufficiently to blend in with undisturbed surroundings.

None of the proposed alternatives for each of the four sections would result in substantial adverse visual impacts with the implementation of the following design and construction minimization and mitigation recommendations.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

The following Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures would be incorporated into the project to reduce the amount of adverse visual impact:

General Measures –

- Steepen constructed slopes at spot locations, if necessary, to save existing trees/woodlands.
- Replace all trees removed as part of the project at the ratio designated by the District Landscape Architect.
- Replant trees required as mitigation within the highway right-of-way to the greatest extent possible.
- Incorporate slope-rounding on all slopes except where slope rounding would cause the removal of mature trees that would otherwise remain.
- Eliminate or minimize slope-benching on all slope designs.
- Apply erosion control to all disturbed slopes.
- Design all guard rails, barrier, and other fixed objects to reduce the requirement for installation of crash cushion arrays.

Noise Barrier Measures –

- Receptor 1⁴² – Estrella Section, Alternatives 8N and 9N. Noise impact minimization measures include retaining as much of the existing landform as possible. If possible, this should be done by steepening the proposed cut slope.
- Receptors 4b & 5, Barrier 2 – Estrella Section, Alternatives 8N and 9N. Noise impact minimization measures recommend the construction of a 759 meter long by 2 meter tall (2,490 feet long by 6 feet tall) earthen berm. The berm should be designed to appear as a naturally-occurring landform. This can be accomplished by constructing side slopes at a ratio of 1:3 (vertical to horizontal), contour grading the form, subtly varying the alignment, and including minimal native planting to blend the berm in with the surroundings.
- Receptor 16, Barrier 6 – Estrella Section, Alternatives 8N and 9N. Noise impact minimization measures recommend the construction of a 85 meter long by 3 meter tall (280 feet long by 10 feet tall) sound wall. A wall along the highway at this location would adversely affect the rural character of the area. It is recommended that a combination wall and berm should be constructed to reduce the perceived size of the wall. Native-looking planting should be included to transition the wall into its setting. *Note: Sound wall was not desired by affected resident and will not be constructed.*
- Receptor 17 – Shandon Section, Alternatives 1 and 2. Noise impact minimization measures include retaining as much of the existing landform as possible. No impact to visual resources

⁴² Please see the Noise Section in this document, Section 3.1.5, for a description of the Receptor and recommended noise minimization measure.

would occur as long as the slope is not over-steepened and if successful erosion control measures are applied.

Location-Specific Measures –

Near Hunter Ranch Golf Course (approximate KP 53.4) (PM 33.3)

- Plant oak trees and native shrubs along the eastbound roadside in the vicinity of the Hunter Ranch Golf Course to screen views of the highway.

The Estrella River Bridges (approximate KP 63.8/64.0) (PM 39.8/40.0)

- Construct the bridges with Type 80⁴³ bridge rail (see Figure 3.3.1-5).
- If Alternative 8N is selected, apply aesthetic treatment to slope paving in the vicinity of Estrella Road and on bridge columns.
- Engineer the bridge structures with as thin of a bridge deck as possible.
- Plant appropriate native trees and shrubs on the embankment slopes at the Estrella River Bridge to reduce visibility of the highway facility.



Figure 3.3.1-5. An example of Type 80 Bridge Rail

Proposed cut approximately 1.9 kilometers (1.2 miles) east of Cholame Creek Bridge no. 49.29 (approximate KP 83.0) (PM 51.9)

- Contour-grade the landform remnant between the two proposed road alignments with maximum side-slopes at a ratio of 1:3 to appear as a naturally occurring landform.

⁴³ Type 80 bridge rail is a type of constructed concrete rail that has openings in the rail to allow for limited views while driving on the bridge (see Figure 3.3.1-5).

The Jack Ranch Café (approximate KP 86.3) (PM 54.0)

- At the Jack Ranch Café, plant trees along the eastbound roadside to re-create the windrow appearance lost as part of the road construction.
- Plant screening shrubs between the proposed Jack Ranch Café parking lot and the proposed highway.
- Repair and improve the existing James Dean Memorial to enhance its setting.

The Wye Alternatives (approximate KP 88.0/88.8) (PM 55.0/55.5)

- Wye Section, Alternatives 7, 8, or 9 – Investigate moving the interchange and realign State Route 41 approximately 100 meters (328 feet) to the east of the location currently proposed. This would cause State Route 41 north of the interchange to follow an existing “saddle” in the topography rather than cross the top of a minor ridgeline.
- Wye Section, Alternative 8b – Along the existing Highway 41 alignment in the vicinity of STA 28+00 to 30+00, re-establish the original ridgeline landform after the existing road is removed.
- Wye Section, all alternatives – If slope paving is required under the structure(s), use natural-appearing surface treatment or apply color and/or texture to the concrete to blend with the existing rural visual character.
- Wye Section, all alternatives – Contour-grade all slopes to achieve the appearance of a naturally occurring landform.
- Wye Section, all alternatives – Construct all slopes as flat as possible.
- Wye Section, all alternatives – Apply erosion control to all areas disturbed by construction.

3.3.2 Farmland Resources

Affected Environment

The predominant land use surrounding this project is agricultural. Much of the land in the Wye, Shandon, and Cholame sections of the project is currently dry-farmed and used as field crops or grazing land. The Estrella section is mostly planted to vineyards. Countywide, approximately 6,070 hectares (15,000 acres) of farmland have been converted to vineyard between 1995 and 2000. Approximately 4,249 hectares (10,500 acres) of that planting is in the Paso Robles region. Within about 1.6 kilometers (1 mile) of either side of the State Route 46 corridor (between Airport Road and the town of Shandon) approximately 809 hectares (2,000 acres) have been converted to vineyard between 1995 and 2000. The Estrella section of this project has seen the most farmland conversion to vineyard.

The project study area consists of the State Route 46 corridor, from Airport Road to the easternmost divergence of State Routes 46 and 41. The “Important Farmland” area studied was approximately 3.2 kilometers (2 miles) in width, and within 1.6 kilometers (1 mile) of either side of the State Route 46 corridor. For the Agricultural Preserve and Williamson Act Contract study, only the property immediately adjacent to and contiguous with the corridor was studied.

Agricultural Economic Profile

Agriculture within San Luis Obispo County has maintained an important role in the local economy. There are five major categories of agricultural industry that contribute to the County’s economy, including: animal industry, fruit and nut crops, vegetable crops, nursery stock and seed crops, and field crops. Table 3.3.2-1 shows the total dollar value of each major category in the County in 1999.

Table 3.3.2-1. The Dollar Value, Countywide, of each of the Major Types of Crop Industry

Type of Crop or Industry	Animal Industry	Field Crops	Nursery & Seed Crops	Fruit & Nut Crops	Vegetable Crops	Total
Dollar Value countywide*	\$36,031,000	\$16,296,000	\$82,853,000	\$122,450,000	\$135,393,000	\$393,023,000

*Source: San Luis Obispo County Department of Agriculture 1999 Annual Report

Between 1998 and 1999, all major agricultural categories saw economic growth ranging from 8% to 10%, except for field crops which saw a decline of approximately 1%.

Agricultural Preserve and Williamson Act Lands

An agricultural preserve defines the boundary of an area within which a city or county will enter into Williamson Act contracts with landowners. The boundary is designated by resolution of the county board of supervisors or city council having jurisdiction. The area must be devoted to either agricultural use, recreational use, or open-space, or any combination of those uses. The Williamson Act is a voluntary land conservation program overseen, locally, by the County of San Luis Obispo. The basic purpose of the Williamson Act is to preserve agricultural lands and prevent their conversion to non-agricultural uses. Other purposes of the act are to preserve farmland for a secure food supply for the state, maintain agriculture’s contribution to local and state economic health, provide economic relief to tax-burdened farmers and ranchers, and preserve open space for its scenic, social, aesthetic, and wildlife values.

A property must first be designated an agricultural preserve in order for it to be eligible for a Williamson Act Contract (the Contract). Once a property is under contract, it is no longer considered in preserve. The contract is established by landowner request and is entered into by and between the property owner and lien holders (if any) and the County to enforceably restrict the use of the land for agricultural and compatible uses for a minimum term of 10 years or more.

As shown in Table 3.3.2-2, there are several thousand acres currently under agricultural preserve adjacent to the project limits. The Shandon section of the project has the highest amount of both Contracted and Preserved land.

Table 3.3.2-2. Total Area of Farmland under Preserve and under Contract by Section

Section of Project	Total Area in Preserve		Total Area under Contract	
	Hectares	Acres	Hectares	Acres
Estrella	0	0	1,180	2,915
Shandon	3,580	8,846	8,023	19,824
Cholame	622*	1,537*	1,431	3537
Wye	134	330	89	219
Total	4,336	10,713	9,115	22,522

*Some of the parcel sizes were estimated.

Important Farmland

The State Department of Conservation identifies “Important Farmland” to analyze impacts on California’s agricultural resources. The classification system combines technical soil ratings, current land use, and irrigation status as the basis for identifying Important Farmland. There are three types of Important Farmland recognized by the state: Prime Farmland, Farmland of Statewide Importance, and Unique Farmland.

Prime Farmland is land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.

Unique Farmland is land of lesser quality soils used for the production of specific high economic value crops at some time during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods.

Table 3.3.2-3 shows the number of hectares (acres) within the project area designated as “Important Farmland” within each section. Shandon has the greatest area of Prime Farmland and Farmland of Statewide Importance. Estrella has the greatest area of Unique Farmland. Cholame has the smallest area of Important Farmland in all three designations. Figure 3.3.2-1 shows the distribution of Important Farmland within and near the project area. The Wye section of the project has no designated farmland.

Table 3.3.2-3. Total Area Designated as “Important Farmland” by Section

Section of Project	Important Farmland						Project Section Total Designated Farmland	
	Prime Farmland		Statewide Important		Unique Farmland		hectares	acres
	hectares	acres	hectares	acres	hectares	acres		
Estrella	222.7	550.5	193.6	478.4	1,241.8	3,068.6	1,658.1	4,097.5
Shandon	1,126.2	2,782.8	462.5	1,142.8	367.4	907.9	1,956.1	4,833.5
Cholame	159.3	393.8	0.0	0.0	27.2	67.3	186.6	461.1
Total	1,508.2	3,727.1	656.1	1,621.2	1,636.5	4,043.8		

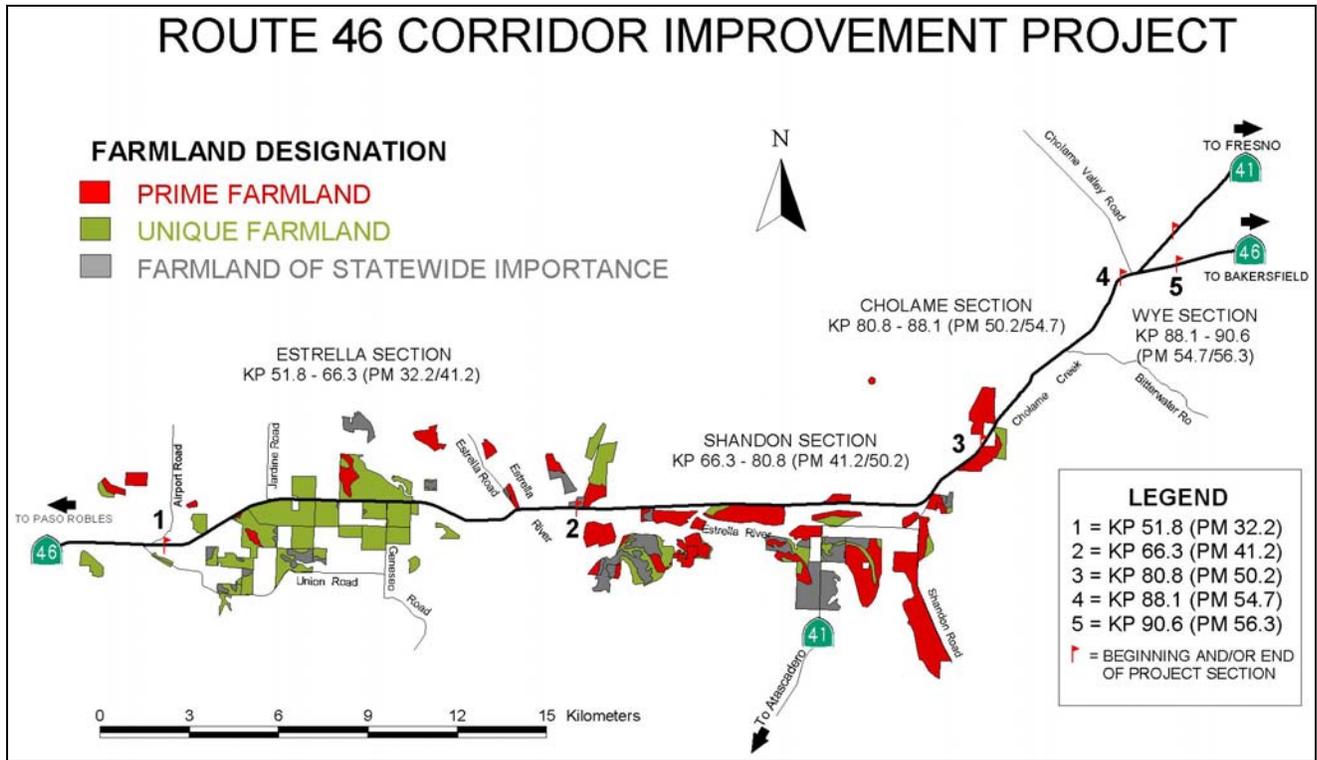


Figure 3.3.2-1. Distribution of designated farmland in the project area

Environmental Impacts

In General

This discussion of impacts to farmland is separate for each alternative.

Designated or contracted farmland would be impacted by construction of any of the build alternatives in the Estrella, Shandon, and Cholame sections. None of the Wye section alternatives of the project would impact any designated or contracted farmland. Estrella Section, Alternative 8N would impact less designated farmland held in Williamson Act contracts than Estrella Section, Alternative 9N. No contracted farmland would be impacted by either of the Estrella section alternatives. Shandon Section, Alternative 1 would impact less contracted farmland than Shandon Section, Alternative 2 would. The same amount of designated farmland would be impacted under both Shandon section alternatives. Cholame Section, Alternative 1 would impact more designated and contracted farmland than Cholame Section, Alternative 2 would.

Caltrans uses the U.S. Department of Agriculture’s Farmland Conversion Impact Rating Form⁴⁴ (FCIR) to determine impacts to farmland. The form assigns the affected farmland a combined score of up to 260 points, composed of up to 100 points for relative value and up to 160 points for the site assessment. With this score, the effects of each alternative on farmland can be identified, and a determination can be made as to the suitability of the site for protection as farmland. Sites receiving

⁴⁴ The FCIR forms for each section can be found in Volume II, Appendix F, of the EA/DEIR.

a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated⁴⁵.

The Relative Value Rating on the FCIR form uses land evaluation criterion based on information from several sources, including national cooperative soil surveys or other acceptable soil surveys, NRCS field office technical guides, soil potential ratings or soil productivity ratings, land capability classifications, and important farmland determinations. Based on this information, groups of soils are assigned a score between 0 to 100, representing the relative value for agricultural production of the farmland to be converted by the project as compared to other farmland in the surrounding area.

The Site Assessment Criteria evaluated by Caltrans consists of several factors. These include:

- Land uses within a one-mile radius of the sites
- Recent history of the use of land
- Whether or not the farmland is protected by state or local policies or programs
- Comparison of average size to similar farmland in the region
- The evaluation of whether land is still farmable if the project is constructed
- Availability of support services and markets
- The presence of substantial and well-maintained on-farm investments
- Compatibility of the project with farming activities

As shown in Table 3.3.2-4, the value of the farmland affected by this project, for Estrella Section, Alternative 8N, Shandon Section, Alternative 1, and Cholame Section, Alternative 1 (the preferred alternative) is at or slightly above the 160 points required for consideration for protection and mitigation. There is only a slight difference between the alternatives in the different sections, which indicates that the chosen build alternatives would not have an effect on the overall value of farmland in the region. In addition, as will be shown in the discussion, the impacts to farmland for any of the build alternatives are less than significant in comparison to the overall amount of farmland in San Luis Obispo County. For this reason, protection or mitigation of the affected farmland is not considered.

Table 3.3.2-4. Farmland Conversion Impact Rating Form Results

Section	Alternative	Relative Value of Farmland	Total Corridor Assessment	Total Points
Estrella	8N	70	86	156
	9N	68	86	154
Shandon	1	77	86	163
	2	81	86	167
Cholame	1	81	75	156
	2	79	75	154

⁴⁵ Code of Federal Regulations, Title 7—Agriculture, Chapter VI--Natural Resources Conservation Service, Department of Agriculture, Part 658--Farmland Protection Policy Act.

Discussion

Williamson Act Lands

Under CEQA, a project’s impacts are significant if they would, “result in the cancellation of a Williamson Act contract for a parcel of 100 or more acres”⁴⁶. None of the project alternatives would meet this criterion.

Table 3.3.2-5 shows the number of hectares (acres) that would be removed with each alternative. Table 3.3.2-6 identifies the percentage of contract and preserve properties impacted based on the total acreage of contract and preserve properties adjacent to the highway for each section. This total includes the parcels directly impacted and the parcels not impacted but adjacent to the highway corridor.

Table 3.3.2-5. Total area that would be removed from preserve and contract by alternative

Section and Alternative	Total Area of Farmland Removed from Preserve		Total Area of Farmland Removed from Contract	
	Hectares	Acres	Hectares	Acres
Estrella, 8N	0.0	0.0	10.6	26.3
Estrella, 9N	0.0	0.0	14.5	35.9
Shandon, 1	5.0	12.4	15.1	37.4
Shandon, 2	5.0	12.4	14.8	36.5
Cholame, 1	30.7	75.8	14.6	36.1
Cholame, 2	27.2	67.3	9.4	23.2
Wye 4, 5, 7, 8, 8b, 9	0.0	0.0	0.0	0.0

As is seen in Table 3.3.2-5, the Cholame section of the project would remove the highest amount of acreage from production. However, as shown in Table 3.3.2-6, it represents a relatively small area (less than 5% for preserve and contract lands) when compared to the overall acreage in preserve and under contract in each section of the study area. Each of the other sections would remove considerably smaller amounts from preserve and contracted lands when compared to the overall acreage in each section of the study area. When the area of lands under contract is compared to the amount that is found in San Luis Obispo County, the impact of removing this land is reduced further.

Table 3.3.2-6. Percentage of Total Amount of Designated Farmland Removed from Preserve and Contract for each Alternative within each section of the Study Area

Section and Alternative	Percentage Proposed for Removal from Preserve	Percentage Proposed for Removal from Contract
Estrella 8N	0.0 %	0.9 %
Estrella 9N	0.0 %	1.2 %
Shandon 1	2.8 %	0.8 %
Shandon 2	2.8 %	0.8 %
Cholame 1	4.4 %	2.0 %
Cholame 2	3.9 %	1.3 %

⁴⁶ California Code of Regulations Section 15206 (b)(3)

Table 3.3.2-7 shows the comparison of farmland that the project would remove to the overall amount in the County of San Luis Obispo. The area of land under contract proposed for removal represents less than 0.01% of the land currently under contract within the County. The area of land, designated as preserve and proposed for removal by the project, represents less than 0.1% of the land currently designated as preserve land within the County.

Table 3.3.2-7. Percentage of Project Impacts to Preserve and Contract Land as Compared to San Luis Obispo County Totals

Section and Alternative	County Based Percentage (preserve)	County Based Percentage (contract)
Estrella 8N	0.000 %	0.003 %
Estrella 9N	0.000 %	0.004 %
Shandon 1	0.007 %	0.005 %
Shandon 2	0.007 %	0.004 %
Cholame 1	0.041 %	0.004 %
Cholame 2	0.036 %	0.003 %

No designated Preserve or Contracted farmland would be removed under any of the proposed Wye section alternatives.

Important Farmland

Table 3.3.2-8 shows the total number of hectares (acres) that would be removed in each of the three major important farmland categories under each section and alternative. The Cholame section would remove the largest area of Prime Farmland. The Shandon section would remove the second largest area of Prime Farmland. Unique Farmland would only be removed within the Estrella section.

Two types of removal are discussed: Permanent and Temporary. Permanent removal describes land that would be permanently removed from agricultural production. Temporary removal describes land that would be removed temporarily, due to a construction or utility easement, from agricultural production. All land under this category would be eligible for agricultural use when the easement is relinquished by the state.

Table 3.3.2-8. Number of Hectares (Acres) of Farmland Impacted by Type

Section & Alternative	Permanent Removal			Temporary Removal		
	Prime Farmland	Statewide Important Farmland	Unique Farmland	Prime Farmland	Statewide Important Farmland	Unique Farmland
Estrella 8N	0.22 (0.55)	0.08 (0.21)	3.20 (7.91)	0.00	0.04 (0.12)	3.92 (9.69)
Estrella 9N	0.22 (0.55)	0.08 (0.21)	3.20 (7.91)	0.00	0.04 (0.12)	3.92 (9.69)
Shandon 1	4.67 (11.54)	0.05 (0.14)	0.00	0.07 (0.19)	0.00	0.00
Shandon 2	4.67 (11.54)	0.05 (0.14)	0.00	0.07 (0.19)	0.00	0.00
Cholame 1	5.10 (12.61)	0.00	0.00	0.42 (1.06)	0.00	0.00
Cholame 2	3.69 (9.13)	0.00	0.00	0.96 (2.38)	0.00	0.00

Table 3.3.2-9 shows the percentage of removal for each type by alternative and section. The Cholame section would permanently remove the greatest percentage of Prime Farmland. The Estrella section would remove the second greatest percentage of Prime and Statewide Important Farmland, and the Shandon section would remove the least percentage of Prime and Statewide Important Farmland.

Table 3.3.2-9. Percentage of Farmland in Study Area that would be Removed by Type

Section & Alternative	Permanent Removal			Temporary Removal		
	Prime Farmland	Statewide Important	Unique	Prime Farmland	Statewide Important	Unique
Estrella, 8N	0.10	0.04	0.26	0.00	0.03	0.32
Estrella, 9N	0.10	0.04	0.26	0.00	0.03	0.32
Shandon, 1	0.04	0.01	0.00	0.007	0.00	0.00
Shandon, 2	0.04	0.01	0.00	0.007	0.00	0.00
Cholame, 1	3.20	0.00	0.00	0.27	0.00	0.00
Cholame, 2	2.30	0.00	0.00	0.60	0.00	0.00

No farmland designated as Prime, Unique, or of Statewide Importance would be removed under any of the proposed Wye section alternatives.

Agricultural Access

Several improvements would be made to access farmland. For example, there would be left turn channelization at intersections and access points in the median designed to accommodate turning radii of large vehicles, including farm equipment. Greater shoulder widths would be constructed for all alternatives. This would provide for safer access for slow moving farm equipment moving along State Route 46. Some access points would be consolidated using private access roads, with access to the proposed project at designated full standard intersections. These intersections would provide safer access to State Route 46 because they would contain left-turn channelization, and deceleration and acceleration lanes and they would have minimum visibility requirements for safety. Furthermore, having two lanes of traffic in each direction would allow for safer passing of slow moving farm equipment.

The impacts to farmland from this project would be minimal. The existing State Route 46 alignment has farmland on both sides of the highway facility. Any widening that would be proposed for a project of this magnitude would have impacts to the adjacent farmland. The wide range of alternatives studied for widening of the existing facility had varying degrees of impact to farmland. Although the total amount of impacts to farmland range from 11 to 45 hectares (26 to 112 acres), the impacts result from the taking of linear strips of land adjacent to the existing alignment that would be converted to a transportation use. A study of the impacts found that the conversion of farmland to transportation would not result in a property owner's ability to farm the existing farmland. In some cases, access to and from the property would be easier and thus more compatible with the existing farm practices in this area. In comparison to the overall amount of designated farmland in the County of San Luis Obispo, very few acres are being removed from agricultural production. The impact to the county's economic vitality would be negligible.

The CEQA determination found that no significant impacts to Williamson Act Contract lands or lands held in agricultural preserve would result from the construction any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

No measures are required.

3.3.3 Cultural Resources

Affected Environment

Native American Resources

The Migueleno people, a subset of the Salinan cultural group, were the native residents of the project area. Because of the early impact on them by Spanish colonization beginning in 1769, ethnographic data is limited. By the time anthropologists began systematic studies of California Indian people early in the 20th century, much information had been lost due to the many generations of mission influence and adjustments to Western economy. Therefore, available references give only broad outlines of Salinan ethnography.

The Salinan people are believed to have occupied the region for at least several thousand years. Population figures suggest that their numbers probably never surpassed 3000. The extent of their range is uncertain, but in general it consisted of a long, narrow strip along the rugged central California coast that extended inland through the Coast Ranges to the edge of the San Joaquin Valley. From the upper reaches of the Salinas River, Salinan lands continued northward to the vicinity of Soledad in the Salinas Valley and to the northwest, from Point Lopez to the south side of Junipero Serra Peak (formerly Santa Lucia Peak). From Junipero Serra Peak, Salinan territory angled across to Soledad along a common boundary with another Indian tribe, the Ohlone/Costanoan. Along the southern boundary, Salinan territory appears to have melded into lands occupied by the Northern Chumash, with whom they shared many cultural and linguistic traits. The eastern boundary, which followed roughly the summit of the Diablo Range, appears to have been somewhat more fluid and was shared with bands of the Southern Valley Yokut.

Villages were located within the interior valleys, with the rougher uplands used only seasonally. The Salinan groups probably maintained a more mobile lifestyle than the San Joaquin Valley peoples to the east or the coastal peoples to the south. With some exceptions, villages were generally small and more likely abandoned by most of their inhabitants for extended periods, while smaller task and family groups followed their independent foraging rounds.

Main staples included the acorn, pine nuts, grass seeds, chia, and sunflower. Deer, rabbit, and other small game and waterfowl were hunted. Tools consisted of mortars and pestles, the mano and metate, and bedrock mortars. Soapstone plates and bowls were both manufactured locally and acquired through trade with the Chumash; utensils and small bowls were also made of abalone shell or wood. Bone and antler were crafted into various tools, beads, and projectile tips. The bow and

arrow were the main hunting tools, primarily for deer. Fishhooks, made of shell or bone, were used for fishing. Nets were made to obtain both fish and rabbit.

Men did most of the hunting and fishing, house construction, and manufacturing of tools and equipment, while women gathered most of the plant foods and assumed most of the responsibilities of child rearing. Men collected tule for house construction and wove nets used for fishing. Women gained prestige through the manufacture of basketry, which were important items of trade.

The first known outside contact with the Salinan people came in 1769, during Portola's expedition to San Francisco Bay. In 1771, Mission San Antonio de Padua was founded in northern Salinan territory, and by the 1790s was the largest mission in the system. A generation later, in 1797, San Miguel Arcangel was founded in the southern portion of Salinan territory less than 16 kilometers (10 miles) from the western end of the current project route. The combined effect of forced acculturation, disease, and outright conflict rapidly reduced the Salinan population. With secularization of the missions, the local population was forced to assimilate into rural poverty, and individuals were treated as aliens in their own homeland. Preemption of native lands continued to increase during the American Period (1848 to present). Although largely bypassed by the California Gold Rush, what had before been a trickle of newcomers quickly became a torrent. Today, however, diligent elders and a younger generation of Salinan are working toward federal tribal recognition and are keeping the traditions and the language alive. The Salinan represents a vital part of the modern community.

Historic Resources

Spanish explorers and missionaries were the earliest non-indigenous people in what is now known as San Luis Obispo County. At least two Manila galleon captains paid brief visits at Morro Bay, but the land remained largely unexplored until Portola's 1769 expedition from San Diego to Monterey followed a coastal route through the County. In 1774, Anza's expedition established a trail along the easier route up the Salinas river valley (Beck and Haase 1974:16; Hoover et al. F1990:359). Spanish missions were the first permanent Euroamerican settlements in the region. Father Junipero Serra founded Mission San Luis Obispo de Tolosa in 1772, while Father Fermin Francisco de Lasuen established Mission San Miguel Arcangel, the Spanish settlement closest to the project area, in 1797 (Hoover et al. 1990:360-3661).

Ranches were gradually settled along the coast, but inland settlement was sparse. Governor Micheltorena granted the 10,774 hectare (26,622 acre) Cholame Rancho to Mauricio Gonzales on February 7, 1844 (Robinson 1957:51). After the Mexican-American War and California's admittance to the Union in 1850, one of the most important tasks in the new state involved settlement of private land claims. The Cholame Rancho was sold to Ellen White in 1851. Through a series of legal and bureaucratic maneuvers, the rancho eventually ended up as the property of sheep baron W.W. Hollister in 1867. In 1869, Hollister sold a half-interest in the ranch to Robert E. Jack. In 1886, Jack purchased Hollister's portion of the ranch.

Attempts to farm the land were made by Jack and others in the project area. While farming efforts failed, Jack's attempts to raise cattle met with continued success. His success and others' failures

led him to acquire many more acres of land. His rancho at its greatest encompassed 21,450 hectares (53,000 acres).

Cholame has long been an area of activity and a place to congregate for the residents of the area. A post office was first established there on May 14, 1873. The Jack Ranch Café was built in 1923, serving locals and travelers alike. A clump of *ailanthus* (tree of heaven) trees marks the spot of the former Cholame-Orange schoolhouse. In November 1966, Howard Jack sold the 21,450 hectares (53,000 acres) Cholame Ranch to the Hearst Corporation, which still owns and operates the Jack Ranch, as it is commonly known.

The earliest state highways followed the routes previously established by the county. State Route 33 from Bakersfield to Paso Robles was added to the state highway system in 1915. It was known as the “Cholame Lateral” and has long been considered an important link between the inland valley and coast.

Notification of Interested Parties

Various members of the public were notified and consulted regarding the cultural resource studies conducted for this project. Local historical organizations or knowledgeable individuals include the San Luis Obispo County Historical Society; El Paso de Robles Area Historical Society; Pioneer Museum, Paso Robles; Atascadero Historical Society; and local historians Wallace Ohles and Bill Dellard. No historic resources immediately adjacent the project area were noted.

Representatives from the Salinan Nation were notified of the proposed project on September 22, 1999. On September 28, 1999 a meeting was held at the Caltrans office to discuss the project with representatives from the Salinan Nation. On January 12, 2000 copies of the archaeological test proposal were sent to the Salinan Nation for their review. They did not have any concerns with the testing plan. Irene Duckworth from the Salinan Nation served as site monitor during the test excavations conducted February, March, and April 2000. Copies of the draft report were sent to the Salinan Nation for their review. They did not have any concerns. Representatives of the Salinan Nation also attended a public information meeting held on December 1, 1999.

Environmental Impacts

In General

This discussion of impacts to cultural resources applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of cultural impacts were conducted on a project basis and not separate for each alternative. Impacts to cultural resources would not result from the construction of any of the proposed build alternatives.

Section 106 of the National Historic Preservation Act (1996) and 36 CFR 800, its implementing regulations, requires that the federal agency (FHWA) take into account the effects of an undertaking on historic properties. For purposes of Section 106, a historic property is limited to those that are

listed on or eligible for listing on the National Register of Historic Places (NRHP). Cultural resource studies (archaeological, historic, and historic architectural) were conducted for all alternatives under consideration. No National Register eligible properties would be affected by any of the alternatives for this project.

Discussion

Archaeological Survey

Results of the archaeological survey are documented in the Archaeological Survey Report, which identified four sites (CA-SLO-1922H, -1927H, -1930, and -2009H) located within the project's Area of Potential Effects (APE). The APE includes the maximum proposed right of way for all alternatives under consideration, in addition to a 15 meter (49 foot) buffer that would accommodate necessary construction easements and utility relocations.

Evaluation of Archaeological Sites

A Historic Study Report (HSR) and Phase II Test Excavation Report were completed for the two historic archaeological sites located within the project area, CA-SLO-1922H (William Bland Homestead) and CA-SLO-2009H (Cholame School). Extensive archival research and archaeological testing were conducted. The sites do not have the potential to yield information important to regional history and are not considered eligible for listing in the NRHP, nor are they historical resources for the purposes of CEQA.

An Extended Phase I and Phase II testing report was prepared for archaeological sites CA-SLO-1930 and -1927H. The testing revealed that prehistoric occupation at CA-SLO-1930 was a minor use area, centered on collection and reduction of chert cobbles from the nearby creek for tool manufacture. The site does not have the potential to yield any additional information important to regional prehistory and is not considered eligible for listing in the NRHP, nor is it a historical resource for purposes of CEQA.

Testing at CA-SLO-1927H revealed that the site consists of a low-density accumulation of flaked stone tools and debitage and a limited number of ground stone artifacts. The site appears to be a single-component short-term occupation dating to the central coast Early Period (5500-3000 B.P.). The prehistoric component of the site is considered eligible for listing in the NRHP under Criterion D⁴⁷. The historic component of the site includes a cement foundation associated with a 1920 residence and miscellaneous pieces of non-diagnostic glass, metal, and ceramic. The historic component lacks integrity and does not appear to have the information necessary to address questions important to regional history and is not considered eligible for listing in the NRHP.

⁴⁷ d) Possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and has yielded, or may be likely to yield, information important in history or prehistory. Documented in 4/30/01 letter to FHWA from project archaeologist and 6/20/01 letter from FHWA to SHPO.

Evaluation of Historic Buildings, Old Roads, and Bridges

The Historic Architectural Survey Report (HASR) and Historic Resource Evaluation Report (HRER) examined 83 businesses, farm complexes, and private residences. Of those properties, 70 were treated under the “Interim Guidelines for Evaluating Buildings Less than 45 Years Old, Moved, or Substantially Altered” (1997). These buildings were 1) built after 1955; 2) moved, or 3) have been so altered that the buildings no longer convey the historic identity and/or character that would otherwise define their potential eligibility for listing in the NRHP. The remaining 13 buildings were formally evaluated. The report concludes that none of them are eligible for listing in the NRHP.

The HASR/HRER also identified 17 road segments associated with the previous alignments as well as the county road. They have lost integrity and have no historical significance. They are not associated with important persons or events and do not have the ability to convey information important to history. The road segments are not considered eligible for listing in the NRHP and are not historic resources for the purposes of CEQA.

Seven bridges were also documented; six of the seven were previously evaluated as part of the statewide historic bridge inventory (1987). They are Category 5 bridges (ineligible for listing in the NRHP). The seventh bridge, constructed in 1925 as a state highway bridge, is now on private property. It is a standard design, which possessess no qualities that could convey potential for eligibility for the NRHP. It is not a historical resource for the purposes of CEQA.

Evaluation of the James Dean Memorial

One property, the James Dean memorial adjacent to the Jack Ranch Café, is not eligible for listing in the NRHP because of its age (1977) and because it is primarily commemorative in nature. However, it is a significant resource for the purposes of CEQA, in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. No impacts would result to the James Dean Memorial from any of the proposed alternatives.

FHWA Consultation with the SHPO

On July 20, 2001, the Federal Highway Administration submitted the Historic Property Survey Report (HPSR) prepared for this project to the State Historic Preservation Officer (SHPO). The FHWA requested SHPO concurrence on the adequacy of the inventory effort, the Area of Potential Effects, and the potential eligibility of CA-1927H for listing on the National Register of Historic Places. FHWA also requested further concurrence that the remaining resources identified, including three additional archaeological sites (CA-SLO-1922H, -1930, and -2009H), 83 architectural properties, 17 road segments, and seven bridges were not eligible for listing in the NRHP.

SHPO Review, Concurrence, and Request for Clarification

On November 26, 2001 the SHPO concurred with the FHWA on the following:

- Our efforts to involve the public and to identify consulting parties pursuant to 36 CFR 800.3(e) and (f) are adequate.
- Our efforts to determine and document the Area of Potential Effects (APE) for the subject undertaking are adequate pursuant to 36 CFR 800.4(a)(1).
- Our efforts to identify historic properties in the APE is adequate as part of a phased approach to identification as provided for in 36 CFR 800.4(b)(c).
- Our determination that 83 architectural properties are not eligible for listing in the NRHP.

Additional SHPO Comment

The SHPO was not in complete agreement with the determination that the historic component of CA-SLO-1927/H is ineligible for inclusion in the National Register. The SHPO questioned whether the full extent of the historic component had been adequately identified and whether the existing evaluation of the component was complete.

Measures Taken by FHWA to Address SHPO Concerns

On behalf of FHWA Caltrans prepared a response to the SHPO concerns in a letter dated January 11, 2002. On April 3, 2002, the SHPO concurred with our findings that the historical component of CA-SLO-1927/H is not eligible for listing in the National Register. A copy of this letter is provided in Volume II, Appendix I.

No structures, bridges, or road segments within the Area of Potential Effects are eligible for listing on the National Register of Historic Places.

The CEQA determination found that no significant impacts to archeological resources or historic properties would result from the construction of any of the alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Impacts to cultural sites were avoided through the design of the project. Cultural sites were recorded early in the project development phase by using Global Positioning System (GPS) technology. This information was imported into Geographic Information Systems (GIS) software and then converted into a format that could be used by the design team to avoid impacting potential sites.

Should any properties be discovered during construction during the implementation of the undertaking, Caltrans and the Federal Highway Administration will comply with 36 CFR 800.13(b)(3).

3.3.4 Land Use, Planning, and Growth

Affected Environment

Most land use throughout the project area is agriculture, both farming and ranching. Two small urban communities are found within the project limits. The community of Whitley Gardens is located within the Estrella section of the project near the bottom of the Estrella Grade. Another

small community, Shandon, is located approximately midway through the project area. The land use to the west of the project area is primarily urban. Paso Robles (population 24,297) is located directly west of the project.

Paso Robles has the highest density of population near the project area. The current population has increased 30% between 1990 and 2000 (Ca Dept of Finance)⁴⁸. The increase in population is primarily due to the relatively inexpensive real-estate prices as compared with the City of San Luis Obispo and other coastal areas in the county. There is an extensive development of vineyards and wineries, along with business and industrial growth, in the western one-third of the project area as well as in the surrounding areas of the North County. Rising real estate prices in other parts of the county would undoubtedly contribute to the economic and residential growth of the Paso Robles area⁴⁹.

Between 1990 and 2000, the population of San Luis Obispo County grew from 217,162 residents to an estimated 246,681 residents, a 13.6%⁵⁰ increase in growth. To compare, the north county cities of Atascadero and Paso Robles grew by 14.1% and 30.7%, respectively, during the same time period, while the unincorporated regions of San Luis Obispo County grew 13.6%. The north county area has grown at a rate that is nearly twice that of the south county area. The growth during this time has been independent of any major developments to state highways within the county.

The current general plan expects only limited development within the unincorporated areas of the county, of which, over 95% of the project passes through. Growth in these unincorporated areas is limited by the infrastructure such as sewer and water development needed to support high-density growth. The general plan has also identified open space and agricultural preserve as high priorities to retain the rural qualities of the northeastern county area. This is evidenced in the large amount of land that is currently held in agricultural preserve or under Williamson Act contract.

The population of San Luis Obispo County is expected to continue growing. Growth forecasts developed by the California Department of Finance indicate that San Luis Obispo County will grow approximately 31.0% by 2010 and by approximately 58.4% by 2020.

There is the potential for growth and development beyond the current city limits of Paso Robles. Some limited growth within the project area is expected along the western end along with the incorporation of a small portion of this area into the city of El Paso de Robles. However, no long-range plans exist to further expand the city limits. Predicted future growth in Paso Robles and the unincorporated portions of northeastern San Luis Obispo County would be managed based on land use policies identified in the general plan.

Abundance of land and predicted population growth suggest a high demand for new housing and jobs. However, the majority of the project area has limited water resources, lack of existing infrastructure, and agricultural lands protected under the Williamson Act. These major infrastructure deficiencies would constrain growth.

⁴⁸ Data from California State Census Data Center

⁴⁹ Draft Route 46 Transportation Concept Report

⁵⁰ All growth figure information and projections were obtained from the California Department of Finance, Demographic Research Unit. California State Census Data Center.

A discussion of growth inducing impacts would not be complete without discussing the growth that has occurred in the Central Valley. The neighboring counties of Kern, Kings, and Fresno have experienced growth increases between 1990 and 2000 of 21.7%, 27.6%, and 19.8%, respectively. Furthermore, population projections for Fresno and Kern counties are expected to increase to more than 1.1 million people each by 2020. Compare this to the projection for San Luis Obispo County to reach approximately 390,000 residents by 2020. The San Luis Obispo County general plan recognizes all the proposed alternatives for the Route 46 Corridor Improvement Project. The general plan also recognizes that State Route 46 is a critical east-west connecting route between the Central Valley and Central Coast (Interstate 5 to Highway 101). The substantial, current growth in the Central Valley combined with growth in San Luis Obispo County has put increasing capacity pressures on the existing route, evidenced by the current Level of Service of E. A change of this facility to a four-lane divided expressway clearly has been planned for and been shown to be needed by growth that is occurring independent of this two-lane highway.

It is expected that the Estrella planning area would remain agriculturally viable because of existing uses, land capability and a good source of water from the Paso Robles groundwater basin. However, intrusion of extensive rural and suburban residential uses may preclude continuation and/or expansion of agricultural uses in some areas. Factors contributing to future population and economic growth potential are: continuation of agricultural uses (especially grazing, dry land farming, vineyards and orchards); the agricultural preserve program; and containment of rural residential uses to minimize conflicts with agriculture⁵¹.

The average size of agricultural parcels north of State Route 46 is approximately 160 acres. However, land divisions have been relatively frequent near Paso Robles, the airport, and along the Route 46 corridor. South of State Route 46, large agricultural holdings are interspersed between the rural residential tracts. Land divisions within and near these tracts are relatively more active, creating pressures for property sale on the nearby large parcels.

A recreation zoning designation was applied to approximately 204 acres on the south side of State Route 46, approximately 1.6 kilometers (1 mile) east of Airport Road. The purpose of that category was to develop a 18-hole public golf course and support facilities consisting of a restaurant, a “pro-shop,” snack bar, and caretaker residence, all consistent with the rural and agricultural character of the surrounding area. The result of this zoning change was the construction of the four-star Hunter Ranch Golf Course.

Many properties within and surrounding the project area, designated residential rural, are suitable for agriculture, but broken property ownership patterns, small property sizes, and prior residential commitments often prevent effective commercial agriculture production. The rural residential areas are older tracts that were subdivided in the earlier part of this century and comprise a majority of the land use adjacent to State Route 46 in the western half of the project. These areas are generally characterized by the following:

- Land division for speculation rather than an immediate market.
- Parcels of various sizes from 0.2 hectare to 8.1 hectares (0.5 acre to 20 acres).

⁵¹ San Luis Obispo County General Plan (El Pomar/Estrella Planning Areas)

- Individual or multiple-lot ownership patterns.
- Agricultural capacity varying with soils, topography, water availability, parcel size, and ownership pattern.
- Mixed access varying from direct access to county maintained roads to secondary access over roads on private property, to no vehicular access.
- Few internal roads, other improvements or services.
- Sparse or complete lack of development.

Most of the lots originated with the “Almond Orchard” subdivisions between 1915 and 1925, when 4.0 to 8.1 hectare (10 to 20 acre) orchards were thought to provide a satisfactory farm living. At present, only a few of the original subdivision parcels are developed (less than 5% of the total). Large portions of subdivisions under contiguous ownership are designated in the agriculture land use category. Within the tracts of the Residential Rural category, partial development has occurred with rural homesites and mobile homes on parcels ranging from 4.0 to 8.1 hectares (10 to 20 acres) in size. They are still generally suitable for vineyard, orchard or other irrigated use on a small scale.

Several tracts of 0.8 hectare (two-acre lots) are located adjacent and north of State Route 46, east of the Paso Robles Municipal Airport within the project area. These lots were subdivided in the early 1930’s as speculative land sales. The lots in these tracts are generally individually owned. Currently, little or no use is made of most vacant lots, but in some cases they are used for grazing or dry land farming.

Agricultural practices of varying degree involve approximately 90% of the area around the Estrella River Valley and the San Juan Creek Valley. The area is used more intensively because of better soils and water availability. Irrigated production has increased during the last 10 years, particularly in vineyards and orchards.

Whitley Gardens is a suburban residential settlement between Shandon and Paso Robles. It is located alongside State Route 46 adjacent to the Estrella River and occupies about 245 hectares (606 acres). It was originally created in 1927 for small garden farm-type operations. It is divided into parcels of 0.4 to 4.0 hectares (one to 10 acres) with scattered residential development. The Whitley Gardens community has a current population of less than 200, yet has the potential to grow to several times that figure.

The Shandon urban area is located along State Route 41 about 32.2 kilometers (20 miles) east of Paso Robles and is near enough to State Route 46 to be seen from the project area. The urban reserve line of Shandon encompasses 225 hectares (555 acres) and has a current population of 986. It is primarily a rural farming community, completely surrounded by various agricultural lands. Since 1890, Shandon has grown to be a focal point for surrounding farms and a social service center for people in the area.

The Shandon area would likely remain a viable agricultural area because of existing land uses and the prevailing agricultural dedication of the population. The area should experience limited population growth, related only to future increased demands for agricultural labor⁵².

⁵² San Luis Obispo County General Plan (Shandon/Carrizo Planning Areas)

Over the past 18 years, the population has remained nearly stationary, but because of the rural nature of Shandon, there is little record of population trends in the community. Recently, there has been specialty crop experimentation in the Shandon area. If these experiments are successful and yield profitable crops, a new trend could be established in agricultural employment of the area. This may cause the Shandon area to grow substantially in the future. In fact, a small subdivision project is being constructed in Shandon.

An adequate water supply is essential to continuing agricultural development in the Shandon area. Most of the area uses little water in its predominantly dry-farming and grazing operations and obtains it from wells in and around the community. Future well capacity is estimated to be sufficient to meet growth requirements of the community.

The area between State Route 46 and Estrella and Cholame Creeks on the north side of Shandon is under a land conservation contract that would prohibit development for a number of years, but the land is divided into two hectare (five-acre) parcels that could be developed individually upon termination of the contract. This land is currently being converted from grazing to vineyard production.

The eastern one-third of the project area and its surrounding area consist of land that is predominantly grazed. These areas have historically been working ranches and are mostly held as parts of large landholdings. The likelihood of a change in the land use for this part of the project area in the near future is slim given the absence of utilities required for development, such as water, sewer, and electricity.

Land Use Designations

Most of the area that the project would affect is zoned for agriculture. This category is defined by San Luis Obispo County as irrigated row and pasture crops, dry farm (orchards, vineyards and field crops), and grazing. There are small areas within the project area that are zoned as recreation, residential suburban, residential rural and commercial service. Definitions and criteria for the different land use categories can be found in Section 22.04 of San Luis Obispo County's Land Use Ordinance. A breakdown of the zoning is given in Table 3.3.4-1.

The location segments in the table were broken down into five areas. The percentages refer to these individual segments designated by the San Luis Obispo County zoning maps. The percentages refer to the relative proportion of parcels zoned as such within each segment. The project section name is also given, so that correlation with the other aspects of the project can be made.

Table 3.3.4-1. Zoning Designations Within the Project Limits

Location	Section	Zoning	Percent
Airport Road to Jardine Road (westernmost end of project)	Estrella	Agriculture	70%
		Recreation	30%
Jardine Road to Estrella River Bridge	Estrella	Agriculture	95%
		Residential Suburban	5%
Estrella River Bridge to McMillan Canyon Road	Estrella and Shandon	Agriculture	95%
		Residential Suburban	5%
McMillan Canyon Road to Cholame Creek Bridge (#49-36)	Shandon and Wye	Agriculture	94%
		Residential Rural	5%
		Commercial Service	1%
Cholame Creek Bridge to Wye (easternmost end of project)	Wye	Agriculture	100%

Consistency with Local Plans

The San Luis Obispo County General Plan documents were researched for any inconsistencies between the proposed project and local planning documents. The county’s goals and policies regarding conservation and resource protection would provide a standard comparison of the impacts of this project. The documents researched include:

- San Luis Obispo County General Plan Land Use and Circulation Framework for Planning 11/96
- San Luis Obispo County Land Use Ordinance 11/96
- San Luis Obispo County General Plan Land Use Element El Pomar/Estrella Area Plan 5/98
- San Luis Obispo County General Plan Land Use Element Shandon/Carrizo Area Plan 11/96
- San Luis Obispo County General Plan Environment Element 11/74
- San Luis Obispo County General Plan Agriculture and Open Space Element 12/98
- San Luis Obispo County General Plan Safety Element 12/99

Environmental Impacts

In General

This discussion of impacts to land use, planning, and growth applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of land use, planning, and growth impacts were conducted on a project basis and not separate for each alternative. All of the alternatives are in the general plans for the county of San Luis Obispo. None of the alternatives proposes any zoning changes and would not induce growth. The only land use changes from any of the build alternatives would be from direct conversion of agriculture or residential land use to a transportation corridor.

Discussion

The circulation element of the Salinas River area of the San Luis Obispo County General Plan lists the expansion of State Route 46 to a four-lane expressway as a short range, road improvement project. Specifically, the plan states that, “State Route 46, East of Highway 101, be expanded to a four-lane divided highway from State Route 101 to Branch Road...”.

The circulation element of the El Pomar/Estrella Planning Area of the San Luis Obispo County General Plan states that State Route 46 is the major transportation link between San Luis Obispo and the San Joaquin Valley. “Projected volumes of traffic for 1995 are expected to exceed the desired level of service (LOS C) for rural highways, and major improvements are proposed to widen State Route 46 to four lanes from the intersection of Routes 41 and 46 near Cholame to Paso Robles.” The circulation element also states that, “The State Department of Transportation should widen State Route 46 to four lanes from Highway 101 to the junction of Routes 46 and 41 east of Cholame”.

In addition, the Route Concept Report developed by Caltrans for the San Luis Obispo Council of Governments, states that State Route 46 should be upgraded to a four-lane divided expressway including a separated grade interchange at the easternmost divergence of Routes 46 and 41 east of Cholame.

Clearly, the major local plans in place for San Luis Obispo County support the proposed project. In addition, the purpose and need for the project shows that the proposed project meets the level of service degradation, as indicated in the general plan, required to initiate the project.

Growth Inducing Impacts

A highway project can induce growth by removing existing constraints to growth (such as, eliminating congestion) or by directly promoting growth (for example, providing access to previously inaccessible commercial or residential development sites). In assessing the potential growth inducement of a proposed project, it is important to clearly identify growth induced by the project beyond that already anticipated and planned for by local community planners.

Although the project would increase the capacity of highway and county road intersections, it would not encourage the development of employment generating land uses in the area (such as commercial, industrial, or office). The project is proposing a controlled access expressway approximately 37.0 kilometers (23 miles) in length with no additional intersections in the agricultural lands north and south of the existing highway. Therefore, access would be restricted, reducing the likelihood for urban development of the surrounding lands.

One interchange is proposed at the State Routes 46/41 junction. The land surrounding the proposed interchange is owned by one landowner, who conducts an active grazing operation on the land. Furthermore, the land surrounding the proposed interchange contains sensitive environmental resources including wetlands and listed species whose presence would require substantial mitigation for impacts that could render any development economically infeasible.

The proposed project conforms with the growth-related policies, goals, and objectives of the San Luis Obispo County General Plan and would not lead to any intensification of development densities. The route is mainly used as an interregional route to move goods and services between the Central Valley and the Central Coast. It also provides access to the California coast for residents of the Central Valley and access for coastal residents to the southern Sierra Nevada range. Very few residents living along the route use it as a commuter route to and from daily work places. Residents who do use it as a commuter route generally do not experience and/or avoid the most congested periods of time on the route, mainly weekend and holiday traffic, and therefore would not experience a substantial decrease in home to work travel time.

In summary, none of the proposed build alternatives for the four sections of the project would attract new development because of infrastructure limitations in the mostly rural areas affected by these alternatives (such as sewage disposal, water, etc.). Also, because of the current zoning throughout the project area, the designation of farmland as Preserve or under Contract, and the controlled access nature of the expressway designation, unplanned or non-controlled growth is unlikely to occur.

The proposed project would not set any precedents and would not seek any zoning changes or general plan amendments. The proposed project would merely improve the efficiency, capacity, and safety of the existing route.

Consistency with Local Plan Impacts

The county general plan highlighted some of the affected resource areas. Regarding unique and sensitive habitat, including oak woodlands and wetlands, the County Agriculture and Open Space Element stated that any projects with significant impacts to unique and sensitive habitats “shall implement county-approved mitigation measures consistent with existing requirements of CEQA”(Agriculture and Open Space Element, Chapter 2, Page 54, AGP25). Other resource areas are addressed in the various county general plan documents that were reviewed. The county general plan states that mitigation for environmental impacts to these areas are subject to county approval, that determination of impacts must be compliant with the CEQA guidelines, and that any required permits be obtained from the responsible agency. Project permits granted by state and federal regulatory agencies deem compliance with the County of San Luis Obispo.

The proposed expansion of State Route 46 to a four-lane divided expressway is identified in the San Luis Obispo County General Plan, is in compliance with CEQA, and would obtain all necessary permits prior to the start of construction. Given that the proposed project would comply with the requirements of CEQA and would apply for and receive the appropriate permits, then it would be consistent with local plans and would not result in a negative impact with regards to consistency with local plans.

The CEQA determination found that no significant land use, planning or growth inducing impacts would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

No measures needed.

3.3.5 Population, Communities, and Housing

Affected Environment

Three small communities are found within the project limits. The Vintage Hills Way community is located within the Estrella section of the project west of the Estrella Grade, approximately halfway through the Estrella section. The community of Whitley Gardens is located within the Estrella section of the project near the bottom of the Estrella Grade. Another small community, Shandon, is located approximately midway through the project area. Paso Robles, while not occurring within the project limits, has the highest density of population near the project area. The current population is 24,297 and has increased 30% between 1990 and 2000 (Ca Dept of Finance)⁵³. The increase in population is primarily due to the relatively inexpensive real-estate prices as compared with the City of San Luis Obispo and other coastal areas in the county. Rising real estate prices in other parts of the county would undoubtedly contribute to the economic and residential growth of the Paso Robles area⁵⁴.

Vacancy rate for the city of Paso Robles has been 2.7% for 2001 and is forecast by the University of California Santa Barbara Economic Forecast Project to remain at that level for the next five years. The entire San Luis Obispo County unincorporated area is shown to have a vacancy rate of 12.7%, with that rate remaining nearly constant for the next five years.

Throughout the project area, residences are randomly located among large agricultural holdings. Some smaller residential tracts occur in areas that were subdivided in the early 1900's. These areas typically contain parcels of various sizes from 0.2 to 8.1 hectares (one-half to 20 acres). Direct access for these scattered residences is from county maintained roads and State Route 46. Secondary access is from roads on private property. Development tends to be sparse with minimal infrastructure present to support any dense population or housing.

The Vintage Hills Way community is a small residential area between Paso Robles and Whitley Gardens. It consists of four separate streets: Vintage Hills Way, Burgundy Lane, Merlot Lane, and Champagne Lane. Existing access to State Route 46 is via Vintage Hills Way. The community is divided into approximately 80 parcels. Currently, there are approximately 55 homes in this community. Growth in this area is expected over the next 10 years.

Whitley Gardens is a suburban residential settlement between Shandon and Paso Robles. It is located alongside State Route 46 adjacent to the Estrella River and occupies about 245 hectares (606 acres). It was originally created in 1927 for small garden farm-type operations. It is divided into parcels of one to four hectares (10 acres) with scattered residential development. The Whitley Gardens community has a current population of less than 200, yet has the potential to grow to several times that figure.

The Shandon urban area is located along State Route 41 about 32.2 kilometers (20 miles) east of Paso Robles and is near enough to State Route 46 to be seen from the project area. The urban reserve

⁵³ Data from California State Census Data Center

⁵⁴ Draft Route 46 Transportation Concept Report

line of Shandon encompasses 225 hectares (555 acres) and has a current population of 986. It is primarily a rural farming community, completely surrounded by agricultural lands. Since 1890, Shandon has grown to be a focal point for surrounding farms and a social service center for people in the area.

The Shandon area would likely remain a viable agricultural area because of present land uses and the prevailing agricultural dedication of the population. The area should experience limited population growth, related only to future increased demands for agricultural labor⁵⁵. If new types of crops, not currently grown in the area, were found to grow very well in the Shandon area, the area would grow to accommodate the influx of labor needed to work the new crops.

Over the past 18 years, the population has remained nearly stationary, but because of the rural nature of Shandon, there is little record of population trends in the community. There has recently been specialty crop experimentation in the Shandon area. If these experiments are successful and yield profitable crops, a new trend could be established in agricultural employment of the area. This may cause the Shandon area to grow substantially in the future. In fact, a small subdivision project is being constructed in Shandon. As discussed in Chapter 4, two additional subdivision projects have been also been proposed in the Shandon area. They consist of a 2 lot subdivision and a 9 lot subdivision, both within the Shandon Urban Reserve Line.

Throughout the project area, businesses can be found. Most of these businesses are in the winery industry or are agricultural in nature. Wine tasting rooms, sales offices, and shipping and receiving warehouses make up the different aspects of the wine industry found throughout the project area. Most of these businesses are found in the Estrella and Shandon sections of the project and welcome the general public to visit, taste wine, and purchase goods. Some commercial agricultural businesses are also found in the project area. These businesses tend to serve only the wholesale farming and ranching industry and are mostly not open to the general public.

Environmental Justice

Minority groups and low-income households in the project area were estimated based on 2000 Census data and California Department of Finance population estimates in accordance with the provisions of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. San Luis Obispo County has a somewhat diverse population. Approximately 76% (three-quarters) of the county's population is white and 16% is Hispanic/Latino. The remaining 8% of the population is split nearly equally amongst groups reporting their race as Asian, Black/African American, Native American, and various others. Table 3.3.5-1 shows the demography of San Luis Obispo County based on the year 2000 Census.

Income estimates for San Luis Obispo County in 1999 revealed that the median family income was \$52,447. There were approximately 29,775 individuals living at or below the poverty level in San Luis Obispo County in 1999 which represents approximately 12.8% of the population. There were 3,991 families in 1999 that reported income at or below the poverty level, which was \$16,700 annually for a family of four in 1999.

⁵⁵ San Luis Obispo County General Plan (Shandon/Carrizo Planning Areas)

Table 3.3.5-1. Demography of San Luis Obispo County, Year 2000

Race/Ethnicity	Population*	Percent of Total
White	187,840	76%
Hispanic/Latino	40,196	16%
Asian	6,568	3%
Black/African American	5,002	2%
Native American	2,335	1%
Other	4,740	2%
Total =	246,681	100%

*Source: US Census Bureau, Census 2000

Environmental Impacts

In General

This discussion of impacts to population, communities, and housing is separate for each alternative.

Small segments of the local population would be impacted by construction of the build alternatives in the Estrella and Cholame sections. No impacts to population, communities, or housing would result from the construction of the build alternatives in the Shandon and Wye sections. Estrella Section, Alternative 8N would displace four single-family residences. Estrella Section, Alternative 9N would displace six single-family residences. With either Estrella section alternative, adequate relocation resources exist in the area. Both Estrella section alternatives would affect the Vintage Hills Way community. Local circulation would be altered. This would negatively affect some residents in the community and positively affect others. Both Cholame section alternatives would displace one single-family residence.

Discussion

A relocation study was conducted for this project. Adequate relocation resources are available for all residents potentially displaced by the proposed project. All potentially displaced residents would be treated in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and the California Relocation Act. Tables 3.3.5-2 and 3.3.5-3 summarize the impacted residential and non-residential properties and structures by alternative for the Estrella and Cholame sections of the proposed project. No structures would be affected in the Shandon or Wye sections under any of the proposed alternatives.

In addition to the properties that would need to be relocated, other properties may be impacted by the proposed alternatives. These properties would be impacted by the purchase of right of way for the construction of the project. All property owners that would be affected by right of way acquisition would be compensated for this loss at a price equal to fair market value. Some of this property acquisition may include impacts to non-residential structures such as barns or sheds.

Table 3.3.5-2. Estrella Section Relocation Information

Estrella Section Displacement Summary by Alternative			
Alternative	Total Single Family Units	Total Residential Displacements (Units/Residents)*	Nonresidential Displacements (Businesses/Employees)**
No-Build	0	0	0
Alternative 8N	4	4/10	0
Alternative 9N	6	6/15	0
*Estimate of residents is based on an average of 2.55 residents per unit (Department of Finance estimates for 2000) **Estimate of employees based on a visual survey of potentially affected businesses			

Table 3.3.5-3. Cholame Section Relocation Information

Cholame Section Displacement Summary by Alternative			
Alternative	Total Single Family Units	Total Residential Displacements (Units/Residents)*	Nonresidential Displacements (Businesses/Employees)**
No-Build	0	0	0
Alternative 1	1	1/2	0
Alternative 2	1	1/2	0
*Estimate of residents is based on an average of 2.55 residents per unit (Department of Finance estimates for 2000) **Estimate of employees based on a visual survey of potentially affected businesses			

Changes to local traffic circulation in the Vintage Hills community would cause impacts to the residents. The project would close the intersection of Vintage Hills Way and State Route 46 in the Estrella section and provide access for this community by extending Branch Road north to Champagne Lane. Access to Branch Road would be provided for Burgundy Lane, Merlot Lane, and Champagne Lane. Caltrans proposes to minimize traffic circulation impacts to the residents in this area by providing access for all three streets to Branch Road (see Figure 3.3.5-1). The northern Branch Road extension would be relinquished to the county upon its completion and would be constructed to the standards for rural roads established by the County of San Luis Obispo. Some residents currently located at the end of a dead end street would see an increase in the number of vehicles that drive by their house to get to State Route 46, while others would see a decrease in the number of vehicles passing by their residence. The local streets in this community are not maintained by the county but by the residents themselves. Some residents would see the need for increased road maintenance in front of their home, while others would see a decrease in road maintenance. Although these alterations to local circulation would have impacts to certain individuals, the overall benefits to the community by providing the safest possible access to the proposed expressway project outweigh the inconveniences to these residences.

Branch Road would be constructed to the standards for county roads as dictated by San Luis Obispo County in terms of width for emergency vehicles. This would require some minor acquisition of right of way to extend Branch Road. Residents whose parcel borders the section line would be affected by the acquisition of right of way and would be compensated at a rate equal to fair market

value. Approximately 7.6 meters (25 feet) of right of way would need to be purchased to the east and to the west of the section line in order to construct the Branch Road connection. The extension of Branch Road would be paved and relinquished to the County of San Luis Obispo upon completion. In addition, the intersection of Branch Road and State Route 46 would be built with full standard left-turn lanes, acceleration lanes, and deceleration lanes to provide for the safest access possible to the proposed expressway. Figure 3.3.5-1 shows the proposed Branch Road connection, the areas to be paved, and the full standard intersection with State Route 46.



Figure 3.3.5-1. Access changes to Vintage Hills Way Community

Businesses along the transportation corridor would generally benefit from the proposed project. Project features, such as left-turn lanes, would greatly improve the safety for the businesses' visiting customers and may even encourage more people to stop due to the easier access to and from the expressway. Some temporary impacts would occur to local businesses during construction of the project alternatives. While access to the businesses would remain open most of the time, there would be some occasions when business access would be temporarily restricted. The Traffic Management Plan (discussed in detail in Section 3.3.7, Transportation and Traffic) that would be

written for this project would contain information regarding access for local businesses and would provide for a plan to minimize any impacts to businesses.

Environmental Justice

Estrella Section, Alternative 8N and 9N would displace four and six residences, respectively. These households would require relocation yet none are occupied by minority households. Cholame Section, Alternatives 1 and 2 would each displace one residence (both of these alternatives would displace the same residence). This household would require relocation but is not currently occupied by a minority household. None of the Shandon section or Wye section alternatives would displace residences or businesses.

Since none of the alternatives would impact residences occupied by minority or low-income households none of the proposed build alternatives for the Route 46 Corridor Improvement Project would cause disproportionately high or adverse effects on any minority or low-income populations as discussed in Executive Order 12898 regarding environmental justice. In addition, no impacts from the construction of any of the noise mitigation (identified in Section 3.1.5) would occur to residences occupied by minority or low-income households. Thus no disproportionately high or adverse effects would occur to any minority or low-income populations as a result of any aspect of the proposed project.

The CEQA determination found that no significant impacts to the local population, communities, or housing would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Best management practices to reduce impacts to residents shall include payment by the State to rebuild, move, or compensate for the loss of homes, outbuilding structures, and property.

Adequate relocation resources exist for rural residential owners and tenants. The displacement neighborhood and relocation areas are comparable or superior in terms of amenities, public utilities, and accessibility to public services, transportation and shopping.

All displaced residents would be assigned to a relocation advisor, who would see that all payments and benefits are fully utilized, and that all regulations are observed. Displaced residents would be fully compensated at a price equal to fair market value. At the time of the first written offer to purchase, owner occupants are given a detailed explanation of Caltrans, "Relocation Program and Services". Tenant occupants of properties to be acquired are contacted soon after the first written offer to purchase, and also are given a detailed explanation of Caltrans, "Relocation Program and Services". In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans would provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use.

3.3.6 Public Services

Affected Environment

The affected environment is the portion of State Route 46 and its nearby surroundings that are within and immediately adjacent to the project limits. The public services in the project vicinity are as follows:

- California Department of Forestry and Fire Protection (CDFF) station located on Branch Road
- California Highway Patrol (CHP)
- San Luis Obispo County Sheriff's Department (sheriff)
- Shandon Safety Roadside Rest Area (roadside rest)
- Public schools

The affected environment for the California Department of Forestry and Fire Protection includes the portion of State Route 46 within the jurisdiction of the Branch Road station and the various access openings, private driveways, business entrances, and public roads that the CDFF emergency personnel may use during any emergency response.

The affected environment for the California Highway Patrol includes the entire portion of State Route 46 in the project area. The median, inside and outside shoulders, and other areas within the State right of way are included in the affected environment. These areas are used often by the CHP during emergency responses on the highway and during traffic law enforcement.

The affected environment for the San Luis Obispo County Sheriff's Department encompasses the entire portion of State Route 46 in the project area and the various access openings, private driveways, business entrances, and public roads that the sheriff's officers may use during any emergency response.

The purpose of roadside rest areas is to provide facilities where motorists can safely pull off of the highway to use the restroom, have a snack, stretch their legs, and rest during long trips. Roadside rests also serve as places for large trucks to pull off the highway so that the drivers can comply with the mandatory resting requirements developed by the Federal Motor Carrier Safety Administration. These statewide roadside rest areas are heavily used and the one located near Shandon, on State Route 46 is no exception. Annually, the Shandon Safety Roadside Rest Area receives approximately 1,260,000 visitors. Special uses to the Shandon Safety Roadside Rest Area include up to 30 school busloads of children per day stopping to use the restroom facilities. In addition, a higher percentage of large trucks stop at the rest area compared to other roadside rest facilities. This is due to the higher than statewide average of truck traffic on State Route 46⁵⁶.

No schools were found within the project area of potential effect. Several schools, however, were found near the project area. A one-room schoolhouse known as "Hill" or "Phyllips" school is located on Almond Drive. According to the Secretary to the Superintendent of the Paso Robles

⁵⁶ Route 46 has 20% truck traffic with 12% of those having three or more axles. See Section 1.3.2 for more information.

School District⁵⁷, the Phyllips school is being leased to Shandon High School, which buses 8 students from Shandon High to the Phyllips school in the morning and then buses them back to Shandon in the afternoon. The secretary stated that no plans exist to change this arrangement for Phyllips school and that there are no future plans to do anything differently with this school.

Shandon High School, located in Shandon, is also found near the project area. This school receives students from many parts of the rural community in this area. One other school near the project area is the Lillian Larsen Elementary School, located 12.0 kilometers (7.5 miles) north of the intersection of Estrella Road and State Route 46.

Environmental Impacts

In General

This discussion of impacts to public services applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of public service impacts were conducted on a project basis and not separate for each alternative. Emergency services (CDFF, CHP, sheriff, ambulance) would be positively impacted by the proposed project. The expansion of the highway would provide a safer environment for them to work in and travel through and would generally decrease response times. Only beneficial impacts would occur to the Shandon Safety Roadside Rest Area. Increased large vehicle parking would be constructed to benefit the public using the roadside rest facility. No schools would be impacted by the proposed project. Providing a safer roadway for school buses to move students to school would be a benefit to the public.

Discussion

Emergency vehicle response times are expected to improve during heavy traffic situations. Two lanes in each direction plus shoulders would provide emergency vehicles with more “open areas” to use when responding quickly to an emergency situation. Furthermore, the presence of two lanes plus outside shoulders in each direction would provide a safer place for the public to pull into when emergency vehicles are responding using lights and sirens. The California Department of Forestry and Fire Protection station located on Branch Road, adjacent to State Route 46, should have a faster and safer response time. This intersection would contain left-turn pockets and acceleration and deceleration lanes in each direction to provide areas for the slower accelerating emergency vehicles to gather speed before entering the highway.

Temporary impacts to emergency personnel could occur during construction if lanes are closed. Single-lane control would be avoided as much as possible and, if used during construction, would be planned in cooperation with the California Highway Patrol. The presence of a California Highway Patrol unit during times of single-lane control would assist other emergency personnel in negotiating this traffic delay in the event of an emergency. The project contract Special Provisions would

⁵⁷ Telephone conversation between the Secretary to the Superintendent of the Paso Robles School District and Design on March 27, 2001.

require that emergency services (sheriff, fire, and ambulance) be notified before any required roadway or lane closures.

Impacts to the roadside rest area would occur as a result of both of the proposed Shandon section alternatives. Permanent impacts would occur to three of the leach lines, which are part of the septic system for waste disposal, and to the traffic circulation within the roadside rest. Currently, the roadside rest area is deficient in truck parking spaces. There are seven truck parking spaces at the roadside rest area. Eleven spaces would be added to the existing seven to alleviate congested truck parking. The Shandon Safety Roadside Rest Area would not be closed at any time due to the construction of the project.

A separate project to completely rehabilitate/restore the Shandon Safety Roadside Rest Area has been proposed by Caltrans. A Project Study Report for this project was completed and approved in September 2001 to rehabilitate/restore the existing Shandon Safety Roadside Rest Area.

Alternatives to restoring the existing facilities at this location include:

1. Rehabilitating and upgrading the existing facility to remain a facility that serves eastbound and westbound travelers.
2. Rehabilitating the existing facility for eastbound traffic only and constructing a new facility for westbound highway users.
3. Rehabilitating, upgrading and expanding (including purchasing additional right of way) the existing facility to accommodate both directions of travel.
4. Construct a new facility in a new location within the project limits that serves both directions of travel. The existing facility would be demolished and abandoned upon completion of the new facility.

This separate project may or may not be analyzed, designed, and constructed in conjunction with the Route 46 Corridor Improvement Project. If the Shandon roadside rest rehabilitation/restoration project is not funded, designed, or approved by the time the Route 46 Corridor Improvement Project would impact the roadside rest area, then the description of the changes to the roadside rest in Section 2.3.3 would be implemented. If, however, the concurrent roadside rest rehabilitation/restoration project is funded, designed, and approved, then one of the alternatives described above would be selected and built in lieu of the changes proposed as a part of Shandon Section, Alternative 1 or Shandon Section, Alternative 2 described in Section 2.3.3.

Because students are bussed to the Phyllips school, no students would need to cross State Route 46 to access this school. In addition, no students would need to cross State Route 46 to attend Shandon High School. No homes are found across State Route 46, near enough to the school, which would house students who would need to walk across the highway to get to school. Any students walking to Shandon High School live in the community of Shandon, south of State Route 46. Any students from the Estrella, Whitley Gardens, or Vintage Hills communities who attend Shandon High School are bussed to the school. The proposed alternatives for the Route 46 Corridor Improvement Project would provide a safer facility and safer access to State Route 46 for school buses to travel, thus improving the safety of moving students to the area schools.

Because Lillian Larsen Elementary School is 12.0 kilometers (7.5 miles) from State Route 46, no students living south of the highway would walk to school. Any students who do live south of State Route 46 would be driven either by bus or private vehicle to school. The proposed project would provide a safer facility with safer access to State Route 46, so no impacts to schools would result from any of the alternatives.

School bus routes were also evaluated in relation to the project. All alternatives would be designed to accommodate all large vehicles, including school buses. Again, because the proposed project would provide a safer facility with safer access from public roads to State Route 46, no impacts to schools would result from the proposed project.

During construction, temporary traffic impacts may occur at times to schools and bus schedules. A Traffic Management Plan, as discussed in Section 3.3.7, would be developed and would address any potential delays to school buses as a result of the project. Delays during school bus times would be minimized to the greatest extent possible.

No public parks were found within the project limits. Therefore, no impacts to parks would result from the proposed alternatives.

The CEQA determination found that no significant impacts to emergency vehicle response, schools, or other public services would result from the construction of any of the proposed alternatives for this project.

The CEQA determination found that no significant impacts to the Shandon Safety Roadside Rest Area would result from any of the proposed alternatives with implementation of the proposed mitigation measures.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

The project contract Special Provisions would require that emergency services (sheriff, fire, and ambulance) be notified before any required roadway or lane closures.

The following best management practices, minimization, and mitigation measures would reduce the potential impacts to the Shandon Safety Roadside Rest Area, under CEQA, to less than significant.

- Reconstruct traffic flow through the Shandon SRRRA according to the plans developed under Shandon section, Alternative 1 and 2.
- Reconstruct leach field in new location per the plans developed for Shandon section, Alternative 1 and 2.
- Expand truck parking by 11 new spaces per the plans developed for Shandon section, Alternative 1 and 2.

3.3.7 Transportation and Traffic

Affected Environment

The affected environment is the portion of State Route 46 and its nearby communities that are within and immediately adjacent to the project limits. In addition, the traveling public using State Route 46 to travel to or from destinations other than the Central Valley and central coast are considered in the environmental impact discussion.

Environmental Impacts

In General

This discussion of impacts to transportation and traffic applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of traffic impacts were conducted on a project basis and not separate for each alternative. The project itself, regardless of the build alternative selected, would improve traffic flow overall. Some impacts to traffic would occur during construction of the project. A Traffic Management Plan would be created to minimize traffic congestion during construction.

Discussion

Construction of the project as proposed would improve traffic flow between the Central Valley and Central Coast of California. The speed differentials between large trucks and passenger vehicles, while not eliminated, would be less of a conflict in terms of restricting traffic flow. The increased capacity associated with the proposed project would improve traffic circulation, especially during holiday weekends and summer tourism travel seasons.

The construction of left-turn lanes, merge lanes, storage lanes, and acceleration lanes would improve local traffic circulation and safety. Widening of county roads at the State Route 46 intersection would also improve local traffic circulation by reducing storage times of vehicles making right turns from the county road onto the highway. Currently, vehicles waiting on county roads to make a left turn, across the highway, impede this movement.

Local traffic circulation would be altered in two locations throughout the project. The first location is Estrella Road. Under Estrella section, Alternative 8N, Estrella Road would not have a direct intersection with State Route 46. It would be routed under the proposed State Route 46 and be connected to Whitley Gardens Drive heading east, along the existing State Route 46 using the existing State Route 46 bridge over the Estrella River. Estrella Road would tie into Whitley Gardens Drive where access to State Route 46 would occur. Given that Estrella Road would still have access to State Route 46, albeit indirectly, no substantial impact to local traffic circulation would result. Figure 3.3.7-1 details the Estrella section, Alternative 8N design for the proposed connection for Estrella Road to Whitley Gardens Drive.

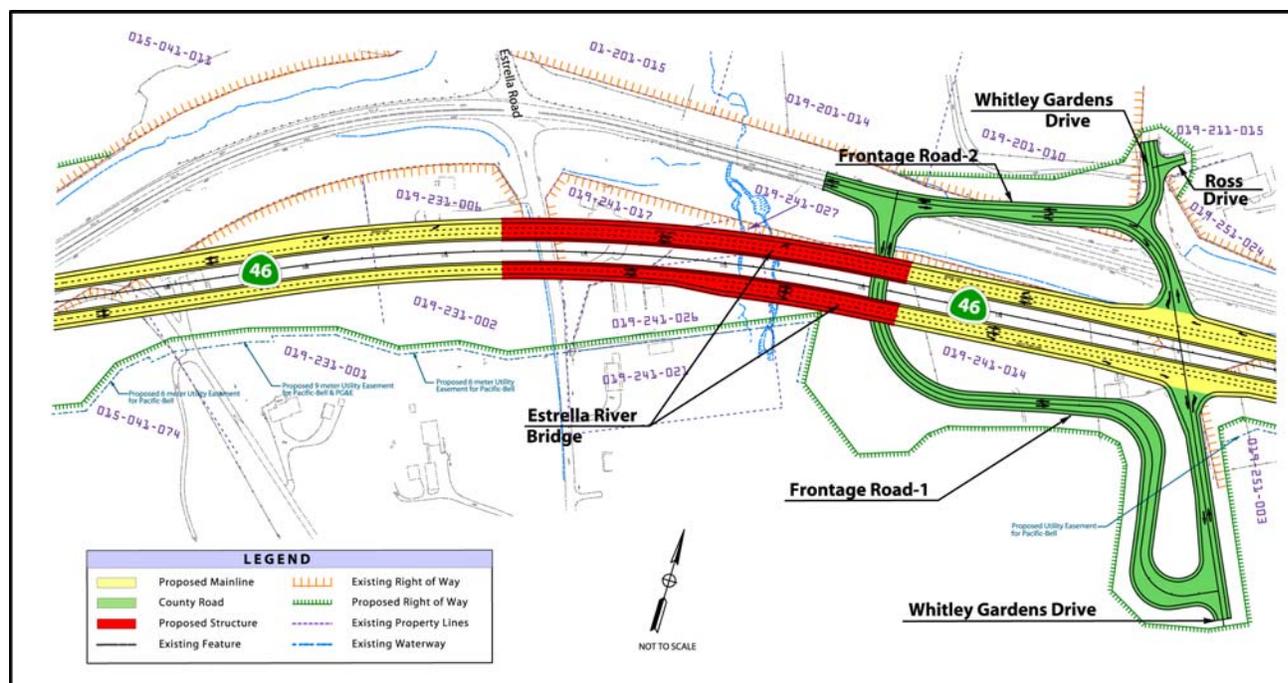


Figure 3.3.7-1. Proposed changes to local circulation under Estrella Section, Alternative 8N

Estrella Section, Alternative 8N further proposed a change to local traffic circulation by eliminating left turns from Whitley Gardens Drive across State Route 46 in both directions. As seen in Figure 3.3.7-1, a new road would be constructed on the east side of the Estrella River, under the proposed State Route 46. Traffic from the south side of the highway that wants to travel west, towards Paso Robles would travel on this new road under the proposed State Route 46 to Whitley Gardens Drive where a right turn would put motorists on the highway, going west. The opposite would occur for motorists on the north side of the highway that wish to travel east on the proposed State Route 46. This new frontage road, under Estrella Section, Alternative 8N, would also be used to move vehicles traveling eastbound to the north side of the highway. Left turns from eastbound and westbound State Route 46 onto Whitley Gardens Drive would be eliminated. Motorists traveling eastbound on State Route 46 that wish to travel to the north side of the highway would exit by making a right turn onto this frontage road on the south side of the highway. They can then drive to the north side by going under the proposed State Route 46 on the frontage road.

The second location where local circulation is to be altered by the proposed project is in the Vintage Hills Way community area (see Figure 3.3.5-1 in Section 3.3.5). This is also in the Estrella section of the proposed project. In the Estrella section, Alternatives 8N and 9N, the existing at-grade intersection of and State Route 46 would be closed. To provide access for this community to the proposed State Route 46, Branch Road, located just east of Vintage Hills Road, would be extended to the north linking Burgundy, Merlot, and Champagne Lanes with Branch Road and then to State Route 46. Providing this access to State Route 46 would alter the local circulation in this area, but would not result in a significant impact under CEQA to the circulation of this community. The proposed change in circulation in this community would impact some of the residents living in this area. The effect of this proposed change on the Vintage Hills Way community is discussed in detail in Section 3.3.5. However, for some residents in the community, the change would result in a slight

increase in the number of cars that pass by their residence. For others, a slight decrease in the number of cars passing by their home would result.

Both of these proposed changes to local circulation were presented to and reviewed by the County of San Luis Obispo. In a letter dated, November 7, 2001⁵⁸, the County of San Luis Obispo stated that, “we concur that closing Vintage Hills Road intersections and relocating the access point to a northerly extension of Branch Road is the most desirable layout” and requested that these new connections and extensions be constructed to the county’s standards. Subsequent conversations with county representatives resulted in support for the realignment of Estrella Road under Estrella section, Alternative 8N as well.

For all project alternatives, the State Route 46 users and local residents would experience delays during construction. Some construction activities may require that local detours be constructed.

The CEQA determination found that no significant adverse impacts to local traffic circulation or traffic flow would result from any of the proposed build alternatives for this project.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

Best Management Practices:

For all build alternatives, the maintenance of traffic and sequence of construction would be planned and scheduled to minimize traffic delays. Traffic delays would be controlled to the extent feasible during periods of many simultaneous construction operations. Signs would be used, as appropriate, to provide notices of road closures, detours and other pertinent information. The local news media would be notified in advance of lane closures and other construction-related activities that could inconvenience local residents and travelers so they may plan accordingly. Temporary access to residences or businesses would be provided as necessary.

A Traffic Management Plan (TMP) would be developed in consultation with the San Luis Obispo County of Governments (SLOCOG). The TMP would be similar for each build alternative. These programs are designed to increase driver awareness, ease congestion, and minimize delay during construction. Many TMP components would be implemented prior to construction and would continue after construction with local funding. The components of the TMP would be:

1) Public Awareness Program: Strategies that would be considered to increase public awareness may include one or more of the following items:

- Mailings
- Speakers bureau
- Public service announcements: radio, television, and newspapers
- Signs along roadway: changeable message signs
- Telephone information line, hotline, “800” number
- Updates to local businesses
- Webpage

⁵⁸ Letter from Dave Flynn, Traffic Engineer, San Luis Obispo County, November 7, 2001.

2) Traffic Operations Strategies Program, which includes ongoing evaluation of traffic operations and provides for incident response during construction: Strategies that would be considered may include one or more of the following items:

- TMP evaluation and adjustment
- Alternate route strategies
- Temporary signal location
- California Highway Patrol enforcement of construction zone speed limits during lane closures

A Traffic Management Plan and Traffic Operations Strategies Program would be developed prior to the start of construction.

3.3.8 Utilities and Service Systems

Affected Environment

The affected environment includes the entire project area from Airport Road in the west to the State Routes 46/41 junction in the east. Included in this environment is the Shandon Safety Roadside Rest Area, the Tosco Oil Pumping Plant and several utility companies' underground pipelines and above ground poles used to move petroleum products, electricity, and telephone communications through the project area.

Environmental Impacts

In General

The discussion of impacts to utilities and service systems applies to all alternatives.

The impacts are very similar for all of the project alternatives. Because the build alternatives are so similar, the analyses of utility and service systems impacts were conducted on a project basis and not separate for each alternative. Each build alternative in every section of the project would require the relocation of both above ground and below ground utilities. Utilities would be relocated outside of the state right of way because of the change in facility type from a non-access controlled facility to an access controlled facility. With an access controlled facility, utility easements are located outside of the right of way so that any maintenance operations on the utilities would not require permits to work within the state right of way.

Discussion

The project would require the movement of several miles of underground pipelines owned by the Chevron Corporation, the Tosco Corporation, and the United States Navy. The movement of the pipeline utilities and potential impacts associated with this activity is discussed in the Hazards and Hazardous Materials Section of the document, Section 3.1.3.

Telephone lines and electrical spur lines would require relocation in some portions of the project area. The majority of above ground utility relocation would occur in the Estrella section of the

project. Under both Estrella section alternatives utilities would be relocated. Easements to place the utility poles outside of the state right of way and onto private property would be negotiated on behalf of the utility company by the state with the private property owner. This process would occur at the same time as the right of way acquisition process. Utility relocation requires an easement only, which would result in minor impacts to the landowners from the relocation. Compensation for the utility easement would be offered to the landowners and would not result in additional property loss for them.

Impacts to a portion of the leach field at the roadside rest area would result in the relocation of a portion of the leach lines. The lines would be moved adjacent to the lines not impacted by the project and would not result in any expansion of wastewater facilities or new, non-adjacent areas of land being used as a leach field.

The project would not require or result in the need for new, permanent supplies of water, as this is a transportation project only. The project would not affect any wastewater treatment provider and would not require the services of a landfill to accommodate solid waste disposal needs. This project would comply with federal, state, and local statutes and regulations related to solid waste. The applicable regulations would only apply to solid waste generated during construction operations.

The project would require the construction of temporary and permanent stormwater drainage facilities. However, the construction of these facilities would not result in any substantial environmental effects. The construction of stormwater and drainage facilities is a part of the proposed project and any impacts would be accounted for as part of this document in each of the pertinent sections.

The CEQA determination found that no significant impacts to utility or service systems would result from the construction of any of the proposed alternatives.

Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures

All applicable regulations regarding solid waste would be complied with as related to the construction of the alternatives.

Stormwater drainage facilities would be a part of each project alternative and would be evaluated in conjunction with each alternative for potential impacts to the resources discussed in this document.

3.4 Borrow Sites, Disposal Sites, and Construction Staging Areas

3.4.1 Borrow/Disposal Sites

This discussion of borrow sites, disposal sites, and construction staging areas applies to all alternatives.

In compliance with Caltrans recently adopted policies regarding disposal, staging, and borrow sites, Caltrans would recommend onsite borrow and disposal sites required for earthwork. In addition, Caltrans would obtain environmental clearance for the designated site(s). If the contractor should

choose a non-designated site, the contractor would be responsible for obtaining environmental clearance from the appropriate local jurisdiction(s). The contractor, prior to using the non-designated site, must provide copies of the environmental clearance and any necessary permits to Caltrans. Disposal would be in onsite detention areas only. Removal of debris would be in accordance with local and state regulatory agencies permitting this project. The construction contractor would be responsible for effective methods of erosion controls on haul roads, in borrow pits, materials pits and other areas used for disposal of waste materials from project construction.

For Caltrans-designated sites

Caltrans would do the following:

- Provide a general site plan, including site limits and access roads
- Obtain temporary property owner agreements as necessary to “reserve” property
- Prepare NEPA/CEQA environmental documentation
- Obtain the necessary permits, licenses, and agreements to satisfy regulatory agencies and ensure site availability
- Review and approve contractor’s submittal

The contractor would do the following:

- Determine final grading plans in conformance with Standard Specifications
- Provide release of liability
- Provide final property owner agreements
- Submit Water Pollution Control Plan

The project development team for the proposed project has discussed the most feasible way to implement the new policy into this project. The project development team has preliminarily identified potential borrow/disposal sites for this project and has begun the analysis necessary to determine whether these sites are reasonable to use. To avoid delays to this project, the project development team for the Route 46 Corridor Improvement Project has agreed that Caltrans would determine a suitable site or sites for borrow/disposal and would designate these sites in the Plans, Specifications and Estimates (PS&E) package. To minimize environmental impacts from borrow/disposal sites, Caltrans would prioritize the designation of these sites in areas that are currently “disturbed” by ongoing human activities.

3.4.2 Construction Staging Areas

In compliance with Caltrans recently adopted policies regarding equipment staging areas⁵⁹, Caltrans would recommend construction staging areas for use by the project construction contractor(s). For Caltrans designated sites, Caltrans would complete the items listed above, in the borrow/disposal sites section and would require that the contractor complete the items he or she is responsible for, which are listed above.

The design team responsible for this project has requested that the environmental team recommend equipment staging areas. These areas would be selected so that impacts to sensitive resources are

⁵⁹ Also commonly referred to as “contractor’s yards”.

minimized to the greatest extent feasible. A discussion of the designated equipment staging areas and their associated environmental impacts (if any) would be discussed in future environmental reevaluations of this project.

3.5 Relationship Between Local Short-Term Uses of the Environment and Maintenance and Enhancement of Long Term Productivity

This discussion applies to all alternatives.

The Route 46 Corridor Improvement project is intended to meet the long range planning goals of San Luis Obispo County Association of Governments and the state. This project is designed to improve safety and relieve congestion and is identified in the Regional Transportation Improvement Program and Plans. Construction and operation of any one of the build alternatives would result in a number of various potential environmental impacts.

Construction of any one of the build alternatives would involve short-term uses of the surrounding environment. Impacts would include noise from heavy machinery, dust from earth moving activities, changes to the visual environment, removal of riparian/wetland habitats, removal of sensitive wildlife habitat, and additional traffic congestion due to traffic detours during construction.

Construction of the proposed project would result in long-term uses of the environment. Long-term impacts include major terrain alteration; increased noise levels; the incremental removal of wildlife habitat, wetlands, and plant communities; air pollutant emissions from motor vehicles; and loss of agricultural land. Neither cumulative impacts nor long-term risks to health or safety would result from implementation of the project.

There are a number of long-term benefits associated with the implementation of the proposed project. These benefits include improved roadway safety, reduced peak hour and peak weekend traffic congestion, and improved migration for the pronghorn antelope. The project would also result in the clean up of any hazardous waste found in the construction limits, thereby eliminating the potential for future adverse impacts to soil and groundwater. There would be a positive effect on the region by providing improved conditions for the movement of emergency vehicles, goods, services, and people. In addition to serving local and regional needs, the proposed project would improve interregional and recreational travel and movement on a vital state highway.

Although the project alternatives would create various adverse environmental effects as described in this document, implementation of the proposed project is warranted due to the immediate need for the facility to safely accommodate existing traffic volumes, to improve level of service, and to accommodate the foreseeable increases in interregional and commuter traffic. The transportation improvements represented by this project are based on state, regional, and local comprehensive planning that considers the need for present and future traffic requirements within the context of present and future land use development. The local short-term impacts and use of resources by the proposed project are consistent with the maintenance and enhancement of long-term productivity for the state, region, and local area.

3.6 Irreversible and Irretrievable Commitments of Resources

This discussion applies to all alternatives.

Implementation of the proposed action involves a commitment of a range of natural, physical, human, and fiscal resources. Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion would ever be necessary or desirable.

Considerable amounts of fossil fuels, labor, and highway construction materials such as cement, aggregate, and bituminous material are expended. Additionally, large amounts of labor and natural resources are used in the making of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use would not have an adverse effect upon continued availability of these resources. Any construction would also require a substantial one-time expenditure of both state and federal funds, which are not retrievable; savings in energy, time, and a reduction in accidents would offset this. In addition to the costs of construction and right-of-way would be costs for roadway maintenance, including pavement, roadside, litter/sweeping, signs and markers, electrical and storm maintenance.

The commitment of these resources is based on the concept that residents in the immediate area, region, and state would benefit from the improved quality of the transportation system. These benefits would consist of improved accessibility and safety, which are expected to outweigh the commitment of these resources.

3.7 Unavoidable Adverse Impacts

Unavoidable adverse impacts are defined under CEQA as “where the environmental effect of the proposed project reaches the threshold of significance but no feasible mitigation is available to reduce the impact to a less than significant level”⁶⁰. For the proposed project, unavoidable adverse impacts were anticipated in the draft environmental document, however, feasible and effective mitigation was developed to reduce potential impacts to less than significant levels.

⁶⁰ CEQA Deskbook. A step-by-step guide on how to comply with the California Environmental Quality Act. Ronald E. Bass; Herson, Albert I.; Bogdan, Kenneth M. 1999 (Second) Edition.

Chapter 4: Cumulative Impacts

4.1 Cumulative Impacts

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 taking place over a period of 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 traffic patterns, housing availability, and employment.

The resources that the State Route 46 project may adversely impact that will be discussed in the cumulative impact analysis include the following:

- Noise
- Air quality, specifically PM₁₀
- Water quality
- Farmland
- Visual
- Wetlands
- Oak woodlands
- Fremont cottonwood woodland
- Valley sink scrub
- San Joaquin kit fox
- Western spadefoot toad
- California horned lizard
- Sensitive grassland species⁶¹
- Crownscale
- Gypsum-loving larkspur

⁶¹ Sensitive grassland species include: San Joaquin coachwhip (a snake), western burrowing owl, California horned lark, grasshopper sparrow, San Joaquin pocket mouse, and the Tulare grasshopper mouse.

Table 4.1-1 explains each of the above resources and the area studied for the purpose of the cumulative impact analysis.

Table 4.1-1. Resource Area Considered for Cumulative Impacts Analysis

Resource	Area Studied
Noise	Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo County Line
Air quality	San Luis Obispo Air Pollution Control District (SLOAPCD) regulatory boundary; 3.2 kilometer (2 mile) radius of Route 46 Corridor Improvement Project for PM ₁₀
Water quality	Watersheds of the Estrella River and Cholame Creek
Farmland	State Route 46 Corridor from State Route 101 to the San Luis Obispo County Line; 1.6 kilometer (1 mile) radius
Visual	Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo County Line
Wetlands	Watersheds of the Estrella River and Cholame Creek
Oak woodlands	Northern San Luis Obispo County
Fremont cottonwood woodland	Estrella River watershed
Valley sink scrub	Cholame Valley
San Joaquin kit fox	Watersheds of the Estrella River and Cholame Creek
Western spadefoot toad	Eastern San Luis Obispo County
California horned lizard	Eastern San Luis Obispo County
Sensitive grassland species	Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo county line
Crownscale	Cholame Creek Watershed
Gypsum-loving larkspur	Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo county line

Table 4.1-2 summarizes proposed development in the State Route 46 vicinity that may contribute to cumulative impacts for the Route 46 Corridor Improvement Project. This table includes recently built projects and reasonably foreseeable future projects that would potentially affect the same resources as the Route 46 Corridor Improvement Project. Table 4.1-2 identifies resources that the project may affect. This list was compiled from sources including: San Luis Obispo County Planning Department, Shandon Advisory Council, City of El Paso de Robles Planning Department, Caltrans District 5 Intergovernmental Review Branch, Caltrans District 5 Encroachment Permits Database, Central Region Environmental Database, and local knowledge of the project area.

Table 4.1-2. Projects Evaluated as Part of the Cumulative Impacts Analysis

Development/Project	Location	Resource(s) potentially impacted*
Retail Center	East Center St., Shandon CA, APN 017-191-055	farmland, air quality, water quality
9 lot subdivision	8 th St. Shandon CA, APN 017-191-055	farmland, air quality, water quality
2 lot subdivision	485 S. 8 th St. Shandon CA	farmland, air quality, water quality
Resort facility (200 room hotel, restaurant, café, pool, tennis courts, 80 casitas, 18 hole and 9 hole golf course, pro-shop, driving range, parking)	Black Ranch, 386 acres bounded by State Route 46 on east and south, Airport Road to west, and Paso Robles Airport on north.	farmland, air quality, water quality, San Joaquin kit fox, vernal pool fairy shrimp, wetlands, oak woodlands, visual, noise, western spadefoot toad, sensitive grassland species
Winery/Tasting Room	State Route 46, KP 58.00 (PM 36.04)	farmland, water quality, San Joaquin kit fox, wetlands, visual, air quality, western spadefoot toad, sensitive grassland species
Convenience store, General Merchandise store, Olive store, Retail store, Restaurant (total size = 12,500 sq. ft.)	Arciero Ranches, State Route 46	farmland, air quality, water quality, San Joaquin kit fox, wetlands, visual, noise, western spadefoot toad, sensitive grassland species
Chandler Ranch Development (661 acres of homes, schools, parks)	Near State Route 46, Golden Hills Rd., and Union Rd	farmland, air quality, water quality, San Joaquin kit fox, vernal pool fairy shrimp, wetlands, oak woodlands, visual, noise, western spadefoot toad, sensitive grassland species
Repair roadway shoulder and creek bank	Almond Drive at Pine Creek	wetlands, water quality
Trailer Sales and Service Facility (total 29,090 sq.ft.)	State Route 46, KP 51.1 (PM 31.8)	air quality, water quality, visual, noise
North County Cuesta College Campus	State Route 46, KP 49.1 (PM 30.5)	air quality, water quality, visual, noise, oak woodlands
Hotel/Restaurant/Winery (80 unit hotel)	Southeast corner of Mill Road and State Route 46, APN 026-191-023	vernal pool fairy shrimp, water quality, oak woodlands, air quality, San Joaquin kit fox, wetlands, visual, noise, farmland, air quality, western spadefoot toad, sensitive grassland species
Winery/Tasting Room	6335 State Route 46 East	farmland, air quality, water quality, San Joaquin kit fox, wetlands, visual, noise
Antelope Grade Truck Climbing Lane	State Route 46, KP 90.8/93.3 PM (56.5/58.0)	air quality, water quality, San Joaquin kit fox, western spadefoot toad, California tiger salamander, sensitive grassland species
Route 46 Corridor Improvements (Antelope) San Luis Obispo and Kern Counties	State Route 46, KP 90.6/97.9 PM (56.3/60.9)	air quality, water quality, San Joaquin kit fox, western spadefoot toad, California tiger salamander, wetlands, gypsum-loving larkspur, sensitive grassland species, farmland
New Safety Roadside Rest Area	Several potential locations to be reviewed under a new environmental document.	farmland, air quality, water quality, San Joaquin kit fox, wetlands, oak woodlands, visual, noise, sensitive grassland species
105,000 sq.ft. wine processing facility	3075 Union Road, APN 026-211-033	farmland, air quality, water quality, San Joaquin kit fox, vernal pool fairy shrimp, wetlands, oak woodlands, visual, noise

*A resource "potentially impacted" does not imply that this resource indeed exists or would be impacted.

4.1.1 Noise

Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo county line were used as the study area for the cumulative noise impacts analysis. Specific discussions related to noise were vague in the planning and environmental documents that were available for the projects listed in Table 4.1-2. Most of the proposed developments involve business/agriculture or home developments that would not be expected to contribute substantially to the ambient noise levels that exist in the study area. Construction of these different projects would result in substantial temporary noise impacts, but for a limited time. The other proposed highway projects on State Route 46 do not occur in an area with any sensitive receptors and would not result in a California Environmental Quality Act (CEQA) determination of any significant noise impacts.

In terms of noise, the proposed projects, if located close to the existing or proposed State Route 46 may become sensitive receptors (see Section 3.1.5 for a definition of sensitive receptors). Placing structures and businesses near enough to the proposed route so that they would receive substantial levels of noise could be perceived as an impact. Developers of projects near the highway should be aware that noise studies may be warranted and should construct those developments to minimize all existing environmental impacts, including traffic noise, so that noise levels are below significance thresholds.

The Route 46 Corridor Improvement Project would contribute to permanent cumulative noise impacts near existing sensitive receptors. In addition, temporary noise impacts during construction would result. Noise impacts would be most severe during construction yet would be a temporary impact. Some sensitive receptors located near future development projects may be temporarily impacted for a longer amount of time by construction noise from those projects. For these receptors cumulative impacts would be greater. Incremental or cumulative increases in traffic noise impacts would result to sensitive receptors for any of the build alternatives for the proposed project. For the study area in general, the proposed project in combination with the other projects listed in Table 4.1-2 would not substantially contribute to cumulative noise impacts.

4.1.2 Air Quality

Developments within the jurisdiction of the San Luis Obispo Air Pollution Control District (SLOAPCD) were studied for cumulative impacts to air quality. For the pollutant PM₁₀, a 1.6 kilometer (1 mile) radius around the Route 46 Corridor Improvement Project was used as the study area. A project is not eligible for federal funds unless it is found to be in conformance with the applicable State Implementation Plan (SIP). The SLOAPCD is in attainment for all federal ambient air quality standards. The proposed project is included in the State Transportation Improvement Program (STIP) that is considered to be in conformance with the SIP. Therefore, the project would be in conformance with the SIP. All of the projects listed in Table 4.1-2 would affect air quality. Air quality would be permanently impacted by an increase in vehicle trips. Those projects that propose home developments and hotel facilities would cause the greatest amount of increased vehicle trips and would cumulatively contribute to air pollution. The Route 46 Corridor Improvement Project would not increase vehicle trips. In addition to permanent impacts to air quality, all of the projects listed in Table 4.1-2 would affect air quality during construction. It is unlikely that these projects would all be under construction at the same time. Substantial cumulative

impacts to air quality would not likely result from the construction of these projects. Most of the projects listed would require that an environmental document be prepared. This document would analyze the impacts to air quality from the project and would be subject to review and approval by the SLOAPCD. It is likely that the SLOAPCD would require the use of best management practices during construction to reduce the impact to air quality.

PM₁₀

PM₁₀ impacts are generally considered to be short term and localized. Because of this, the cumulative impact study area was defined as a 1.6 kilometer (1 mile) radius around the Route 46 Corridor Improvement Project. With the recommended mitigation measures to reduce PM₁₀ and use of post combustion, after-treatment control devices on construction equipment, cumulative air quality and PM₁₀ impacts would be minimized to the maximum extent practicable. The determination of the number and type of equipment that would be retrofitted with these devices would be agreed to in conjunction with the SLOAPCD staff prior to construction.

The production of PM₁₀ from other construction activities within the study area is likely to occur and to add incremental cumulative impacts to air quality. Projects subject to CEQA review should be required to mitigate for PM₁₀ emissions as this proposed project is. It is assumed that the SLOAPCD would require similar mitigation measures to reduce PM₁₀ emissions from other proposed projects in the study area. Projects not subject to CEQA analysis and review, plus agricultural conversions, and ongoing agricultural activities would be expected to contribute to the production of PM₁₀ pollutants. PM₁₀ generated during construction activities is temporary. Given that the PM₁₀ impacts from any of the proposed projects in Table 4.1-2 would be less than significant under CEQA, the proposed project would not result in a cumulatively considerable impact related to construction emissions of PM₁₀.

4.1.3 Water Quality

The watersheds of the Estrella River and Cholame Creek were used as the study area for the cumulative water quality impacts analysis. The water quality impact analysis concluded that the proposed project would not substantially affect water quality. All of the projects listed in Table 4.1-2 have the potential to impact water quality both on a temporary basis during construction and on a permanent basis. Sedimentation is arguably the greatest water quality concern for any of the proposed projects. The addition of impervious surfaces, which would occur from a majority of those projects, would increase the amount of storm water runoff as well as introduce new sources of pollutants that, if transported to surface bodies of water, could degrade water quality. The conversion of grasslands to other uses, including intensive agriculture, could impact water quality if best management practices are not implemented. Sedimentation resulting from exposed soil, pollutant-laden runoff resulting from the use of biocides and fertilizers, and an increase in runoff from the addition of impervious surfaces could result. Implementing best management practices to control and clean storm water runoff would minimize all of these impacts. Water quality could be impacted by the location of new construction or a change in agricultural use if vegetated buffer zones to filter pollutants around creeks and tributaries are not included in the planning of these projects.

Future projects that disturb more than 1 acre of soil or that require coverage under the General Construction Permit are subject to compliance with the Porter-Cologne Act, Federal Clean Water Act, and possibly CEQA review and compliance. These projects would be reviewed by the Regional Water Quality Control Board (RWQCB) and would be required to implement Best Management Practices (BMPs) to minimize impacts to water quality. Agricultural conversions that are not covered under the General Construction Permit from the county or are not subject to CEQA review may not be required to implement the necessary best management practices to protect the beneficial uses for the water bodies found in the Estrella River and Cholame Creek watersheds. If BMPs are not implemented, cumulative impacts to water quality would result. Projects proposed within Caltrans right of way have to comply with the Caltrans statewide National Pollutant Discharge Elimination System permit. The conditions of that permit require Caltrans to implement BMPs to protect water quality to the maximum extent practicable. Because BMP technology to protect water quality is improving every year, future projects would likely improve the quality of water discharged from the project area as compared to the quality prior to the construction of the project.

Impacts to water quality could result during the construction of any of the projects listed in Table 4.1-2. However, these impacts would be temporary and would not result in a CEQA determination of a significant cumulative impact to water quality. Construction related water quality impacts could be minimized by the implementation of BMPs to protect water quality. If these projects were subject to permits or review by the RWQCB, the likelihood that these projects would implement BMPs would increase. However, projects not subject to these reviews and/or required to implement BMPs to protect water quality could result in a significant impact to water quality alone or cumulatively. Cumulative impacts to water quality are occurring as a result of non-regulated operations and because of the incremental impacts of projects proposing the expansion of impervious surfaces. Because the Route 46 Corridor Improvement Project must comply with Caltrans NPDES permit, this project would not result in a substantial cumulative impact to water quality.

4.1.4 Farmland

A 1.6 kilometer (1 mile) radius around the State Route 46 corridor from State Route 101 to the San Luis Obispo County line was used as the analysis area for cumulative farmland impacts. The farmland impact analysis concluded that the proposed project would result in no significant impacts, under CEQA, to prime farmland, farmland of statewide importance, or important farmland. In addition, no substantial impacts to any property held under a Williamson Act contract were found. No specific area of impacts to designated farmland was found for any of the projects listed in Table 4.1-2 in this section. Many of the properties throughout the study area are zoned agriculture. 70% of the properties in the Estrella section were zoned agriculture, while 95% of the properties in the Shandon, Cholame, and Wye sections were zoned agriculture (see section 3.3.4). Most of the proposed developments listed in Table 4.1-2 are proposed either in the Estrella section (where agricultural zoning is least) or in the Shandon urban area, which is zoned for community development.

Future developments in areas zoned agriculture would require a zoning change on the parcel proposed for development prior to receiving approval to build. This requirement would affect a review of the impacts to farmland resources prior to approval of the zoning change. Lack of

infrastructure in a majority of the project area would preclude many potential developments due to the cost to establish the necessary infrastructure for large-scale development (see section 3.3.4, Growth Inducing Impacts).

Based on personal observations made during field reviews conducted during the farmland impact analysis, impacts to farmland are occurring in the project study area, however, and are in the form of agricultural conversions from crops and grazing land to viticulture production. While this change is still an agricultural production, the crop produced is a luxury crop rather than a basic food crop that is used to meet societal needs for food. Under this interpretation cumulative impacts to prime farmland are occurring due to this shift in agricultural use in the study area. While farmland products are changing in the area, the zoning for a new vineyard is still agriculture and the use would not change the designation of any farmland. Based on the information presented in Section 3.3.2 of Chapter 3, zoning, and overall use of the land in the study area, cumulative impacts are not occurring and the proposed Route 46 Corridor Improvement Project would not substantially contribute to cumulative farmland impacts.

4.1.5 Visual

Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo County Line were used to evaluate the potential for significant cumulative effects. The proposed project would not substantially degrade the total visual experience for the highway user along the route. The regional landscape can accommodate the proposed additional lanes, pavement width, earthwork, and structures associated with the project without substantially compromising the visual quality. Upon project completion, highway users familiar with the route would notice that the scale of the roadway had been changed. The existing view quality would absorb this change, however, and would not be substantially degraded by the proposed project.

Future projects, such as those presented in Table 4.1-2, would also cause a change in the visual quality of the project area. The conversion of open land to homes, hotels, golf courses, wineries, and tasting rooms would cumulatively degrade the existing, rural character of the project area. The Estrella section is where most of the development projects are proposed. Within this section, there is a higher percentage of development already present as evidenced by the current zoning (70% agriculture, 30% other). When compared to the other development in the Estrella section, the proposed future developments would have a lesser degree of visual impact than development projects proposed in areas with little to no existing development. Likewise, the proposed subdivisions in the Shandon section of the project area are proposed to be built within the Shandon Urban Reserve Line and are part of planned growth within or next to the existing community. Due to the presence of designated farmland and Williamson Contract lands throughout the eastern project area, a reasonably foreseeable future development in the Shandon section is unlikely. Based on the zoning and overall use of the land in the study area, cumulative visual impacts are occurring but the proposed Route 46 Corridor Improvement Project would not substantially contribute to cumulative visual impacts.

4.1.6 Wetlands

The watersheds of the Estrella River and Cholame Creek were used as the study area for the cumulative wetlands impact analysis. Specific discussions of impacts to wetlands or jurisdictional Waters of the U.S. (waters) were either not found or not quantified for the projects listed in Table 4.1-2. The Black Ranch development project information does contain a discussion related to recommended measures to avoid impacts to wetland resources within the project site, but does not quantify potential impacts. Similar situations were found for the proposed Chandler Ranch development and the recently constructed North County Cuesta College Campus project. For the other projects listed in Table 4.1-2, information was either unavailable or not yet prepared with regards to wetland and other waters impacts.

The current health of the wetlands affected (primarily in the Cholame Valley) is relatively poor. Grazing has significantly altered much of the plant communities, converting them from scrub to primarily annual grasslands. The project would not change the area's land uses, but it would contribute to the long-term viability of the wetlands that it would affect. The project would restore surface water connectivity that the current highway alignments have altered.

Any one of these projects could potentially affect wetlands and/or Waters of the U.S. In addition, agricultural land use changes from dryland farming and grazing to wine grape production do not require permits or environmental analysis prior to implementation. These shifts in land use, however, could also have a potentially negative affect on wetland and waters resources. Impacts to wetland and waters resources from any of the project listed in Table 4.1-2 or from agricultural operations changes could be direct, as in acreage loss of the resource, or could be indirect, in the form of degradation of function and value.

Most of the projects listed in Table 4.1-2 would require permits and some level of environmental analysis and approval under CEQA. The CEQA review process would allow for the determination of any potential impacts to wetland resources. If impacts to these resources were to occur, permits from the responsible regulatory agencies would be required. These agencies would likely require mitigation of potential impacts that would reduce the impact to a less than significant level. The proposed Route 46 Corridor Improvement Project is also subject to CEQA, as well as National Environmental Policy Act (NEPA), review and analysis. Impacts to wetlands and waters would occur from the proposed project and have been avoided and minimized to the greatest extent possible through project design. Any remaining impacts are subject to permits by the regulatory agencies that would require that Caltrans mitigate permanent, direct impacts so that “no net loss” of wetlands would result. As discussed in the Biological Resources section (Section 3.2.1), some positive impacts to wetlands would result as part of the proposed project by improving function and value of disconnected wetlands. Based upon this analysis and review, under CEQA, no significant contributions to cumulative impacts to wetlands and waters resources would result from the proposed Route 46 Corridor Improvement Project in combination with the projects listed in Table 4.1-2.

4.1.7 Oak Woodlands

Northern San Luis Obispo County was used as the assessment area for cumulative impacts to oak woodlands. Of the known projects proposed or recently constructed, listed in Table 4.1-2, no specific quantification of impacts to oak woodlands was found. The Chandler Ranch project, Black Ranch project, and Cuesta College North Campus projects all contained qualitative information regarding impacts to oak woodlands. These three projects all identified the loss of oak woodlands as a substantial biological impact from the project and all three projects proposed mitigation, in the form of replanting oaks, in order to compensate for the loss. Mitigation for oak tree loss was typically designated at a 2:1 ratio, meaning that for every mature oak that was or is to be cut, two young oaks would be planted elsewhere to compensate for the loss. In addition to these projects identified, one other has the potential to result in oak woodland impacts. The proposed project to construct a winery/hotel/tasting room at the property located at the southeast corner of Mill Road and State Route 46 could result in oak woodland impacts. Degraded blue oak woodland exists on this property and, depending on the design of the project, could be impacted. Analysis and required mitigation under CEQA would result in the replacement of any oaks cut as a result of the project.

The proposed Route 46 Corridor Improvement Project would also impact oak woodlands. Approximately 236 oaks would be cut as a result of the proposed project. These oaks would be replaced in sufficient numbers to ensure the survival of 236 blue oaks and would be planted both within the proposed project (onsite) and offsite.

The remaining projects listed in Table 4.1-2 are located in the eastern portion of the North County area, where oak woodland habitat is less likely to be found. This does not mean that individual trees may not be cut however, as Valley oak woodland and blue oak woodland can still be found in the eastern portion of the county. If agricultural land use changes continue to occur, changing grazing land to vineyard production, oaks may still be impacted. This potential loss is difficult to assess because of the lack of required review and permitting for agricultural conversions and because of the varied land ethic of agricultural managers.

A more important discussion regarding impacts to oak woodlands should focus less on individual trees and more on loss of contiguous oak woodland habitat. Growth in the North County area is resulting in the conversion of oak woodlands to other uses. Due to development pressure and the lack of profit that oak woodlands' intrinsic values contain, oak woodlands are being converted with little to no mitigation being employed to compensate for this loss. Individual oak trees are sometimes saved and other oak trees planted as landscape trees to compensate for the individual tree loss associated with suburban home development projects and conversion to agricultural use, but the impact to oak woodlands and the ecosystem values they support are often not mitigated. Although cumulative impacts to oak trees are not occurring, a substantial adverse cumulative impact to contiguous oak woodlands is occurring in the resource assessment area.

The Route 46 Corridor Improvement Project would impact oak trees and oak woodlands. However, because the project proposes the expansion of an existing highway, only linear strips on the margins of contiguous oak woodlands would be impacted. Mitigation proposed to compensate for the loss of the oak trees and woodland as a result of the project would aim to plant oak trees in areas of degraded, contiguous oak woodlands. In this manner, the mitigation proposed for this project would

lessen the cumulative impact to oak woodlands that this project is contributing to in the assessment area. The CEQA determination found that the Route 46 Corridor Improvement Project would not contribute to significant cumulative impacts to oak woodlands because it would completely compensate the losses with mitigation planting and oak woodland restoration.

4.1.8 Fremont Cottonwood Woodland

The Estrella River watershed was used as the analysis area for impacts to Fremont cottonwood woodland. The proposed project would impact small amounts of Fremont cottonwood woodland but would also provide areas adjacent to the existing woodland to mitigate for these impacts. No apparent, specific, past or foreseeable future projects were found in the assessment area that would adversely affect or would affect Fremont cottonwood woodland. However, it is likely that grazing and groundwater pumping have degraded this resource and would continue to degrade these woodlands. Individual homes, grazing, and intensive agriculture may have slowly reduced these woodlands to narrow strips in many areas such as near the Estrella River bridge. There are cumulative impacts occurring to Fremont cottonwood woodland in the Estrella River watershed. With the implementation of the minimization and mitigation measures proposed as part of this project, the Route 46 Corridor Improvement project would not substantially contribute to cumulative impacts to Fremont cottonwood woodland.

The current health of this woodland within the project limits is good because the woodland is not grazed. This allows for a healthy understory and regeneration of canopy tree species. The project would not affect the land uses that currently maintain this woodland's health. The project would maintain the woodland's long-term viability by restoring woodland on a floodplain that is currently tilled.

4.1.9 Valley Sink Scrub

The Cholame Valley area, where a large portion of valley sink scrub habitat is found, was used as the assessment area for cumulative impacts. The proposed project would not result in substantial impacts to valley sink scrub. Areas are available within the project area to mitigate for any impacts that the proposed project would have on valley sink scrub. All of the Wye alternatives propose to move the divergence of Routes 46 and 41 farther east, out of the Cholame Valley floor and away from valley sink scrub habitat. Removing abandoned road segments would allow for onsite mitigation and would improve the connectivity of valley sink scrub habitat in the assessment area.

Of the projects listed in Table 4.1-2, none would be expected to impact valley sink scrub habitat.

The current health of this plant community is poor. Grazing has reduced much of the valley sink scrub to grasslands. The project would not affect the community's long-term viability because it would not change the land uses that affect it.

Grazing and road construction have historically degraded or displaced valley sink scrub in the Cholame Valley. It is impossible to determine how much has been lost or altered but several hundred acres remain. Soil and hydrologic conditions in much of the Cholame Valley are such that no other plant communities are likely to persist without substantial soil and hydrologic alterations.

Based on the zoning and overall land use in the assessment area, no foreseeable future projects would displace valley sink scrub in the Cholame Valley. All of the Wye section alternatives would potentially contribute to a loss of valley sink scrub in the study area. However, the Route 46 Corridor Improvement Project includes avoidance, minimization, and mitigation measures to reduce impacts to a negligible level. The establishment of a Vegetation Management Area and the replacement of habitat onsite would compensate for direct losses associated with the proposed project. The Route 46 Corridor Improvement Project would not result in cumulative impacts to the valley sink scrub community type.

4.1.10 San Joaquin Kit Fox

The watersheds of the Estrella River and Cholame Creek were used for the cumulative impact assessment for the San Joaquin kit fox. Impacts to San Joaquin kit fox from the Route 46 Corridor Improvement Project would result from any of the proposed alternatives in the Estrella, Shandon, Cholame, and Wye sections. Impacts to San Joaquin kit fox habitat would result as well as impacts to migration of the species caused by the highway's barrier effect. The barrier effect of the highway may result in a more substantial cumulative effect than the take of potential habitat.

The current health of the local population is not well understood. Recent surveys found many foxes in the Temblor Range, east of Shandon, south of the Cholame Valley. The Cholame Valley is likely the best kit fox habitat in the study area. A recent study suggested that the Cholame Valley is part of the most viable kit fox corridor remaining between the Carrizo Plain and the southern Salinas Valley. The long-term viability of the local population and the kit fox corridor depends on land uses. If the grain fields and grazing lands are continually converted to vineyards and housing, then neither the local kit fox population nor the corridor will remain viable. The project includes kit-fox specific undercrossings, lengthened bridges, and new bridges to help in maintaining the local kit fox population and movement corridor.

Recent conversion of grazing lands to vineyards in the Shandon area has contributed to a loss of San Joaquin kit fox habitat. That loss of habitat to vineyards, the historical losses from dryland farming, the probable losses due to historical small-mammal poisoning programs, and the proposed highway project would cumulatively affect the San Joaquin kit fox in the Estrella River watershed.

The loss of habitat and effects on dispersal that the Route 46 Corridor Improvement Project would incur would not be a substantial addition to the cumulative effects. The linear loss of habitat would not displace entire populations or even entire home ranges. The effects on dispersal may improve in localized areas where new bridges would be substantially lengthened (even tripled in length) and raised over broad floodplains, such as at all three Cholame Creek crossings and the Estrella River. The project would contribute more to the cumulative effect if the project removed a large block of habitat that could support a population or at least encompass individual home ranges. Such large-scale losses have likely occurred recently during thousand-plus acre blocks of vineyard conversions, and historically during dry-land farming conversions. Large-scale losses of habitat and additional fragmentation would likely result from several of the projects listed in Table 4.1-2. Several of the projects listed in the table propose massive developments of currently suitable habitat.

In addition, the Route 46 Corridor Improvement Project includes avoidance, minimization, and mitigation measures to reduce impacts. Establishing a Vegetation Management Zone, improving highway crossing opportunities, and preserving and enhancing habitat offsite would compensate for direct losses, thereby reducing the contribution to the cumulative effect on kit fox, under CEQA, to a less than significant level. With the incorporation of these proposed measures, the proposed project would not contribute to a significant cumulative effect to the San Joaquin kit fox.

4.1.11 Western Spadefoot Toad

Eastern San Luis Obispo County was used as the assessment area for cumulative impacts to western spadefoot toads. The proposed project would not substantially impact spadefoot toads or their habitat. Impacts to potential spadefoot toad habitat would result from the Route 46 Corridor Improvement Project but would be only a small portion of the total impacts affecting spadefoot toads in eastern San Luis Obispo County.

The current health of the spadefoot toad population is not well understood. Between Shandon and Paso Robles, much of the vernal pool habitat and suitable uplands have been converted to non-compatible land uses, so it is assumed that the toad population has declined significantly. Additionally, the highway traffic levels are currently high enough to prevent most amphibian crossings. The project would not change the land uses that determine the local population's fate, but it would enhance habitat connectivity at creek corridors by substantially lengthening bridges, thus aiding the population's long-term viability.

Agriculture, road construction, and urban development are cumulatively and adversely affecting western spadefoot toads in the assessment area. Most of the spadefoot toad's range in the area has traditionally been used as rangeland. It was found that much of this area has recently been converted to vineyard and other incompatible land uses. Vineyards have caused the greatest impacts, based on the greatest amount of habitat conversion. This has likely resulted in the loss of western spadefoot toads in many areas due to the tilling and ripping of uplands in which the toads burrow, and the direct conversion of vernal pools and other breeding locations to vineyards.

Virtually no vineyards were present in the region 15 to 20 years ago, and vernal pools were probably common. For example, two vernal pools appear on the topographical map just 300 and 400 meters south of the Mill Road pool, and on the same landform as the Mill Road pool. These have recently been converted to vineyard.

No one has tracked or quantified these impacts because vineyard development is not subject to any state or local environmental review or permits. Of the 16 projects listed in Table 4.1-2, four of them involve a conversion of land for the wine industry. All of these would impact potential western spadefoot toad habitat. In addition, five more of these projects would also likely affect western spadefoot toad habitat. All of these projects are reasonably foreseeable future projects and combined with the Route 46 Corridor Improvement Project could contribute to a cumulative effect to western spadefoot toads.

Historic and current surface water diversion and groundwater pumping have also likely affected the species in the assessment area. Recent, large-scale vineyard developments have probably increased

this problem due to their high demand of water for irrigation. Altered water regimes and increased erosion and sedimentation have probably eliminated or at least altered the character of breeding locations in many seeps and stream channels, such as the Estrella River, Huer Huero Creek, and San Juan Creek.

The loss of habitat that the Route 46 Corridor Improvement Project would incur would not be a substantial addition to the cumulative effects. The linear loss of habitat would not likely displace entire populations. The project would contribute more to the cumulative effect if the project removed a large block of habitat that could support a viable population. Such large-scale losses have occurred recently during thousand-plus acre blocks of vineyard conversions and will probably continue to occur in the future with many of the proposed developments listed in Table 4.1-2. In addition, the proposed project includes avoidance, minimization, and mitigation measures to reduce impacts to a negligible level. Establishing a Vegetation Management Area in the Cholame Valley and preserving and enhancing habitat offsite would compensate for the direct losses, thereby eliminating any contribution to the cumulative effect on western spadefoot toads.

4.1.12 Coast Horned Lizard

Eastern San Luis Obispo County was used as the assessment area for cumulative impacts to the coast horned lizard. The Route 46 Corridor Improvement Project would cause some impacts to coast horned lizard habitat but would not likely affect individual species with the mitigation proposed. Habitat impacts from the proposed project would be linear in shape and would not likely affect an entire population of coast horned lizards. The linear shape of the habitat impacts would be less severe than if the same amount of habitat were taken in a large block.

The current health of the coast horned lizard population is not well understood. Between Whitley Gardens and Paso Robles, much of the suitable habitat has been converted to non-compatible land uses, so it is assumed that the toad population has declined significantly. The project would not change the land uses that determine the local population's fate, but it would enhance habitat connectivity at creek corridors by substantially lengthening bridges, thus aiding the population's long-term viability.

Vineyards and residential developments are cumulatively impacting the coast horned lizard populations in the assessment area. Vineyards and residential developments have recently displaced large tracts of potential habitat from Shandon to Paso Robles, and have channelized Dry Creek upstream of State Route 46. Proposed future projects such as development of the Black Ranch, adjacent to Dry Creek, would likely continue to adversely affect the species. Widening State Route 46 to four lanes would contribute to this cumulative impact by directly displacing habitat. The contribution is not considerable because the crossing of each drainage is perpendicular, which minimizes the amount of high-quality habitat affected and leaves intact habitat in place up- and downstream. Recent vineyard conversions and proposed projects such as the Black Ranch development have displaced or will displace several hundred and possibly thousands of acres at a time. The threat of reducing a population's viability with the proposed project would not likely be greater than with the habitat losses incurred by vineyards and developments.

The Route 46 Corridor Improvement Project includes avoidance, minimization, and mitigation measures to reduce its impacts to a negligible level. The CEQA determination found that with the incorporation of these proposed measures and the construction of larger culverts and longer bridges across drainages that provide high quality habitat, the proposed project would not contribute to or result in significant cumulative impacts to coast horned lizards.

4.1.13 Sensitive Grassland Species

The San Joaquin coachwhip, burrowing owl, California horned lark, grasshopper sparrow, San Joaquin pocket mouse, and the Tulare grasshopper mouse are all included in this discussion of cumulative impacts to sensitive grassland species. All of these species use different components of the same habitat type. Because impacts to their habitat are the primary concern for these species, they are combined here for purposes of discussion of cumulative impacts to their habitat and thus each individual species.

The current health of these populations is not well understood. Between Whitley Gardens and Paso Robles, much of the suitable habitat has been converted to non-compatible land uses, so it is assumed that the toad population has declined significantly. The project would not change the land uses that determine these animals' fate, but it would enhance habitat connectivity at creek corridors for the coachwhip, pocket mouse, and grasshopper mouse by substantially lengthening bridges, thus aiding the populations' long-term viability.

The Route 46 Corridor Improvement Project would affect grasslands in the Estrella, Shandon, Cholame, and Wye sections. Impacts to habitat for any of the sensitive grassland species would result from the proposed project. Recent conversion of grazing lands to vineyards in the Shandon vicinity has likely contributed to a loss of sensitive grassland species habitat in the assessment area. That loss of habitat to vineyards, the historical losses from dryland farming, the probable historical losses due to small-mammal poisoning programs, and the proposed highway project cumulatively affect potential sensitive grassland species habitat throughout the assessment area.

Of the projects listed in Table 4.1-2, most would potentially affect sensitive grassland species habitat. Some of these projects would displace hundreds of acres of habitat with roads, buildings, and other impervious surfaces, effectively eliminating the habitat. Other projects would convert the grassland to another agricultural use, severely degrading the habitat but potentially leaving smaller portions of grassland that could be used by some of the species. Vineyards are more likely to eliminate all habitat than are developments. Most of these projects would also contribute to the cumulative impact to sensitive grassland species.

The loss of habitat that the Route 46 Corridor Improvement Project would incur would not be a considerable addition to the cumulative effects. The linear loss of habitat would not likely displace entire populations or even individual home ranges. The project would contribute more to the cumulative effect if the project removed a large block of habitat that could support a population or at least encompass individual home ranges. Such large-scale losses have likely occurred recently during thousand-plus acre blocks of vineyard conversions, and historically during dry-land farming conversions. In addition, the project includes proposed avoidance, minimization, and mitigation measures to reduce impacts to grassland species. The CEQA determination found that with the

incorporation of these measures, the contribution of the proposed project to cumulative impacts would not be considerable and would not result in significant cumulative impacts to these sensitive grassland species.

4.1.14 *Crownscale*

The Cholame Creek watershed was used to evaluate the potential for significant cumulative effects. The proposed project would not substantially affect any populations of crownscale. Impacts to some plants would result from the Route 46 Corridor Improvement Project but the crownscale population appears to be healthy in the project vicinity and in the assessment area. Areas are available within the project area to mitigate for any impacts that the proposed project would have on crownscale. All of the Wye alternatives propose to move the divergence of State Routes 46 and 41 farther east, out of the Cholame Valley floor and away from the crownscale populations. Removing abandoned road segments would allow for onsite mitigation and would improve the connectivity of the crownscale populations in the assessment area. With the incorporation of the proposed avoidance, minimization, and mitigation measures to reduce impacts to crownscale, the Route 46 Corridor Improvement Project would not contribute to cumulative impacts.

No past projects other than road construction appear to have affected the crownscale in the Cholame Creek watershed. It is locally common on the valley floor, even in non-native, annual grasslands. Grazing does not appear to be a threat to crownscale in this area; the largest patches found were within the Wye area, one of the most heavily grazed areas in the assessment area. Based on the current land use and zoning in the assessment area, there are no foreseeable future projects that would impact crownscale. The Route 46 Corridor Improvement Project would not result in a substantial cumulative impact to crownscale.

The local population's health is not known. It has been mapped in the Cholame Valley in only one year. The project would maintain the same amount of habitat for the species and would restore the surface water hydrologic processes that create this species' habitat, promoting the population's long-term viability.

4.1.15 *Gypsum-loving Larkspur*

Developments adjacent to State Route 46 from State Route 101 to the San Luis Obispo County line were used to evaluate the potential for significant cumulative effects. The proposed project would not substantially impact any populations of gypsum-loving larkspur. Impacts to some plants would result from the Route 46 Corridor Improvement Project but the gypsum-loving larkspur population appears to be healthy in the project vicinity and in the assessment area.

The current health of this population is not known. It has an affinity for steep slopes, however, which may save much of its habitat from conversion. The project would not change the land uses that will determine this species' long-term viability.

Other than road construction that has cut some slopes, it is not apparent that projects or activities have adversely affected the larkspur in this area. It is locally common on north slopes, even in non-native, annual grasslands surrounded by dryland crops, such as along McMillan Canyon Road. Its

affinity for steeper slopes has protected it from impacts due to agricultural conversion in the area and it will likely continue to allow its persistence. Grazing does not appear to be adversely affecting gypsum-loving larkspur in this area: populations observed east of the project area appeared denser on grazed land in 2001 than within the non-grazed right of way along State Route 46. The Antelope Grade Truck Climbing Lane Project and the Highway 46 widening project (adjacent to this project but east of the Wye) would remove some gypsum-loving larkspur on at least two north slopes.

There is a potential for a cumulative impact on the gypsum-loving larkspur because of the proposed project and foreseeable future projects. However, the current land use and zoning in this area would limit any other future projects besides minor highway maintenance and the future highway expansion projects discussed. The Route 46 Corridor Improvement Project includes avoidance, minimization, and mitigation measures to compensate for impacts to gypsum-loving larkspur. With the incorporation of these measures, the proposed project would not contribute to cumulative impacts. Based on the large population of gypsum-loving larkspur in the assessment area and the minimal impacts of the known foreseeable future projects on these populations, the Route 46 Corridor Improvement Project would not contribute to a substantial cumulative impact to gypsum-loving larkspur.

Chapter 5: Environmental Significance Checklist

One of the basic purposes of the California Environmental Quality Act (CEQA) is to inform state, regional and local governmental decision makers and the public of impacts of proposed activities, and in particular, those impacts that are either significant or potentially significant.

Determining and documenting whether an activity may have a significant effect on the environment plays a critical role in the CEQA process. The following CEQA Environmental Significance Checklist is a device that was used to identify and evaluate any potential impacts from the proposed activity on physical, biological, social and economic resources. This checklist is not a National Environmental Policy Act (NEPA) requirement.

Differences do exist in the way impacts are addressed in CEQA environmental documents as compared to NEPA environmental documents. While CEQA requires that environmental documents state a determination of significant or potentially significant impacts, as has been done in the following CEQA checklist, NEPA does not. It can be seen that having to address significant or potentially significant impacts in joint CEQA and NEPA environmental documents can be confusing especially in those instances where the two laws and implementing regulations have different thresholds of significance.

Under NEPA, the degree to which a resource is impacted is only used to determine whether a NEPA Environmental Impact Statement (EIS) or some lower level of NEPA documentation would be required. Under NEPA, once the Federal agency has determined the magnitude of the project's impacts and the level of environmental documentation required, it is the magnitude of the impact that is evaluated in the environmental document and no judgment of its degree of significance is deemed important in the document text. For the purpose of the impact discussion in this document, determination of significant or potentially significant impacts is made only in the context of CEQA. Although not explicitly identified in this document, impacts in the context of NEPA can be assumed to be minimal or non-existent.

Based on the results of the technical studies, it has been determined that the appropriate level of CEQA environmental documentation for this project is an Environmental Impact Report.

The CEQA checklist begins on the following page.

ENVIRONMENTAL CHECKLIST (see attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5.1 Physical				
5.1.1 Air Quality				
Where available, the significance criteria established by the applicable air quality management or air pollution control district might 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"/>	X	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
5.1.2 Geology & Soils				
Would the project:				
a) Expose people and 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"/>	X	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

ENVIRONMENTAL CHECKLIST <i>(see attachments for information sources)</i>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	X	<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"/>	X	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
5.1.3 Hazards & 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 type="checkbox"/>	X
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"/>	X	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X	<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"/>	X

ENVIRONMENTAL CHECKLIST (see attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.1.4 Hydrology & Water Quality				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
h) Place within 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

ENVIRONMENTAL CHECKLIST (see attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk or loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.1.5 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"/>	X
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"/>	X
5.1.6 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"/>	X	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	X	<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"/>	X	<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"/>	X	<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"/>	X	<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"/>	X

ENVIRONMENTAL CHECKLIST (see attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5.2 Biological				
5.2.1 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"/>	X	<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"/>	X	<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 type="checkbox"/>	X	<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"/>	X	<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 type="checkbox"/>	<input type="checkbox"/>	X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approval local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.3 Socio-economic				
5.3.1 Aesthetics				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

ENVIRONMENTAL CHECKLIST (see attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
5.3.2 Agriculture				
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 Department of Conservation as an optional model to use in assessing impacts on agricultural 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"/>	X	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.3.3 Cultural				
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"/>	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

ENVIRONMENTAL CHECKLIST <i>(see attachments for information sources)</i>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5.4.4 Land Use & Planning				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
5.4.5 Population & 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"/>	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.4.6 Public Services				
Would the Project:				
a) 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"/>	X	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

ENVIRONMENTAL CHECKLIST <i>(see attachments for information sources)</i>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Other public facilities?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
5.4.7 Recreation				
Would the project:				
a) 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"/>	X
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.4.8 Transportation & Traffic				
Would the project:				
a) Cause an increase in traffic, which 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"/>	X
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"/>	X
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"/>	X
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"/>	X
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X

ENVIRONMENTAL CHECKLIST (see attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5.4.9 Utilities & 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"/>	X
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"/>	X
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"/>	X	<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"/>	X
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
5.5 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 rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL CHECKLIST <i>(see attachments for information sources)</i>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>

Chapter 6: Best Management Practices and Mitigation Summary

The intent of this chapter and its information is to clearly define, as a separate entity, all of the avoidance, minimization, best management practice (BMP), and mitigation measures developed for this project. A brief reason for each measure, and the person, department, or party responsible for seeing the commitment through to fruition is included as well.

For the sake of consistency, all measures included in this chapter have been organized by resource.

6.1 Air Quality

Impact/reason for protective measure(s) – The following measures (1 – 9) are intended to minimize the amount of PM₁₀ produced during construction of the project.

Minimization Measure 1 – Reduce the amount of disturbed areas where possible.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 2 – Use 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 25 mph. Reclaimed (non-potable) water would be used whenever possible.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 3 – All dirt stock-pile areas would be sprayed daily as needed.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 4 – Permanent dust control measures identified in the approved project re-vegetation and landscape plans would be implemented as soon as possible following completion of any soil disturbing activities.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 5 – All roadways, driveways, sidewalks, etc. to be paved would be completed as soon as possible unless seeding or soil binders are used.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 6 – All trucks hauling dirt, sand, soil, or other loose materials on public roads are to be covered or would maintain at least two feet of freeboard in accordance with California Vehicle Code Section 23114.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 7 – Sweep streets at the end of the day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water would be used where feasible.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 8 – Fugitive dust emissions from any source during this project will not exceed 20% opacity, with the exception of specific pieces of equipment that are allowed to emit at higher opacity limits under a permit. Should 20% opacity be exceeded, the Contractor must expand their dust control effort to bring the emissions to below the limit.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Caltrans would use after-treatment control devices on some of the most highly used and high emitting pieces of construction equipment. The determination of the number and type of equipment that shall be retrofitted with these devices shall be discussed and agreed to in conjunction with the SLOAPCD staff prior to the bidding process for each sub-phase of construction.

Impact/reason for protective measure(s) – The following measures (9 – 14) are intended to reduce the amount of combustion emissions produced during project construction. Minimizing the production of primary pollutants would also reduce the production of secondary pollutants during construction.

Minimization Measure 9 – Caltrans would use after-treatment control devices on some of the most highly used and high emitting pieces of construction equipment. The determination of the number and type of equipment that shall be retrofitted with these devices shall be discussed and agreed to in conjunction with the SLOAPCD staff prior to the bidding process for each sub-phase of construction.

Responsibility of – Caltrans Environmental, Construction, Prime Contractor, and SLOAPCD Staff

Minimization Measure 10 – Schedule truck trips to minimize impacts to traffic flow.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 11 – Should Caltrans and the SLOAPCD review of emission estimates indicate that planned construction activities would be substantially greater than the APCD's Tier 3 emission threshold, then phasing of construction activities will be one option for emission reduction.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 12 – Construction equipment would be operated in proper tune according to manufacturer's specifications.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 13 – Use only California Air Resources Board approved fuel for all diesel-powered equipment used during construction.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 14 – To the extent feasible, use electric grid power to replace diesel-powered generators and to power air compressors and light sources.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 15 – Diesel equipment shall not be allowed to idle for more than 10 minutes.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 16 – Install catalytic converter after-treatment control devices on some of the project's higher usage, higher emitting pieces of non-road, diesel-powered construction equipment during each sub-phase of the construction project. The determination of the number and type of equipment that shall be retrofitted with these devices shall be based on finalized emissions estimates calculated for each sub-phase. Caltrans and the Air Pollution Control District shall work together to determine the appropriate level of control prior to the opening of the bidding process for each sub-phase of construction.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

6.2 Geology/Seismic and Soil Types

Minimization Measure 1 – Caltrans Standard Specifications, Section 20 contains provisions to prevent the erosion of soil during and immediately following construction activities. In addition, the standards set forth in Caltrans SWPPP serve to protect water quality by preventing soil erosion. These provisions would be implemented when and where feasible.

Impact/reason for minimization measure – Minimize soil loss from project site.

Responsibility of – Resident Engineer

BMP Measure 2 – Bridge design would be site specific. All bridges and other structures would be designed to withstand the maximum credible earthquake associated with nearby faults without catastrophic failure.

Impact/reason for BMP measure – Minimize adverse impacts to project structures from any seismic activity.

Responsibility of – Office of Structures Design

BMP Measure 3 – At the Shandon Roadside Rest Area, a percolation test would be done on the soils in the area designated for the new leach field prior to construction.

Impact/reason for BMP measure – Ensure the suitability of the soil for use as a leach field

Responsibility of – Office of Geotechnical Engineering

6.3 Hazards and Hazardous Materials

BMP Measure 1 – If suspected contaminated soil is discovered during construction of the project, all work would cease in the suspected contaminated area. The suspected material would be sampled in place to determine the content and concentration of the hazardous material. All hazardous materials found would be removed, handled, and disposed of in accordance with state and federal regulations.

Impact/reason for BMP measure – This measure is intended to protect public and worker health and safety and to provide a plan for the proper handling of hazardous materials in the event that suspected materials are discovered during the construction of the project.

Responsibility of – Resident Engineer

Impact/reason for BMP measure – The following measures (2 - 4) are intended to protect public health and safety and the health of the physical environment by containing and providing for the proper handling of known hazardous materials.

BMP Measure 2 – If asbestos-containing materials identified on Bridges #49-36 and #49-29 would be disturbed during construction, they would be treated as a hazardous material and disposed of by a licensed and certified asbestos abatement contractor. This would be done prior to any construction activities that would disturb the ACM to a point at which it could possibly become airborne.

Responsibility of – Prime Contractor

BMP Measure 3 – A Notification for Renovation and Demolition of Asbestos Containing Materials would be submitted to the Regional Air Pollution Control District 10 days prior to the beginning of the project.

Responsibility of – Submittal of this notification is the responsibility of the Resident Engineer

BMP Measure 4 – Peeling, lead-containing paint on Bridge #49-95 is to be removed and disposed of by a certified and licensed abatement contractor in conjunction with any planned demolition work associated with this project. All painted surfaces on Bridge #49-33 would be treated as lead-containing and handled using the same procedure described above for Bridge #49-95. This would occur only during any maintenance, demolition, or renovation activities associated with this project.

Responsibility of – Prime Contractor

BMP Measure 5 – A notification of construction would be filed with the FAA, using FAA Form 7460-1, prior to the beginning of construction activities.

Impact/reason for BMP measure – To notify the Federal Aviation Administration that construction will begin within the 3.2 kilometer (two mile) limit of the Paso Robles Municipal Airport.

Responsibility of – Project Environmental Generalist

BMP Measure 6 – Minimize single-lane control during construction to maximum extent feasible so that emergency services would have the most free flow traffic conditions available in the event of an emergency.

Impact/reason for BMP measure – Although State Route 46 is not a designated emergency evacuation route by the County Office of Emergency Services, it could be designated for such use in the event of a catastrophic emergency. Because of this, the above best management practice would be implemented to the greatest extent possible.

Responsibility of – Resident Engineer

6.4 Hydrology, Floodplains, and Water Quality

Impact/reason for minimization measure – The following minimization measures (1 – 3) are intended to avoid and minimize impacts to floodplains and hydrologic resources.

Minimization Measure 1 – Existing culvert capacities would be analyzed and upgraded, extended, or replaced as necessary to follow the Caltrans cross-culvert criteria and federal standards for the proposed roadway widening. Treatments to the specific culverts outlined in Table 3.1.4-3 will be completed as agreed upon between Caltrans and the U.S. Environmental Protection Agency.

Responsibility of – Project Hydraulics Engineer and Project Design Engineer

Minimization Measure 2 – The design of all new, widened, and re-constructed bridges would use the Caltrans bridge design guidelines and Federal floodplain standards and would comply with state and federal criteria.

Responsibility of – Office of Structures Design, Hydraulics Engineer, and Project Design Engineer

Minimization Measure 3 – To mitigate for potential rises in water-surface elevations in Cholame Creek associated with raising the highway profile grade in the Cholame section area, the length and height of the two new bridges proposed in Cholame section, Alternatives 1 and 2 would be increased. In addition to increasing the length and height of the bridge, a series of box culverts placed under State Route 46 are being proposed to mitigate potentially unacceptable backwaters associated with the raising of the highway profile grade. These box culverts would be installed under any of the proposed build alternatives.

Responsibility of – Project Design Engineer and Hydraulics Engineer

Water Quality

Minimization Measure 1 – Approved design pollution prevention and treatment BMPs would be incorporated into the project design. Permanent, location specific BMPs would be determined by the project design team in conjunction with the district storm water coordinator and the Regional Water Quality Control Board.

Impact/reason for minimization measure – Caltrans is required by the NPDES permit to control the discharge of pollutants from Caltrans facilities, activities, and properties to the maximum extent practicable. These permanent BMPs would be designed to minimize impacts to water quality to the maximum extent practicable.

Responsibility of – Project Design Engineers, District Storm Water Coordinator, RWQCB

Minimization Measure 2 – A Storm Water Pollution Prevention Plan (SWPPP) would be prepared, approved, and implemented prior to the start of any ground disturbing activities.

Impact/reason for minimization measure – The SWPPP would identify the BMP's that would be implemented to reduce or eliminate the potential for short-term impacts to water quality as a result of construction.

Responsibility of – Prime Contractor would write the SWPPP and the Resident Engineer would approve it.

Impact/reason for BMP measure – The following BMP measures (3 – 9) are intended to minimize impacts to water quality during construction.

BMP Measure 3 – Sediment control barriers (example, silt fences, hay bales, drain inlet protection, gravel bags) would be used to prevent the movement of pollutants to surface bodies of water during storm events.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 4 – Existing vegetation would be preserved as much as possible.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 5 – All disturbed areas would be stabilized with vegetation or hard-surface treatment upon completion of construction in any specific area.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 6 – All inactive disturbed soil areas would be temporarily stabilized with both sediment and temporary erosion control 10 days prior to the beginning of the rainy season (October 15th).

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 7 – No more than 20 acres of ground would be disturbed at any one time during construction.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 8 – No more than 5 acres of ground would be disturbed at any one time during the rainy season (October 15th to April 15th), unless approved by the Resident Engineer.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 9 – Erosion control methods such as hydroseeding, erosion control blankets, and emulsion would be used during the rainy season.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

BMP Measure 10 – Caltrans would submit a Notice of Construction (NOC) to the RWQCB 30 days prior to the start of construction.

Responsibility of – District Storm Water Coordinator

BMP Measure 11 – Temporary erosion and sediment control BMPs would be implemented at all times from October 15th to April 15th.

Responsibility of – Prime Contractor with oversight by Resident Engineer

6.5 Noise

For both Estrella Section, Alternatives 8N and 9N:

Impact/reason for minimization measure – The following minimization measures (1 – 3) are intended to minimize the projected permanent increase in noise levels at the identified sensitive receptor as a result of the project.

Minimization Measure 1 – Receptor 1: Minimize amount of cut on eastbound side to the greatest extent possible.

Responsibility of – Project Design Engineers

Minimization Measure 2 – Receptors 4b and 5: Construct 6 foot tall earthen berm between STA 109+40 and 117+00 on the eastbound side at the right of way line (Estrella Section, map sheet E8 and E9, Appendix A.1, Volume II).

Responsibility of – Project Design Engineers

| For Shandon section, Alternatives 1 and 2:

| Minimization Measure 3 – Receptor 17: Reduce cut to the greatest extent possible between STA 119+00 and 121+40.

Responsibility of – Project Design Engineers

For all build alternatives within the project, the following minimization measures would be used to reduce construction noise impacts:

| Impact/reason for minimization measure – The following minimization measures (5 – 8) are intended to reduce adverse noise impacts associated with the construction of the project.

| Minimization Measure 4 – The telephone number of the Resident Engineer would be provided to residents in the event that a complaint or concern arises.

Responsibility of – Public Information Officer with oversight by the Resident Engineer

| Minimization Measure 5 – Construction information would be posted in local news media prior to the start of each phase of construction.

Responsibility of – Public Information Officer with oversight by the Resident Engineer

| Minimization Measure 6 – In areas where sensitive receptors are identified, temporary sound barriers consisting of sheet plywood on safety shape barrier may be used to reduce potential construction noise impacts.

Responsibility of – Resident Engineer

| Minimization Measure 7 – All equipment used in construction would have the manufacturers’ recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

| Minimization Measure 8 – All equipment operating on the project site would conform to the “Sound Control Requirements” of the Special Provisions that would be part of the contract and to Section 7-1.011 of Caltrans Standard Specifications.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

| Minimization Measure 9 – The Resident Engineer would schedule the noisiest construction activities during times least likely to disturb local residents.

Responsibility of – Resident Engineer

6.6 *Topography and Visual Features*

Minimization Measure 1 – Slope rounding and contour grading would be used on all new cut and fill slopes.

Impact/reason for minimization measure – To minimize the contrast between the natural topography and the built environment of the highway and blend the project into the surrounding landscape.

Responsibility of – Project Design Engineer and Resident Engineer

Minimization Measure 2 – Slope-benching would be minimized to the greatest extent possible.

Impact/reason for minimization measure – To minimize the contrast between the natural topography and the built environment of the highway. Slope benching greatly adds to the built look of a highway and although necessary in some circumstances does detract from the surrounding topography.

Responsibility of – Project Design Engineer and Project Geotechnical Engineer

6.7 *Paleontology Resources*

BMP 1 – Proposed project areas within the Paso Robles Formation would be evaluated by a professional paleontologist after the selection of a preferred alternative.

Impact/reason for BMP measure – The Paso Robles Formation is rated as “high” probability location for finding paleontology resources. These sections of the project would be evaluated by a professional paleontologist to determine the potential of finding paleontology resources. If strong enough potential of encountering these resources exists, environmental monitoring during construction would be required.

Responsibility of – Project Paleontology Coordinator

BMP 2 – If paleontological deposits are found during construction, earth-moving operations would be halted in the immediate vicinity of the discovery. Construction operations would not resume in the discovery area until a qualified archaeologist or paleontologist could evaluate the finds and recommend a course of action to preserve any important fossil remains.

Impact/reason for BMP measure – This mitigation is intended to prevent the accidental destruction of paleontology resources during construction.

Responsibility of – Prime Contractor and Resident Engineer

6.8 Biological Resources

Vegetation

Mitigation Measure 1 – Impacts to blue oaks and blue oak woodland would be mitigated by restoring degraded blue oak woodland and conserving existing blue oak woodland in eastern San Luis Obispo County. Degraded blue oak woodland would be restored so that at least 147 mature trees would be established at a density similar to that of the affected stands. In addition, sufficient blue oaks would be planted to ensure the establishment of an additional 89 blue oaks to mitigate the loss of the individual trees in the project area. A total of 236 blue oaks would be re-established.

Impact/reason for mitigation measure – To reduce the impacts to blue oak woodlands to a less than significant level under CEQA.

Responsibility of – District Biologist, District Landscape Architect

Minimization Measure 2 – The final project plans would delineate ESAs around the driplines of all oak trees that the project would not remove within the proposed right of way and temporary construction easements. No vehicle access within these ESAs would be permitted. During construction, the Resident Engineer and environmental monitor would determine and agree upon the exact placement of ESA markers, based on the project plans, and would determine and agree upon the appropriate method for marking the ESAs.

Impact/reason for minimization measure – To minimize construction impacts to remaining blue oaks and blue oak woodland

Responsibility of – Resident Engineer, Project Environmental Monitor

Minimization Measure 3 – Fremont cottonwood woodland in the construction area and temporary construction access routes would be trimmed down to the ground, leaving the root structures in place so that the vegetation could re-sprout. These trimmed areas would be covered by a layer of clean river substrate (sand or cobble) to prevent damage to the underlying soil and root structure. This substrate would be removed upon completion of construction activities. Construction access would be limited to the minimum area required for bridge construction. Areas beyond that would be designated as Environmentally Sensitive Areas and off limits during construction. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Impact/reason for minimization measure – To minimize impacts to Fremont cottonwood woodland

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Minimization Measure 4 – To minimize impacts from noise and light to Fremont cottonwood woodland, a screening technique would be used. Examples of appropriate screening techniques

include earthen berms, walls, and vegetation screens. The project development team would determine the appropriate method of screening during the final phases of project design.

Impact/reason for minimization measure – To minimize impacts to Fremont cottonwood woodland.

Responsibility of – Project Design Engineers with oversight by the District Biologist

Mitigation Measure 5 – Direct, permanent impacts (based on acreage) to Fremont cottonwood woodland including areas permanently degraded by placing the bridges over it would be mitigated at a 3:1 ratio, with temporary impacts mitigated at a 1:1 ratio. The goal of this mitigation effort would be to mitigate these impacts in the Estrella River watershed.

Impact/reason for mitigation measure – To reduce the level of impact to Fremont cottonwood woodland to a negligible level.

Responsibility of – District Biologist, District Landscape Architect

Minimization Measure 6 – Within the entire Wye section, construction access would be limited to the minimum area required for construction, and areas beyond that would be designated as an ESA and off-limits. 4.6 meters (15.0 feet) of access beyond the cut and fill limits would be permitted through most of the Wye section, with more, if needed, at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESA's) section, page 122.

Impact/reason for minimization measure – To minimize impacts to valley sink scrub habitat and crownscale populations.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Minimization Measure 7 – Caltrans would designate the highway right of way in the Cholame Valley floor and the highway right of way encompassing stands of gypsum-loving larkspur as a Vegetation Management Area (VMA). Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of valley sink scrub that would be incorporated in the new right of way.

Impact/reason for minimization measure – To improve the quality and expand the range of valley sink scrub habitat, crownscale, and gypsum-loving larkspur.

Responsibility of – District Biologist, District Landscape Architect, and District Maintenance Operations

Mitigation Measure 8 – For Wye Section, Alternative 8b, existing roadbeds to be abandoned would be removed. Caltrans would remove these sections of old roadbed and would restore the natural hydrology to promote the expansion of the valley sink scrub community.

Impact/reason for mitigation measure – To reduce impacts to valley sink scrub to a negligible level.

Responsibility of – Project Design Engineer with oversight by the District Biologist and District Landscape Architect

Minimization Measure 9 – Portions of the existing roadbeds to be abandoned in the Wye section would be removed and restored to match adjacent elevations. Crownscale would colonize the road removal areas naturally because they are on the same floodplain as the mapped population and are between unaffected patches of crownscale.

Impact/reason for minimization measure – To minimize impacts to crownscale in the Wye section of the project area.

Responsibility of – Project Design Engineer with oversight by the District Biologist and District Landscape Architect

Mitigation Measure 10 – Caltrans would collect seed from gypsum-loving larkspur within the preferred alternatives' footprint for two years prior to construction. These seeds and the affected plants would be planted on the new north-facing fill slopes. The species has colonized highway fill slopes along State Route 46 on Antelope Grade. Transplanting the affected plants and planting seeds may establish new patches of gypsum-loving larkspur on the north facing fill slopes.

Impact/reason for mitigation measure – To compensate for impacts to gypsum-loving larkspur in the Shandon and Wye Sections of the project.

Responsibility of – Project Environmental Monitor with oversight by the District Biologist

Wildlife

Minimization Measure 11 – A qualified biologist would be hired full time, by the construction contractor, to implement the April 1997 “USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance”. This person would also be responsible for biological monitoring requirements for other species, pre-construction surveys, and general monitoring of biological resources.

Impact/reason for minimization measure – The function of this position would be to insure the proper implementation of the avoidance and minimization measures for all species that could be in the project area. Specific duties would include monitoring for kit fox, pre-construction surveys, and establishment of ESA areas.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and District Biologist

Minimization Measure 12 – Caltrans would designate the highway right of way from STA 135+00 in the Cholame section to the end of the project as a VMA. Caltrans would establish highway maintenance guidelines within the management area to preserve and promote the maintenance of native plant and animal communities that would be incorporated into the new highway right of way.

This would prevent or minimize activities that could harm specific species if they occur within the right of way, protecting habitat that is now subject to potentially harmful, unregulated activities.

Impact/reason for minimization measure – To improve and maintain habitat quality for the following species: California tiger salamander, western spadefoot toad, California horned lizard, western burrowing owl, mountain plover, California horned lark, grasshopper sparrow, Tulare grasshopper mouse, San Joaquin pocket mouse, and San Joaquin kit fox.

Responsibility of – District Biologist, District Landscape Architect, and District Maintenance Operations

Minimization Measure 13 – Equipment and material storage areas shall be located in areas with no small mammal burrows or areas greater than 671 meters (2200 feet) from potential breeding pools.

Impact/reason for minimization measure – To reduce potential take of California tiger salamanders

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Minimization Measure 14 – Within the entire Wye section construction access would be limited for all alternatives to the minimum area required for construction. Areas beyond would be designated as an ESA. 4.6 meters (15.0 feet) of access beyond the cut and fill limits would be permitted with more if needed at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESA's) section, page 122.

Impact/reason for minimization measure – To minimize impacts to sensitive wildlife species and their habitat within the Cholame Valley floor.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Minimization Measure 15 – For Wye Section, Alternative 8B, earthwork within 82 meters (270 feet) of potential aquatic habitat between STA 29+00 and 42+00 (kiloposts 73.1 to 74.0/postmiles 45.4 to 46.0) would occur between May 1 and October 31. Construction access would be limited to 4.6 meters (15.0 feet) beyond the cut and fill lines.

Impact/reason for minimization measure – To avoid impacts to red-legged frog habitat during the time of its potential use.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Minimization Measure 16 – Since Wye Section, Alternative 8B was selected, the following measures have been incorporated into the project:

- A qualified biologist will conduct pre-construction surveys for California red-legged frogs within the project area within two days of initiation of project construction.

- Any California red-legged frogs encountered will be reported to the Service immediately or as soon as practicable (e.g., the following business day if encountered at night). California red-legged frogs found in harm's way will be captured and relocated to appropriate habitat as determined after discussions with Service staff.
- All new sightings of California red-legged frogs within the project areas will be reported to the Service and the CNDDDB.
- Pre-construction meetings with the construction contractor and crew will be conducted to brief them on the potential presence of California red-legged frogs in the project areas, and educate onsite workers in the identification and habitat requirements of California red-legged frogs, as well as the ramifications of take of listed species. The minimization measures outlined here will also be discussed.
- To the maximum extent practicable, contractors will avoid all project-related activities including road construction, within 91.4 meters (300.0 feet) of all wetlands/water courses that provide suitable breeding and foraging habitat for the California red-legged frog.
- Pesticide application will be avoided within 152.4 meters (500.0 feet) of all wetlands/water courses.
- Bank slope protection placed on creek channel banks will be designed for erosion control by means of riparian function enhancement. Designs utilizing native topsoil and riparian local stock are preferred (biotechnology, logs, willow wattles, potted willows, terracing, etc.).
- Prior to commencing construction, Caltrans will coordinate with the CDFG to prepare a riparian vegetation replacement program for the project. Riparian vegetation removed as a result of the project will be replaced at a 3:1 ration.
- California native species (local stock preferred) will be utilized in re-vegetation and habitat enhancement efforts associated with the project.
- Within 91.4 meters (300.0 feet) of potential California red-legged frog breeding habitat, only water will be used for dust abatement.

Impact/reason for minimization measure – To avoid impacts to California red-legged frogs and their habitat.

Responsibility of – District Biologist, Project Environmental Monitor

Minimization Measure 17 – Within the entire Wye section, construction access would be limited to the minimum area required for construction, and areas beyond would be designated as an ESA. Additional ESAs would be established, in the Estrella section, between STA 50+80 and 54+80 westbound, 55+00 and 65+00 eastbound, and 69+00 and 86+00 eastbound. 4.5 meters (14.8 feet) of access beyond the cut and fill limits would be permitted, with more if needed at specific locations. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Impact/reason for minimization measure – To minimize impacts to western spadefoot toads and their habitat.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Mitigation Measure 18 – Cholame Section, Alternative 1 would remove portions of the existing lanes adjacent to Cholame Creek. This would compensate for impacts to southwestern pond turtles by restoring 3.4 hectares (8.5 acres) of upland habitat adjacent to permanent and intermittent waters in the creek.

Impact/reason for mitigation measure – To enhance habitat for southwestern pond turtles and mitigate impacts to their habitat to a negligible level.

Responsibility of – Project Design Engineer with oversight by the Resident Engineer

Minimization Measure 19 – ESAs would be established at all drainages to minimize impacts to Other Waters. This would also minimize impacts to California horned lizard habitat. Designation of the ESA areas would follow the recommendations described in the Additional Avoidance and Minimization Measures (ESAs) section, page 122.

Impact/reason for minimization measure – To minimize construction related impacts to California horned lizards.

Responsibility of – Project Design Engineer with oversight by the District Biologist, Resident Engineer, and Project Environmental Monitor

Minimization Measure 20 – Pitfall traps with drift fences would be placed within construction areas in the seven drainages identified in the environmental impacts section for several days prior to construction. Captured individuals would be relocated to avoid direct mortality from construction.

Impact/reason for minimization measure – To minimize construction related impacts to California horned lizards.

Responsibility of – Project Environmental Monitor with oversight by the District Biologist

Minimization Measure 21 – Initial habitat disturbance and construction in the Pine Creek (kilopost 65.2, postmile 40.5), Shimmin Canyon (kilopost 68.1, postmile 42.3), an unnamed drainage at kilopost 69.8 (postmile 43.4), McMillan Canyon (kilopost 73.2, postmile 45.5), Cholame Creek bridges #49-29 and #49-95, and White Canyon (kilopost 85.5, postmile 53.1) drainage's would occur between April and October to ensure that horned lizards are active on the surface, and therefore able to be captured and relocated.

Impact/reason for minimization measure – To minimize construction related impacts to California horned lizards.

Responsibility of – Prime Contractor with oversight by the Resident Engineer

Minimization Measure 22 – All disturbance within 50 meters (164 feet) of occupied burrowing owl burrows would be mitigated per the Santa Cruz Predatory Bird Research Group’s burrowing owl “on-site mitigation guidelines,” which are summarized below (<http://www2.ucsc.edu/scpbrg/mitigation.htm>). If these guidelines are updated prior to construction, then the updated guidelines should be implemented.

- All uncultivated grounds to be disturbed during construction should be surveyed for potential burrows less than 30 days prior to ground disturbance.
- Occupied burrows must be avoided between February 1 and August 31 due to nesting activities, unless California Department of Fish and Game personnel verify that egg-laying has not begun or that juveniles are capable of independent foraging.
- Any burrow encountered between September 1 and January 31 should be carefully excavated by hand after placing one-way doors at entrances for 48 hours. Flexible plastic pipe should be inserted into burrows during excavation to provide an escape route for any remaining owls or other occupants.
- Disturbed burrows shall be replaced with artificial burrows at a 1:1 ratio within 50-75 meters (164-246 feet) of the disturbed burrows, but at least 50 meters (164 feet) from the construction area.

Impact/reason for minimization measure – To minimize potential impacts to burrowing owls in the project area.

Responsibility of – Project Environmental Monitor and District Biologist

Minimization Measure 23 – Artificial burrows for burrowing owls would be constructed on property purchased for kit fox habitat mitigation.

Impact/reason for minimization measure – To enhance burrowing owl habitat on the property used for San Joaquin kit fox mitigation and to offset project impacts to occupied burrows and potential burrow sites.

Responsibility of – District Biologist

Minimization Measure 24 – At all locations east of Whitley Gardens, pre-construction surveys would be performed for California horned lark and grasshopper sparrow where grasslands, including within the existing right of way, are to be cleared with machinery between March 15 and July 31. If a occupied nest is found, vegetation would not be cleared within 50 meters (164 feet) of that nest until that nest is abandoned or a permit is obtained from the USFWS to remove the nest.

Impact/reason for minimization measure – To minimize potential impacts to nesting California horned larks and grasshopper sparrows.

Responsibility of – Project Environmental Monitor with oversight by the District Biologist

Mitigation Measure 25 – Abandoned road sections resulting from any of the Wye section alternatives, Cholame Section Alternative 1, Shandon Section Alternative 2, and Estrella Section

Alternative 8N would be removed and restored to grassland. Each acre of on-site mitigation would reduce the permanent impacts that must be mitigated by one acre.

Impact/reason for mitigation measure – To mitigate on-site for impacts to San Joaquin kit fox habitat.

Responsibility of – Project Design Engineer and Project Landscape Architect with oversight by the District Biologist

Minimization Measure 26 – Culverts for wildlife passage would be incorporated into the project to minimize impacts to San Joaquin kit fox. Culverts for wildlife passage would be a minimum of 91 centimeters (36 inches) in diameter and would be placed, where topography would allow, at a minimum 0.5 kilometer (0.3 mile) intervals. Culverts would not be placed at 0.5 kilometer intervals where drainage culverts or bridges greater than 91 centimeters (36 inches) are already proposed. Also, large box culverts would be placed as cattle crossings on both State Routes 41 and 46, east of the wye, to facilitate livestock movement and to make the area within the Wye more accessible for wildlife.

Impact/reason for minimization measure – To minimize the barrier effect of the highway on all species, including San Joaquin kit fox.

Responsibility of – Project Design Engineers and the District Biologist

Minimization Measure 27 – 1 meter wire mesh (with opening less than 5 centimeters or 2 inches) drift fencing would be placed parallel to the highway or angled away from the highway, for 25 meters (82 feet) from the inlets and outlets of drainage culverts and kit fox specific culverts to encourage their use.

Impact/reason for minimization measure – To encourage the use of the proposed wildlife passage culverts.

Responsibility of – Project Design Engineers and the District Biologist

Mitigation Measure 28 – Offsite mitigation for San Joaquin kit fox habitat impacts would be accomplished primarily through funding conservation easement purchases or by purchasing credits in an approved mitigation bank in the project vicinity. Offsite compensatory mitigation ratios would be 4:1 for permanent impacts between kilopost 60.5 (postmile 37.6) and kilopost 90.6 (postmile 56.3), 3:1 between Airport Road and Jardine Road, and 2:1 between Jardine Road and kilopost 60.5 (postmile 37.6). Temporary impacts would be mitigated offsite at a ratio of one-third:one (1/3:1).

Impact/reason for mitigation measure – To reduce the level of impact to San Joaquin kit fox and to compensate for the take of kit fox habitat.

Responsibility of – Caltrans/FHWA

Mitigation Measure 29 – Enhancements proposed to reduce the impacts of the proposed project on San Joaquin kit fox include funding offsite mitigation, enhancement, and site maintenance. Habitat enhancement projects may include the construction of artificial dens. Artificial dens would be constructed on properties from which conservation easements are purchased as mitigation for impacts resulting from this project, properties purchased outright for mitigation, on other private lands deemed suitable by the USFWS and the CDF&G, or on public lands.

Impact/reason for mitigation measure – To reduce the level of impact to San Joaquin kit fox and to compensate for the take of kit fox habitat.

Responsibility of – District Biologist

Minimization Measure 30 – In the Estrella Section, at least one week prior to tree removal, the on-site environmental monitor will construct one-way bat exclusion devices at all tree cavities that are potential bat roosts. The exclusion devices would likely be constructed from screen or other material as recommended in guidelines from Bat Conservation International. The one-way exclusion devices would allow any bats in tree cavities to exit at night, but would prevent re-entry and force the bats to re-locate to alternate roosts outside of the construction area.

Impact/reason for minimization measure – To minimize impacts to sensitive bat species.

Responsibility of – Project Environmental Monitor with oversight by the District Biologist

Minimization Measure 31 – For Estrella Section, Alternative 9N and for both Cholame alternatives if Bridge #49-29 were to be removed, bats would be excluded from roosts on the existing bridge between October and March prior to bridge demolition.

Impact/reason for minimization measure – To minimize impacts to sensitive bat species.

Responsibility of – Project Design Team and District Biologist

Minimization Measure 32 – For both Shandon section alternatives, bridge deck removal of Bridge #49-95 would occur between October and March to avoid affecting night roosts during the maternity season.

Impact/reason for minimization measure – To minimize impacts to sensitive bat species.

Responsibility of – Project Design Team, District Biologist and Project Environmental Monitor

Minimization Measure 33 – For both Cholame section alternatives, if the Cholame Creek Bridge #49-29 were to be removed, then construction of new roosts would occur prior to bats being excluded from the existing Bridge #49-29.

Impact/reason for minimization measure – To minimize impacts to sensitive bat species.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Mitigation Measure 34 – To replace the lost night roost habitat resulting from bridge removals, all new bridges would incorporate bat-friendly features:

- Minimize sandblasting: a final surface treatment under box-girder bridges often includes sandblasting. This smooths the surfaces and, unfortunately, removes any surface irregularities and roughness that bats can grasp while roosting. If the bridge construction includes sandblasting or otherwise smoothing-out of external or internal surfaces under the bridges, all surfaces should be left rough within a few inches of the insides of corners that are 90 degrees or less. This can be accomplished by placing a small board in the corners while sandblasting to block the treatment.
- Construct grooves or ridges: small grooves or ridges could be built into each corner underneath the bridges. Bats often grasp the slightest irregularities, such as the small ridges of concrete resulting from seams between boards used in the concrete forms.

Impact/reason for mitigation measure – To mitigate for the loss of bat roosts in the project area.

Responsibility of – Office of Structures Design with oversight by the Project Design Team, Resident Engineer, and Project Environmental Monitor

Mitigation Measure 35 – Compensatory mitigation must be considered for Estrella Section, Alternative 9N because it would remove a bridge that is a day roost and may be a maternity roost for California special concern species. One option is to design the new bridges with soffit openings to allow bats access into wooden boxes within the concrete box girder. Another option would be to construct bat roosts offsite. A potential location would be at the proposed Fremont cottonwood woodland mitigation site adjacent to the Estrella River.

Impact/reason for mitigation measure – To compensate for the loss of day roosts and maternity roosts for sensitive bat species.

Responsibility of – District Biologist, Office of Structures Design with oversight by the Project Design Team

Mitigation Measure 36 – Compensatory mitigation must be considered for both Cholame alternatives if they would remove Bridge #49-29. This bridge contains at least 600 bats and is most likely a maternity roost for California special concern species. Each Cholame alternative has three options for compensatory mitigation:

1. Leave Bridge #49-29 in place.
2. Modify abandoned buildings to enhance them as bat roosts.
3. Construct bridges with modifications to allow bat roosting. The new bridge designs for either Cholame section alternative could replace the bat roosts. Any bridge construction modifications that provides accessible interior spaces or crevices that allow bats close to the sun-heated bridge deck would create suitable habitat. Expansion joints in girder or box construction bridges create suitable habitat. Pre-cast twin-beam construction is known to provide maternity roosts for high concentrations of crevice-roosting bats such

as those on the existing bridge. With a concrete box girder, bats would have to be allowed inside the box girder (but contained in wooden boxes) through modified weep holes or other openings, or external features would have to be added to create suitable crevices near the bridge deck.

Impact/reason for mitigation measure – To compensate for the loss of roosts for sensitive bat species.

Responsibility of – Office of Structures Engineering and the Project Design Team with oversight by the District Biologist

Minimization Measure 37 – All of the Wye section alternatives would construct two new bridges over Cholame Creek. The bridges would be 120 and 140 meters (394 and 459 feet) in length. The bridges should be designed so they may be successful as crossing structures for pronghorn antelope (in addition to many other species).

Impact/reason for minimization measure – To reduce the impact of the barrier effect of the highway to a less than substantial level.

Responsibility of – Office of Structures Design with oversight by the Project Design Team

Best Management Practice Measure 38 – The population of pronghorn antelope in the Wye section of the project area would be monitored for a period of five years in order to determine the usage of the undercrossing structures. The large undercrossings proposed with this project will offer a good opportunity to further the knowledge of pronghorn behaviors in relation to roads and crossing structures.

Impact/reason for BMP measure – To determine the most effective way to mitigate for the barrier effects of the highway expansion on pronghorn antelope.

Responsibility of – District Biologist

Best Management Practice Measure 39 – Fencing near the pronghorn antelope crossing structure would have to be modified to promote the use of the structure. Right of way fences that parallel the highway must not do so at the undercrossings. Fences would be built 0.4 kilometers (0.25 miles) or more away from the crossing structure and must have smooth bottom wires at least 508 millimeters (20 inches) from the ground. Modifying these fences would benefit not only wildlife species in the Cholame Valley but the movement of livestock as well.

Impact/reason for BMP measure – To promote the successful use of wildlife/pronghorn antelope crossing structures in the project area.

Responsibility of – Project Design Team with oversight by the District Biologist

Mitigation Measure 40 – Caltrans will commit \$20,000 towards the retrofit and/or the removal of abandoned fences on public lands within the range of the County's pronghorn antelope herd.

Impact/reason for BMP measure – To offset temporary habitat fragmentation related to construction activities.

Responsibility of – Project Design Team with oversight by the District Biologist

Minimization Measure 41 – Prior to removing riparian vegetation at the Estrella River between February 15 and July 15, the environmental monitor will survey the riparian vegetation for nesting birds. Any nesting birds found will be avoided until the birds have fledged. A 30 meter (100 foot) buffer will be applied to prevent birds from abandoning their nests due to construction activities.

Impact/reason for minimization measure – To minimize impacts to migratory birds.

Responsibility of – Project Environmental Monitor with oversight by the District Biologist

Minimization Measure 42 – Swallow netting would not be placed on the Cholame Creek Bridges (Bridges #49-29 and 49-95) and the Estrella River Bridge (Bridge #49-33) because bats use these bridges. Swallow netting here would entangle bats and potentially cause mortality. At the Estrella River Bridge, riparian vegetation and oak trees that would be removed during construction would be removed between July 15 and February 15. Otherwise, surveys for nesting birds will have to be completed before vegetation removal, and construction would be delayed if nesting migratory birds were found.

The Cholame Creek Bridge decks would be removed between October 1 and February 28 to avoid the need to remove occupied nests and to avoid the bat maternity-roosting season.

Impact/reason for minimization measure – To minimize potential bat population impacts that would result from minimization measures for migratory birds.

Responsibility of – Prime Contractor with oversight by the Resident Engineer and Project Environmental Monitor

Minimization Measure 43 – At the Estrella River Bridge, the White Canyon culvert at kilopost 85.6 (postmile 53.2) and the culverts at kiloposts 69.8 and 90.8 (postmiles 43.4 and 56.4), nests would be removed prior to March 1 and then weekly thereafter as long as swallows attempt to nest.

Impact/reason for minimization measure – To minimize impacts to swallows.

Responsibility of – Project Environmental Monitor with oversight by the District Biologist

Minimization Measure 44 – For deer, minimum 3.7 meter by 3.7 meter (12 foot by 12 foot) box culverts that would not carry drainage should be placed at two locations, coupled with deer fencing. This would maintain connectivity for deer and all other species in areas of concentrated resources and movement corridors. Providing these crossings would also reduce the chance of vehicle collisions with deer, which can be fatal both to drivers and deer. The locations include: at kilopost 52.9 and 60.7 (postmile 32.9 and 37.7), and at the Dry Creek crossing

Impact/reason for minimization measure – To reduce the barrier effect of the highway on migratory wildlife species and to increase the safety of the traveling public

Responsibility of – Project Design Team with oversight by the District Biologist

Minimization Measure 45 – Environmentally Sensitive Areas (ESAs) would be designated for grassland species throughout the Wye section, for blue oaks and blue oak woodland, gypsum-loving larkspur, wetlands, crownscale, valley sink scrub, Fremont cottonwood woodland, western spadefoot toad, California horned lizard, and California red-legged frog. In general, construction access would be limited to the minimum required area to work. Most ESAs would restrict access to areas further than 3.0 meters (9.8 feet) from the cut and fill limits except where more space is required at, for example, bridge locations. Final project plans would include ESA locations for each construction phase segment. ESAs would be established in the field according to project plans and would be identified by a method agreed upon by the Resident Engineer and the Project Environmental Monitor. Methods of identifying ESAs include ESA fencing and staking or flagging the boundary of the ESA area.

Impact/reason for minimization measure – To minimize impacts to sensitive biological resources.

Responsibility of – Project Design Team and Prime Contractor with oversight by the Resident Engineer, District Biologist, and Project Environmental Monitor

Wetlands & Vernal Pools

Mitigation Measure 46 – All impacts to wetlands and Waters of the U.S. would be fully mitigated, within the project area, in accordance with the required United States Army Corps of Engineers Section 404 Individual Permit and Nationwide Permits.

Impact/reason for mitigation measure – To comply with the Federal Clean Water Act

Responsibility of – Project Team

Impact/reason for minimization measure – The following minimization measures (45 – 47) are intended to minimize impacts to vernal pool resources.

Minimization Measure 47 – For both Estrella Section Alternatives 8N and 9N: Construct south side cut slope from STA 55+60 to STA 58+90 at a 1:1.5 slope to minimize potential impacts to the hydrology of the vernal pool

Responsibility of – Project Design Engineers

Minimization Measure 48 – For both Estrella Section Alternatives 8N and 9N: Obtain variance to leave above ground utilities in current location from STA 72+00 to STA 76+00.

Responsibility of – Project Design Engineers

Minimization Measure 49 – For both Estrella section alternatives 8N and 9N: An environmentally sensitive area (ESA) would be designated on the project plans and then on the ground during construction in the vicinity of the first vernal pool, located south of State Route 46, east of Mill Road. The ESA would extend from the proposed cut slope catch point south to the limits of the proposed right of way or temporary construction easement, whichever is greater and would extend from STA 55+60 to STA 58+90.

Responsibility of – Project Design Team and Prime Contractor with oversight by the Resident Engineer, District Biologist, and Project Environmental Monitor

Minimization Measure 50 – For both Estrella section alternatives 8N and 9N: An ESA would also be designated on the project plans and then on the ground during construction in the vicinity of the other two vernal pools located between STA 72+00 and STA 76+00. The ESA would extend from the existing cut slope catch point north to the limits of proposed right of way or temporary construction easement, whichever is greater and would extend from STA 72+00 to STA 76+00.

Responsibility of – Project Design Team and Prime Contractor with oversight by the Resident Engineer, District Biologist, and Project Environmental Monitor

Minimization Measure 51 – With the removal of Bridge #49-29, the existing rock slope protection used to protect this bridge shall be removed and the creek bank restored back to its original slope. Appropriate erosion control shall be installed to prevent sedimentation into Cholame creek and to stabilize the disturbed creek bank.

Responsibility of – Project Design Team and Prime Contractor with oversight by the Resident Engineer, District Biologist, and Project Environmental Monitor

6.9 Visual Resources

General measures to minimize adverse impacts

Minimization Measure 1 – Steepen constructed slopes at spot locations, if necessary, to save existing trees/woodlands.

Impact/reason for minimization measure – To reduce the amount of adverse visual impact.

Responsibility of – Project Design Engineer and Project Geotechnical Engineer

Minimization Measure 2 – Replace all trees removed as part of the project at the ratio designated by the District Landscape Architect.

Impact/reason for minimization measure – To reduce the amount of adverse visual impact.

Responsibility of – Project Landscape Architect, Project Biologist, and Construction Liason

BMP 3 – Replant trees required as mitigation within the highway right-of-way to the greatest extent possible.

Impact/reason for BMP measure – To maintain the beauty of the highway corridor and to provide screening of the highway for viewers who live adjacent to the highway.

Responsibility of – Project Landscape Architect, Project Biologist, and Construction Liaison

Minimization Measure 4 – Use slope-rounding techniques on all slopes.

Impact/reason for minimization measure – To minimize the contrast between the natural topography and the built environment of the highway in order to reduce the visual impact associated with a change in the highway configuration.

Responsibility of – Project Design Engineer and Resident Engineer

Minimization Measure 5 – Eliminate or minimize slope-benching on all slope design.

Impact/reason for minimization measure – To reduce the severity of the visual impact associated with the change in the built environment from a rural two-lane highway to the larger expressway.

Responsibility of – Project Geotechnical Engineer and Project Design Engineer

Minimization Measure 6 – Apply erosion control to all disturbed slopes.

Impact/reason for minimization measure – To reduce the chance of erosion during high winds or storm events. Substantial erosion would cause a greater visual impact than well constructed slopes.

Responsibility of – Project Design Engineer, Project Landscape Architect, and Prime Contractor with oversight by Resident Engineer

Minimization Measure 7 – Design all guard rails, barrier, and other fixed objects to reduce the requirement for installation of crash cushion arrays.

Impact/reason for minimization measure – To reduce the visual impact associated with fixed object end treatments and to maintain the rural feel of the project area.

Responsibility of – Project Design Engineer

Noise Barrier Measures

Impact/reason for minimization measure – The following measures (8 – 11) are intended to reduce the visual impacts associated with the recommended noise barriers to minimize noise impacts.

Minimization Measure 8 – Receptor 1⁶² – Estrella Section, Alternatives 8N and 9N. Noise impact minimization measures include retaining as much of the existing landform as possible. If possible, this should be done by steepening the proposed cut slope.

Responsibility of – Project Design Engineer and Project Landscape Architect

Minimization Measure 9 – Receptors 4b and 5, Barrier 2 – Estrella Section, Alternatives 8N and 9N. Noise impact minimization measures recommend the construction of a 759 meter long by 2 meter tall (2,490 feet long by 6 feet tall) earthen berm. The berm should be designed to appear as a naturally-occurring landform. This can be accomplished by constructing side slopes of 1:3 (vertical to horizontal), contour grading the form, subtly varying the alignment, and including minimal native planting to blend the berm in with the surroundings.

Responsibility of – Project Design Engineer and Project Landscape Architect

Minimization Measure 10 – Receptor 16, Barrier 6 – Estrella Section, Alternatives 8N and 9N. Noise impact minimization measures recommend the construction of a 85 meter long by 3 meter tall (280 feet long by 10 feet tall) soundwall. A wall along the highway at this location would adversely affect the rural character of the area. It is recommended that a combination wall and berm should be constructed to reduce the perceived size of the wall. Native-looking planting should be included to transition the wall into its setting. *Note: Sound wall was not desired by affected resident and will not be constructed.*

Responsibility of – Project Design Engineer and Project Landscape Architect

Minimization Measure 11 – Receptor 17 – Shandon Section, Alternatives 1 and 2. Noise impact minimization measures include retaining as much of the existing landform as possible. No impact to visual resources would occur as long as the slope is not over-steepened and if successful erosion control measures are applied

Responsibility of – Project Design Engineer and Project Landscape Architect

Location-specific measures to minimize visual impacts

Impact/reason for minimization measure – The following minimization measures (12 – 32) are required to reduce the amount of negative visual impact.

Minimization Measure 12 – Near Hunter Ranch Golf Course (approximate kp 53.4) (pm 33.3): Plant oak trees and native shrubs along the eastbound roadside in the vicinity of the Hunter Ranch Golf Course to screen views of the highway.

Responsibility of – Project Design Engineer, Project Landscape Architect, and Project Environmental Coordinator

⁶² Please see the Noise Section in this document, Section 3.1.5, for a description of the receptor, barrier, and recommended noise minimization measure.

Minimization Measure 13 – The Estrella River Bridges (approximate kp 63.8/64.0) (pm 39.8/40.0): Construct the bridges with Type 80 bridge rail.

Responsibility of – Project Design Engineer, Office of Structures Design

Minimization Measure 14 – The Estrella River Bridges (approximate kp 63.8/64.0) (pm 39.8/40.0): If Estrella Section, Alternative 8N is selected, apply aesthetic treatment to slope paving in the vicinity of Estrella Road and on bridge columns.

Responsibility of – Project Design Engineer, Office Of Structures Design

Minimization Measure 15 – The Estrella River Bridges (approximate kp 63.8/64.0) (pm 39.8/40.0): Engineer the bridge structures with as thin of a bridge deck as possible.

Responsibility of – Office of Structures Design

Minimization Measure 16 – The Estrella River Bridges (approximate kp 63.8/64.0) (pm 39.8/40.0): Plant appropriate native trees and shrubs on the embankment slopes at the Estrella River Bridge to reduce visibility of the highway facility.

Responsibility of – Project Environmental Coordinator and Project Landscape Architect

Minimization Measure 17 – Proposed cut approximately 1.9 km (1.2 mi) east of Cholame Creek Bridge #49-29 (approximate kp 83.0) (pm 51.9): Contour-grade the landform remnant near Station 203 between the two proposed road alignments with maximum side-slopes of 1:3 to appear as a naturally occurring landform.

Responsibility of – Project Design Engineer and Project Landscape Architect

Minimization Measure 18 – The Jack Ranch Café (approximate kp 86.3) (pm 54.0): At the Jack Ranch Café, plant trees along the eastbound roadside to re-create the windrow appearance lost as part of the road construction.

Responsibility of – Project Environmental Coordinator and Project Landscape Architect

Minimization Measure 19 – The Jack Ranch Café (approximate kp 86.3) (pm 54.0): Plant screening shrubs between the proposed Jack Ranch Café parking lot and the proposed highway.

Responsibility of – Project Environmental Coordinator and Project Landscape Architect

Minimization Measure 20 – Repair and improve the existing James Dean Memorial to enhance its setting.

Responsibility of – Project Design Engineer and Project Landscape Architect

Minimization Measure 21 – The Wye Alternatives (approximate kp 88.0/88.8) (pm55.0/55.5): Wye Section, Alternatives 7, 8, or 9 – Investigate moving the interchange and realign State Route 41 approximately 100 meters to the east of the location currently proposed. This would cause State Route 41 north of the interchange to follow an existing “saddle” in the topography rather than cross the top of a minor ridgeline, as currently designed.

Responsibility of – Project Design Engineer

Minimization Measure 22 – Wye Section, Alternative 8b – Along the existing State Route 41 alignment in the vicinity of STA 28+00 to 30+00, re-establish the original ridgeline landform after the existing road is removed.

Responsibility of – Project Design Engineer

Minimization Measure 23 – Wye Section, all alternatives – If slope paving is required under the structure(s), use natural-appearing surface treatment or apply color and/or texture to the concrete to blend with the existing rural visual character.

Responsibility of – Project Design Engineer and Project Landscape Architect

Minimization Measure 24 – Wye Section, all alternatives – Contour-grade all slopes to achieve the appearance of a naturally occurring landform.

Responsibility of – Project Design Engineer, Project Landscape Architect, and Prime Contractor with oversight by the Resident Engineer

Minimization Measure 25 – Wye Section, all alternatives – Apply erosion control to all areas disturbed by construction.

Responsibility of – Project Design Engineer, Project Landscape Architect, and Prime Contractor with oversight by the Resident Engineer

Impact/reason for Minimization Measure – The following measures (26 – 29) are intended to reduce adverse visual impacts associated with the Wye section.

Minimization Measure 26 – Construct all slopes as flat as possible.

Responsibility of – Project Design Engineer and Project Geotechnical Engineer

Minimization Measure 27 – Where required, construct wildlife exclusion fencing a minimum of 30 meters (98 feet) from the highway, or use earthen berms to screen visibility of fencing.

Responsibility of – Project Design Engineer, Project Landscape Architect, and Prime Contractor with oversight by the Project Environmental Biologist

6.10 Cultural Resources

BMP 1 – Implement the Treatment Plan to address any potential archaeological discoveries made during construction. Those areas identified as potential locations for buried cultural deposits will be monitored during construction by an archaeologist and a representative(s) from the Native American community. The Treatment Plan addresses notification and data recovery procedures during construction, data analyses, report preparation, and dissemination of information.

Impact/reason for BMP measure – To minimize and provide for a plan in the event that any unforeseen cultural deposits are found during construction of the proposed project.

Responsibility of – Project Cultural Specialist

6.11 Population, Communities, and Housing

Minimization Measure 1 – Residents would be paid by the state of California to rebuild, move, or compensate for the loss of homes, outbuilding structures, and property.

Impact/reason for minimization measure – To minimize impacts to homeowners as a result of the project.

Responsibility of – Caltrans, District 5, Right of Way Acquisition Team

Minimization Measure 2 – All displaced residents would be assigned to a relocation advisor, who would see that all payments and benefits are fully used and all regulations observed. Displaced residents would be fully compensated at a price equal to fair market value.

Impact/reason for minimization measure – This measure is provided to assist and minimize the effect of those residents who are being impacted by the proposed project through the acquisition of their home and/or property.

Responsibility of – Caltrans, Central Region, Relocation Assistance Team

6.12 Public Services

Impact/reason for minimization measure – The following minimization and mitigation measures (1 and 2) are included to reduce impacts to public services (the Shandon Safety Roadside Rest Area) from the proposed project.

Minimization Measure 1 – Reconstruct traffic flow through the Shandon SRRA according to the plans developed under Shandon Section, Alternatives 1 and 2.

Responsibility of – Project Design Engineer, District Traffic Manager, Prime Contractor, and Resident Engineer

Mitigation Measure 2 – Reconstruct leach field in new location as per the plans developed for Shandon Section, Alternatives 1 and 2.

Responsibility of – Project Design Engineer, District Traffic Manager, Division of Engineering Services, Prime Contractor, and Resident Engineer

BMP 3 – Expand truck parking by 11 new spaces as per the plans developed for Shandon Section, Alternatives 1 and 2.

Impact/reason for BMP measure – To improve the function of the Shandon SRRA by accommodating more large recreational vehicles and large trucks

Responsibility of – Project Design Engineer, Prime Contractor, and Resident Engineer

BMP 4 – The project contract Special Provisions would require that emergency services (police, fire, and ambulance) be notified before work begins.

Impact/reason for BMP measure – To continue to provide the fastest response times to emergencies possible and to prevent any delays associated with the construction of the proposed project.

Responsibility of – Resident Engineer

6.13 Transportation and Traffic

BMP Measure 1 – For all build alternatives, the maintenance of traffic and sequence of construction would be planned and scheduled to minimize traffic delays. Traffic delays would be controlled to the extent feasible during periods of many simultaneous construction operations. Signs would be used, as appropriate, to provide notices of road closures, detours and other pertinent information. The local news media would be notified in advance of lane closures and other construction-related activities that could inconvenience local residents and travelers so they may plan accordingly. Temporary access to residences or businesses would be provided as necessary.

Impact/reason for BMP measure – These programs are designed to increase driver awareness, ease congestion, and minimize delay during construction.

Responsibility of – District Traffic Manager and District Public Information Officer

BMP Measure 2 – A Traffic Management Plan (TMP) would be developed in consultation with the San Luis Obispo County of Governments (SLOCOG). The TMP would be similar for each build alternative.

Impact/reason for BMP measure – These programs are designed to increase driver awareness, ease congestion, and minimize delay during construction.

Responsibility of – District Traffic Manager, SLOCOG Staff, and District Public Information Officer

6.14 Utilities and Service Systems

BMP Measure 1 – All applicable regulations regarding solid waste would be adhered to as related to the construction of the alternatives.

Impact/reason for BMP measure – To protect worker health and safety

Responsibility of – Prime Contractor

BMP Measure 2 – Storm water drainage facilities would be a part of each project alternative and would be evaluated in conjunction with each alternative for potential impacts to the resources discussed in this document.

Impact/reason for BMP measure – To ensure that the issues of storm water compliance are met.

Responsibility of – Project Design Engineer and District Storm Water Coordinator

Chapter 7: Comments and Responses

Comments were received on the Environmental Assessment/Draft Environmental Impact Report from many different sources. Federal agencies, state agencies, local agencies, and members of the public all commented on the draft environmental document. Comments were received in the form of letters, e-mail messages, written comments from members of the public and oral comments taken by a court reporter at the two public hearings held for this project. A public hearing was held in Paso Robles on April 23, 2003 and a second public hearing was held in Shandon on April 24, 2003. The comment period began on March 17, 2003 and ended on May 17, 2003.

All of the comments received are included in this chapter. Either the comment or letter in its original form and the formal response are included. Transcripts of the oral testimony taken by the court reporter are included with a response to points made following each person's testimony. Comments and responses are organized in the following manner: Federal Agencies, State Agencies, Local Agencies, and Public. The comments and responses begin on the following page.

7.1 Federal Agency Comments and Responses



DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, CORPS OF ENGINEERS
333 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94105-2197

MAY 20 2003

Regulatory Branch

SUBJECT: File Number 24573S

Mr. John Luchetta
California Department of Transportation
District 5 - Environmental Planning Branch
50 Higuera Street
San Luis Obispo, California 93401-5415

Dear Mr. Luchetta:

In response to our Public Notice Number 24573S issued on March 17, 2003, the enclosed correspondence (five letters) was received concerning your application for a Department of the Army permit to conduct work and place fill in waters of the U.S., including wetlands, associated with the construction of the Highway 46 Corridor Improvement Project in San Luis Obispo County. This project is on Highway 46, beginning at Airport Road, east of Paso Robles, and continuing to the intersection of Route 46 and Route 41 known as the "Wye."

You may furnish us with your proposed resolution or other comments to the enclosed concerns prior to the District Engineer making a final decision on your application. In responding to this letter, you may:

- a. resolve the objections or concerns by agreeing to recommended modifications;
- b. request in writing that we continue processing your application, despite objections, either with or without providing counter arguments;
- c. request suspension of processing to provide you time either for negotiations with any objecting parties or for preparation of counter arguments;
- d. withdraw the application.

Please note that a request for a suspension of processing (item c above), will not be granted unless you clearly provide reasoning why the suspension is necessary, the requested amount of time (normally not to exceed another 30 days), and a schedule of your proposed negotiation proceedings. This schedule should include a list of participants, what resolution is proposed, and the expected date of an agreement between the involved parties.

-2-

Additionally, you are reminded that an alternative analysis is required from you to demonstrate to the Corps that the placement of the fill is necessary at this location because there are no practicable alternatives, as outlined in the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 CFR 230.10). A copy is enclosed to aid you in preparation of this alternative analysis.

We are required to give full consideration to comments of those agencies representing environmental concerns. We, therefore, encourage you to respond to their specific comments. If we receive no response to this letter within 30 days from its receipt, we will make a final decision on your application, which could mean a denial of a Corps permit.

Should you have any questions regarding this matter, please call at John Yeakel of our Regulatory Branch at 415-977-8472. Please address all correspondence to the Regulatory Branch and refer to the file number at the top of this letter.

Sincerely,



Edward A. Wylie
Chief, South Section

Enclosures

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Please see the responses (contained herein) to the five comment letters received by the US Army Corps of Engineers.
2. A copy of the Section 404(b)(1) analysis has been forwarded to your office for review.



Federal Emergency Management Agency

Region IX
1111 Broadway Street, Suite 1200
Oakland, CA 94607-4052

March 26, 2003

John Yeakel, Permit Manager
U.S. Army Corps of Engineers
Regulatory Branch
333 Market Street
San Francisco, CA 94705-2197

Dear Mr. Yeakel:

This letter is in reply to the Public Notice of the Route 46 Corridor Improvement Project, Number 24573S, San Luis Obispo County, CA

San Luis Obispo County participates in the National Flood Insurance Program (NFIP). Any development within San Luis Obispo County must comply with the requirements of their Flood Damage Prevention Ordinance. The ordinance regulates development within the high risk Special Flood Hazard Area (SFHA) and meets the minimum Federal requirements established in Volume 44, Code of Federal Regulations (44CFR).

Development is defined as, "any man-made change to improved or unimproved real estate, including but not limited to dredging, filling, grading, paving, excavation, or drilling operations or storage of equipment or materials." (44CFR, § 59)

The SFHA is shown on the Flood Insurance Rate Maps (FIRM) and the Flood Insurance Study (FIS) and both are available at the San Luis Obispo County Engineering Dept., (805) 781-5252.

The proposed project's Area of Potential Effect must be reviewed determine if any part of it is in an SFHA, as shown on the current FIRM. In addition, if any part of the proposed project is located within a delineated regulatory floodway, a hydraulic analysis must show that the project will not produce any rise to the existing Base Flood Elevation (BFE).

If the project results in a rise to the BFE, the requirements for revising the FIRM must be implemented (44CFR § 65.12). These regulations include obtaining a Conditional Letter of Map Revision (CLOMR) from FEMA prior to the start of any development that will cause any rise within a floodway or that will alter or relocate the watercourse. A request for a final Letter of Map Revision (LOMR) must be submitted within six months of the project's completion.

If you have any questions or if I can be of further assistance you may reach me by telephone at (510) 627-7186, or by e-mail at gregor.blackburn@fema.gov.

Sincerely,



Gregor Blackburn, CFM
Natural Hazards Program Specialist
National Flood Insurance Program

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding the information contained in your comment letter pertaining to the Special Flood Hazard Area (SFHA), portions of the project are within the SFHA, but no portion is within a regulatory floodway. Discussion of the floodplain encroachment can be found in Volume I Section 3.1.4 of the Environmental Assessment/Final Environmental Impact Report (EA/FEIR) and in Volume II, Appendix D of the EA/FEIR.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901
MAY 15 2003

Colonel McCormick
US Army Corps of Engineers, Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197

Dear Colonel McCormick,

Thank you for the opportunity to review PN 24573S and for your continued participation in the NEPA/404 MOU Integration Process ("the integration process"). We are writing to provide comments on PN 24573S issued for the Highway 46 Corridor Improvement Project in San Luis Obispo County.

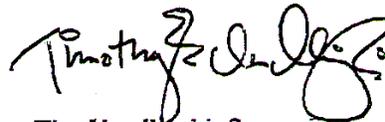
The Wetlands Regulatory Office of EPA is satisfied with progress to date in the NEPA/404 Integration Process regarding the Highway 46 Corridor Improvement Project. Currently, Caltrans and cooperating agencies are in the Draft Environmental Assessment (EA) Circulation stage of the integration process. The Draft EA has been reviewed by the Wetlands Regulatory Office and the Federal Activities Office (FAO) at EPA. FAO awarded a rating of EC2, Environmental Concerns – Insufficient Information, to the Draft EA. We are confident that Caltrans will incorporate comments provided by FAO in a letter dated 15 May 2003 to facilitate identification of a LEDPA that is supported by section 404 of the Clean Water Act and the 404(b)(1) guidelines (40CFR230).

According to the NEPA/404 MOU integrated process, Federal Highway Administration (FHWA) and Caltrans review comments from EPA and other cooperating agencies during the Final EA Development stage and make any necessary changes. After the review is complete, an alternative that meets the criteria of "preferred alternative" for NEPA and "least environmentally damaging practicable alternative" (LEDPA) for Clean Water Act is identified, and Caltrans issues a formal request for concurrence to the cooperating agencies. When concurrence on the LEDPA is achieved, the cooperating agencies enter the Final EA Circulation stage. At this point, the Corps issues another public notice for comment and Caltrans circulates the Final EA document to the cooperating agencies.

We appreciate PN 24573S reporting the range of impacts to waters of the United States including wetlands and look forward to increasing our collaboration with Caltrans to avoid the maximum number of impacts to waters possible while still meeting the project purpose. When the next PN is issued concurrent with the circulation of the Final EA, the NEPA/404 MOU integration process should ensure that the Wetlands Regulatory Office will not object to the 404 application. However, we reserve the right to object to the 404 permit application if it is inconsistent with the 404(b)(1) Guidelines (40CFR230).

If you have any questions, please contact Erin Foresman of my staff at (415) 972-3396.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy J. Vendlinski". The signature is fluid and cursive, with the first name "Timothy" written in a larger, more prominent script than the last name "Vendlinski".

Tim Vendlinski, Supervisor
Wetlands Regulatory Office

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Caltrans and FHWA have submitted two versions of the Section 404(b)(1) analysis to the US EPA for review. Through project design changes, impacts to wetlands have fallen below the limits set forth in the MOU. The objectives of the NEPA 404 MOU have been met with the development of a project alternative that impacts 4.58 acres of wetlands. Because of this and to keep this project moving forward toward construction, Caltrans and FHWA have formally withdrawn from the NEPA 404 MOU process. A letter was sent to the Environmental Protection Agency on December 2, 2005 stating our withdrawal from the process and the reasons for doing so. Caltrans will be pursuing nationwide permits under the Clean Water Act for the first three sections of the project and will work with the Army Corps of Engineers in the future to obtain an Individual Permit for construction of the Wye section. All commitments and agreements made between the EPA and Caltrans have been incorporated into this EA/FEIR and into the project design itself. In addition, Caltrans has proposed a preferred alternative with the least impacts to jurisdictional wetlands. Finally, the project conforms to the no net loss policy set forth in Executive Order 11990.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

May 16, 2003

John Luchetta
Environmental Planning Branch
Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401

Subject: Environmental Assessment/Draft Environmental Impact Report for State Route
46 Corridor Improvement Project, San Luis Obispo County, California

Dear Mr. Luchetta:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act. Our detailed comments are enclosed.

Caltrans and the Federal Highway Administration (FHWA) propose to widen approximately 24 miles of State Route 46 (SR 46) from a two-lane highway to a four-lane controlled access highway. Due to anticipated impacts to wetlands resources, this project is following the NEPA/Clean Water Act Section 404 Integration Process Memorandum of Understanding (NEPA/404 MOU). EPA has concurred on the purpose and need and range of alternatives for this project.

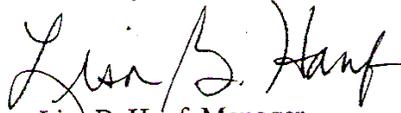
Overall, the document is well prepared. The text is easy to read and provides clear descriptions of environmental regulations, such as the explanation of the Clean Water Act 303(d) listed water bodies. EPA appreciates the document description of borrow sites, disposal sites, and construction staging areas and Caltrans' responsibilities with regard to each of these activities. In addition, the cumulative impacts section is very well done. With a few modifications, this cumulative impacts section could be used as a model for other Caltrans environmental documents.

While we note that Caltrans and FHWA have developed alternatives that minimize impacts to resources, EPA has identified project impacts that should be more thoroughly described in the Final Environmental Assessment (FEA). This information is needed in the FEA to assist decision-makers and the public differentiate the impacts of the proposed alternatives. Specifically, the EA should provide more explicit information on the projected impacts to wetland resources. Much of the information currently provided is general, and more specific information is necessary to identify the least environmentally damaging practicable alternative required under the NEPA/404 MOU. In addition, the project proposes several mitigation

measures for impacts to endangered species. The document should substantiate the selection of those mitigation by providing supporting information, such as the success rates of the selected mitigation measures.

EPA appreciates the opportunity to review this EA. Please send two copies of the Final EA to the address above (Mail Code: CMD-2). If you have any questions, please feel free to contact me or Nova Blazej, the point of contact for this project. Nova Blazej can be reached at 415-972-3846 or blazej.nova@epa.gov.

Sincerely,



Lisa B. Hanf, Manager
Federal Activities Office

Enclosures:
EPA's Detailed Comments

cc:
Maiser Khaled, Federal Highway Administration
Larry Bonner, Caltrans
John Yeakel, Army Corps of Engineers

STATE ROUTE 46 – SAN LUIS OBISPO ENVIRONMENTAL ASSESSMENT
EPA DETAILED COMMENTS

Summary Table of Impacts

The document should include a summary table of direct, indirect, and cumulative impacts for each alternative. The summary table should also include proposed mitigation. This table is important for comparing the impacts of each alternative and will be used in the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA).

Recommendation:

-
- Develop a summary table of impacts by resource type for each alternative; include indirect and cumulative impacts.

Wetlands and Vernal Pools

2 The document would be improved with the inclusion of specific information on the existing wetland resources in the project study area. Maps depicting the impact of each of the proposed alternatives on wetlands resources would be particularly useful, especially for the eventual selection of the LEDPA. The document currently only includes an example map that overlays one alternative on wetland resources (p. 115).

3 The document also states that for some resources, such as wetlands, mitigation would be done even though a substantial impact to wetland resources would not occur (p.v). We would like to clarify that Caltrans and FHWA are required under the Clean Water Act Section 404 Individual Permit to mitigate all direct project impacts to wetlands. Please clarify whether Caltrans and FHWA are planning on providing wetlands mitigation beyond what will be required under the Section 404 Individual Permit.

Recommendations:

4 • The document should provide the specific acreage of existing wetlands resources and waters of the United States in the study area, by project section (pp. 78, 112). The document only generally describes the extent of these resources. Where impacts are greater than .5 acres, the document should also include wetlands mapping for each of the sections. The proposed alternatives should be overlaid on these wetlands maps.

5 • Under the Mitigation Measures section for wetlands and vernal pools, specifically describe the compensatory mitigation proposed for each section. The description should include the mitigation ratios, location, and type (e.g., wetland creation, restoration, or preservation).

6 • Please clarify whether Caltrans and FHWA are planning on providing wetlands mitigation beyond what will be required under the Section 404 Individual Permit (p. v).

Endangered and Protected Species

General Comments

The document proposes a number of mitigation treatments for impacts to endangered species. Listed below are several recommendations for improvements to the information on mitigation for impacts to endangered species. This information will assist decision-makers and the public understand the long-term success of the proposed mitigation.

Recommendations:

- Where mitigation is proposed for impacts to endangered species, explain why the mitigation was selected and cite success rates for the proposed mitigation. For the San Joaquin Kit Fox, for example, explain the selection, and success rate, of the 36 diameter wildlife passage culverts placed at .3 mile intervals (p. 103) and the artificial dens (p. 104). Also see pages 110 and 111.

7

- For on-site mitigation measures proposed for impacts to endangered species, include a description of the maintenance and monitoring of those mitigation measures and make a commitment to maintenance and monitoring in the Final Environmental Assessment (FEA).
- The FEA should include a brief description of the status of the consultation process with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act.

San Joaquin Kit Fox

The document states that compensatory mitigation “should” be accomplished at one location and in conjunction with the purchase of or adjacent to other protected habitat (p. 103). As this approach would maximize habitat preservation efforts, Caltrans and the Federal Highway Administration (FHWA) should commit to this approach in the FEA.

8

Recommendation:

- In the FEA, clarify whether Caltrans and FHWA will commit to compensatory mitigation at one location and in conjunction with the purchase of or adjacent to other protected habitat.

Pronghorn Antelope

The document acknowledges that widening to four lanes has been shown to completely prevent pronghorn antelope from crossing highways in several states, including Northern California. The pronghorn antelope is a protected game species and is not an endangered species. Wye Section, Alternative 8b includes a vegetated wildlife overcrossing as proposed mitigation for impeding pronghorn antelope movement. Pronghorn antelope are not known to use undercrossing structures (p. 107).

9

Recommendations:

- The FEA should demonstrate why the proposed overcrossing would be successful mitigation, and the FEA should substantiate that conclusion. Demonstrating the success of this mitigation is important to support the conclusions that the project has no

significant impacts to pronghorn antelope under CEQA (p. 107) and that Alternative 8b is the “only alternative that would not result in a significant impact to pronghorn antelope” (p. 108).

9

- The document states that the population of pronghorn antelope in the Wye section “would be studied” and that the results of these studies would factor into the final design of the Wye section (p. 108). The document should clarify whether Caltrans would be responsible for these studies (in addition to the Western Association of Fish and Wildlife Agencies studies), and Caltrans and FHWA should make a commitment to these studies in the FEA.
- The document concludes that, under the California Environmental Quality Act (CEQA), significant impacts to wildlife would only occur to the San Joaquin kit fox. Based on the information presented in the EA, it appears that impacts to the local pronghorn antelope population are also potentially significant under CEQA (p. 112, 165). Similarly, the long-term benefits of improved migration for the pronghorn antelope have not been established (p. 162). The document should be modified accordingly.

Fairy Shrimp & Tadpole Shrimp

Table 3.2.1-2 indicates that five species of fairy shrimp/tadpole shrimp occur in the project area. Four of these species are listed as federally endangered, and one of these species is listed as federally threatened. The table indicates that vernal pool fairy shrimp (federally threatened) were observed during project studies in the project area. The document does not analyze the impacts of the project to these invertebrates. Since these species are commonly found in wetlands and vernal pools, which are impacted by this project, the FEA will need to analyze how these species may be impacted by the project, as well as cumulative and indirect impacts, and propose mitigation, as appropriate.

10

Recommendation:

- Analyze how the five species of fairy shrimp/tadpole shrimp may be impacted by the project, as well as cumulative and indirect impacts, and propose mitigation, as appropriate.

Anadromous Fish

Tables 3.1.4-1 and 3.1.4-2 (pp. 49-50) indicate that the Estrella River and Dry Creek are designated as high quality habitat suitable for spawning of anadromous fish. The document does not analyze the project impacts to spawning habitat and species.

Recommendation:

11

- Identify which anadromous fish spawn in Estrella River and Dry Creek, the federal and State protective status of these species, how these species may be impacted by the proposed project, as well as cumulative and indirect impacts, and propose mitigation, as appropriate.

Cumulative Impacts

The cumulative impacts analysis is generally very well done and should be used as a model for other projects. The general discussion of the historic, landscape-scale impacts to the resources is particularly useful. The cumulative impacts analysis could be improved in three ways.

Recommendations:

12

- Include a discussion of the historic, landscape-scale impacts to water quality and wetlands. For water quality, include a discussion of the impacts of storm water pollution. For wetlands, include a discussion on the historic loss of wetlands in the analysis area.
- For each of the resources, include a general description of the current health and long-term viability of the resource. Assist the reader to understand where long-term sustainability of resources is threatened.
- When available, the document should include quantitative and qualitative data on the impacts to resources, and a summary of those impacts in tabular form. Where NEPA and CEQA documents have been done, use the analysis from these documents to assess cumulative impacts. At a minimum, this information should be available on other Caltrans projects. We note that this type of analysis was done for wetlands resources.

Traffic

Information on the existing Level of Service (LOS) is incomplete. The document states that the LOS during “peak hour” is “E.”

Recommendation:

13

- The document needs to specify which peak hour, AM or PM or weekend or holiday, and the direction, east-bound or west-bound, in which the LOS “E” condition occurs. If LOS “E” occurs on weekend and holidays only, the document should also disclose the LOS condition during the weekday AM and PM peak commute hours.

The document states that construction of the project will not result in increased traffic (p. 54, 168).

Recommendation:

- The document needs to support this statement. Cite the traffic modeling analyses performed for this project which address induced travel demand. For references on induced travel demand, see FHWA’s document: *Accounting for Induced Travel in Evaluation of Urban Highway Expansion*, <http://www.fhwa.dot.gov/steam/links.htm>

Air

Construction emissions for nitrogen oxide (NO_x) and fine particulate matter less than ten microns in diameter (PM₁₀) exceed the San Luis Obispo Air Pollution Control District’s established thresholds. A number of excellent mitigation measures are included in the document (pp. 39-40).

Recommendations:

- Caltrans and FHWA should commit to these mitigation measures in the FEA.
- 14
- The document should also qualitatively discuss PM_{2.5} emissions, fine particulate matter less than 2.5 microns in diameter. While areas are yet to be designated as nonattainment for PM_{2.5}, PM_{2.5} emissions are likely during construction and should be qualitatively discussed in the FEA.

Water

The document lists Best Management Practices (BMPs) that will be implemented as part of the Storm Water Pollution Prevention Plan (p. 58).

15

Recommendation:

- The FEA should include a brief discussion of BMP monitoring and maintenance and should discuss who will be responsible for these activities.

Topography/Invasive Species

The document states that planting fast growing vegetation on freshly exposed bare soil surfaces is one method of erosion control (p. 68). While minimizing erosion is crucial for water quality protection, minimizing the introduction of invasive species is also important. In accordance with Executive Order 13112 on Invasive Species, native plant and tree species should be restored to the greatest extent possible.

16

Recommendation:

- The FEA should commit to using native species on freshly exposed bare soil surfaces to the greatest extent possible.

Land Use

The document states that a large amount of land is currently held under Williamson Act contract.

Recommendation:

17

- The FEA should specify the percentage of agricultural land within the project study area that is held under Williamson Act contract.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding the summary table of impacts and mitigation: Due to the size and complexity of the project, a summary of impacts and mitigation prepared in a matrix becomes too cumbersome to lend any real value to the EA/DEIR. Originally, we had begun to prepare a matrix to include in the summary section of the document but based on comments from peer reviewers and technical writers, it was removed.
2. Maps depicting the impact of each Wye Section alternative on wetland resources have been created and are now included in the Environmental Assessment/Final Environmental Impact Report (EA/FEIR). Please see Volume II, Appendix H of the EA/FEIR for these maps. Only in the Wye section of the project would potential impacts exceed 0.2 hectares (0.5 acres).
3. We are aware of the federal “no net-loss” wetland policy to which the Federal Highway Administration, Caltrans, and the US Army Corps of Engineers will adhere. We have always planned on removing abandoned road segments in the Cholame Valley (Wye Section), which would re-connect wetland patches and re-create wetlands on site. With the original verified wetland delineation, this would have created more wetlands than we would have been required to create as mitigation. Now that the wetland delineation has changed in response to the EPA’s concerns, the amount of wetlands created by removing road segments will be viewed as required mitigation instead of an ancillary, beneficial effect.
4. Table 3.2.1-3 has been added to relate the total amount of wetlands, vernal pools, and other Waters of the US that were found within the study limits.

All Waters of the United States Found in the Study Limits

Project Section	Wetlands		Vernal Pools # of pools	Other Waters of the US	
	acres	hectares		acres	hectares
Estrella	0.48	0.02	4	2.03	0.82
Shandon	0.00	0.00	0	9.08	3.67
Cholame	0.06	0.003	0	7.79	3.15
Wye	66.01	26.71	0	6.25	2.53

5. Except in the Wye section (the Cholame Valley), wetlands found were seasonal, palustrine, emergent wetlands associated with grassy swales and degraded intermittent channels (Cowardin et al. 1979). Wetlands found in the Cholame Valley were a mixture of palustrine and lacustrine emergent wetland and scrub-shrub wetland. The Cholame Valley wetlands are alkaline and would be mitigated on-site through in-kind wetland restoration and creation. Removing to-be-abandoned road sections and restoring original ground elevations would re-connect wetland patches and create wetlands. This would take advantage of the natural wetland hydrology and hydric soils. Revegetation would be passive. Mitigation for the palustrine, emergent wetlands in the Estrella Section would occur at the Estrella River, in conjunction with Fremont cottonwood woodland mitigation. A portion of the floodplain would be purchased and restored to riparian woodland. Elevations would be lowered to take advantage of the high water table and potential floodwaters. Wetland mitigation would consist of

creating high-flow channels with elevations near enough to the water table to support native emergent hydrophytes such as spikerushes *Eleocharis spp.* and rushes *Juncus spp.*, which would be planted at the site.

In the Estrella section of the project, wetland impacts will be mitigated by creating wetlands at the Estrella River bridge, in the association with the riparian woodland mitigation. Wetland impacts for the Estrella section will be mitigated at a 3:1 ratio. There are no wetland impacts in the Shandon and Cholame sections of the project, therefore, no mitigation is needed. In the Wye section of the project, wetland impacts will be mitigated in-kind and on-site by creating wetlands through the removal of abandoned road sections. Wetland impacts for the Wye section will be mitigated at a 1.5:1 ratio with the removal of abandoned road segments and the creation of wetlands helping to restore the entire wetland complex that is found in the Cholame Valley area.

6. Caltrans and the Federal Highway Administration (FHWA) are not planning on providing wetland mitigation beyond that required under the Section 404 Individual permit. However, opportunities may present themselves in the Wye section of the project to restore more area to wetlands than what is being impacted by the project. If this proves to be true, then Caltrans and FHWA would remove the existing barriers bisecting wetlands and reconnect those wetlands by restoring currently paved areas. This would be done in a passive manner with no proposed wetland restoration work beyond the removal of the existing barriers bisecting those existing wetland areas, returning current roadbeds to elevations that will facilitate surface wetland hydrology and the capability to support hydrophytic vegetation.

7. Regarding your general comments on endangered and protected species, the frequency and size of dry culverts for wildlife crossings were selected based on the best available documented recommendations for San Joaquin kit fox (Cypher 2000). The general concepts and specific design features of wildlife crossings were based on recent ecology literature such as Clevenger and Waltho (2000), Alexander and Waters (2000), and Haas (2000). Please refer to the Natural Environment Study for further discussion on this topic. There are no known success rates at this time for these types of mitigation strategies for San Joaquin kit fox. However, Caltrans is working with the leading researchers on San Joaquin kit fox along with the California Department of Fish and Game and the US Fish and Wildlife Service on the design of these passages to make them as likely to succeed as possible. Ultimately, several different variations will likely be constructed, monitored, and studied to further the knowledge of wildlife crossings for highways. Additionally, Caltrans is pursuing a contract with Brian Cypher and Tony Clevenger to study kit fox use of undercrossings, determine factors affecting undercrossing use by kit fox, and develop kit fox crossing design guidelines. We hope to attain the results of this study prior to constructing in the important kit fox areas (the Shandon, Cholame, and Wye sections) so that undercrossing designs reflect the findings.

Artificial dens have been proposed on mitigation lands because kit foxes are known to den in artificial burrows and other man-made structures such as oil pipes, culverts, and embankments. Although the efficacy of artificial den placement has not been formally tested, kit foxes have been documented occupying artificial kit fox dens and artificial burrowing owl burrows (Bob Stafford, California Department of Fish and Game Wildlife Biologist, personal communication, Bryan Cypher, research ecologist, personal communication, Cypher 2000).

The only other on-site mitigation proposed for endangered species is to reduce mechanical and chemical disturbances to habitat within the right-of-way, through the use of a designated vegetation management area. The intent is to maintain the baseline habitat quality of lands that would be incorporated into the right-of-way. By doing this, maintenance is the mitigation. Caltrans and the FHWA commit to monitoring the vegetation to ensure that disturbance is limited. Any additional monitoring will be implemented as agreed upon in the Section 7 consultation process with the US Fish and Wildlife Service

On December 12, 2005 the United States Fish and Wildlife Service issued a Biological Opinion that the State Route 46 Improvement Project is not likely to jeopardize the continued existence of the federally endangered San Joaquin kit fox, the federally threatened California tiger salamander, and the California red-legged frog in accordance with section 7 of the Endangered Species Act of 1973, as amended.

8. Regarding your comments on the San Joaquin kit fox mitigation strategy, the Environmental Assessment /Draft Environmental Impact Report identifies a conceptual mitigation strategy. Caltrans and the FHWA commit to compensatory mitigation within a greater context of other protected habitat. However, multiple sites have become available for potential offsite mitigation—mitigation at multiple sites may help to preserve a more complete patchwork of suitable habitat that aids in dispersal and perpetual preservation of multiple corridors than mitigation at only one site. Ultimately Caltrans and the FHWA shall work with the US Fish and Wildlife Service and the California Department of Fish and Game to utilize the mitigation monies available from this project to preserve habitat areas that would result in the greatest benefit to this species.

9. Regarding pronghorn antelope crossing structures and study plans: please see the Caltrans memo dated October 14, 2002, to Larry Bonner, updating pronghorn antelope crossing studies. This can be found in Volume II, Appendix L of the EA/FEIR.

Thank you for bringing the issue of potentially significant impacts to pronghorn antelope to our attention. We have modified the language in the EA/FEIR to state that under CEQA potentially significant impacts to pronghorn antelope would result if effective crossing structures are not incorporated into the project.

We intend to maintain or improve habitat connectivity at or above the current conditions. The long-term benefit to the population cannot be well understood without a comprehensive study of demographics, movement patterns, and exchanges between herds. This study would have to include this entire, reintroduced, non-migratory population from the Cuyama Valley through the Cholame Valley. Although this would be beyond the scope of our intent and obligation, it would be a valuable study.

10. All potential and known fairy shrimp and tadpole shrimp populations have been avoided. Studies for this project identified potential habitat and discovered two previously unknown vernal pool fairy shrimp (*Branchinecta lynchi*) populations. All effects within the watersheds of those vernal pools have been avoided. No other species are known to occur in the area or were detected during this project's protocol surveys. The wetlands that the project would potentially affect are not suitable habitat for fairy shrimp or tadpole shrimp. This was confirmed with negative survey results

and excessive alkalinity found in the Cholame Valley alkaline wetlands. All other wetlands found within the project limits were either hillside seeps or stream banks and therefore not suitable due to seasonal high-velocity storm runoff. No low-velocity wetlands, such as swales between vernal pools that might support vernal pool fairy shrimp or tadpole shrimp, would be affected. This is discussed in the FEA/FEIR in Section 3.2.1.

11. Regarding your comments on anadromous fish, Tables 3.1.4-1 and 3.1.4-2 are derived from the Central Coast Water Quality Control Plan, or the “Basin Plan,” and are not based on any assessment of steelhead habitat. The “SPWN” designation is for spawning of fish species in general, not steelhead specifically. The “SPWN” designation is granted by the Regional Water Quality Control Board based on acceptable levels of cadmium and dissolved oxygen and does not represent any other assessment of habitat potential for steelhead (Carpenter et al. 1994).

The best available information indicates that steelhead do not utilize the Estrella River watershed. The Estrella River is a wide, sandy wash that rarely flows, even less so now that tens of thousands of acres of new vineyards pump the groundwater. Its tributaries are also sandy washes. No potential spawning or rearing habitat within the watershed is known. Assessments of steelhead status in San Luis Obispo County either do not even address this watershed or state that it does not support steelhead (Titus 1992⁶³, EDAW 1998⁶⁴). Two recent de-watering activities in large, permanent, alkaline pools of Cholame Creek (a major tributary) found only hitch, black catfish, bluegill, and Sacramento sucker (Tom Edell, California Department of Transportation biologist, personal communication). The Cholame Creek pools are almost always isolated by several miles of dry wash downstream that would have to function as a migration corridor. The two local California Department of Fish and Game Fisheries Biologists do not know of any steelhead habitat or occurrences, recent or historic, in the Estrella River watershed (Dave Highland, Mike Hill, California Department of Fish and Game, personal communication). The Federal Highway Administration, therefore, determines that the project would not affect steelhead.

12. Regarding your comments on cumulative impacts: impacts to water quality and wetlands in the Estrella River watershed are difficult to assess. There is no baseline data with which to compare current data collected by the Regional Water Quality Control Board. It is safe to say that most drainage's have been largely unaffected by direct activities of humans until recently. Grazing and groundwater extraction have been the primary factors affecting watercourses and wetlands, but only general statements can be made of what their effects may have been. The recent and rapid increase in vineyards has probably affected the water table and stormwater quality much more than the previous ranching and dryland farming activities.

The large wetlands complex in the Cholame Valley has been affected only by grazing and by the original highway construction. This complex remains almost entirely intact. These saline playas and alkali scrub communities have probably not changed much except that introduced annual grasses are a major component of the herb layer in the springtime.

⁶³ Titus R.G. 1992. Status of California steelhead in coastal drainages south of San Francisco Bay. Prepared for California Department of Fish and Game under Interagency Agreement FG1384.

⁶⁴ EDAW 1998. San Luis Obispo County master water plan.

For each resource a statement and discussion has been made about the long term viability and current health. Please see Chapter 4 of the EA/FEIR for the new information.

For all of the projects listed in Table 4.1-2 of the EA/FEIR, there were very few NEPA and/or CEQA documents prepared. At best, there were only development permit applications from which to ascertain quantitative or qualitative information. Since wetlands are a resource that must have a permit to be impacted, there usually was quantitative information available. This is why the analysis for wetlands was more detailed.

For the Caltrans projects listed in Table 4.1-2, NEPA/CEQA documents are currently being prepared. Therefore, no quantitative information was available at the time the EA/DEIR was prepared. Recent research into the status of these documents revealed that they still are not complete, therefore there is no new quantitative information that can be added to the analysis in the EA/FEIR.

13. Regarding your comments on the traffic analysis, the Level of Service (LOS) determination for purposes of the EA/DEIR was based on the PM peak hour in the westbound direction on a weekday. Route 46 is not considered a commuter route and experiences no definable AM or PM commute hours, therefore, an LOS analysis for the AM and PM commute hours is irrelevant.

No traffic modeling analysis was performed for this project. The project corridor area is primarily open space rural agricultural and grazing land, with virtually no infrastructure available to support any significant development or growth. Any development plans would require major infrastructure development, and would extend far beyond the twenty-year window of traffic model projections or analysis.

14. The dust control measures recommended in the Air Quality report were supplied by San Luis Obispo County Air Pollution Control District (SLOAPCD). Since not all of these measures are applicable to every construction project, we have to make them available to be implemented at the Resident Engineer's discretion. However, because of the large amounts of pollutants expected from the construction of this project, consultation with the air board was necessary to gain their acceptance of the project. In addition to enforcement of the dust control measures contained in Caltrans Standard Specifications, we will incorporate additional measures supplied by the SLOAPCD into the project. These measures include installing post-combustion catalytic converters on the highest polluting construction equipment. As a result of comments from the SLOAPCD, several changes were made to the air quality section of the document. Please see Section 3.1.1 for this new information.

A qualitative discussion of PM_{2.5} has been added to the air quality section of the EA/FEIR. Please see Section 3.1.1 for this discussion.

The California Air Resources Board revised its PM₁₀ standards in June 2002. It did not adopt a daily standard for PM_{2.5} because errors were discovered in the software used to develop health risk values. However, an annual standard for PM_{2.5}, was adopted.

Current Daily and Annual Thresholds for PM₁₀ and PM_{2.5}

State	Criteria	National
20 ug/m ³	PM ₁₀ (annual arithmetic mean), not to be exceeded	50 ug/m ³
50 ug/m ³	PM ₁₀ — (24 hour average)	150 ug/m ³
12 ug/m ³	PM _{2.5} —(annual arithmetic mean), not to be exceeded	15 ug/m ³
65 ug/m ³	PM _{2.5} —(24 hour average)	65 ug/m ³

The table above shows that standards for PM_{2.5} are higher than those for PM₁₀. In dealing with construction emissions, PM_{2.5} is always a fraction of PM₁₀. Therefore, by minimizing emissions of TSP below the level of significance, emissions of PM_{2.5} and PM₁₀ will likewise be reduced below the level of significance.

Construction activities for the 25-mile long proposed project will be spread out over about 12 years. Work will be done in four phases with each phase lasting about 3 years. Recent conversations with the Resident Engineer for the proposed project have determined that it is a reasonable assumption that construction grading will not exceed 4 acres per day of active grading/excavating for any phase of the project. This amount is within the 4 acres per day that is allowed in the SLOAPCD CEQA Guide (Table 6-3) to remain within the 2.5 tons per quarter PM₁₀ threshold. This is a more accurate estimate of quarterly grading than was used in the Draft Environmental Document, because it was based on a conversation with the probable Resident Engineer for the project. The quarterly grading estimates will be further refined for consultation with SLOAPCD after design quantities and construction phasing are better understood.

Total suspended particulate (TSP) emissions will be reduced below a level of significance by implementing Caltrans Standard Specifications, and by using emission reduction measures recommended by the APCD. Reduction of TSP below a level of significance will correspondingly minimize emissions of the PM₁₀ and PM_{2.5} fractions of TSP.

15. Regarding your comments on the water quality section of the document, Caltrans, District 5 has a full time stormwater coordinator who regularly inspects Caltrans construction sites for compliance with the statewide NPDES permit. Maintenance of installed BMPs is required by the contractor. The Resident Engineer also takes an active role in monitoring compliance with the NPDES permit and acts as a daily monitor of installed BMPs. The Resident Engineer has the authority to shut the job down should the contractor refuse to maintain the BMPs required as part of the Stormwater Pollution Prevention Plan.

16. Regarding the use of native species to re-vegetate disturbed areas, Caltrans and the FHWA commit to using native species for erosion control and revegetation to the greatest extent possible.

17. The EA/FEIR now includes the percentage of agricultural land within the project study area that is held under Williamson Act contract. This information can be found in Chapter 3, Section 3.3.2 of the EA/FEIR.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-6528

In Response refer to
May 16, 2003 151422SWR03SR8675:BLS

Mr. John Yeakel
Department of the Army
San Francisco District, Corps of Engineers
Regulatory Branch
333 Market Street
San Francisco, California 94105-2197

Dear Mr. Yeakel:

Thank you for the opportunity to comment on the California Department of Transportation's (Caltrans) Highway 46 Corridor Improvement Project (U.S. Corps' Public Notice Number: 24573S) (Project) received in our office March 19, 2003. Caltrans has applied for a U.S. Army Corps of Engineers' (Corps) permit associated with the Project. The proposed Project is located between the cities of Paso Robles and Chaloame, San Luis Obispo County, California, and its basic purpose is to improve safety and provide congestion relief on Route 46 between the two cities.

The proposed Project includes operations in and near streams that lie within the South-Central California Coast (S-CCC) steelhead (*Oncorhynchus mykiss*) Evolutionarily Significant Unit (ESU). Steelhead within this ESU were listed as a threatened species on August 18, 1997 (62 FR 43937) pursuant to the Federal Endangered Species Act (ESA) of 1973, as amended. Critical habitat for steelhead was designated on February 16, 2000 (65 FR 7764). However, this critical habitat designation was recently vacated by the National Marine Fisheries Service (NOAA Fisheries) and is currently undergoing further review. Regulations deemed necessary and advisable for their conservation were adopted under section 4(d) of the ESA and went into effect on September 8, 2000. Populations of steelhead within this ESU are at critically low levels. Any adverse impacts to them must be minimized to assure that this species does not become extinct.

NOAA Fisheries' review of the Project is focused primarily on its potential effects to S-CCC ESU steelhead. Comments expressed below are in general topics and not as levels or ranking of concern by NOAA Fisheries.



ESA Consultation

Section 7(a)(1) of the ESA directs, in part, all Federal agencies to utilize their authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of listed species. Section 7(a)(2) states, in part, that each Federal agency shall, in consultation with the Secretary of Commerce (and/or Secretary of the Interior), insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species. Thus, unless the Corps issues a "no affect" to S-CCC ESU steelhead determination as a result of permitting the Project, a section 7 consultation would be expected between NOAA Fisheries and the Corps. This consultation would result in measures to be implemented in order to avoid and minimize impacts to S-CCC ESU steelhead.

Stream crossings

As described in the Project, culverts and bridges are proposed for installation. NOAA Fisheries recommends Caltrans' review NOAA Fisheries' Southwest Region's *Guidelines for Salmonid Passage at Stream Crossings* (<http://swr.nmfs.noaa.gov/hcd/NMFSSCG.PDF>). Any culvert installed on a salmonid stream must meet these NOAA Fisheries' criteria.

NOAA Fisheries appreciates the opportunity to comment on the Highway 46 Corridor Improvement Project. If you have any questions concerning the above comments please contact Mr. Bill Stevens at (707) 575-6016 or via e-mail at William.Stevens@noaa.gov.

Sincerely,



Patrick J. Rutten
Northern California Supervisor
Protected Resources Division

cc: J. Lecky, NOAA Fisheries
K. Urquhart, CDFG, Monterey
G. Ruggerone, Caltrans, District 5

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The best available information indicates that steelhead do not utilize the Estrella River watershed. The Estrella River is a wide, sandy wash that rarely flows. Its tributaries are also sandy washes. No potential spawning or rearing habitat within the watershed is known. Assessments of steelhead status in San Luis Obispo County either do not even address this watershed or state that it does not support steelhead (Titus 1992, EDAW 1998). Two recent dewatering activities in large, permanent, alkaline pools of Cholame Creek (a major tributary) found only hitch, black catfish, bluegill, and Sacramento sucker—the Cholame Creek pools are the only permanent waters in this system (Tom Edell, California Department of Transportation biologist, personal communication). The Cholame Creek pools are almost always isolated by several miles of dry wash downstream that would have to function as a migration corridor. The two local California Department of Fish and Game Fisheries Biologists do not know of any steelhead habitat or occurrences, recent or historic, in the Estrella River watershed (Dave Highland, Mike Hill, California Department of Fish and Game, personal communication). The Federal Highway Administration, therefore, determines that the project would not affect steelhead.

Thank you for your reference to NOAA Fisheries' *Southwest Region's Guidelines for Salmonid Passage at Stream Crossings*.

Mr. John Yeakel, Permit Manager
US Army Corps of Engineers
Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197
415-977-8472

Phil Ashely
Canyons And Streams Alliance
1586 La Cita Court
San Luis Obispo, CA 93401
805-756-2505 (work)
May 17, 2003

Subject: Canyons And Streams Alliance's (CASA's) comments on Caltrans' Environmental Assessment/Draft Environmental Impact Report for the "Route 46 Corridor Improvement Project", Corps Notice number 24573S, dated March 17, 2003, comment deadline date 5/17/03.

Dear Mr. Yeakel:

First, regarding our phone discussion this Friday, 5/16/03, you informed me that these comments on the Subject EA/EIR would be deemed timely and officially accepted by the Corps as meeting your 5/17/03 comment deadline as long as they are mailed with a postmark date of 5/17/03. I will mail them today as soon as I finish this comment cover letter to you to assure that the postmark date complies with your 5/17/03 comment deadline.

Secondly, your Corps Notice for this proposed project indicated on page 2 that the proposed project would have from 0.90 to 5.54 acres of permanent impacts to wetlands. However, please note that according to the Subject DEIR the permanent loss of wetlands will be considerably greater than this with from 4.87 to 11.44 permanent adverse impacts to wetlands occurring from the project.

Finally, following this cover letter page, CASA is providing you with our 28 page comment letter on the Subject EA/DEIR. We ask that you pay particular attention to our comments on various sections of the DEIR relative to its very inadequate mitigation for the stated project caused loss of wetlands. We also ask that for reasons given throughout our attached comments on the DEIR you note our comments on the inadequacy of the DEIR and its mitigations on various "public interest" resources that need to be adequately addressed and mitigated.

For these reasons, we request that before the Corp ever issues Caltrans a Permit for this proposed project, because its DEIR and mitigations are so inadequate, the Corps do a full Environmental Impact Statement (EIS) on the proposed project and not just an Environmental Assessment to help overcome Caltrans woeful lack of environmental disclosure and mitigation in its inadequate DEIR for the Subject proposed project.

Sincerely for CASA,



Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Please see Page 419 of Volume III of the Environmental Assessment/Final Environmental Impact Report for a full response to Mr. Ashley's comments. A response to the additional comment follows.

1. Regarding your comment noting a discrepancy between the Public Notice published by the US Army Corps of Engineers and the EA/DEIR, the values reported in the public notice are nearly correct. The numbers you state in your comment letter did not contain any units nor an appropriate designation of the subject matter therefore making it difficult to identify. However, as reported in the EA/FEIR, there could be between 4.58 acres and 13.25 acres of permanent wetland impacts. Final acreage calculations for impacts to wetlands and other waters will be performed after the selection of the preferred alternative.

7.2 State Agency Comments and Responses

State of California



Memorandum

To : Mr. Larry Bonner
Caltrans - District 3
50 Higuera Street
San Luis Obispo, CA 93401-5415

Date: May 12, 2003

From : Robert W. Floerke, Regional Manager
Department of Fish and Game - Central Coast Region, Post Office Box 47, Yountville, California 94599

Subject : Draft Environmental Impact Report for the Highway 46 Corridor Improvement Project, SCH No. 200011033

Department of Fish and Game (DFG) personnel have reviewed the draft EIR for the Highway 46 corridor improvement project. The proposed project will widen existing Highway 46 in San Luis Obispo County from two lanes to four lanes between Post Mile (PM) 32.15 and PM 56.32, a total of 23.83 miles. The purpose of the project is to reduce highway fatalities, improve highway safety, and to relieve congestion. The project is separated into four sections: the Estrella section, the Shandon section, the Cholame section, and the Wye section. The Estrella, Shandon and Cholame sections all have two build alternatives and the Wye Section has six build alternatives. All of the alternatives have the potential for significant biological impacts. DFG recognizes that the California Department of Transportation (Caltrans) has already incorporated a number of design features and exceptions into the project design that reduce overall project impacts-- features such as lower design speeds to reduce environmental impacts, narrower medians in environmentally sensitive areas, and moving routings to avoid wetland areas and sensitive species habitats. This review assumes that these features will remain as part of the proposed project design and the resulting reduction in project impacts are taken as part of the proposal.

The Estrella section lies between PM 32.15 and 41.20. The differences between its two build alternatives occur at the Estrella River. Alternative 8N would place two new bridges, approximately 9.8 feet higher than the existing

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bridge, over the Estrella River. The existing bridge would be left in place. Alternative 9N would remove the existing bridge and construct two new bridges, approximately 62.3 feet higher, over the Estrella River. Three of the four bridge piers for the new bridges in alternative 8N would be placed into the Fremont cottonwood woodland resulting in some habitat loss. Despite the additional direct habitat loss resulting from alternative 9N, DFG recommends that alternative 9N be selected as the preferred build alternative for the Estrella section. The increased elevation of the new bridges over the Estrella River and the removal of the existing bridge will facilitate wildlife movement along the river and allow for revegetation with native riparian species beneath the new structure. We believe that this will provide for increased habitat value along this stretch of the river and, along with the proposed 3:1 replacement for impacted Fremont cottonwood habitat, reduce biological impacts along this section to less than significant levels.

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The Shandon section lies between PM 41.2 and 50.2 and the differences between the two alternative routes are at the Cholame Creek crossing. Alternative 2 proposes two new bridges over Cholame Creek, situated to the north of the existing bridges with a design speed of 80 miles per hour (mph). Alternative 1 also proposes two new bridges over Cholame creek but with a design speed of 68 mph versus the standard 80 mph. As a result of the lower design speed, a population of Gypsum-loving larkspur, a CNPS 4 plant, would be avoided under alternative 1 as well as habitat known to support a badger den. Generally projects that avoid impacts are environmentally superior to projects that result in adverse impacts and then proposing to mitigate those impacts by recreating impacted habitats or recreating sensitive species requirements. Since Alternative 1 avoids impacts to sensitive plant and animal species, DFG recommends alternative 1 of the Shandon section as the preferred alternative.

The Cholame section lies between PM 50.2 and 54.76. Again the alternatives are identical until the vicinity of the existing Cholame Creek Bridge. Whichever alternative is selected for this section will have potentially significant impacts on native bat species that presently inhabit the Cholame Creek Bridge since both alternatives will result in the removal of this bridge. The bridge supports a day roost

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for Mexican free-tailed bats and pallid bats; a night roost for pallid bats; and probably a maternity roost for both Mexican free-tailed and pallid bats. Alternative 1 proposes to realign Highway 46 to the north with all four lanes being routed around the Tosco Oil Pumping Plant. This routing will move the highway further away from Cholame Creek reducing both direct and indirect impacts. Two new bridges would be constructed over Cholame Creek and the existing roadway would be removed and restored to natural conditions. Alternative 2 proposes a partial realignment of Highway 46 around the Tosco Oil Pumping Plant. The two proposed westbound lanes would be constructed around the Tosco Plant while the eastbound lanes would be reconstructed along the existing Route 46 alignment. A new bridge would be constructed over Cholame Creek for the westbound lanes while the existing bridge would be torn down and reconstructed north of the existing crossing. Alternative 2 would result in a wide separation between the westbound and eastbound lanes in an area of known pronghorn antelope activity. DFG believes that the habitat fragmentation resulting from the highway separation proposed in Alternative 2 makes this alternative less desirable from a biological viewpoint. We, therefore, recommend that Alternative 1 be selected as the preferred alternative for this section.

The Wye section lies between PM 54.8 and 56.3. The six different alternatives for the Wye section vary in roadway alignments and the way the intersection of Routes 41 and 46 are treated. All the alternatives will construct a separated grade-interchange in the Cholame Valley and replace the existing Cholame Creek Bridge with two new bridges each 394 feet long. Under alternative 4, Route 46 would be realigned to the north of existing Routes 41 and 46. Route 41 would be rehabilitated to transport southbound traffic from Route 41 to Route 46. Approximately 1.3 miles of Route 46 would be removed under this alternative and restored to natural habitat. Under alternative 5 Route 41 would be rehabilitated into southbound lanes for Route 41. State Route 41's northbound lanes would be constructed parallel and approximately 61 feet to the south. Route 41 would tie into Route 46 near Cholame Valley Road. Approximately 1.7 miles of existing Route 46 would be removed and restored to natural habitat. The overall footprint for this alternative is smaller than alternative 4 and shifted to the west, away from the floodplain and into the eastern foothills. Under

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Alternative 7 the new alignment would parallel the existing Route 46 alignment with new eastbound and westbound lanes for Route 46. Approximately 1.3 miles of Route 46 and approximately 1 mile of existing route 41 would be removed under this alternative and restored to natural habitat. The interchange footprint of Route 41 and 46 is in the foothills to the east, away from the Cholame Creek floodplain. Under Alternative 8 the existing Route 46 lanes would be rehabilitated into new eastbound lanes for Route 46. The new westbound lanes would be constructed parallel to the existing roadway by approximately 61 feet to the north. Route 41 would shift from its present alignment and shift to the east through the foothills and connect with Route 46 in the foothills away from the Cholame Valley in a manner similar to alternative 7. Approximately 0.8 miles of existing route 41 would be removed under this alternative and restored to natural habitat. Under alternative 8b new eastbound and westbound lanes for Route 46 would be constructed along the same alignment as the existing Route 46 with a 61-foot median separating the two directions. Approximately 0.8 miles of existing route 41 would be removed under this alternative and restored to natural habitat. The interchange between Route 41 and 46 is located in the eastern foothills of the Cholame Valley, further east than any of the other alternatives. This alternative has been moved further east to accommodate the proposed vegetated wildlife over crossing structure at PM 56. The over crossing is proposed as mitigation for impacts, primarily to pronghorn antelope, that will result from the construction of a four-lane roadway through an antelope movement area. Under Alternative 9 the roadway alignments would be similar to those in Alternative 8 except that at PM 55.7 eastbound and westbound Route 46 would go over the Route 41 branch connection as opposed to under it as in Alternative 8. DFG considers the Cholame Valley a biologically sensitive area and alternatives that propose to move the Route 41 and 46 interchange and Route 41 roadway out of the valley and into the foothills will have lower environmental impacts than those that leave the interchange and roadway in the valley. DFG recommends alternative 8b as the preferred alternative for the Wye section because it moves the Route 41/46 interchange out of the Cholame Valley and proposes a wildlife over crossing that may allow antelope free movement from north and south.

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Several species of bats will be adversely impacted as a result of the bridge replacements proposed under the Route 46 Corridor Improvement Project. To minimize the impacts to bat species, DFG recommends the following measures. The construction of the two bridges over Cholame Creek proposed under Alternative 1 on the Cholame section should be constructed before the existing bridge is demolished. The new bridges should be designed to include similar structures to those on the existing bridge that presently have bat use. The plans for bat structures should be reviewed and approved by biologists familiar with bat roosting requirements. If the new bridges with "bat friendly" structures are not built prior to the demolition of the existing bridge, then alternative-approved roosting structures will need to be put up in the adjacent area. Prior to the destruction of the existing bridge, the bats must be excluded from the day roosts and the exclusion should occur between October and March in the year prior to demolition. Efforts should be made to band the bats prior to exclusion to determine if they move to either the bat structures on the new bridges or the temporary structures erected prior to their exclusion.

The bridge over Cholame Creek in the Shandon section (night roost) and over Estrella Creek in the Estrella section (day roost and possible night roost) will also result in impacts to bat species when they are demolished. DFG recommends that bat structures be incorporated into the design of the new bridges proposed over these creeks and that, when possible, the new bridges be constructed before the old bridge is removed. Exclusion of the bats from the existing bridges must take place before the bridges are demolished and the exclusion should occur between October and March in the year prior to demolition.

5 There is an abandoned house on the Warner property that will be demolished as part of the corridor improvement project. Although no bats currently are known to utilize the structure it is ideal roosting habitat for sensitive bat species. DFG recommends that a qualified biologist survey the building prior to scheduled demolition and, if bats are found to be present, contact DFG immediately to determine appropriate mitigation. DFG further recommends that the building be scheduled for demolition outside the bats breeding season of May through September.

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Bridge No. 49-29 over Cholame Creek has been identified as structurally deficient and is scheduled to be removed under either Cholame section alternative. DFG recommends that the existing rock slope protection that has been placed in Cholame Creek to protect Bridge No. 49-29 be removed, since it will no longer be needed to protect the bridge, and the creek bank be restored to its natural slope.

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The draft EIR identifies potentially significant impacts to pronghorn antelope as a result of the proposed widening of Route 46 from two lanes to four lanes. It has been shown from studies in other states that antelope do not cross four-lane roadways. The construction of a four-lane roadway in the Wye section, therefore, has the potential to isolate the existing population of antelope north of Route 46 from the small herd to the south and from a larger herd on the Carrizo Plain resulting in the eventual possible demise of this herd. Onsite and offsite mitigation measures are identified in the Natural Environment Study that may reduce impacts to less than significant levels. The proposed offsite mitigation includes the removal of old relic barbed wire fences on the Carrizo Plain National Monument. In addition, functional cattle fences could be replaced with three-strand wire fences with smooth bottom wire high enough to permit antelope crossings. DFG believes that this proposal will benefit pronghorn antelope and should be incorporated into the environmental mitigation package for this project regardless of the preferred alternatives selected. We further request that a summary of the fences proposed for removal and those proposed for replacement be submitted to us for review and approval prior to implementation.

The onsite mitigation for pronghorn antelope focuses on maintaining connectivity for antelope across the new four-lane roadway. The only possible methods to achieve this is through the construction of an over crossing or an under crossing in the Cholame Valley. It is not known whether either an over crossing or under crossing will be used by antelope. Since a proposed wildlife over crossing (alternative 8b) has not been shown to be effective for antelope, it would be considered experimental and its value as mitigation for impacts to antelope brought into question. The proposed under crossing (alternative 8), the design of long, high bridges over Cholame

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Creek to allow pronghorn to cross the highway is also untested and must also be considered experimental. We recommend that a study be conducted to determine current movement patterns of the antelope in relation to the existing highway. DFG believes that it is very important that this study be conducted to determine antelope movement patterns. The results of this study may be useful in determining the proper antelope mitigation measures (over crossing or under crossing) and, therefore, which Wye section alternative (8 or 8b) DFG recommends as the proposed alternative.

8 Wetland impacts will result from construction of the Route 46 widening. Wetlands are sensitive and valuable habitats and their protection is important to DFG. When avoidance of wetland impacts is not possible, DFG recommends a 3:1 replacement ratio (created to impacted) to reduce overall impacts. Created wetlands should be of the same nature as those impacted and preferably adjacent to other existing wetlands to increase the overall habitat value. DFG will evaluate specific wetland mitigation proposals to determine their likelihood of success and the potential habitat value that will result from their development. Once the preferred alternative is selected, we recommend the development of a wetland mitigation plan that specifically identifies wetlands that will be lost, the location where new wetlands are proposed to be created, describes the hydrology that will support the new wetland, proposes performance criteria, includes a maintenance and monitoring schedule, and provides sufficient funding to insure the wetland mitigation is successful. We request the opportunity to review and approve the wetland mitigation plan prior to its implementation.

9 For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code with the applicant. Issuance of SAAs are subject to the California Environmental Quality Act (CEQA). DFG, as a responsible agency under CEQA, will consider the lead agency's CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate

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avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. We are enclosing an SAA package with this memorandum for your convenience.

If you have any questions, please contact Fred Botti, Staff Environmental Scientist, at (707) 944-5571; or Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Enclosure

cc: State Clearinghouse

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your support of Estrella Section, Alternative 9N has been noted in the record. However, to clarify a point in your comments regarding the Estrella section alternatives, Estrella Section, Alternative 8N would affect fewer rare species, less riparian woodland, and would result in taller and longer bridges that would be better for wildlife passage than Alternative 9N's bridges.

Granted, 8N would result in three bridges as opposed to two, because it would retain the existing bridge, but nearly all traffic would be removed from the existing bridge—substantially reducing the existing bridge's wildlife barrier effect. But, 8N would have two very long bridges with heavy traffic and one short bridge with almost no traffic, while 9N would have two short bridges with heavy traffic. Longer bridges and lower traffic levels are generally better for wildlife passage.

Alternative 8N would build two new bridges that would be 19 meters (62.3 feet) higher and 170 meters (558 feet) longer than the existing bridge (270 meters/886 feet total). Alternative 9N would build two new bridges that would be only 3 meters higher (10 feet) than the existing bridge and approximately the same length (100 meters/328 feet). Also, Alternative 9N would permanently remove bat roosts and directly remove much more Fremont cottonwood woodland than Alternative 8N.

2. Your support of Shandon Section, Alternative 1 has been noted in the record.

3. Your support of Cholame Section, Alternative 1 has been noted in the record.

4. Your support of Wye Section, Alternative 8b has been noted in the record.

5. Regarding your comments pertaining to sensitive bat species, bats will be excluded prior to the maternity season and bridge demolition.

In addition, Caltrans plans to build the new Cholame Creek bridges prior to removing the existing bridge that has a large bat-roost. If for some reason this becomes infeasible, then alternative roosts would be built nearby and prior to bridge removal. The same applies to the Estrella River bridge removal if Estrella Section, Alternative 9N is selected. Bat habitat for interior bridge spaces or for offsite bat houses would be designed to mimic the features that make the existing bridge-joint roost suitable for bats. Input from other bat biologists will be sought.

The abandoned house on the Warner property has been demolished and removed by the current property owner. Because of this, demolition by the State of California is not needed. In addition, there is no longer any potential habitat that could be surveyed for the presence of bats.

6. Regarding your comment on the existing rock slope protection used to protect Bridge No. 49-29 over Cholame Creek, which will be removed with the project, Caltrans shall remove all of the existing rock slope protection and restore the creek bank back to its original slope.

7. Regarding your comments on pronghorn antelope, fence removal for pronghorn habitat enhancement would be coordinated with the Department of Fish and Game and with the Bureau of Land Management.

8. Regarding your comments on wetlands, wetland mitigation will be implemented at a 3:1 ratio throughout the project except for in the Wye section. The Wye section contains alkali playa wetland that would be difficult to create. Attempting to create similar wetlands would likely result in lower-quality wetlands than those we would impact, so our mitigation strategy here is to restore historic wetlands by removing existing highway sections, matching the adjoining wetland elevations, and establishing wetland vegetation. This will replace wetlands in-kind, on-site, and within the same wetland complex where the impacts would occur. We anticipate that this in-kind, on-site restoration would result in higher-quality wetlands than artificially created wetlands and that as a result the lower, minimum mitigation ratio of 1.5:1 would suffice. This would also restore hydrologic connectivity disrupted by the existing highways, restoring a natural hydrologic regime to at least 58 acres of wetland delineated in the study area plus the larger wetland complex extending beyond the study limits. If counted toward the mitigation ratio, this restored hydrologic connectivity would greatly increase the mitigation ratio. We found it difficult to quantify the mitigation afforded by restoring hydrologic connectivity, so we included in the mitigation ratio only the wetland directly restored by removing highway sections.

In addition, to achieve a higher direct mitigation ratio such as 3:1, we would have to displace upland habitats of special-status species such as San Joaquin kit fox, coast horned lizard, and rare plants. We will work with your agency in further developing our wetland mitigation and monitoring plan, which will be submitted with the 1600 Streambed Alteration Agreement application.

9. Your comment regarding the need for a 1602 Streambed Alteration Agreement has been noted in the record.



June 13, 2003

Larry Bonner, Associate Environmental Coordinator, Caltrans
 Department of Transportation
 50 Higuera Street
 San Luis Obispo, CA 93401-5415

SUBJECT: Response to Draft EIR Regarding the Highway 46 Widening

Dear Mr. Bonner,

Thank you for including the Air Pollution Control District (District) in the CEQA environmental review process and for meeting with the District to initiate a cooperative dialogue on appropriate and mutually acceptable air quality mitigation for this project. We have completed our review of the draft environmental impact report (DEIR) for the Route 46 widening to a four-lane divided expressway between Airport Road in Paso Robles and the Highway 41/46 interchange. The project referral indicates that this project will take 6 to 12 years to complete depending on the phase alternatives that are ultimately selected. We have the following comments on this proposal.

I. GENERAL

According to the DEIR, this north San Luis Obispo County project is estimated to exceed the District's Tier 3 emission thresholds for nitrogen oxide (NOx) and particulate matter (PM10 – 10µm and less) emissions. Subsequent discussions between Caltrans and the District have revealed that though Tier 3 exceedances are projected to occur during this project, the key to understanding the emissions and defining proper air quality mitigation will be for Caltrans to select the construction phase alternatives that will be implemented and work with the District to determine the air quality emissions for each phase. Those assessments will allow the appropriate air quality mitigation to be identified by the District in order to bring the impacts to less than significance due to the implemented mitigation measures.

1

San Luis Obispo County's highest ozone concentrations and ozone standard exceedances have occurred in the northern portion of the County. The County as a whole remains out of compliance with the state PM10 standard. In addition, the California Air Resources Board and Air Districts throughout the state conducted a study titled, "Central California Ozone Study", that demonstrated east to west transport of air pollution from the San Joaquin Valley to northern San Luis Obispo County along the Highway 46 corridor. The following mitigation measures should be implemented into the Final EIR (FEIR) to minimize air quality impacts from this north County project's ozone precursor emissions (NOx and reactive organic compounds (ROG)) and to provide reductions in the PM from diesel exhaust (Diesel PM), a toxic air contaminant. The District and Caltrans will work closely together to ensure that mutually agreeable air quality mitigation is achieved throughout this project.

Project Alternatives to Minimize Construction Emissions: To minimize the air quality impacts of this project, the District urges the project proponent to select a compatible combination of alternatives for the four construction phases to meet the following goals:

2

- a. Minimize the overall excavation amount.
- b. Minimize the overall required material.
- c. Minimize the difference between the required excavation amount for a phase and the required material amount needed for that phase.
- d. Minimize the amount of material movement between the phase locations.

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The following is an example of a set of alternatives that seems to match these goals, however Caltrans will need to consider compatibility of alternatives when the final set is selected:

Highway 46 Widening: Estrella to Wye

Alternatives	Required Excavation (yds)	Required Material (yds)	Excess (+) or Import (-) Requirement (yds)
Estrella Alt 8N	1,413,000	1,034,000	379,000
Shandon Alt 1	693,000	745,000	-52,000
Cholame Alt 2	209,000	329,000	-120,000
Wye Alt 4	52,000	78,000	-26,000
Totals	2,367,000	2,186,000	181,000

3

II. CONSTRUCTION AIR QUALITY MITIGATION MEASURES FOR THE FEIR

Many of the District's comments and mitigation measures identified in our January 25, 2000 DEIR Notice of Preparation letter were addressed and incorporated into the DEIR. Since that letter, the District's CEQA Handbook (<http://www.slocleanair.org/business/regulations.asp#ceqa-handbook>) has been updated to include, among other things, methods to address new state mandates and technology advancements. In addition to addressing those changes, the following items should be included in the FEIR to ensure that air quality impacts from this project are adequately addressed. The District believes that these items capture the consensus from the June 3, 2003 meeting between the Caltrans and the District in which we reviewed a draft to this letter:

1. Responsible Party for Implementation of Air Quality Mitigation: Caltrans field inspectors or a qualified individual designated by Caltrans shall be responsible for ensuring that the identified air quality mitigation measures are implemented. In addition to these measures, the inspectors will be responsible for identifying and ordering operation changes to ensure that excessive simultaneous operation of diesel construction equipment does not occur, particularly if that equipment is fairly localized. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior the start of each sub-phase. These individuals shall notify the District should they observe and are unable to correct significant inconsistencies with their air quality oversight responsibilities. District enforcement action will occur if Caltrans or a construction company does not adequately address the identified air quality mitigation measures.
2. NOx, ROG, and Diesel PM Mitigation Measures: To provide emission reductions of diesel exhaust PM, NOx and ROG, the following construction mitigation measures in should be included in the FEIR:

4

- a. Construction equipment shall be operated in proper tune according to manufacturers specifications.
- b. Use only CARB on-road diesel fuel for all diesel-powered equipment used during construction of the project.

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- c. To the extent feasible, use electric grid power to (a) replace electricity produced by diesel-powered generators, and (b) power air compressors and light plants.
 - d. Do not allow diesel equipment to idle for more than 10 minutes.
 - e. Use post combustion, after-treatment control devices on some of the most highly used and highest emitting pieces of non-road diesel equipment during each sub-phase of this project. These devices shall at a minimum reduce diesel PM and ROG emission and potentially reduce NOx as technology advances. The determination of the number and type of equipment that shall be retrofitted with these devices during a sub-phase shall be based on finalized emissions estimates. Caltrans and the District shall discuss and agreed to the level of control prior to the bidding process for each sub-phase. Item "h" under the Future Action Items section III of this letter describes more specifics about this process.
3. Truck Trip Scheduling: Air Quality Minimization Measure 9; p 192: "Schedule truck trips on Fridays, Sundays, and holidays to minimize impacts to traffic flow." Please address the following issue: Qualitatively, District staff has observed that traffic flow on Highway 46 seems heaviest on Fridays, Sundays, and holidays. If this is a valid observation, please change this mitigation measure to minimize the chance of increased emissions from stop and go traffic conditions. The change should be coordinated with the traffic portion of the Best Management Practices and Mitigation Summary.
- 6
4. Truck Trip Routes: The DEIR does not appear to assess truck trip routes and their impacts. Some phase alternatives are projected to have significant material deficiencies and others are projected to have substantial excess amounts of material. While the construction will occur on Highway 46, there are many frontage roads that may be used for material hauling. Many of these intersect with residential communities and may be close to sensitive receptors such as schools, daycare, hospitals or senior centers. Since movement of material either to or between phases could result in high volumes of truck trips, the FEIR needs to identify that the truck routes used for each sub-phase will be identified prior to the bidding process. These routes shall be designed to minimize Diesel PM impacts to communities and sensitive receptors. In particular there are three public schools (Shandon Elementary, Shandon Middle/High School, and Phillips/Freedom Community Day School within the communities neighboring this project. Truck trip routes should be coordinated to reduce impact to these facilities. The District may be used as a resource to help determine the best routes.
- 7
5. Naturally Occurring Asbestos: Asbestos has been identified by the state Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common in the state and may contain naturally occurring asbestos. Under the State Air Resources Board Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities at the site, a geologic evaluation will be necessary to determine if naturally occurring asbestos is present. If naturally occurring asbestos is found at the site the applicant must comply with all requirements outlined in the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. These requirements may include, but are not limited to 1) an Asbestos Dust Mitigation Plan which must be approved by the District before construction begins, and 2) an Asbestos Health and Safety Program will also be required for some projects. Please refer to the District web page at <http://www.slcleanair.org/business/asbestos.asp> for more information regarding these requirements. If you have any questions regarding these requirements, please contact Karen Brooks of our Enforcement Division at 781-5912.
- 8

- 9 6. Asbestos Demolition: Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes/pipelines (transite pipes or insulation on pipes) and can be part of bridges. If utility pipes/pipelines are scheduled for removal or relocation; or building(s) are removed or renovated this project may be subject to various regulatory jurisdictions, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M – asbestos NESHAP). These requirements include but are not limited to: 1) notification requirements to the District, 2) asbestos survey conducted by a Certified Asbestos Inspector, and, 3) applicable removal and disposal requirements of identified ACM. Please notify Tim Fuhs of the APCD Enforcement Division at 781-5912 ten days prior to demolition procedures so the District can ensure the adherence of NESHAP requirements.
- 10 7. Lead Demolition: Demolition of structures coated with lead based paint is a concern for the District. Improper demolition can result in the release of lead containing particles from the site. Sandblasting or removal of paint by heating with a heatgun can result in significant emissions of lead. Therefore, proper abatement of lead before demolition of these structures must be performed in order to prevent the release of lead from the site. Depending on removal method, a District permit may be required. Contact David Dixon from the District's Engineering Division at 781-5912 for more information. For additional information regarding lead removal, please contact County Environmental Health at 781-5544.
- 11 8. NOx and PM10 Tier 3 Exceedance: The DEIR estimates that each phase of this project will exceed the District's Tier 3 significance threshold of 25 tons/year for both NOx and PM10. Due to the size and nature of this project, the typical mitigation measures identified may not reduce the air quality impacts to a level of insignificance. Off-site mitigation is the District's tool to address such significant emissions. The District will work with Caltrans to come to mutually acceptable off-site mitigations should the emissions estimates from a sub-phase or concurrent sub-phases indicate Tier 3 exceedances. Potential off-site mitigation include one or more of the following:
- a. Provide funding to the local school district to implement sulfur-tolerant bus exhaust catalyst/filters to minimize diesel toxic exposures to students, staff, and the local community.
 - b. Provide funding to help establish green waste collection services for the Jardine area, Whitley Gardens, and Shandon to reduce emissions from burning of green waste. Coordination for this measure should be with Paso Robles Waste Disposal (238-2381) and the San Miguel Garbage Company (467-9283).
 - c. Install or contribute to the funding of infrastructure needed to fuel CNG, LPG, or other alternatively fueled vehicles to reduce the emissions and reliance on traditional fuels.
 - d. Contribute to the funding of diesel emission control devices for rental or private construction fleets or transit buses in the County to provide long-term toxic diesel PM, and potentially NOx, emission reductions.

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- e. Provide funding for a Northern San Luis Obispo County Air Quality Mitigation Fund that would be used to pay for projects that would provide effective emission reductions in that region.
- f. Provide funding to retrofit heavy-duty on-road truck fleets operating in the northern portion of San Luis Obispo County with emission control technology that reduces diesel PM and NOx.

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- 9. Phasing: Air Quality Minimization Measure 10; p 192: "Phasing of construction activities, if appropriate," should be modified to "Should Caltrans and the District review of emission estimates indicate that planned construction activities would result in substantial exceedances of the District's Tier 3 emission threshold, then phasing of construction activities will be one option for emission reduction."

- 10. Fugitive Dust Controls: The seven minimization measures (MM-1 through MM-7; DEIR pp.191-192) identified in the DEIR to reduce the nuisance potential from fugitive dust during construction are good steps and should be retained in the FEIR. In addition, the District recommends adding the following measures to be used as a defensible gauge to the adequacy of the PM control measures and to empower the Caltrans oversight inspector or Caltrans appointed individual responsible for dust control to order corrective action be taken when necessary to reduce excessive dust:

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- a. Fugitive dust emissions from any source during this project will not exceed 20% opacity, with the exception of specific pieces of equipment that are allowed to emit at higher opacity limits under a permit. Should 20% opacity be exceeded, the Contractor must expand their dust control effort to bring the emissions to below the limit.
- b. Offsite fugitive dust emissions are not allowed.
- c. The Caltrans oversight inspector or Caltrans appointed individual responsible for ensuring fugitive dust is controlled as outlined in the dust control mitigation shall maintain a current Visible Emission certification to enforce the 20% opacity threshold.

The responsible party for dust control should work with the District enforcement division when necessary to ensure that corrective and or disciplinary action for failure to mitigate fugitive dust emissions occurs. The District may also initiate corrective or enforcement action through the investigation of public complaints.

Since the soil stockpile volumes may be significant, the District suggests that automatic sprinkling systems be installed and regularly checked. Alternative fugitive PM controls for stockpiles may also be used. For example, the piles can be covered with tarps that are held in place by a weight system.

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- 11. General Permit Requirements: Based on the information provided, the District is unsure of the types of equipment that may be present during this project. Portable equipment used during construction activities may require California statewide portable equipment registration (issued by the California Air Resources Board) or a District permit. The following list is provided as a guide to equipment that may

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have permitting requirements, but should not be viewed as exclusive. For a more detailed listing, refer to page A-5 in the District's CEQA Handbook.

- Power screens, conveyors, diesel engines, and/or crushers.
- Portable generators
- Electrical generation plants or standby generators
- Internal combustion engines

To minimize potential delays, prior to the start of the project, please contact David Dixon of the District's Engineering Division at (805) 781-5912 for specific information regarding permitting requirements.

III. FUTURE ACTION ITEMS TO ENSURE SUCCESSFUL IMPLEMENTATION OF REQUIRED EMISSION CONTROL DEVICES:

The following are key issues to be considered during the implementation of the emission control devices:

- a. There are several steps that must take place before the correct emission control devices can be ordered and there can be a significant lead time for orders to arrive. Early planning is essential to ensure that project delays do not occur and that required emission reductions are realized from the start of the project.
- b. As opposed to using off-road emission control devices exclusively as previously outlined in the District's January 25, 2000 letter, on-road emission control devices should also be used if the emission control devices are compatible with the project's on-road fleet.
- c. Additionally operational restrictions or mitigation may be needed should portions of the project be within 1000 feet of a sensitive receptor as identified by the District.
- d. To minimize the logistics of moving control devices between equipment, where possible, high emitting equipment that will be dedicated to this project for all four phases should be chosen to be controlled.
- e. All targeted equipment will be initially inspected by a qualified mechanic and a representative of the catalyst manufacturer prior to installation of controls. An installation, operational effectiveness, and troubleshooting documentation process will be followed according to District direction.
- f. Future technology and device verification processes may provide additional cost effective emission control options as this project progresses.
- g. The District strongly urges that these controls devices be retained on the equipment per manufactures recommendation after the completion of the project to continue emission reductions within the California counties for future projects.
- h. Process for Defining the Number of After-Treatment Emission Control Devices for this Project:
The DEIR (p36) states that the air quality "impacts are very similar for all of the project alternatives." This statement should be altered since alternative combinations can have significantly different construction activity and emissions depending on the number of vehicles, trip length, phase duration, volume of material to be moved within and between phases or to and

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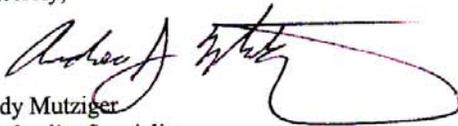
- i. from a stockpile location. The following process will be used to properly define the appropriate number of emission control devices for this project:
 - 1. Prior to the bidding process for each sub-phase, Caltrans shall estimate the construction emissions using an up to date estimate of the requirements to complete the necessary work (including movement of soil to and from a stockpile location) and the construction emission factors for the time period that the work will take place.
 - 2. The District will review these emission estimates and work with Caltrans to define the applicable number and type of control devices to be included in the bid specifications for each sub-phase.

Caltrans has indicated that the actual construction equipment used during a sub-phase will typically change frequently. For example, a backhoe may be rented for a specific task and returned when that task is complete. Below are some ideas for addressing the transient nature of the construction equipment to enable effective emission reduction. Other ideas may also be considered.

- 1. Identify equipment that may be used for a large percentage of the sub-phase and determine if that equipment is appropriate for emission control.
- 2. Target emission controls for portions of the sub-phase that contribute to a significant amount of the overall emissions for that sub-phase or that will have a fairly steady state inventory of equipment throughout the duration of that sub-phase portion. The District NOP response letter dated January 25, 2000 outlined a method for determining the number of control devices that would be appropriate to use during a phase based on the overall emissions estimate from that phase. Since this method of emission control would only control a portion of a sub-phase, the number of control devices to be used on the targeted portion would be scaled up based on the contribution that portion has to the overall sub-phase emission estimate.
- 3. Control a large percentage of the non-road equipment that is 1995 or older since those engines were designed with limited emission controls.

Again, thank you for the opportunity to comment on this proposal. If you have any questions or comments, or if you would like to receive an electronic version of this letter, feel free to contact me at 781-5912.

Sincerely,


Andy Mutziger
Air Quality Specialist

AJM/sll

cc: Karen Brooks: APCD Enforcement Division
Tim Fuhs: APCD Enforcement Division
David Dixon: APCD Engineering Division
Lori Salo Environmental Health

H:\OIS\PLAN\RESPONSE\2167-2b.doc

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your comments regarding conducting air quality analysis for each construction phase and then working with the San Luis Obispo Air Pollution Control District on appropriate measures to minimize impacts to air quality has been noted in the record. Caltrans commits to working proactively with the air board and also feels that it is more productive to work in this manner to ensure that construction air quality impacts are minimized to the maximum extent feasible.
2. Caltrans will try and minimize the overall excavation amount for each construction phase as well as try and balance the entirety of the job to prevent future excavation of borrow sites for construction materials. In addition, prudent construction practices will minimize the number of times material will be handled during phase construction and between phase locations.
3. Your preference of Estrella Section Alternative 8N, Shandon Section Alternative 1, Cholame Section Alternative 2, and Wye Section Alternative 4 has been noted in the record.
4. Per your comment in Section II, #1, page 2, a Caltrans field inspector or a qualified individual designated by Caltrans shall be responsible for ensuring that the identified air quality measures are implemented. Please see Section 3.1.1 of the EA/FEIR for updated language to reflect this commitment.
5. To provide for emission reductions of diesel exhaust particulate matter, nitrogen oxides, and reactive organic gases, the following emission minimization measures from Section II, #2 of your comment letter have been included as recommendations in the EA/FEIR:
 - Construction equipment shall be operated in proper tune according to manufacturers specifications,
 - CARB on-road diesel fuel shall be used for all diesel powered equipment used during the construction project,
 - Electric grid power shall be used to the extent feasible to replace diesel powered generators,
 - Diesel equipment shall not be allowed to idle for more than 10 minutes, and
 - Post combustion, after-treatment control devices shall be used on the most highly used and highest emitting pieces of non-road diesel equipment during each sub-phase of the project. The determination of the number and type of equipment that shall be retrofitted with these devices shall be based on finalized emission estimates calculated for each sub-phase. Caltrans and the Air Pollution Control District shall work together to determine the appropriate level of control prior to the opening of the bidding process for each sub-phase of construction. The specific details of this process are described in more detail in Section 3.1.1.
6. Regarding your comment of truck trip scheduling, the recommendation to schedule truck trips on Fridays, Sundays and on holidays has been reconsidered and the language changed to recommend that truck trips be scheduled to minimize impacts to traffic flow.
7. Caltrans appreciates the Air Pollution Control Districts (APCD) offer to assist us to determine the best haul routes. The EA/FEIR has been revised to include a measure to write a special provision for each construction phase designating routes and areas where the contractor cannot haul. These non-

haul routes and areas shall be designated to minimize impacts to communities and sensitive receptors. Please see Section 3.1.1 of the EA/FEIR for the new language.

8. Your comment regarding the need to adhere to the State Air Resources Board Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations has been noted in the record. Geologic evaluations will be ongoing during the final design for each phase of the project. The geologic evaluations shall be sent to the APCD for review and concurrence on issues dealing with naturally occurring asbestos during the design phase of the project. Any naturally occurring asbestos found during geologic evaluations shall be delineated in the construction contract as such and excavated in conformance with the appropriate requirements set forth in the ATCM.

9. Thank you for the reminder that any asbestos containing materials handled during demolition will be done so in conformance with 40CFR61, Subpart M – Asbestos of the National Emission Standard for Hazardous Air Pollutants. Notification of Mr. Tim Fuhs, or the appropriate person at the air board, shall be given at least 10 days prior to demolition of any known asbestos containing materials for any of the construction phases.

10. All of the proposed project structures proposed for demolition have been tested for the presence of lead in the form of lead-based paint. If needed, a permit to remove the lead-based paint, prior to demolition, shall be obtained from the air board.

11. Caltrans concurs that should the emission estimates from a sub-phase or concurrent sub-phases exceed the Tier 3 significance thresholds for NO_x and PM₁₀, then Caltrans shall work with the APCD to come to mutually acceptable off-site mitigation. Based on new information from the APCD and Caltrans Construction Department, new air analysis was conducted for the project sections. Please see Table 3.1.1-4 for the new estimates of project section construction emissions. The project sections shall be broken up into smaller construction segments and analyzed for potential air quality emissions per the agreement detailed in Response #1 on the previous page.

12. Regarding your comment on phasing, please see Section 3.1.1 of the EA/FEIR for the new language as suggested in your response letter.

13. Regarding the APCD's suggested minimization measures to further control fugitive dust, please see Section 3.1.1 of the EA/FEIR for the new measures. Your suggestion on how to properly control soil stockpiles for fugitive dust has been noted in the record. The Caltrans field inspector or a qualified individual designated by Caltrans to ensure that the identified air quality measures are implemented shall have a current Visible Emissions Certificate to enforce the 20% opacity threshold for fugitive dust emissions.

14. Thank you for the information regarding portable equipment that may need permits. Those items are noted in the record.

15. Regarding your comments in Section III, a – g, your comments have been noted in the record.

16. Regarding the process for defining the number of after-treatment emission control devices for this project, the language contained in the EA/DEIR, page 36, has been altered to better reflect the strategy for the use of these devices. Please see Section 3.1.1 of the EA/FEIR for the new language.

17. The APCD's suggestions as to which pieces of equipment to treat with the after-treatment emission control devices have been noted in the record.



DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

April 28, 2003

DIVISION OF
LAND RESOURCE
PROTECTION

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GRAY DAVIS
GOVERNOR

Mr. John Luchetta, Environmental Branch Chief
Attention: Larry E. Bonner
Caltrans Environmental Planning
50 Higuera St.
San Luis Obispo, CA 93401

Subject: 05-SLO-46 KP Route 46 Corridor Draft Environmental Impact
Report (DEIR) - 2000011033, San Luis Obispo County

Dear Mr. Luchetta:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the DEIR for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments with respect to the project's impacts on agricultural land and resources.

Project Description

The proposed project is the improvement by the California Department of Transportation (Caltrans) and the Federal Highway Administration of State Route 46 (SR 46) from a two-lane roadway to a four-lane divided expressway between Paso Robles and Cholame in San Luis Obispo County (County). The purpose is to improve safety and reduce congestion along the route, approximately 24 miles. Construction will be mostly along the existing alignment, and right-of-way will be purchased along the route. The project has been designed in four sections, each with alternative alignments. Land use along the route is predominantly agricultural - vineyards, grazing and croplands - with limited rural residential and two small communities.

Several thousand acres of important farmland (Prime Farmland, Farmland of Statewide Importance and Unique Farmland) and land under Williamson Act contract and within agricultural preserves lie within a two-mile corridor along the route. Depending on the alternatives chosen, the project proposes to directly convert as much as 33 acres of important farmland and 109 acres of contracted land. Caltrans has utilized the U.S. Department of Agriculture's Farmland Conversion Impact Rating (FCIR)

Mr. John Luchetta
April 28, 2003
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to determine the significance of project impacts to farmland. Section alternatives range from 98 to 126 on this rating, below the threshold of 160 required for protection and mitigation.

The project is determined to have no growth inducing impacts because it will not encourage unplanned growth, the expressway involves controlled access, and the lack of infrastructure in the area will preclude many potential developments. Although several projects potentially impacting farmland are listed for the area, cumulative impacts are not determined to be significant because no specific area of impacts to designated farmland were found, or the projects are located in areas zoned for community development or containing a relatively low amount of agricultural zoning (70 percent).

Summary of Department Concerns and Recommendations

- 1 The Department is concerned about the accuracy and validity of the Farmland Conversion Impact Ratings for this project as well as the reasoning for determining the significance of the project's growth-inducing, cumulative and Williamson Act impacts. The Department recommends that Caltrans re-circulate the DEIR, including reevaluation of farmland impacts and proposals for mitigation measures as required, pursuant to CEQA Guideline §15088.5(a). We also recommend that the appropriate agency provide the Department with required notification regarding any cancellation or public agency acquisition of land under Williamson Act contract. In this regard, we offer the following comments.
- 10

Project Impacts on Agricultural Land

The FCIR does not appear to account for the project's removal of land from Williamson Act contract. Each section alternative is scored zero for Part VI, Item 4: Protection Provided By State And Local Government. Yet, Table 3.3.2-5 shows that each rated alternative removes contract acreage. Rating criteria instructions list two choices - 20 points if the site is protected and zero points if it is not protected. It appears that Item 4 should be scored 20 points for each alternative, thereby increasing the ratings in relation to the threshold. Similarly, based on description in the DEIR that the project area is currently being farmed, it appears that Items 3, 9 and 10, Percent Of Site Being Farmed, Availability Of Farm Support Services and On-Farm Investment, respectively, should be scored maximum points rather than zero. If these revisions are made, the total rating for each alternative exceeds the threshold of 160, and mitigation is required.

- 2 In addition, the Weighted Average Storie Index for the Cholame Alternative 2 appears to be 79 rather than 65, an increase of 14 points for that alternative's rating. The Department recommends that the re-circulated DEIR address these apparent inaccuracies.

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3

In the alternative, Caltrans may want to utilize the California Land Evaluation and Site Assessment (LESA) Model as a measure of impact significance rather than the FCIR. The LESA appears to be a more comprehensive model, including the size of acreage converted, Williamson Act land and surrounding agricultural land. It was developed for projects in California and is recommended by CEQA. The model may also be used to rate the relative value of alternative project sites. The LESA Model is available from the Division at the contact listed below.

4

CEQA evaluation of a project's growth-inducing impacts is not dependent on whether growth is planned or unplanned, as suggested in the DEIR (page 144). Rather, the project should be evaluated as to whether it will likely encourage growth in the area, whether planned or unplanned, or whether it will remove obstacles to growth, thereby making growth more likely. This project improves the roadway, as well as access to and from the roadway. It could thereby make growth more likely to occur or to occur sooner than would be expected if the improvements were not made. It could encourage pressure for zoning changes and infrastructure development, all of which could be determined to be significant growth-inducing impacts. The Department recommends that Caltrans reevaluate the project's growth-inducing impacts according to this rationale.

5

The DEIR states that "no specific area of impacts" to important farmland were found for any of the projects listed in evaluating cumulative impacts (page 170). However, there does not appear to be an explanation as to the basis for this determination. One of the projects listed in the DEIR is the SR 46 improvement project from Cholame to Interstate 5. Although the DEIR does not list farmland as a resource potentially impacted by this project, the Environmental Assessment/Initial Study states that it will convert 125.5 acres of agricultural land, of which 101.03 is Prime Farmland (SCH# 2003041036, page 34). By what reasoning is this conversion considered to be "no specific area of impact?" By what reasoning is the cumulative effect of the two projects' conversion of as many as 133.99 acres of important farmland considered to be less than significant? Also, how does this reasoning support a determination of no significant cumulative impacts when the other 15 projects listed are included in the analysis? At some point, the total loss of agricultural land must be considered significant.

In addition, the DEIR appears to suggest that, because the other projects are proposed for areas zoned for commercial development or areas relatively low in agricultural zoning (70 percent), cumulative impacts are less than significant (page 170). Notwithstanding the apparent significance of development in an area zoned 70 percent for agriculture, the loss of agricultural land should be the basis for determination of significance.

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The project's cumulative impacts do not appear to have been adequately evaluated. The Department recommends that the re-circulated DEIR present a reevaluation that includes consideration of total agricultural acreage to be converted and an explanation of the reasoning for the determination of significance.

Williamson Act Lands

6

The DEIR does not identify the Williamson Act parcels, contracts and preserves impacted by the project. The re-circulated DEIR should provide this information, as well as whether the land is prime or nonprime agricultural land according to Government Code §51201(c). In addition, it should provide a map showing the location of the Williamson Act land within the project study area.

7

The DEIR references CEQA Guideline §15206(b)(3) in stating that a project's impacts are significant if they would "result in the cancellation of a Williamson Act contract for a parcel of 100 acres or more (page 130)." It states that none of the project alternatives would meet this criterion. The CEQA section referenced actually provides one in a list of criteria for determining when a project is of greater than local significance such that it must be reviewed by state agencies. It is not a threshold criterion under which impacts are determined to be less than significant. The Department considers this a significant impact on protected agricultural land. We recommend that the re-circulated DEIR reevaluate the significance of Williamson Act impacts without reference to CEQA Guideline §15206(b)(3).

8

The re-circulated DEIR should also discuss the method planned for termination of the involved Williamson Act contracts. As a general rule, land can be withdrawn from Williamson Act contract only through the nine-year nonrenewal process. Immediate termination via cancellation is reserved for "extraordinary", unforeseen situations (See Sierra Club v. City of Hayward (1981) 28 Cal.3d 840, 852-855). Furthermore, it has been held that "cancellation is inconsistent with the purposes of the (Williamson) act if the objectives to be served by cancellation should have been predicted and served by nonrenewal at an earlier time, or if such objectives can be served by nonrenewal now" (Sierra Club v. City of Hayward).

Only the landowner may submit a petition for cancellation. If cancellation is proposed, the local entity must notify the Department prior to a board or council's consideration of the proposal for tentative cancellation (Government Code §51284.1). The board or council must consider the Department's comments prior to making a decision on the proposal. Required findings must be made by the board or council in order to approve tentative cancellation. We recommend that the re-circulated DEIR include discussion of how cancellations involved in this project would meet required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation. (The notice should be mailed to Darryl Young, Director, Department of

Mr. John Luchetta
April 28, 2003
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Conservation, c/o Division of Land Resource Protection, 801 K Street MS 13-71,
Sacramento, CA 95814-3528.)

Acquisition of Williamson Act land by a public agency for a public improvement, regardless of whether it involves an interest in fee or easement, requires the agency to notify the Department upon consideration of the acquisition (Government Code §51290 - 51292) and to make specific findings. The property must be acquired by eminent domain or in lieu of eminent domain in order to void the contract. The public agency must consider the Department's comments prior to taking action on the acquisition. We recommend discussion in the re-circulated DEIR of whether such action is envisioned by this project and how the acquisition will meet the required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation to the address noted above.

Mitigation Measures

9 The Department encourages the purchase of agricultural conservation easements on land of at least equal quality and size as compensation for the direct loss of agricultural land. We also recommend this ratio if a Williamson Act contract is terminated, or if growth inducing or cumulative agricultural impacts are involved and an increased ratio for projects involving a combination of these impacts. We highlight this measure because of its growing acceptance and use by lead agencies as mitigation under CEQA. **Caltrans District 11, for example, has utilized agricultural conservation easement mitigation.** It follows a rationale similar to that of wildlife habitat mitigation. The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. Agricultural conservation easements will protect a portion of those remaining resources and lessen project impacts in accordance with CEQA Guideline §15370. At least one California court has ruled that conservation easements should be considered as a reasonable mitigation measure for the loss of agricultural land (El Toro Land Use Planning Authority, et al v. County of Orange, et al, San Diego Superior Court #710123, January 6, 1998).

Mitigation using agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of conservation easements or the donation of mitigation fees to a local, regional or statewide organization or agency, including land trusts and conservancies, whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance and the search for mitigation lands conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area.

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Information about agricultural conservation easements and the Williamson Act is available on the Department's website, or by contacting the Division at the address and phone number listed below. The Department's website address is:

<http://www.conservation.ca.gov/dlrp/index.htm>

Thank you for the opportunity to comment on this DEIR. Pursuant to Public Resources Code §21092.5(a), the Department looks forward to receiving your response. If you have questions on our comments, or require technical assistance or information on agricultural land conservation, please contact Bob Blanford at 801 K Street, MS 13-71, Sacramento, California 95814; or, phone (916) 327-2145.

Sincerely,



Erik Vink
Assistant Director

cc: State Clearinghouse

Upper Salinas-Las Tablas Resource Conservation District
65 Main Street, Suite 108
Templeton, CA 93465

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The FCIR forms did contain some inaccuracies and have been corrected. New FCIR forms for “Corridor Type Projects” have been completed. Please see Volume II of the EA/FEIR for the new forms and scores. Specifically, Caltrans and FHWA offer the following additional points of information regarding the forms.

According to 7CFRVI 658.5(b), a federal agency (in this case the Federal Highway Administration) can assign numbers on a “scale of 0 to the maximum”. This was interpreted to mean that a score could be derived through interpolation given an explanation of why scores were interpolated. Staff questioned our Caltrans Headquarters personnel regarding this interpretation. After some research and discussion our Headquarters staff supported this interpretation of the code.

For Part VI, criteria 4, all alternatives have been updated to reflect 20 points rather than the 0 points on the previous forms included in the draft environmental document.

For Part VI, criteria 3, it is estimated that between 80 and 50 percent of the project area has been farmed. Much of the area in the Cholame section has been open rangeland and a conservative estimate of 50%-farmed area was identified for this section. Based on mapping received from the NRCS and San Luis Obispo County Planning, it is estimated that in the Estrella and Shandon sections approximately 80% have been farmed within the past five years. The appropriate scores reflect this.

For Part VI, criteria 9, the conversion of the agricultural lands into a transportation use would not reduce the demand for farm support services so as to jeopardize the continued existence of these services. In fact, the improvements to the highway system would provide additional ease of access to the existing farm services. The forms are scored appropriately.

For Part VI, criteria 10, the conversion of the agricultural lands into a transportation use would be fully compatible with the existing agricultural use of the surrounding farmland. The forms are scored appropriately.

2. Concerning the incorrect weighted average Storie Index ratings, these values were provided by the Natural Resource Conservation Service (NRCS) per the instructions on the FCIR forms. The Department of Conservation is correct that the Cholame Section, Alternative 2 value for the weighted average Storie Index is 79 rather than 65. We appreciate the Department of Conservation catching the inaccuracies of the NRCS. When Caltrans researched all of the values, we found that the value for Shandon Section, Alternative 2 and Cholame Section, Alternative 1 were also incorrect. The corrected Storie Index Rating Calculator spreadsheet along with the corrected FCIR forms can be found in Volume II of the EA/FEIR.

3. The Department of Conservation’s recommendation to use the California LESA model has been noted. Caltrans and FHWA discussed the option of using the LESA model to evaluate potential farmland impacts from the proposed project. It was felt that the FCIR forms were appropriate to use as a tool to assess impacts to farmland. While Caltrans agrees that the LESA model may be a more comprehensive model, it did not find that the potential impacts to farmland from this project warranted an additional analysis.

4. Regarding your comments on growth inducing impacts of the project, Caltrans has made note of your comments and offers the following response. According to the CEQA Guidelines, Section

15144, “While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can”. Caltrans utilized many different methods and tactics to evaluate potential growth in the project area. The analysis of the growth inducing impacts of the project utilized approved methodology to accurately characterize the existing growth and reasonably foreseeable future growth in the area. The project would not introduce any new access points to the highway or new county roads into existing agricultural areas. In addition, the proposed project conforms to all of the growth-related policies, goals, and objectives of the San Luis Obispo County General Plan and would not lead to any intensification of population densities.

Section 15145 of the CEQA Guidelines states that, “If, after thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.” The issue of future unplanned growth in parcels currently zoned agricultural is too speculative to be of any substantive use to the assessment of impacts from the proposed project. The project does improve the roadway but it does not propose additional, new access points to undeveloped areas. In addition, the controlled access nature of the expressway designation would discourage unplanned growth from occurring. In order for growth to occur many changes would have to occur to the zoning, the general plan for the county, and the infrastructure. For all of these needed changes to occur as a result of this project is speculative at best. Thus, future growth in this area is speculative. Upon further consideration and discussion, per your comments, and based upon the analysis of growth inducing impacts in Section 3.3.4 of Chapter 3, Caltrans and FHWA maintain the determination in the EA/DEIR that the proposed project would not result in growth inducing impacts.

5. Regarding your comments on the cumulative impact assessment for farmland resources, the first sentence of Chapter 4, Section 4.1.4 described the resource assessment area as, “a 1.6 kilometer (1.0 mile) radius around the State Route 46 corridor from State Route 101 to the San Luis Obispo County line”. Given this assessment area, it is incorrect to include the impacts to farmland from the adjacent project that extends from Cholame to Interstate 5. Defining a resource assessment area is an accepted and common method for evaluating cumulative impacts and the assessment area, as defined, is reasonable. Given this, the cumulative impact analysis in the EA/FEIR was updated to include the quantifiable information available from the adjacent Route 46 improvement project from Cholame to Interstate 5. However, only the potential impacts from the section of the adjacent project within the resource assessment area were included. There was no designated farmland being impacted by the adjacent project in the resource assessment area for this project. Therefore, the analysis stands as written and the determination did not change as a result of the new information. Please see Chapter 4, Section 4.1.4 of the EA/FEIR for the new information.

6. Please see Volume II of the EA/FEIR, for detailed maps showing the locations of the Williamson Act properties in the project area.

7. Please see Chapter 3, Section 3.3.2 of the EA/FEIR for more information and an additional analysis of the significance of the impacts to Williamson Act contract lands. The conclusions did not change as a result of the new analysis.

8. The entire right of way acquisition process is done under eminent domain law, therefore, as is stated in the Department of Conservation's letter Caltrans will notify the Department of Conservation of the intent to acquire lands from the Williamson Act properties.

9. Regarding the Department of Conservation's comments on mitigation, Caltrans as Lead Agency under CEQA has determined that no significant impacts to farmland would result from the proposed project. Only linear strips of designated farmland would be removed from production along the entire corridor. While these linear strips add up to a moderate amount of acreage, the loss of farmland from this project in San Luis Obispo County is an extremely small fraction of the total designated farmland. Removing the same amount of agricultural land in one large block would result in a greater impact to the overall production from these lands and possibly would require mitigation. However, due to the scale and shape of the impact that would result from the proposed project, mitigation is neither necessary nor proposed at this time under CEQA.

10. Regarding your comments to re-circulate the environmental document, Caltrans and FHWA do not share the Department of Conservation's concerns about the accuracy and validity of the analysis of impacts to farmlands. The analysis of growth inducing impacts, cumulative impacts, and impacts to Williamson Act lands was reevaluated and determined to be adequate under CEQA. Although some changes were made and inaccuracies corrected in the farmland assessment, the determinations did not change as a result. Thus, Caltrans does not intend to re-circulate the EA/DEIR.

7.3 Local Agency Comments and Responses



amcdonald@co.slo.ca.

us

05/23/03 03:58 PM

To: Larry_Bonner@dot.ca.gov

CC:

Subject: Route 46 Corridor Improvement Project

TO: Larry Bonner (Caltrans Environmental Planning)
FROM: Alex McDonald (San Luis Obispo County Parks Division)
DATE: May 23, 2003
RE: Route 46 Corridor Improvement Project

This e-mail is regarding the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR) for the Route 46 Corridor Improvement Project, which would occur along Route 46 from Airport Road, just east of Paso Robles to the eastern most junction of Routes 46 and 41, commonly known as the Wye (in the Cholame Valley). As proposed the improvement project would involve approximately 24.1 miles of state roadway where a new four-lane, access controlled, divided expressway (mostly on the existing Route 46 alignment) would be constructed.

The proposed improvement project area, as was noted in your previous correspondence to me on May 20, 2003, would not impact any existing County Park facilities nor would it interfere with any facilities proposed or currently planned for the immediate future.

The County Parks Division has no comment on this Route 46 Improvement project.

Thank you for the opportunity to comment on this District 5 DA/EIR. If there are any comments regarding this e-mail, please contact me at 805.781.4388.

RESPONSE

Thank you for your review and comments on this important transportation project. Your comments have been noted in the record.



SAN LUIS OBISPO COUNTY DEPARTMENT OF PUBLIC WORKS

Noel King, Director

County Government Center, Room 207 • San Luis Obispo CA 93408 • (805) 781-5252

Fax (805) 781-1229

email address: pwd@co.slo.ca.us

April 29, 2003

Mr. John Luchetta, Environmental Branch Chief
Attention: Larry Bonner
Caltrans Environmental Planning
50 Higuera Street
San Luis Obispo, CA 93401

Subject: Comments on the Route 46E Environmental Assessment /
Draft Environmental Impact Report
05-SLO-46 PM 32.2/56.3

Dear Mr. Luchetta:

We have reviewed the environmental document prepared for the proposed four-lane expressway on Route 46E and would have the following comments.

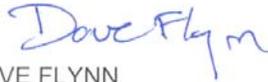
- County would not be interested in taking the newly constructed Branch Road north of Route 46 into the County Maintained System. The existing access at Vintage is a private road access.
- The skewed intersection of Union Road and Route 46 is a concern. Particularly with the number of trucks accessing the landfill. Caltrans is currently working on correcting the skew of the intersection of Vineyard Drive and Route 46W. Would think it is most economical to address the skew issue now versus waiting until safety project is identified in future.
- For the Cholame section alternatives, would believe that the Alternative 1 would provide for a more uniform section. Alternative 2 would likely have access issues for both properties and for unexpected cross traffic locations. For either alternative, the County would not be interested in taking abandoned sections of Route 46 into the County Maintained System.
- Will the project include intersection lighting at significant locations such as Airport Road, Jardine Road, Whitley Gardens access point, Geneseo Road, and McMillian Road? Surrounding area is dark and intersections are not clear in flat terrain, particular at the travel speeds along the road. Would think lighting would improve night intersection turning operations.

- Has there been a study for signalization of Airport Road or Jardine Road intersections? Does the limit of work include the necessary side street improvements to allow for traffic signal installation in future?
- At the Wye, how do the proposed alternatives match with the four lane expressway project coming out of Kern County? Is Route 46 sized for ultimate four lanes through the intersection to tie to eastern project?

As there is a tremendous assortment of potential alignment alternatives without any recommended alternative, let me provide some preference on engineering/cost as this project will require limited STIP funds to construct. For the Estrella section, 9N would provide for the least right of way acquisition, is consistent with the other expressway segments, and eliminates extra mileage of the current Route 46 and existing bridge which would be taken into the County Maintained System. For the Cholame section, Alternative 1 provides the most consistent cross section, reduced right of way acquisition and avoids sections having to be taken into the County Maintained System. As for the Wye section, Alternative 4 seems undesirable with Cholame Valley Road between Routes 41/46. Alternative 9 would be preferable as it creates one intersection and favors Route 46 as the mainline alignment.

Thank you for taking our comments. If you have any questions, please contact me at 781-4463.

Sincerely,



DAVE FLYNN
Traffic Engineer

File: Caltrans – Route 46

L:\Trans\APR03\Route46DEIRcomments.doc.Ind.df

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Comment noted thank you.
2. Union Road and State Route 46 intersection will meet current highway design standards.
3. Comment noted thank you.
4. Safety lighting warrants as listed in the Traffic Manual section 9-08 will be evaluated for each intersection, using existing and five-year projection volumes. This will occur during the final design for each section of the corridor.
5. Airport Road is outside of the project limits and traffic signal warrants have not been evaluated for this intersection. The intersection of Jardine Road and State Route 46 has been evaluated for

traffic signal warrants but does not meet signal warrants with the proposed lane configurations at this time. Side street improvements for possible future traffic signal installation are not included in this project.

6. At the Wye, any of the alternatives would match with the proposed projects in Kern County.

San Luis Obispo Council of Governments



Regional Transportation Planning Agency
Metropolitan Planning Organization
Census Data Affiliate
Service Authority for Freeways and Expressways

Arroyo Grande
Atascadero
Grover Beach
Morro Bay
Paso Robles
Pismo Beach
San Luis Obispo
San Luis Obispo County

June 2, 2003

John Luchetta, Environmental Branch Chief
Caltrans District 5 Environmental Planning
50 Higuera Street
San Luis Obispo, CA 93401-5415

Re: Route 46 East Corridor Improvement Project Draft Environmental Impact Report (DEIR)

Dear Mr. Luchetta,

The San Luis Obispo Council of Governments has reviewed the Route 46 East Corridor Improvement Project Draft Environmental Impact Report (DEIR). Overall, we believe the DEIR is comprehensive and well done. Caltrans has done a fine job in moving this important project forward. Progress has been made over the past years in improving the highway's safety and maintaining its operations through various interim improvements while planning for the highway's ultimate improvements have moved forward. The completion of this DEIR is another step toward that goal. We continue to look forward to the entire stretch of Highway 46 through San Luis Obispo County being completed, but understand this objective will take time. Our specific comments and recommendations are detailed below.

General Comments

- 1 Cost-Sharing – We do not believe that we can sustain future funding at the level of the original cost-sharing. Funding levels at the time of the 1998 STIP were far higher than the current and forecasted levels, and costs of the project have nearly doubled. In addition, a new urbanized area has been dedicated in San Luis Obispo's North County that includes Paso Robles, Templeton and Atascadero. This designation limits accessibility to ITIP funding and will result in the need to program RTIP funds to improve facilities along the urbanized portions of SR 46 and US 101. These facts demand that SLOCOG reevaluate the project's relative funding shares and importance compared to other needs in the San Luis Obispo County Region. However, we will continue to work with Caltrans toward a common approach to funding the many needs on Highway 46. This approach will need to take into account the regional vs. interregional importance of the route as it moves from the urbanized western section of the corridor to the more rural, eastern sections.

- 2 Escalating costs of project - We have been and continue to be concerned with the escalating costs of the project. The costs are rising to the point that we question the fundability of the entire project. As stated above, we must question our continued involvement as a funding partner given other required demands and spiraling costs.

We do recommend reevaluation of the base design features identified in section 2.3.1: full expressway, 80 MPH design speed, minimum 46.3 foot medians. These standards mandate various designs that have contributed to dramatically escalated costs. We recommend that

those segments that have major constrictions or obstacles (such as Cholame) be designated as a conventional highway with lower design speeds and a reassessment of the median widths to a minimum level with a concrete barrier (i.e. in the vicinity of the Tosco Plant). This will allow the ability to minimize the roadway footprint, take advantage of the terrain and allow some utilities within the right-of-way to reduce the approximately \$20 Million in relocation costs.

- 3 • Summary of Impacts and mitigation - A matrix needs to be included that summarizes the impacts of each alternative and proposed mitigation. Summary tables provide the public with a more easily understandable and comprehensive format to evaluate the pros and cons of each alternative.

- 4 • Preferred Alternatives – SLOCOG will provide input on the alternatives that we would support at the next project development team (PDT) meeting, scheduled for June 11th. As noted above, a summary matrix should be provided to compare each alternative, including costs.

Specific Comments

- 5 **Page 9, 2.2 – History of Project** – There should be reference to the findings of the State Route 46 Safety Task Force. This report has formed the basis for mitigating the poor safety record of the corridor while the ultimate improvements are developed.

- 6 **Page 9, Table 2.2.1-1 – Project Action History on State Route 46** – The construction of the existing improvements in the corridor should be identified. These include improvement of the 46/101 interchange, widening of Route 46 east to Airport Road for \$17.2 Million approved in 1998, and construction of two passing lanes between Airport Road and Cholame completed in 1985.

- 7 **Page 11, 2.3.1 – Major Design Features** – As noted above, we believe the design features need to be reconsidered in constrained areas (i.e. Cholame, Shandon Alt 1 and 2, etc.)

- 8 **Page 26, 2.3.7 – Funding and Programming** – The report correctly identifies that the original funding mix for EA 05-3307UO was 47% RTIP (Regional Transportation Improvement Program) and 53% ITIP (Interregional Transportation Improvement Program). It also states that Caltrans will be seeking to maintain this ratio of RTIP/ITIP funding for the EA 3307UO segments. However, SLOCOG believes that the original funding shares established in the 1998 STIP will need to be revisited, as noted above. Please revise the last sentence Section 2.3.7 to read "... additional right-of-way and construction funding will be sought in future STIP cycles and from federal transportation funding sources."

- 9 **Page 26, 2.3.7 - Funding and Programming** – The current funding should be updated to reflect programming in the 2002 STIP and Congresswoman Capps' funding contribution of \$6 Million.

- 10 **Page 40, PM₁₀ Minimization Measures**– We question the recommendation of scheduling truck trips on Friday, Sunday, and on holidays to reduce the impacts to traffic. These times are the most heavily traveled times on Highway 46. This recommendation should be reconsidered.

- 11 **Page 66, 3.1.5 – Noise** – We are concerned with the visual intrusion that the proposed sound wall at receptor 16 will bring. A large wall in this area is out of character in this rural setting. Other alternatives such as an earthen berm, or noise mitigation through building retrofits such as dual pane windows and solid core exterior doors should be considered.

12 **Page 68, 3.1.6 - Topography** – We support the use of slope-rounding, contour grading and other measures to blend cuts and fills into the existing topography. We also support the planting of native vegetation in cut and fill area to quickly reduce visual scars of construction rather than off-site planting.

13 **Page 106, 3.2.1 – Biological Resources (Bats)** – The DEIR clearly states significant impacts to a colony of over 600 bats that are roosting under bridge #49-29. The proposed mitigation is cursory at best and likely ineffective. Retaining the bridge on-site may be the best mitigation but may also conflict with one of the preferred alternatives. More analysis of the impacts to this 600-bat colony and effective mitigation is clearly warranted.

14 **Page 106, 3.2.1 – Biological Resources (Pronghorn Antelope)** – We support the study that is being proposed to investigate the feasibility of vegetated migratory overcrossings and look forward to reviewing it. We believe the study will provide meaningful data for this project and others around the state. We would like to see the study expanded in scope to investigate the relative effectiveness of overcrossings and undercrossing vs. off-site mitigation measures. Off-site measures to be included for study should include habitat protection, habitat enhancements, water provisions, and forage improvements. Following completion of the study, a further review of alternatives in the Wye Section is appropriate. During that review, a detailed comparison of on-site vs. off-site mitigation should be presented. SLOCOG is concerned with the costs/benefits of a major structure that is yet unproven and may not reduce impacts as well as off-site mitigation strategies.

15 **Page 111, 3.2.1 – Biological Resources (Wildlife Movement)** – We support the inclusion of wildlife undercrossings in the project's design. The recommended culverts and box culverts will likely reduce impacts to wildlife movement and improve safety of the highway.

16 **Page 124, 3.3.1 – Visual Resources** – We support the use of the Type 80 Bridge Rail and the proposed aesthetic treatments in the on all replacement bridges.

SLOCOG appreciates all of the work that Caltrans has put into this very important project. We look forward to working toward the completion of the project, which will provide the traveling public with a safer, more efficient highway. We also appreciate the sensitivity to the environment in the project's design. Please contact Darren Brown of my staff or myself with any questions you may have regarding these comments.

Sincerely,



Ronald L. DeCarli
Executive Director

C: Gregg Albright, Caltrans District 5 Director
C: Harry Ovitt, San Luis Obispo County District 1 Supervisor
C: Frank Mecham, Mayor, City of Paso Robles
C: SLOCOG Board
C: The Honorable Abel Maldonado, California State Assembly
C: The Honorable Bruce McPherson, California State Senate
C: File

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1 & 2. Regarding cost sharing and the escalating costs of the project: The Department recognizes that the current and forecasted funding levels of the STIP are significantly reduced from what was shown in 1998. In addition, we are aware that this change will require SLOCOG to reevaluate the project's funding shares and importance compared to other needs SLOCOG has within the county. Escalating costs of the project are also a concern of the Department, but the three primary reasons for the increases are:

- Primarily because of the increased cost of oil, gas, and diesel. Unit costs that contractors are currently bidding for the major items of work of the project have almost doubled from what were shown in the PSR.
- New Storm Water Pollution Prevention Plan requirements mandated by Federal law were not the requirements at the time of the project was initially programmed and that additional cost has to be added.
- Right of way requirements were underestimated in the original PSR.

The base design feature identified in section 2.3.1 (full expressway, 80 miles per hour design speed, minimum 46.3 foot medians) are not a significant contributor to the overall cost escalation of the project but they do make the project more competitive statewide for ITIP funding. During the PS&E phases of these projects the Department is committed to find ways to reduce the cost of the projects that are consistent with the projects' purpose and need and all necessary environmental requirements outlined in the environmental document.

3. Regarding the summary of impacts and mitigation: Due to the size and complexity of the project, a summary of impacts and mitigation prepared in a matrix becomes too cumbersome to lend any real value to the document. Originally, we had begun to prepare a matrix to include in the summary section of the document but based on comments from peer reviewers and technical writers, it was removed.

4. The preferred alternative was selected with your input, for which we thank you.

5. A reference to the State Route 46 Safety Task Force has been included in Section 2.2.

6. Please see Table 2.2.1-1. It has been updated to include the information you have requested.

7. As noted above in response 1 and 2, the request to reevaluate the designed features in constrained areas: Comment noted.

8. Regarding your comment on Section 2.3.7, the 4th paragraph will be rewritten as follows: For EA 05-3307U0, the funding currently is 47% RIP and 53% IIP. In addition, \$48,700,000 for construction and \$10,400,000 for right of way acquisition is currently programmed. There is \$5,629,000 of Federal Demonstration Project funds for the project. Current estimates for the project are construction costs of \$152,100,000 and right of way costs of \$29,300,000. After approval of both the final environmental document and the Project Report, additional right of way and

construction funding would be sought in future STIP cycles and from federal transportation funding sources.

9. The funding and programming section, Section 2.3.7, has been rewritten to include the requested information.

10. The recommendation to schedule truck trips on Fridays, Sundays and on holidays has been reconsidered and the language changed to recommend that truck trips be scheduled to minimize impacts to traffic flow.

11. In consideration of your comment, Caltrans began discussion with the affected property owner. The Caltrans Traffic Noise Analysis Protocol states that if greater than 50% of the residences that would be protected by a sound barrier are against its construction, the barrier will not be built. There is only one affected owner in this location and they have formally expressed their opposition to this noise barrier. As a result, the proposed noise barrier will not be constructed. Screen planting will be provided by the State to reduce the visual effect for this residence.

12. Regarding the use of slope rounding, contour grading and other measures to minimize visual impacts: Comment noted.

13. The EA/DEIR does not state that there are significant impacts to this bat colony. After reevaluation of this portion of the analysis, we have reached the same conclusion, which is included in the EA/FEIR. Many bat habitat mitigation projects have failed, but many have been successful. Successful habitat mitigation projects have mimicked the roosts that were affected—they re-created the thermal and structural characteristics. For this project, the important characteristics to mimic are the shape of the bridge joint where bats roost (a crevice), the thermal characteristics of the bridge deck, and the location of the roost in relationship to the bridge deck. This would best be accomplished on another bridge. The new bridges would have decks with similar thermal characteristics to the existing bridge and would be modified to include crevices that adjoin the bridge decks.

Our staff biologist has over 70 hours of formal training in bat ecology, impact assessment, and mitigation techniques. The mitigation plan represents the best available information.

14. The proposed project must mitigate its potential impact: the potential loss of habitat connectivity. This would be best accomplished by maintaining habitat connectivity. Removing and modifying fence lines on BLM lands would be completed in conjunction with the on-site mitigation (undercrossing structure). But without habitat connectivity, all habitat improvements would be in vain because they would result in isolated populations dependent upon human intervention and costly, perpetual management.

The proposed study on efficacy of crossing structures and potential benefits to the population has been removed as a mitigation measure. Monitoring of the undercrossing structures will be conducted for a period of 5 years to gain understanding as to their efficacy for reducing fragmentation of pronghorn habitat.

15. Regarding your support of undercrossings for wildlife: Comment noted.
16. Regarding your support for using Type 80 bridge rail: Comment noted.

7.4 Public Comments and Responses



Comment Card

NAME: Kelley and Sally Gendron
 ADDRESS: 102 S. Whitley Gardens dr CITY: Paso Robles ZIP: 93446
 REPRESENTING: _____

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

This is to inform you of our opposition to the
Alternative 8 N Plan at the Estrella bridge
improvement area.

We feel the impact on our property is unacceptable
in many ways.

#1 It would make our property unsplittable,
which it is at this moment! OK to split.

#2 the traffic in our opinion would be 10
times more than now

#3 It would remove our only oak tree

#4 Our main view out the front of our
home would be windshields and headlights
because of the higher elevation and the new
frontage road

Please respond by May 15, 2003

Sally Gendron 5/17/03

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The affect of the states' purchase on the remaining property will be evaluated and damages paid as appropriate. This would include the potential loss of value due to the ability to legally divide a parcel.
2. **Page 3** of the Environmental Assessment/Final Environmental Impact Report indicates that this section of the project will experience 18% traffic growth by 2025. Based on the 2002 Annual Average Daily Traffic (AADT) of 11,700 vehicles per day in this area, the AADT will be 13,800 vehicles per day. The traffic for Estrella Section, Alternative 8N and 9N will be the same. However, Alternative 8N will remove the Estrella/Route 46 at-grade intersection.
3. Comment noted. The State would seek to compensate your for this loss by paying to plant oaks on your property.
4. Thank you for bringing this conflict to our attention so that it can be addressed. We intend to plant native tree and shrub species to screen out the headlight glare from the proposed frontage road. The highway planting construction contract will require that plants are irrigated and maintained after installation for a 3-year plant establishment period. All planting will adhere to Caltrans design and safety standards.

MAY 9, 2003

ROUTE 46 CORRIDOR IMPROVEMENT PROJECTENVIRONMENTAL ASSESSMENT/DRAFT ENVIRONMENTAL
IMPACT REPORT: VOLUME I & II

AFTER REVIEWING THIS DOCUMENT I, CHARLES H. UCKER, JR., PREFER THAT THE FOLLOWING ALTERNATIVES BE BUILT FOR THIS PROJECT; ESTRELLA SECTION, ALTERNATIVE 9N; SHANDON SECTION, ALTERNATIVE 1; CHOLAME SECTION, ALTERNATIVE 1; WYE SECTION, ALTERNATIVE 8B.

I PREFER ESTRELLA, ALTERNATIVE 9N, BECAUSE I PREFER THE WESTBOUND TRUCK CLIMBING LANE OVER THE LONGER SPAN OF THE NEW ESTRELLA BRIDGE, AND REDUCING THE 6% GRADE. I PREFER THE SHANDON, ALTERNATIVE 1 BECAUSE OF LESS COST. I PREFER THE CHOLAME, ALTERNATIVE 1 BECAUSE I DON'T LIKE THE SPLITTING OF THE ROADWAY AROUND THE TOSCO OIL PUMPING PLANT. I PREFER THE WYE, ALTERNATIVE 8B BECAUSE:

(1) THE INTERCHANGE LOCATED AWAY FROM THE FLOODPLAIN,
(2) IT WILL ACCOMMODATE THE CONSTRUCTION OF A WILDLIFE OVERCROSSING.

(3) THE CHOLAME CREEK BRIDGE WOULD NOT BE LOCATED OVER A MAPPED SURFACE RUPTURE OF THE SAN ANDREAS FAULT. BECAUSE THIS FAULT CROSSES ROUTE 48 WITHIN CHOLAME CREEK WHERE BRIDGE # 49-36 CROSSES THE CREEK.

FOR THE PAST 2 YEARS I HAVE BEEN MAKING/SENDING COMMENTS TO THE U.S. ARMY CORPS OF ENGINEERS' PUBLIC NOTICES (IN THIS CASE 24573S). THESE PUBLIC NOTICES EMPHASIZE CERTAIN IMPACTS. SO YOU ARE MADE VERY AWARE OF IMPACTS TO WETLAND, AND ANY ANIMALS (THREATENED & ENDANGERED) AND FISHES. SO THAT EVEN THOUGH THIS HIGHWAY
(OVER)

46/41 PROJECT WILL BE SOMEWHAT OF A BARRIER TO NORTH/SOUTH MIGRATION THE ANIMALS MENTIONED IN THE EA/D.E.I.R., THE CONTENTS OF "CHAPTER 3: ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES" (PARTICULARLY THE "AVOIDANCE AND MINIMIZATION MEASURES, BEST MANAGEMENT AND MITIGATION MEASURES") REALLY EXPLAINED TO ME THAT ALL OF THE IMPACTS AND MITIGATION ~~PROBLEMS~~ PROBLEMS HAVE BEEN WELL ANTICIPATED, WELL THOUGHT-OUT & STUDIED. PARTICULARLY WITH REFERENCE TO THE NORTH/SOUTH MIGRATION OF ANIMALS. FOR EXAMPLE THE 36" CULVERTS PLACED AT 0.3 MILE INTERVALS ALONG THE ROUTE; THE 12' X 12' CULVERTS PLACED ALONG THE ROUTE FOR DEER, CATTLE, KITE FOXES, ETC. AS WELL AS THE NUMEROUS BRIDGES THAT ARE SITUATED ALONG THIS ~~2~~ 24.1 MILE ROUTE, AS WELL AS THE OVERCROSSING FOR THE PRONGED ANTELOPE IN THE WYE SECTION, ALTERNATIVE 8B

I THINK THAT THIS PROJECT WILL HAVE A POSITIVE IMPACT ON THIS AREA.

CHARLES H. UCKER, JR.
4909 E. MORSE RD.
LODI, CA. 95240

Thank you for your comments on this important transportation project. Your comments have been noted in the record.

To: John Luchetta, Environmental Branch Chief
Attention: Larry E. Bonner
Caltrans Environmental Planning
50 Higuera St.
San Luis Obispo, CA 93401

May 14, 2003

From: Life on Planet Earth
Post Office Box 173
Paso Robles, California 93447

Subject: Life on Planet Earth's comments on Caltrans' February 2003 Environmental Assessment/Draft Environmental Impact Report (EA/DEIR) for their proposed "Route 46 Corridor Improvement Project".

Dear Mr. Luchetta and other Caltrans decision making staff:

This 7-page letter (page 7 is our signature page) is Life on Planet Earth's (LOPE's) comments on the Subject EIR.

Based on our comments on the illegal segmentation of the project and its environmental documents, lack of true public hearings, need for the project including misleading information on accident and death rates, lack of true alternative analysis including alternative transportation, overall inadequate environmental analysis including lack of analysis of on and off site excavated material impacts, and complete failure to admit to the growth/development inducing character of this proposed project, we strongly recommend that you choose the "abandon the project" alternative in the DEIR.

Our comments on the EA/DEIR are on the following pages.

We challenge the segmentation of this contiguous 63.4-mile project, with a footprint of at least 1 1/2 square miles, into two environmental documents. We challenge the assumption that the eastern 39.2 miles of this massive project will have no significant unmitigated impact on the environment. We challenge the intrusion of CalTrans District 6 oversight, with its obviously lower environmental standards, for 5.8 miles into San Luis Obispo County territory which is rightly under the purview of CalTrans District 5. We ask that a unified EIR/EIS be prepared for the entire 63.4-mile project under a lead agency equally accountable to citizens of San Luis Obispo and Kern Counties, and sufficiently answerable to the public to schedule real public hearings in the area affected by this project. The California Transportation Commission would seem to be one possibility, if they could be induced to meet in the counties affected by this project.

The request for “real” public hearings is necessitated by the false advertising which accompanied the events in Paso Robles and Shandon. Billed as hearings on this EIR, they were, instead, information sessions based on displays and one-on-one dialogue with CalTrans and environmental staff. While such a format is beneficial for getting a visual overview of the project and getting specific questions answered, it is not a substitute for a real public hearing, and would have better been included as an adjunct to a real public hearing rather than as a substitution for such a hearing. While it is true that a court reporter was there to receive comments at the pseudo-hearings, the fact that these comments could not be heard by the public or by the assembled experts denied the public opportunities to understand benefits, impacts and concerns of this project as understood by other members of the public.

A format where the public assembles, with everyone’s comments spoken into a microphone in front of everyone else, has the following irreplaceable benefits:

1: Responses by staff are heard by a cross-section of individuals including project proponents, opponents, those with specific concerns, and those who are simply curious and trying to become informed. In one-on-one discussions, staff people would always be tempted to tailor their answers to the expectations of the person in front of them; there is the risk that different members of the public will leave the event with different “stories.” When all staff responses are given to a diverse audience, staff must answer in such a way that everyone is on “the same page.”

2: Members of the public are sources of information. Whether a member of the public speaks from the perspective of long residence in, and familiarity with, an affected place, or from some particular area of expertise, that person may have information that even the most competent professionals would have missed. In the format of a real hearing, the perspectives of members of the public are heard by other members of the public, creating a fuller view of the project and its impacts than would be conveyed solely by staff. Members of the public would leave such a hearing better informed, and with better-rounded views, than can happen in a pseudo-hearing where only staff views are widely heard.

3: Where particular concerns are raised during a hearing, there is an opportunity for people who share a concern, or who collectively face a particular impact, to get to know each other, and to seek redress in common rather than in isolation. It would seem to be a matter of basic fairness to allow and even encourage this to happen, rather than to have only staff possess the “whole picture.”

4: Individuals at a real hearing quickly have the opportunity to build and manifest a community sentiment. If concerned individuals sense that enthusiastic proponents form most of the audience, such individuals are more likely to move toward seeking specific mitigations for their grievances rather than opposing the project as a whole, while the proponents are confronted with the need to temper their enthusiasm with concern and mitigation for those who suffer adverse effects. Conversely, if an audience fails to manifest support for a project, it provides both CalTrans and the public with the early opportunity to question the inevitability of the project as defined, before said project has consumed too many resources, and to move toward a creative search for alternative solutions for the problems which the proposed project was intended to address.

Turning now to the substance of the EIR, we would question the need for this project. Accident rates on 46 are well below the statewide average for similar roads, while fatality rates are barely above the average. One safety issue that no number of lanes can remedy is that the alignment of the highway is such that for several hours each day, half the drivers are directly facing the setting or rising sun.

While it can certainly be argued that any accidental deaths are too many, preventing them requires a broader questioning of premises than is visible in this EIR. Given how close to average the Highway 46 fatality rate is, the real question is why Californians in general so overwhelmingly choose the private car, with all its risks, as their primary means of transportation,

when travel by bus or train is so many times safer in fatalities per passenger-mile. If safety is the primary motivation expensive highway projects, we should question whether the massive resources committed to those projects would be better spent on bus and rail systems that would attract more travelers away from an inherently riskier form of transportation.

While it would be hard to design a bus system that would meet all the needs of users of Highway 46, no effort has been made to analyze what kind of a dent could be made in use of the risky private car. Why is no alternative project analyzed which would spend the same resources as would be spent by this project, all 63.4 miles of it, in right-of-way, design, construction, and maintenance, to be targeted instead toward other modes of transportation that could obviate the need for this project? Such an alternative would surely save far more lives than the proposed project. The proposed design speed of 80 MPH would likely tempt users to and beyond that illegal pace, with dire consequences in the event of a flat tire or other surprise.

Aside from safety, the other “need” for the project has to do with the capacity issue: Levels of Service and the declining speed that is expected as traffic increases. The allegation is made that the current prevailing peak hour speed, defined as Level of Service “E,” is 40 MPH. This assertion is totally contrary to our experience. What are these “peak hours,” and how often do they occur? Information in the EIR is contradictory. In some places, weekend traffic, particularly westbound on Friday evenings, is cited as the source of maximum congestion. Yet one proposed air quality mitigation reads: “Schedule [construction-related?] truck trips on Fridays, Sundays, and Holidays to minimize impacts to traffic flow.” Shouldn’t the word “schedule” be changed to “avoid?”

By the way, why is Level of Service “E” defined in this EIR as representing a speed of 40MPH, while in the IS/EA on the eastern section of this project, the same level of service is defined as 53MPH. What gives?

Such inconsistencies aside, the broader issue with using time savings to justify this project is that the EIR misses several relevant time factors. For example, how much delay will accrue to the traveling public during the construction phases, and will this time lost ever be amortized back to the public during the lifetime of this project?

The further question is how much taxpayer time will be spent working to earn the hundreds of millions of dollars this project will cost, and how this huge investment of time compares to the time allegedly being saved on the road.

Time on the road, by the way, is not time subtracted from life. It is part of life. Many Californians seem to enjoy being in their cars, and structure their lives in such a way that they spend vast amounts of time there. What information do we have about whether more people would rather spend an extra hour on the road, or the same hour working overtime to pay taxes?

Another question that is hard to quantify is how the alleged (but, as you see, questionable) “saving” of a few minutes by the many weighs against the total disruption of the lives of the few who are in the way of this project. And if we credit wildlife with consciousness (which would be hard to deny), the few subject to total disruption (and possible termination) of their lives become many.

Enough on “need.” Let’s turn to inadequacies of the analysis of project impacts. One huge area of impacts not even broached has to do with offsite impacts of extraction and/or deposit of the monstrous quantities of excavated materials that would be moved around by this project. It is time that such impacts be anticipated and mitigated. Our experience with the Cuesta Grade widening is that major impacts escaped scrutiny. This project had a huge appetite for imported road base, and the impact of that appetite on the source areas of the material (most quarries dig up river beds or chew up mountains) was not mentioned in the EIR on that project. During construction, this demand for material caused San Luis Obispo County to considerably accelerate the rate of extraction from Rocky Canyon Quarry. The Rocky Canyon Quarry did not anticipate this phenomenon. When and where will the offsite impacts of this Highway 46 project be quantified and mitigated?

Given the number of alternatives on the various segments, it is hard to even tell if this project will be net consumer or generator of excavated material. Our calculations based on the numbers given shows that, depending on alternatives selected, the EIR project could be anything from a net importer of 831,000 cubic yards of material to a net generator of 2,694,000 cubic yards! (We have no idea what the figures are for the project as a whole, including the section overseen by District 6.) We were told at the “public hearing” in Paso Robles that the project was expected to be a net generator, and that discussions were ongoing with the Hearsts over the use of the Jack Ranch as a dumping ground for this material. If such an impact on the biologically rich habitat of the Jack Ranch is anticipated, why does it receive no mention in the EIR? Since western phases of this project are expected to be the greatest generators of material (given the huge road cuts west of Whitley Gardens) while eastern phases will tend toward consuming it, and since the western phases will be done first, will there be a temporary

stockpiling of amounts of material well beyond the project's net generation?
How will the land damaged by this use be restored? How will the site or sites
to be degraded by temporary or permanent material dumping be chosen?
What biological assessments have been done to determine the relative levels
of sensitivity on this overall highly sensitive property? How will the lasting
damage be mitigated?

Sincerely,

LOPE (Life On Planet Earth)

Eric Freeman
Elmer B. Garcia
Joe McMillan
Barbara Rose
Phil Ashley

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The limits of this project were established in conjunction with the Federal Highway Administration (FHWA) and meet the requirements of logical termini per the National Environmental Policy Act. Caltrans and FHWA feel that the eastern terminus of this project, at the divergence of State Routes 46 and 41 in the Cholame Valley is a logical terminus in which to evaluate potential project impacts. In addition, Caltrans feels that because the project has a logical terminus that there are no concerns with segmentation per the California Environmental Quality Act.
2. Your comment regarding the public hearing format has been noted. The format used for the public hearing is an approved Caltrans format and has found to be effective based on public feedback. This process is generally respected as a more effective way to conduct public hearings.
3. Regarding your questioning of the need for this project, it is beyond the scope of our analysis to question why, “Californians in general so overwhelmingly choose the private car.” In addition, it is also outside of the scope of our analysis to research interregional multi-modal transportation systems. This project, while large, is intended to alleviate the need that currently exists on the facility that is in place. Chapter 1 of the EA/FEIR details the purpose and need for the project. Please refer to this section for more information.
4. Regarding your comments on levels of service. Level of service is a nationally recognized analysis tool to gauge congestion on roads. Weekend traffic is a source of major congestion on this route and the air quality minimization measure you refer to has been changed to reflect this. Please see the EA/FEIR, Section 3.3.7 for the new measure.
5. Temporary storage sites for excess material and/or borrow sites for needed material will be selected in locations that will ultimately become the future highway as planned. Therefore, the temporary impacts associated with storage and borrow sites have already been accounted for in the analysis of the project’s impacts. If a site outside of the project limits were needed, a separate environmental evaluation pursuant to CEQA and NEPA would be conducted. Any impacts would be disclosed and mitigated to less than significant level. Please see the discussion of borrow sites, disposal sites, and construction staging areas in Section 3.4 of the EA/FEIR.



"LLOYD TADD"
<taddpoles@tcsn.net>
05/18/03 09:34 AM

To: "Larry E. Bonner" <larry_bonner@dot.ca.gov>
CC:
Subject: Hwy 46 four-lane widening project comment card

Lloyd & Pam Tadd
6370 Burgandy Ln.
Paso Robles Ca. 93446
We live in the Vintage Hills area

Yes we wish to be added to the project mailing list.

We would like the following comments filed in the record.

- 1 We see different animals (foxes, skunks, rabbits, hares, and various birds) in the riparian like area behind our property. This area is to be an acceleration lane. How will this change be mitigated?
- 2 We are concerned that with the widening as time goes by traffic and related noise levels will increase. What will be done to keep this noise bearable at ours and neighbors homes. Sound barriers, no jake brake signs and what else?
- 3 If a portion of the back of our property is to be taken how our we renumerated? Who determines the value?
- 4 Also in the acceleration lane area we have a small oak tree, will this be moved or what?
- 5 When the traffic pattern is changed there will be at least twenty times the wear and tear on the road in front of our home, who will be responsible for the maintenance of said one lane road?
- 6 We feel that the vintage hills access road should be left open for use for saftey reasons. If there is some type of toxic spill or other incident at Branch & 46 how will we or the fire department exit? Also if we do have an incident in the area and need to evacuate, how do we get all these residents out of only one exit?

How will we know that these concerns will be addressed? Will there be a reply of some kind for everyone, a meeting or letter? Thank you for your time and attention to these concerns.

Lloyd and Pam Tadd
taddpoles@tcsn.net

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Approximately 126 linear feet of the creek behind your house will be realigned. It will remain as an open creek channel. The loss of wildlife habitat would be mitigated off-site through preservation and enhancement of wildlife habitat. All replacement and enhancement would occur on large landholdings that are within or next to larger preserved areas, to maximize their wildlife habitat value. Possible locations are in the San Juan Valley south of Shandon and in the Temblor Range east of Shandon. In addition, culverts and wildlife fencing will be installed to encourage wildlife to pass under the highway.
2. After construction of the proposed widening project, noise levels on Burgundy Road in the Vintage Hills area, are expected to lessen over what they are today. This is because half the traffic on the route is being moved (about 36 meters [118 feet]) further away from the homes with either alternative. Noise levels that represent the homes on this side of the highway measured 56-dBA in the peak hour. This is well below the 67-dBA⁶⁵ noise abatement criterion level used for this project. This noise level is expected to increase to 60-dBA by 20 years after project completion (based solely on traffic volumes). If traffic doubled, the ambient noise level would increase by 3-dBA⁶⁶.
3. A qualified state appraiser will prepare a market value appraisal and an offer to purchase will be made. The appraisal will consider any damages to the remaining property.
4. The small oak tree directly behind your house is at the edge of the proposed fill slope for an acceleration lane. This tree may be preserved with a treewell that will prevent burying its root system—this will be determined when the edge of fill is marked prior to construction. If the tree is removed, then it will be replaced. Exact areas for replanting have not been determined, but we may seek permission from property owners such as yourself to plant on private property. This would replace the visual screening that would be lost when the trees are removed. Please let us know if you are interested in having the oak tree replaced on your property.
5. Maintenance of the existing private roads within the Vintage Hills area will remain the property owner's responsibility.
6. Currently there is only one entrance/exit to Route 46. The new proposed access opening and expressway will provide for a faster and safer ingress and egress. With a wider intersection and acceleration lanes residents, during a major emergency, would have a faster and safer exit from the community than current.

⁶⁵ Decibels on the A-Scale (weighted for the human ear's response to sound)
⁶⁶ Caltrans Technical Noise Supplement (TENS) Section N-2135.



"Joel Anderson"
<janderson@caltrux.org
g>

05/17/03 04:31 AM

To: <larry_bonner@dot.ca.gov>
cc: <richardb@americanpacific.com>, "Eric Sauer" <esauer@caltrux.org>, "Jan Cox" <jcox@caltrux.org>, <mwinsborrow@caltrux.org>, "Stephanie Williams" <swilliams@caltrux.org>, <prtc1@yahoo.com>
Subject: Support of California Trucking Association for Alternative 4 and Alternative 7 on Highway 46/41

To: Caltrans, District 5
Attn: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401

Dear Mr. Bonner:

The purpose of this memorandum is to advise you to the formal support of the California Trucking Association for Alternative 4 and Alternative 7 on the project of the interchanges of SR 46 & 41.

California Trucking Association's Tri-County Unit advocated this position before CTA's Highway Policy Committee on May 6th, 2003. The Highway Policy Committee adopted the recommendation for support of Alternatives 4 and 7. At the CTA Executive Committee meeting on May 6th, the full Executive Committee, by unanimous vote, approved the recommendation of the Highway Policy Committee for support of Alternative 4 and 7. The transmission of this support to you verifies the recommendation of the full 2,500 member California Trucking Association for Alternatives 4 and 7.

The reason for our support comes from the fact of the extensive use of this interchange for the movement of over-dimension vehicles. Our industry requires a 20 foot clearance to safely transport the industrial and agricultural machinery required by local and statewide commerce. Only Alternatives 4 and 7 meet the 20 foot clearance requirements on the interchange.

CTA respectfully requests your record indicate our formal support for Alternatives 4 and 7. We ask you advise us of any and all further actions you require from us to facilitate the adoption and construction of Alternatives 4 or 7. We appreciate you seeking and listening to our input on the need for a safe design for movement of goods in District 5.

Respectfully submitted

Joel D. Anderson
Executive Vice President/CEO
California Trucking Association
3251 Beacon Blvd
West Sacramento, CA 95691

California Trucking Association promotes trucking industry best practices, shares knowledge among our members and advocates for a safer and more profitable trucking industry

Joel D. Anderson EVP/CEO
California Trucking Association

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. While we have made note of your preference for the Wye Section alternatives, any of the alternatives could be designed with a 20-foot vertical clearance if requirements deem it appropriate.



Harriet Gonzales
<hgonzales@manderle
yproperty.com>

To: larry_bonner@dot.ca.gov
cc:
Subject: 46 Four lane Widening Project

05/14/03 08:41 AM
Please respond to
Harriet Gonzales

Comment Card: I would like the following comments filed in the record.

Re: Vintage Hills Tract

From: Harriet and Robert Gonzales
6110 Burgandy Lane
6130 Burgandy Lane
Paso Robles, CA 93446

I would hope that Cal Trans would seriously consider a sound wall or highway landscaping along the South side of this subdivision to help buffer the tremendous noise of the truck traffic through that area.

I would also hope that the rumble ruts on the side of the road be removed as this also presents a serious noise infringement when vehicles hit this strip.

Thank you.

Sincerely,

Harriet Gonzales

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. After construction of the proposed widening project, noise levels on Burgundy Road in the Vintage Hills area, are expected to lessen over what they are today. This is because half the traffic on the route is being moved (about 36 meters [118 feet]) further away from the homes with either alternative. Noise levels that represent the homes on this side of the highway measured 56-dBA in the peak hour. This is well below the 67-dBA⁶⁷ noise abatement criterion level used for this project. This noise level is expected to increase to 60-dBA by 20 years after project completion (based solely on traffic volumes). If traffic doubled, the ambient noise level would increase by 3-dBA⁶⁸.
2. Noise studies on the effects of vegetation have shown that vegetation does not reduce noise levels unless it is very deep (100 feet) and very dense (cannot be seen through). Given that about half of the traffic is being moved away from houses on Burgundy Lane, we expect noise levels at these residences to decline by a decibel or two after completion of the project.
3. Our Traffic Safety department is reluctant to take out any of the proposed rumble strips as they have been proven to reduce accidents associated with driver inattention. However, we have requested the design department to consider the quietest types of vibration strips, especially in residential areas. A determination of whether these can be included in the project will be assessed during the Plans, Specifications, and Estimates portion of the design process.

⁶⁷ Decibels on the A-Scale (weighted for the human ear's response to sound)
⁶⁸ Caltrans Technical Noise Supplement (TENS) Section N-2135.

NAME: Richard & Patricia Hollister

ADDRESS: 35 S. Whitley Gardens Drive CITY: Paso Robles ZIP: 93446

REPRESENTING: Self

Do you wish to be added to the project mailing list? Yes X No

CALTRANS, DISTRICT 5

ATTN: Larry E. Bonner

50 Higuera St.

San Luis Obispo, CA 93401

E-mail: larry_bonner@dot.ca.gov

We would like the following comments filed in the record:

We believe alternative 8N offers the best for everyone concerned. Safety and financial.

We are under the impression that all twenty acres we own will be taken? Yes or no?

(ASSESSMENT No. 019,241,014).

We look forward to hearing from you.

Sincerely,

Richard Hollister



Patricia Hollister



Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your preference for Estrella Section, Alternative 8N has been noted.
2. At this time, it appears that not all 20 acres of your property will be needed for this project. However, the state could purchase the entire property if the remainder is made unusable by the project. Our Right of Way Department will be happy to discuss and work with you on this matter.



Comment Card

NAME: DAVID MURRAY

ADDRESS: BOX 2681 CITY: Paso Robles ZIP: 93447

REPRESENTING: UNHAPPY OWNERS OF TRACT 22 PROPERTIES

Do you wish to be added to the project mailing list?

YES NO

Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

_____ Regarding the abandonment of Vintage Hills Road and the proposed
 _____ substitute access via the extension of Branch Road for Tract 22: _____

_____ Although necessary, the proposed access changes will negatively impact
 _____ the homes along the Easterly boundary of the tract. These are precisely
 _____ the people who chose to live at the ends of the existing roads. Now
 _____ all the tract traffic will pass these homes. _____

_____ However, some of the negative impacts of the new road can be mitigated
 _____ by constructing a paved road, not a gravel road. This would also mitigate
 _____ the huge amounts of dust generated by the proposed road that would
 _____ be blown onto the Meridian Vineyard by the prevailing NW winds. _____

_____ A gravel road is not sufficient for access to a 100 lot subdivision.
 _____ Current changes by Caltrans must meet current development standards. _____

_____ In addition, it is grossly unfair that a single agricultural property directly
 _____ across from the Vintage Hills access encroachment has been offered a
 _____ lengthy substitute access that is proposed to be paved, not gravelled. _____

_____ How is it that the needs of the 100 lot owners of Tract 22 are less
 _____ important than a single owner across Highway 46? _____

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The northerly extension of Branch Road will be paved.



Comment Card

NAME: Karen Tyler

ADDRESS: 6475 Champagne Lane CITY: Paso Robles ZIP: 93446

REPRESENTING: Karen Tyler

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

Cutting Branch Road through to Champagne Lane
completely changes the character & use of this property
for our family. It will change my house from
being the last house on the last street to being a
corner house on a busy street. Approximately 6
vehicles currently pass by our home each day. If
the change occurs a minimum of 122 vehicles
will pass by. Because my home business requires
extreme quiet, cutting the road through will
ruin my business & force me to move. I am 100%
against cutting the road through to Champagne Ln.
and I will fight against the change with any lawful
action available to me.

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

After thoroughly studying different solutions in terms of access for the Vintage Hills community, Caltrans has concluded that the safest solution is to close the existing Vintage Hills Way access and provide access for the community via a northerly extension of Branch Road. Extending Branch Road through to Champagne Lane is the best solution for the whole community given that the existing Vintage Hills Way also extends to Champagne Lane. Caltrans will pave the extension of Branch Road, which was requested by a majority of the community in this area. Our right of way department will be happy to discuss your concerns with you on this matter.



Comment Card

NAME: Tom + Marie Hinson
 ADDRESS: 6408 Merced Ln, Paso ZIP: 93440
 REPRESENTING: Self, Hinnners, Vintage Hinks

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or
 Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I
 We were glad that you held an open, public meeting regarding highway plans in addition to all of the notices and information that has been printed in our local papers. We were all very impressed with the visual layouts of the projects and all of the wonderful graphics used for them and the handouts that were present.
 I only wonder if some of the money that was spent on all of the colored inks, graphic cut outs and design layouts, and many, many copies, could be used for something even more impressive than your paperwork. Maybe something like a few highway street signs, flash-warn lights near danger zones until construction is in production or future news ads to keep the public up-to-date on how your project is coming along!
 Good old black and white ink on some plain old paper is just fine with us simple folk! We'd like to see more dollars in safety measures, not ink cartridges!

Marie Hinson

Please respond by May 17, 2003

Chapter 7: Comments and Responses

Thank you for your comments on this important transportation project. Your comments have been noted in the record.



Comment Card

NAME: JERRY W SPENCER
 ADDRESS: 1220 NIMBLEY CITY: PR ZIP: 97246
 REPRESENTING: _____

Do you wish to be added to the project mailing list? YES NO
 Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

THE McWILL CYN RD INTERSECTION SHOULD
HAVE AN OVERPASS, THE INCREASING
BUILDING, HOUSING, COMMERCIAL, VINEYARDS
ETC IS GOING TO INCREASE. I CAN
FORSEE A BOTTLE NECK AT THIS
LOCATION
ty

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. At this time, future traffic projections do not warrant the construction of a separated grade interchange at McMillan Canyon Road.

John Comino
P.O. Box 2420
Paso Robles, CA
805 238-7498

April 23, 2003

Caltrans Environmental Planning
John Luchetta, Environmental Branch Chief
Attention: Larry E. Bonner
50 Higuera Street
San Luis Obispo, CA

Re: Route 46 Corridor Improvement Project

Dear Caltrans John Luchetta/Larry E. Bonner:

We have studied the two options available for the Estrella Section (especially for the Whitley Gardens Community). In our opinion the Estrella Section Alternative 8 n E 16 of 18 would provide the safest ingress and egress to Highway 46:

Going both East and West

During high peaks in traffic

foggy conditions -- often because of the river moisture
nighttime darkness

and would handle present and long term future traffic flow better. The Estrella under past would facilitate the movement of agricultural machinery and livestock (sheep) safer and possibly even by-passing Highway 46.

In the last few years the human population, agricultural actives, and additional school traffic have increased. There are more homes, wine grapes, and students. Phillips School has reopened serving a segment of the Paso Robles High School Students. Estrella Section Alternative 9 n in our opinion would still have or even increase the hazardous conditions crossing/entering Highway 46 in foggy conditions or with agricultural machinery.

We appreciate your consideration of our opinion. We hope that these safety issues will be given the attention they deserve. Consideration to a deer protection fencing between Union Road and Estrella is another safety factor as there is a natural migration across Highway 46 in that area. Safety on Highway 46 has been our number one goal since talk of this project started 1996.

Sincerely



John and Blanche Comino

Thank you for your comments on this important transportation project. Your support of Estrella Section, Alternative 8N has been noted in the record. In addition, an undercrossing for deer has been proposed in the area that you noted. The fencing adjacent to the undercrossing structure would be built to exclude deer from the highway in this location and to direct their movements towards the undercrossing structures.



Comment Card

NAME: PAMELA BARRETT
 ADDRESS: PO BOX 406 CITY: SHANDON ZIP: 93461
 REPRESENTING: _____

Do you wish to be added to the project mailing list? YES NO
 Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

WE WOULD LIKE AN OVERPASS AT
MC MILLIAN CANYON RD - SHANDON
TO BE ABLE TO CROSS TO CHAPEL HILL

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. At this time, future traffic projections do not warrant the construction of a separated grade interchange at McMillan Canyon Road.



Comment Card

NAME: JERRY GRANT

ADDRESS: 9255 R HWY 41 CITY: POSO ZIP: 93496

REPRESENTING: BOOTJACK RANCH

Do you wish to be added to the project mailing list?

YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

I AM ALL FOR THIS ESTERLLIA SRV ALTPRMATIVE BY
IFRRL IT WOULD BE MUCH SAFER PLAN,
THANKS

Please respond by May 17, 2003

Thank you for your comments on this important transportation project. Your support of Estrella Section, Alternative 8N has been noted in the record.



Comment Card

NAME: MARION STEPHENS

ADDRESS: 1935 LUCY BR. RD. CITY: CHOLAME ZIP: 93401

REPRESENTING: CHOLAME GREEK CHUCKER & PLEASANT RANCH

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

I CANNOT UNDERSTAND WHY THE OLD ROAD
BASE CANNOT BE ^UUTILIZED ~~IN~~ IN MANY PORTIONS
OF THIS ROAD RECONSTRUCTION. IT SEEMS TO ME
THAT THIS WOULD BE MORE FEASIBLE AND ECONOMICALLY
SOUND.

THIS ROAD IS A DEATH TRAP AS IT NOW EXISTS
AND IT GET WORSE EVERY YEAR. IT CANNOT
HANDLE THE TRUCK TRAFFIC. WE MOVED HERE
20 YEARS AGO AND WE SELDOM ENCOUNTERED
A TRUCK ON THIS ROAD. I WOULD SAY 20% OF TRAFFIC
NOW IS TRUCKS

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. In most locations, the existing pavement will be overlaid with asphalt concrete and be used as two lanes of the proposed four-lane expressway.
2. You are correct that nearly 20% of the traffic on this route is trucks.



Comment Card

NAME: Tim Ribery

ADDRESS: 1001 Little Owl CITY: Paso Robles ZIP: 93446

REPRESENTING: California Taxpayers

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

Since all alternatives will provide an acceptable LOS of
"C" at design year 2025, please use the cheapest
alternatives. California taxpayers would appreciate your
fiscally sound judgement and it helps free up funds for other
projects.

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. One of the considerations in the selection of the preferred alternative was cost. For a majority of the project, the preferred alternative is also the least expensive.



Comment Card

NAME: James Mendenhall
 ADDRESS: 6142 Menlot CITY: Roso Ribles ZIP: 93446
 REPRESENTING: FAMILY

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

1) Branch Road from 46 to Champagne should be paved - assuming it is required from Menloan.

2) There should be a second access to the development - other than Branch Rd.

Mendenhall

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The northerly extension of Branch Road will be paved.
2. Currently there is only one entrance/exit to Route 46. The new proposed access opening and expressway will provide for a faster and safer ingress and egress. With a wider intersection and acceleration lanes residents, during a major emergency, would have a faster and safer exit from the community than current.

To Whom it may concern:

Green River Mutual Water Company wants to bring to the attention of the State of California, the age of the water line crossing 46 East at Whitley Gardens Drive, which is aproximently 76 years old.

Green River Mutual Water Company is recomending the State of California include in it's plan to install a 10" water line for future use at the length that is deemed appropriate for the width of the new Highway.

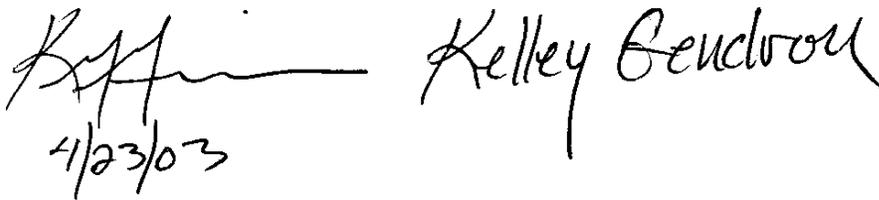
The State of California may also consider, for future use, installing access for a Natural Gas Line.

Thank You,

Green River Mutual Water Company



DENNIS L. BOWMAN



4/23/03

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Thank you for bringing the water line to our attention. The existing 4 inch steel water line will be treated as any other existing utility within the State Right of Way (R/W). The proposed future 10 inch water line and natural gas line will be taken into consideration during the Design and R/W acquisition portions of the State Route 46 Whitley segment of construction.



Comment Card

NAME: James Smith
 ADDRESS: 4940 Estrella CITY: Paso Robles ZIP: 93446
 REPRESENTING: self

Do you wish to be added to the project mailing list? YES NO
 Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

Thank you for your willingness to answer all my
questions - thoroughly
& always get a quick response to my phone calls
and as knowledgeable persons on the line

Am very upset, of course, over losing my home -
we've worked so hard to get it where it is today,
it is very difficult now to work up any enthusiasm
over some projects - knowing it'll all be
temporary
Sad

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. During the design phase we tried hard to minimize impacts to homes and properties. However, in the interest of greater public safety, eminent domain laws allow for the necessary acquisition of homes and properties. Regretfully, your home is one of the few impacted by the project.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The placing of Jersey barrier on two lane conventional highways is useful for preventing crossover head-on type accidents. But it does not prevent run off the road type accidents, often caused by sleepy or distracted drivers. The presence of Jersey barrier also prevents passing at any time, no matter how light the traffic. If a motorist is stuck behind a slower moving vehicle for many miles, frustration levels rise, and passing attempts may be made at unsafe locations. For this reason Caltrans and the Federal Highway Administration decided to construct the proposed project, being a permanent fix, versus a temporary measure such as median barrier.



Comment Card

NAME: Beenda Baker

ADDRESS: 6355 Champagne CITY: Paso Pobles ZIP: 93446

REPRESENTING: self

Do you wish to be added to the project mailing list? YES NO
Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

1) → Tract 22 (North ^{by} Branch) only has 1 Access road for the division. By law, in an emergency - each tract needs two exits. You could make another road → Right turn only from the extreme west side of the Tract

2) Proposed Northerly Branch Road Extension → This road needs to extend clear to Champagne as written and it needs to be PAVED for two reasons. (1) Prevailing winds push dust onto Meridian's grapes → ruining their crop and (2) Paved will reduce noise for homeowners next to the extension

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Currently there is only one entrance/exit to Route 46. The new proposed access opening and expressway will provide for a faster and safer ingress and egress. With a wider intersection and acceleration lanes residents, during a major emergency, would have a faster and safer exit from the community than current.
2. The northerly extension of Branch Road will be paved.



Comment Card

NAME: DOUG SELYEM

ADDRESS: P.O. BOX 882 CITY: PASO ROBLES ZIP: 93447

REPRESENTING: SELF 805-801-2452

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

I OWN A LOT ON (EAST) MERLOT, BETWEEN VINTAGE HILLS WAY
AND THE PROPOSED NORTH EXTENSION OF BRANCH, BY CDF FIRE
STATION. ALONG THE EASTERN BORDER OF THE LOT IS A WATER-
COURSE. A CULVERT UNDER MERLOT FEEDS THE NORTH FLOWING
COURSE. MY CONCERN IS THAT THE RT 46 PROJECT MAY
INCREASE RUNOFF INTO THIS WATERCOURSE WHERE IT
MAY OVERFLOW AND FLOOD MY LOT. THIS LOT IS NOT IN
A 100-YR FLOOD PLAIN. I WOULD LIKE CAL-TRANS TO
LOOK AT THIS SITUATION AND INCORPORATE INTO THEIR
DESIGN(A) FLOOD PREVENTION.

THANK YOU

Doug Selyem

THE PROPERTY ADDRESS IS 6289 MERLOT.

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The project will increase runoff from the roadway in this area from 6 cubic feet per second (cfs) to 12.5 cfs. All runoff from the roadway in this area will be routed to a new detention basin located near the present intersection of State Route 46 and Vintage Hills Way. The detention basin will limit the flow to the original 6.0 cfs.
2. The two culverts crossing the highway east and west of Vintage Hills Way will be extended, but the amount of flow from these culverts will not change. It is separate from the flow coming from the roadway.



Comment Card

NAME: Lambert, Felicia + Richard
 ADDRESS: 5220 Jardine RD CITY: P.R ZIP: 93446
 REPRESENTING: ourselves and residents of Jardine RD (also Fix #46 Comm.tee)
members

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

We have ^{been} living on Jardine RD for SIXTEEN YEARS and
are subject to the traffic on Hwy #46 when we
try to go to town and when we return from
town. The area ^{on} Jardine RD and Hog Canyon Road has
increased in population greatly!!!
The need for a traffic signal at #46 and
Jardine RD is NECESSARY. Please consider this need.
Also we drive to Bakersfield often to see
Loved ones and pray this 4 Lane Highway will
begin building soon!!!
Thank You for all the work of Planning
a Safe Highway #46

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Many people believe a traffic signal to be a cure-all. This belief is not grounded in fact. At best, traffic signals provide for a more orderly movement of traffic through an intersection, provide less delay for side street traffic, and reduce certain types of accidents. They may also, however, increase other types of accidents, notably high-speed rear-end accidents. Signals are a trade-off. In attempting to decrease the incidence of one type of accident, we realize that we may be increasing the incidence of another type.

Traffic signal warrants, based on research, have been developed on the national level in an attempt to define circumstances under which signals may be beneficial. These warrants are based on traffic volumes and on accidents. If warrants are not met, the indication is that a traffic signal will not benefit the location under study, could increase delay and accidents, and should not be considered at the location in question. Ignoring this could result in an increase in the number of accidents and the number of people injured. For the State Route 46/Jardine Road intersection, Caltrans studies indicate that traffic signals are not warranted at this time.



Comment Card

NAME: Wendy Northford (I live in Paso)
 ADDRESS: 708 MAIN ST CITY: CAMBRIA ZIP: 93428
 REPRESENTING: SELF

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

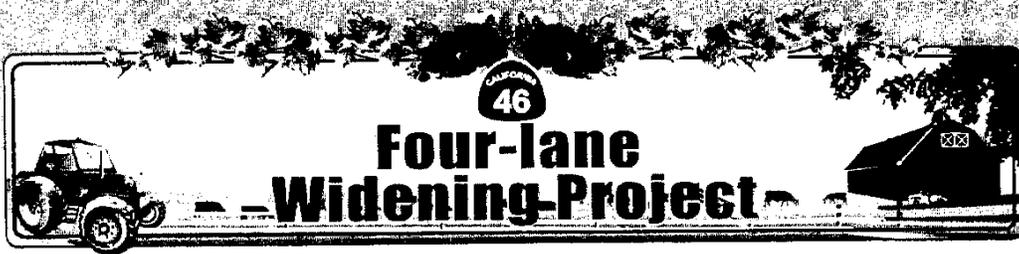
I WAS VERY WORRIED ABOUT THE CONTRACTORS
WOOD LIFE CROSSING HWY. — THANKS
SO MUCH FOR ANSWERING MY QUESTIONS WITH
COURTESY & INSIGHT. I'M GLAD, AND FEEL
VERY STRONGLY, THAT THE TREES WILL BE
REPLACED. INTEGRITY OF THE WOODLAND IS
OF PARAMOUNT IMPORTANCE — AS WELL AS
MITIGATING THE SLAUGHTER OF THE ANIMALS.
— THANKS SO MUCH — WE'LL NEED OAK TREES
IN THE NEXT 100 YEARS AS MUCH AS WE
DO NOW —

Please respond by May 17, 2003

Thank you for your comments on this important transportation project. Your comments have been noted in the record.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your preference for Estrella Section, Alternative 8N has been noted.
2. Your preference for Wye Section, Alternative 4 has been noted.



Comment Card

NAME: Jed Bonner
 ADDRESS: 6050 Champagne CITY: Paso Robles ZIP: 93446
 REPRESENTING: self

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

I would like to see the extension of Branch rd continued all the way to champagne rd. I would also like to see that extension paved. I would also think that some sort of signaling device be employed at the branch/46 intersection. This would help the fire Dept. (CDF) enter the highway

Thank you

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The northerly extension of Branch Road will be paved.
2. Many people believe a traffic signal to be a cure-all. This belief is not grounded in fact. At best, traffic signals provide for a more orderly movement of traffic through an intersection, provide less delay for side street traffic, and reduce certain types of accidents. They may also, however, increase other types of accidents, notably high-speed rear-end accidents. Signals are a trade-off. In attempting to decrease the incidence of one type of accident, we realize that we may be increasing the incidence of another type.

Traffic signal warrants, based on research, have been developed on the national level in an attempt to define circumstances under which signals may be beneficial. These warrants are based on traffic volumes and on accidents. If warrants are not met, the indication is that a traffic signal will not benefit the location under study, could increase delay and accidents, and should not be considered at the location in question. Ignoring this could result in an increase in the number of accidents and the number of people injured. For the State Route 46/Branch Road intersection, Caltrans studies indicate that traffic signals are not warranted at this time.

Flashing beacons at fire station driveways or at intersections immediately adjacent to a fire station may be installed on State highways. The flashing beacon will supplement appropriate signs and be actuated from a non-illuminated state by a switch at the fire station. Caltrans, in conjunction with the California Department of Forestry and Fire Protection, will determine the need for a device of this type at this location.



Comment Card

NAME: Carol Miller
 ADDRESS: 2770 Stonebrook CITY: Paso Robles ZIP: 93446
 REPRESENTING: Self ^{Circle}

Do you wish to be added to the project mailing list? YES NO
 Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

Excellent!

I would like the following comments filed in the record (please print):

TRAFFIC ON HWY. 46 E. HAS INCREASED SUBSTANTIALLY
IN THE THREE YEARS I'VE LIVED IN PASO ROBLES. I'M
ACUTELY AWARE OF THE INCREASE YOU REFERRED TO IN YOUR
INFORMATION SHEET AS I WORK IN A TASTING ROOM
LOCATED ALONG THAT ROUTE.

RECENTLY, I READ ABOUT THIS PROJECT IN THE
TRIBUNE, AND IT'S MY UNDERSTANDING THAT IT WILL TAKE
ABOUT TEN YEARS TO COMPLETE. TEN YEARS IS A LONG
TIME AND I'M CURIOUS TO KNOW HOW EVER-INCREASING
TRAFFIC WILL BE DEALT WITH DURING THIS PERIOD.

Carol Miller

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The ten-year project completion is for the entire corridor project between Airport Road and the easternmost State Routes 46/41 junction (referred to as the “Wye”), and is dependent on budget considerations. The western most segment between Airport Road and Union Road will be ready to begin construction in the spring of 2007 if funds are available, and the other segments will follow as they are ready for construction and funds are available. The sections of Route 46 that must wait for construction will continue to be patrolled by the CHP and monitored by Caltrans for any possible short-term issues that arrive. However, as traffic demand increases, congestion and delay will increase, and the motorists will have to drive with care and patience.



Comment Card

NAME: ANITA RAMBO

ADDRESS: 25 GRACE DR CITY: PASO ROBLES ZIP: 93446

REPRESENTING: SELF

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

I LIVE JUST EAST OF WHITLEY GARDENS DRIVE AND BORDER
HIWAY 46.

THE TRUCK TRAFFIC PARTICULARLY IS UNBEARABLE AT TIMES, INASMUCH
AS THE SEMIS SEEM TO THINK THEY MUST USE THEIR "JAKE" BRAKE TO
GO EAST OR WEST. I HOPE THE NEW ROADWAY WILL ELIMINATE THIS
NEED. IT IS PARTICULARLY HARASSING WHEN GOING EAST ON HIWAY 46
AND TURNING LEFT ON WHITLEY GARDENS DR. THE VISIBILITY IS SO BAD
THAT YOU HAVE TO ALMOST GO BY THE TURN TO MAKE IT. THERE IS TOO
MUCH OF A HUMP THERE.

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Truck traffic currently has to descend a 7% downgrade eastbound near Whitely Gardens, and a 4% downgrade westbound, requiring significant braking. The preferred alternative will descend a 4% downgrade eastbound and a 2.5% downgrade westbound, reducing the need to use compression brakes (jake brakes).
2. In regards to your comment on the visibility near Whitley Gardens Drive, the proposed highway in this vicinity will be designed and constructed to meet current highway standards. The “hump” that you refer to is what is impairing the site distance. The “hump” will be cut down to a point where the site distance is standard for the new highway.



Comment Card

NAME: DENNIS L. BOWMAN
 ADDRESS: 215 S. WHITLEY GARDENS DR CITY: PASO ROBLES ZIP: 93446
 REPRESENTING: GREEN RIVER MUTUAL WATER CO.

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

KELLY GENDRON & I, DENNIS BOWMAN, SPOKE
WITH MR. JOSE M. ARGUELLO ABOUT WATER LINES
CROSSING HWY 46 EAST @ WHITLEY GARDENS.
WE ALSO LEFT A MAP WITH HIM SHOWING OUR WATER
LINES.

KELLY & I REPRESENT THE WATER CO. AND ARE
LOOKING FORWARD TO WORKING WITH THOSE CONCERNED
WITH OUR WATER LINES.

THANK YOU
DENNIS L. BOWMAN
[Signature]

Please respond by May 17, 2003

Chapter 7: Comments and Responses

Thank you for your comments on this important transportation project. Your comments have been noted in the record.



Comment Card

NAME: EDWIN GARDNER
 ADDRESS: 4765 DRY CREEK RD CITY: PARISO CALIF ZIP: 93446
 REPRESENTING: MYSELF

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):
How will noise be addressed for my house?

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Noise levels and traffic counts were measured on Jardine Road in November 2000 and January 2001 as part of the highway noise study. The results of those readings indicated that the contribution of the highway traffic to noise levels along the part of Jardine Road that parallels the highway was 55-dBA. Traffic on Jardine Road was responsible for 65-dBA at the nearest residence to the highway. If 2 noise levels differ by more than 9 decibels, the lower level makes no contribution to the overall sound level. At residences along Dry Creek Road, we predict that the noise level caused by highway traffic is about 55-dBA. This is well below the state's noise abatement criteria level of 67-dBA. If traffic would double, the 55-dBA would be expected to increase by 3-dBA. Since the proposed alternative will move half of the traffic further away from homes on Dry Creek Road, we actually expect a slight decrease in noise levels, 1-2-dBA, upon completion of the project.



Comment Card

NAME: RANDY L. MORRISON
 ADDRESS: 5038 Dry Creek Rd CITY: P.R. ZIP: 93446
 REPRESENTING: HOMEOWNER

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
 ATTN: Larry E. Bonner
 50 Higuera St.
 San Luis Obispo, CA 93401.
 E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

LONG OVER-DUE
Will REMOVE ANY TREES AT NO CHARGE!
805-239-9407

Please respond by May 17, 2003

Thank you for your comments on this important transportation project. Your comments have been noted in the record.



Comment Card

NAME: WAYNE HARRIS

ADDRESS: 820 Sneed CITY: Paso Robles ZIP: 93446

REPRESENTING: Self

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

Attended your Kermit King presentation:

I'd recommend as follows:

at Whitley Gardens plan 8N

Shandon plan Alt. 2

Sholame " Alt 1

Wye " Alt 9

Would also suggest an overpass interchange
at Airport & 46E

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your preference for Estrella Section, Alternative 8N has been noted.
2. Your preference for Shandon Section, Alternative 2 has been noted.
3. Your preference for Cholame Section, Alternative 1 has been noted.
4. Your preference for Wye Section, Alternative 9 has been noted.
5. At this time, current and future traffic projections do not warrant the construction of a separated grade interchange at Airport Road and State Route 46.



Comment Card

NAME: Jerry White

ADDRESS: HC 66 Box 90 CITY: Shandon ZIP: 93461

REPRESENTING: White Ranch Co and Peck Ranches

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

The Peck Ranches need an access road to Highway 46 at station
134 + 00. There has been an access to 46 from the N. side for the
last 27 yrs to move livestock and grain from their fields that total
3000 Acres.

There should also be a frontage road from stations 134 to 145
the same level as the Freeway with the cut in the hillside north of
the road. This would make it easier for ranch trucks and to move
livestock from sections 019-131-015 to 019-131-016.

At station 151 + 00 west, there has been a 60' equipment crossing
for the past 27 years to access the farming ground on the N. and S.
sides of Highway 46. This crossing is vital to the Peck Ranches
farming operations.

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. An access will be provided at approximately Station 134+00, the plans have been revised to reflect this.
2. The decision on the new location of the private access road will be determined during the right of way acquisition process. Your opinions and recommendations will be included at that time in the decision.
3. The existing equipment crossing (box culvert) will be extended. It is actually at Station 134+00.
4. At this time, future traffic projections do not warrant the construction of a separated grade interchange at McMillan Canyon Road.

Box 1, McMillan Cyn Road

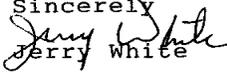
(805) 238-3307

White RANCH co.
GRAIN *Shandon, Calif.* CATTLE

The tunnel for drainage water under Highway 46 at station 134 + 00 should be no smaller than the present one. This tunnel is used to move livestock from one side of 46 to the other, and on occasion equipment.

The intersection at Highway 46 and Mc Millan Road should be an overpass. With the present growth of Shandon and the projected growth of 2000 plus homes, this would be a major mistake to not have an overpass at this intersection. With all the new grape plantings coming into production on the south side of 46 over the next few years, 3000 plus acres, this will have a major impact to this intersection. A stop light in the middle of a 210 million dollar project is not a reasonable solution.

Thank you for your consideration to these workable and reasonable solutions.

Sincerely

Jerry White

Chapter 7: Comments and Responses

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Please see the responses to your comments on the previous page.

Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401

Dear Mr. Albright:

April 25, 2003

Attention: John Luchetta

RE: SLO-46 Widening Comments

This letter is in support of widening the route 46 highway from 2 to 4 lanes. We feel that this improvement is necessary and long overdue. The trees and homes that have to be removed are unfortunate, but necessary for the benefit of the general public and to greatly improve safety on this route. We also feel that after the widening, the free flow of traffic will have a positive impact on air quality. The current congestion, and need for passing slow moving vehicles leads to a stop and go traffic situation.

We strongly support the widening project. We are residents of Atascadero that frequently use this section of roadway.



David A. Wickersham
Nancy S. Wickersham
3365 Liga Road
Atascadero, CA 93422-2605

Chapter 7: Comments and Responses

Thank you for your comments and support on this important transportation project. Your comments have been noted in the record.



Bar Seven Custom Ranching

PO Box 162
Shandon, Ca. 93461
(805) 238-5642
(805) 238-3567 Fax



May 12, 2003

Larry Bonner
Dept. of Transportation
50 Higuera
SLO, CA. 93401

Dear Larry,

This is to express some of our concerns about the Highway 46 Corridor Improvement Project in the Cholame section and how it impacts our property.

At this time our major concern is the time line. We started this process in 1999. At the meeting on April 24, 2003, it was expressed to us by at least two Cal Trans employees that it would take between five and ten years for our section to begin construction. We have waited four years under the impression that the state would be ready by February 2002 (see attachment). At this time our property is not salable to anyone but the state. That is like having an option but not paying for it.

After reviewing the maps given to us by you we have a concern about an easement given by you through us to parcel #017-131-039, Cockrum Garage. As you know this is commercial property which means commercial traffic through us. This is not acceptable.

You requested our comments on this project, but you do not supply enough pertinent information specific to our situation. Are you going to buy all of our property? How much are you offering? When is this going to happen? As this process progresses we may have many concerns, but until you know what you're doing, we have a hard time knowing what we're doing.

Sincerely,

Roger & Sandy Warner

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The Department shares your concern for the projects' timeline. Your property, in the Cholame section, is within the area of the second of the two State Route 46 Corridor projects and that project is not currently funded for either right of way acquisition or construction. With the current State budget constraints, funding for right of way acquisition is now not anticipated before July 2006 at the earliest. Until funding for the purchase of right of way for this project is available, the state cannot purchase any property.
2. Your comment regarding the proposed easement through your property for the commercial property adjacent to you has been noted in the record.
3. The value of your property will be determined by a market value appraisal. It is possible that all your property will be purchased, depending on the alternative selected and the affect to the remaining property.

4232 Shadow Canyon Road
Templeton, CA 93465
May 14, 2003
Ph: 805-238-5246

John Luchetta
Environmental Planning Branch
Caltrans District 5
50 Higuera St.
San Luis Obispo, CA 93401

Judith Lopez
Caltrans District 6
2015 East Shields Ave.
Suite 100
Fresno, CA 93726

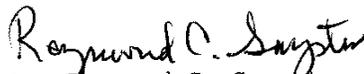
Dear Ms. Lopez and Mr. Luchetta:

We are delighted to know that major improvements in Highway 46 are now well in the works. We have not been able to attend the recent SLO and Kern County environmental impact public hearings. In any case, the impacts in SLO County described in The Tribune seem quite acceptable, and we cannot imagine any major problems in the more open Kern County. Our only comment is that it would be nice to design the new highway to retain whenever possible any major oak trees or groves, e.g., in a widened median strip. This would enhance the beauty of the highway and could improve safety, e.g., by reducing driving monotony. However, our primary purpose in writing now is to emphasize the importance of improving State Highways 46, 41, and 58 to connect US 101 with Interstates 5 and 40. Please refer this letter appropriately within Caltrans.

I-40 should have been terminated at US 101 in Paso Robles, connecting the eastern USA with US 99, I-5, and US 101, rather than in the middle of the Mojave Desert. Note that the transcontinental rail system does continue into the Central Valley. The Mojave freeway gap is now nearly filled by conversion to superhighway of Route 58. But the Central Coast in the 130-odd miles from Monterey and Salinas to Santa Maria has only four second-rate highways connecting with the Central Valley and points East, and no decent connections on from I-5 east to US 99. Coastal folks have a problem getting East, Valley residents in getting to the beaches. Both populations are growing rapidly. We on the coast are tired of being highway-deprived second class citizens, whose freeway travels are expected to be limited by a system designed to force through traffic into the congested LA and Bay areas. We use the present inadequate highways 46/41 to I-5 to escape some of this congestion when traveling to LA and points east or to Oregon. The route 58 superhighway needs to be extended to I-5, route 46 converted into superhighway from US 101 to I-5, and route 41 from route 46 to US 99. The need for superhighway connections from Bakersfield to the Central Coast is made more urgent by the current rapid adoption of containerized intermodal freight transport in the USA. The lack of any direct rail connections west from Bakersfield will lead to growing container transshipment there to trucks heading west, especially as route 46 is improved. It and a new route 58 west from Bakersfield must be designed to handle a massively growing heavy-truck traffic.

We also want to draw attention to the present extremely hazardous passing-lane design at the crest of Highway 46 near the County line. These very short lanes tempt drivers to pass when they cannot get back in the through lane soon enough. Several years ago Kathie was nearly killed one night on a trip from Arizona when she came over the crest and faced an eighteen-wheeler bearing down on her in **her** lane. Only her rapid response of braking and driving off onto the shoulder on her side saved her life. This hazard needs fixing **NOW**, e.g., by no-passing zones on both sides of the crest.

Sincerely yours.


Dr. Raymond C. Sangster


Mrs. Kathie B. Sangster

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Thank you for your comments on the configuration of the States infrastructure. Several of your points and suggestions are matters that should be directed to regional planning authorities in the various counties that the highways bisect.
2. The passing lanes on State Route 41, although short, meet minimum current design standards. There is a project in development at this time to extend the longer westbound passing lane on State Route 41 so that it connects through to the shorter passing lane near the crest of cottonwood pass. Upon completion of this project, that minimum passing lane will be eliminated.



27231 Burbank • Foothill Ranch, CA 92610 • (949) 461-7030 • FAX (949) 461-0440

April 1, 2003

Mr. John Luchetta, Chief
Central Coast Environmental Management Branch
California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

RE: Route 46 Corridor Improvement Project, Impact Report Vol. II

Dear Mr. Luchetta:

I am writing to you in regards to the proposed Route 46 Improvement Project that CalTrans is proposing to build. This project as shown on the Environmental Assessment/Draft Environmental Impact Report, Vol. II affects quite a few acres that my family owns along Route 46. The property in question is the EOS/Arciero Winery and the vineyard land adjacent, as well as my father's ranch in the Shandon area.

The concerns we have are the following:

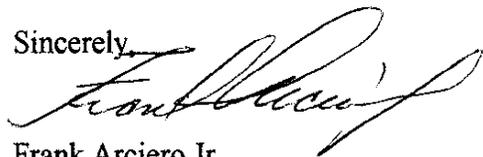
1. How will CalTrans handle the acquisition of all the land it needs for the new proposed right-of-way on parcels 015-031-045, 015-031-044, 015-311-012, 015-311-011, 015-311-015, 015-311-048, 015-031-049 and 015-041-015, which are all part of the EOS/Arciero winery.
2. Also, on parcel 015-031-049, there is shown a proposed easement at the back of the parcel that crosses our property that we are not aware of, nor does it show on our title report.
3. The following parcels are located at my father's ranch in the Shandon area and they impact dramatically existing water wells and storage ponds, as well as the entrance structure to the farmhouse. They are parcels 017-163-002 and 017-163-013.

Mr. Luchetta, I understand that this is a draft Environmental Impact Report, but it does affect our land and we would like to know as soon as possible what CalTrans proposes to do with regards to the impacts this routing will cause us.

BUILDERS AND DEVELOPERS

Your attention to this matter will be greatly appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank Arciero Jr.", written in a cursive style.

Frank Arciero Jr.
Arciero & Sons, Inc.
FAJ/jg

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The acquisition of the various parcels mentioned in your letter will begin with a letter that you will receive entitled “Notice of Decision to Appraise” from one of our Right of Way staff appraisers. This letter will invite you or your representative to accompany our appraiser on an inspection of the property to be acquired. After the appraisal of your property is completed, you will be contacted by one of our Right of Way Acquisition Agents who will meet with you and present the State’s offer to buy your property. That will begin the acquisition process, during which there will be ample time for you to consider the State’s offer and also for any special considerations that may need to be examined.
2. The proposed easement will be negotiated during the right of way acquisition process. Since this is a proposed easement, you would not find it on any existing title reports.
3. Due to the long timeline associated with this project, there will be at least one but more likely several reevaluations of this project as it moves east towards the Shandon area. There will be opportunities to look into changing the design slightly to avoid impacting water wells, holding ponds, and the entrance to the farm. However, if impacts to these resources on your property were to occur, the State would compensate you for the impacts to these features of your property.

**Loretta Gingg
P. O. Box 3659
San Luis Obispo, Ca. 93403**

April 22, 2003

**John Luchetta
Environmental Planning Branch
Caltrans District 5
50 Higuera Street
San Luis Obispo, Ca. 93401**

Dear Mr. Luchetta,

It seems to me that what the environmentalists are saying is that 236 oaks and some toads are more important than saving hundreds of lives on a horribly dangerous stretch of road that has needed to be widened years ago. It shouldn't even be a question of whether it should be done or not.

Shouldn't we see beyond these immediate sacrifices to the overall needs of the majority of the population. Most of those trees can be removed or replaced with very little impact on our environment. How important to the overall scheme of life are these toads. Will the world end if they thin out a little. I'm sure that would be a temporary status if care is exercised to minimize damage.

There has to be a solution. The problem is not going to go away. Thank you for the opportunity to have some input.

Sincerely,



Loretta Gingg

Chapter 7: Comments and Responses

Thank you for your comments and support on this important transportation project. Your comments have been noted in the record.

Mr. John Luchetta,
Environmental Branch Chief
Attention: Larry E. Bonner
Caltrans Environmental Planning
50 Higuera St.
San Luis Obispo, CA 93401

Phil Ashley
For Canyons And Streams Alliance
1586 La Cita Court
San Luis Obispo, CA 93401
756-2505 (work), 544-9741 (home)
May 17, 2003

Subject: Canyons And Streams Alliance's (CASA's) comments on the Draft Environmental Impact Report (DEIR) for Caltrans' "Route 46 Corridor Improvement Project".

Dear Mr. Luchetta and Mr. Bonner:

On Thursday, May 15, 2003, on behalf of CASA I phoned and spoke to Mr. Tom Houston of your District 5 Office in San Luis Obispo. He said that as long as our written comments on the Subject Draft EIR were postmarked by the Saturday, May 17, 2003, DEIR comment period deadline, our comments would be officially accepted as received on time. Therefore we have spent some extra time on our comments and are mailing them at the downtown San Luis Obispo City Post Office on Saturday, May 17, 2003.

Based on all of our following comments, CASA recommends that Caltrans select the DEIR's "abandon the project" alternative-- the only true alternative in the entire DEIR!

Summary (pages i-vi)

The Summary section repeatedly uses terminology for resource categories that is different from terminology for resource categories in the "Environmental Significance Checklist" section of the DEIR. For example, the Summary uses "farmland", "circulation"/"accident rates"/"communities", "prehistoric"/"paleontology", "flood"/"floodplain", and "growth" to apparently mean the same thing as the Checklist resource titles of (in the same sequence) Agriculture, Transportation & Traffic/Population & Housing, Cultural, Hydrology, Land Use & Planning/Population & Housing/Public Services/Recreation/Utilities & Service Systems.

1

CASA recognizes that the Summary is a condensation, but even so it becomes somewhat meaningless when its main resource category titles are so different from resource category titles in other sections of the DEIR, as the Checklist. This is confusing and misleading to the reviewing public and needs to be corrected for consistency of terminology between both sections and anywhere else in the DEIR such inconsistency exists for resource category titles.

The entire Summary is inadequate and lacks integrity. The Summary repeatedly states that there will not be significant environmental impacts to natural, physical, social, and cultural resources as wetlands, farmland (by inference and necessity the DEIR must be including ranchland in the farmland category), circulation/traffic accidents/communities, prehistoric/paleontology, flooding/floodplains, water quality, hazardous wastes, air quality, cumulative and growth impacts, and permits. We disagree with many of these DEIR assessments.

2

However, since the DEIR and its Summary find it easy to explain away significant impacts to many of these important resources, then the Summary, which is usually the first thing most people see and the only thing some people have time to see, should be fair and make it clear that the Biological Environment section (pages 71-116) has determined that there will be many SIGNIFICANT impacts to biological resources. Instead, the Summary hedges and states only that "The most important potential environmental impacts from the proposed project are in the areas of biological resources" and "In addition to habitat and potential habitat impacts, the proposed project would increase the barrier to migration effect of the highway, which would result in an impact to the migration to some of these species." These Summary statements avoid admitting to significant impacts.

Nowhere in the 7 page Summary does the public see mentioned a single significant or cumulatively significant impact on resources! This could cause many people to erroneously stop reviewing the DEIR immediately after reading the Summary. Please admit to significant impacts in the Summary.

Following is partly why CASA does not agree with the Summary that all of these other resources will not be significantly adversely impacted.

3

Wetlands, page iii, paragraph 2: We find it difficult to understand how Caltran's concludes in this section of the Summary that the permanent destruction of 4.87 acres to 11.44 acres of wetlands (as marsh) and other waters (as streams), depending on which build alternatives would be used, is an insignificant and cumulatively insignificant impact.

However the DEIR does not propose to truly mitigate this wetland loss of 4.87 to 11.44 acres. Instead the DEIR concludes that the proposed highway, which would be much larger than the existing 2-lane highway, will improve the quality of existing wetlands at the Wye enough that the proposed project will not have a significant or cumulatively significant adverse impact on wetlands and therefore bonified mitigation in the form of replacement wetlands in the project area is not needed (page iii and page 115, Wetlands & Vernal Pools "Avoidance & Minimization Measures, Best Management Practices, and Mitigation Measures).

Furthermore, the statements that any of the build alternatives "would improve both the function and value of the wetlands in the Wye area" due to "reconnection and restoration of previously fragmented wetland areas" is untenable. The Wetlands & Vernal Pools mitigation section on page 115 shows only one "alternative" (Figure 3.2.1-6 approximately equals "alternative" 8b, page 23) of the 6 Wye "alternatives" shown in the DEIR (pages 18-25) that would be configured in a way to allow some re-connectivity of Wye wetlands on both sides of existing highways 46 and 41. And the DEIR Alternatives section only shows 2 other alternatives (4 & 5, pages 18 & 20) that may be configured somewhat to allow some re-connectivity of the existing Wye wetlands.

So, there is a potential for 3 of the 6 Wye "alternatives" to provide some re-connectivity of the existing wetlands. But this does not mean that any of these 3 "alternatives" would be selected. Even if they were, the DEIR nowhere tells how much of the 4.87 to 11.44 acres of Wye wetlands that would be destroyed by

the project will actually be replaced in new wetland acreage by this DEIR alleged re-connectivity.

Therefore, the DEIR needs to acknowledge and discuss the significant and cumulatively significant adverse impacts of the proposed project's destruction of 4.87 to 11.44 acres of wetlands (counting riparian wetlands) and then discuss truly adequate mitigations and alternatives for these impacts.

4 Farmland (and Ranchland), page iii, paragraph 5: The DEIR determined that no significant impacts to farmland (and ranchland by inference) would result from the proposed project. CASA disagrees. Much of Caltrans' justification for the proposed project is that more traffic would flow faster and more efficiently by the proposed project (the rest of the premise being "improved safety") than under existing conditions (pages 1 & 2). At what point in time did it happen in Caltrans' perspective that small roads turned into big roads with more lanes are not major growth inducing influences in rural areas? Conversions of farmlands and ranchlands will certainly occur much faster with a highway proposed for 80 miles per hour (page 11) than what currently exists, as the movers of goods and services and converters of farmlands and ranchlands to hardscape and grapescape see the new vast development potential of the existing wild and rural land this super highway is proposed to bisect. The DEIR needs to discuss this significant and cumulatively significant adverse impact and provide adequate mitigations and alternatives for it.

5 Access, circulation, accident rates, page iii, paragraph 6: This paragraph states that access and circulation would be improved and accident rates would be reduced by the proposed project. And associated with our preceding comments on farmland and ranchland, the statement that access (on and off the proposed highway) and traffic circulation will be improved by the proposed Highway is a clear admission that the proposed highway will increase development pressures for converting farmlands and ranchlands significantly beyond what the existing road would cause. Improved access and circulation goes hand in hand with accelerated growth to rural areas and that definitely will happen with this proposed project, and the DEIR needs to address this issue thoroughly.

The DEIR fails to provide convincing information to support its premise that the proposed project, being designed for 80 miles an hour, will cause less fatal and non fatal accidents than what would exist under Caltrans' current method of safety measures periodically being done to Highway 46 (Table 2.2.1-1, Project Action History on State Route 46, and related discussion pages 8-9). For example, the DEIR states that the number of fatal accidents on the existing Highway 46 where the project is proposed has been 12 in 6 years (1994 to 1999), and states that this average of 2 fatal accidents per year is below the average for similar roads in the State (page 5).

We do not have the statistics, but Caltrans certainly must related to the local news media seems to be significantly more frequently reporting fatal accidents on Highway 101 than the average of 2 per year stated by the DEIR for the existing Highway 46. When a highway is built for speed, as Highway 101 is, then many motorists will go incredible speeds including the 80 miles per hour being designed for the proposed project. Please provide in the DEIR data on

fatal and non fatal accidents for existing Highway 46 compared to existing Highway 101, since the former, if it is built, would be much like the latter.

Prehistoric and paleontology, page iv, paragraphs 2 & 3: These two paragraphs lead to the DEIR conclusion that the proposed project would not have a significant impact on prehistoric and paleontology resources. We could not easily find data on how much acreage this huge proposed project would destroy. If we missed easily finding this information in the DEIR, we apologize. But if it only exists as nebulously as where we found it on page 102, 324-352 acres of eliminated kit fox habitat (depending on which build "alternatives" would be used), then this is a significant fault with the DEIR that needs correcting. How much land of existing uses that a proposed project will destroy is a major environmental consideration for an EIR and this DEIR needs to address this issue.

How many acres, if any, of this 324-352 acres of kit fox habitat that would be eliminated by the proposed project is the existing highway? It is doubtful that it would be one-third. But even if it would be, contrary to what the DEIR claims, it is hard for CASA to understand how any project proposing to inundate from 216-235 acres (if speculatively one-third of the land to be inundated by the proposed project is the existing Highway 46) to 324-352 acres would not have a significant or cumulatively significant impact on prehistoric and paleontology resources. We believe that it would.

Flooding and floodplains, page iv, paragraph 4: Because the DEIR has failed to readily divulge to the reviewing public how much land this proposed project will inundate with hardscape (unless one meticulously looks for destroyed kit fox habitat), then it might be easy for reviewers to overlook the fact that the proposed 4 lane highway will have significantly more impervious road surface than the existing highway. Page 11 of the DEIR indicates the proposed highway will be about 140' wide with about 80' of that impervious surface (48' for 4 lanes and 30' for shoulders, all depicted as impervious or nearly so by Figure 2.3.1-1, page 11). The impervious surfaces of the proposed highway would be at least twice that of the existing highway.

6

Therefore, the proposed project will create scores of acres of new impervious surface that water will quickly run off of instead of much of it percolating into the soils of the existing situation. This would definitely cause significant or cumulatively significant flooding beyond what exists there now and will significantly or cumulatively significantly adversely impact the existing floodplain that now absorbs much of what the impervious surfaces of the proposed project will not. The DEIR needs to be forthright about this issue and provide adequate mitigations and alternatives for it.

Water quality, page iv, paragraph 5: This is another paragraph of many ignoring logic that this proposed 4-lane highway will significantly increase traffic and growth over what would exist in the future if it were not built. In time there will be far greater numbers of vehicles travelling Highway 46 if it gets built than if it doesn't. The DEIR itself admits to a large pent up desire by Central Valley residents to use this bigger faster highway if it gets built (page 6). We know many people in the Central Valley who are often reluctant to travel to the Central Coast on short weekends with the existing slower Highway 46. That reluctance would be eliminated when Central Valley residents' one-

7

way travel time is reduced significantly from the current 3 to 4 hours (based on DEIR Figure 1.3.2-1, page 2, and that Bakersfield and Fresno are each about 140 miles from San Luis Obispo City).

Therefore, this proposed project will increase traffic and proportionally pavement oil and gas deposits leaked from vehicles. Water quality experts have acknowledged that road pavement pollutants are a significant and cumulatively significant pollutant to the waters of the U. S. during the storm runoff season. The DEIR needs to address these proposed project caused impacts to all streams (Estrella River, Cholame Creek, Dry Creek, etc.) along the route and discuss mitigations and alternatives for them.

8

Hazardous wastes, page iv, paragraph 6: This section may be legally negligent. It completely overlooks the fact that Diablo Canyon Nuclear Power Plant exists in SLO County where this big highway project is being proposed. As necessary disclosure, Caltrans owes citizens of this County a discussion of whether or not the existing Highway 46 and the proposed project meet regulatory standards for the transportation of hazardous nuclear wastes generated at Diablo Canyon. If existing Highway 46 does not meet those standards and the proposed project is being designed for those standards, then a disclosure of this significant difference could cause people in this County, especially those living in north SLO County where this project is being proposed, to oppose the proposed project and its EIR.

9

Air quality, page v, paragraph 1: As the Summary section and DEIR do repeatedly, this paragraph on air quality totally ignores that this big proposed highway project will increase traffic on Highway 46 over time beyond what would exist without the project. It is totally incongruent with everything known about traffic, development, and growth in general to say repeatedly in the DEIR that the proposed project will increase access, circulation, and speed (for example, pages i, 1, 2, 3, 5, 11, etc.) and then contrarily say in the DEIR that these project caused increases will not increase traffic and growth.

One of the significant contributors to air pollution in the Paso Robles air basin is ozone, and the proposed project and the increased traffic it will cause over what would exist without the proposed project will likely significantly and cumulatively significantly exacerbate ozone air quality problems in the interior north SLO County. The DEIR needs to address this problem and provide mitigation and alternatives.

10

Cumulative and growth impacts, page v, paragraph 3: We have already discussed in the preceding paragraphs how this proposed project will cause significant and cumulatively significant adverse environmental impacts including growth. In fact, this paragraph of the DEIR Summary acknowledges that when stating "The proposed project would contribute to cumulative impacts in the areas of noise, farmland (sic) conversion, and habitat loss", while ironically concluding the opposite in this same paragraph by stating "no substantial cumulative or growth inducing impacts would result from the construction of any of the build alternatives"!

So again Caltrans is making the indefensible claim that the construction of large highways do not significantly induce growth and cumulative adverse environmental impacts over what would exist with small roads. If all of a

sudden, beginning with this proposed project and its DEIR, Caltrans' claim is true, then Caltrans is the miracle agency everyone has been looking for to solve growth and its cumulatively significant and significant environmental impacts-- the solution, just replace small highways with big ones.

Caltrans makes another untenable statement in this paragraph when it claims "Due to the limited access of the expressway, none of the alternatives would encourage unplanned growth". This short statement incredibly has multiple major faults.

First, is Caltrans saying that only "unplanned growth" can have a significant or cumulatively significant environmental impact? If that were the case, we might as well eliminate CEQA altogether because ever since General Plan laws were passed in California, all growth is planned growth. But because of the universally recognized significant and cumulatively significant environmental impacts associated with this planned growth, General Plan element updates are accompanied by full CEQA analysis and disclosure! And in any case, growth is growth whether planned or "unplanned", and in any case the environmental impacts of that growth must be dealt with and not avoided as this inadequate DEIR is repeatedly doing.

Second, the statement that the expressway has limited access and therefore the proposed project will not encourage growth is untrue. The DEIR itself refutes this claim stating "The project vicinity varies from an urban setting in the west to rural in the east, with many access openings to the highway within the project limits" (page 5) and "All of the build alternatives would improve access".

Third, even if these opposite conclusions by the DEIR that the proposed project would have "many access openings" were wrong (they aren't wrong), that would have little or nothing to do with the growth inducing impact of this proposed project based on similar situations in interior North SLO County. There are only 3 or 4 access openings to Highway 101 in the approximately 10 miles between Paso Robles and Atascadero. But would Caltrans likewise try to argue that in the decades since 4-lane Highway 101 was built replacing the old rural 2-lane highway, that the much larger existing Highway 101 has not had a major influence-- beyond what the old 2-lane road would have had-- on the nearly complete development buildout on both sides of the Highway 101 corridor between Paso Robles and Atascadero?

Finally, this Summary paragraph makes another indefensible statement saying "Growth in the rural areas would be limited by lack of adequate infrastructure (water and sewer). If there is such a lack of water in the Paso Robles water basin, which this proposed project is in, then how are the thousands of acres of irrigated grapescape planted in the last 10 years growing so well? And how has the lack of existing sewage and other public utilities/facilities stopped new growth along other highway corridors in the mild, oh-so-buildable valleys of California when major highways replaced 2-lane roads in once rural areas?

The DEIR needs to admit to and discuss the significant and cumulatively significant growth and other cumulative impacts that this proposed project would cause and discuss mitigations and alternatives for them.

Permits, page vi, paragraph 1: This section of the DEIR Summary states that federal natural resource trust agencies that have permitting authority over this proposed big project have "concurred with the purpose and need" for the project. We did not know it was the legal charge of any of these environmental trust agencies to concur with the purpose and need of these kinds of development projects.

11

Where in CEQA and the National Environmental Policy Act (NEPA), or any other rightfully enacted law is this "concurrence" with developers required from environmental trust agencies that have the rightfully enacted legal charge to protect the environmental resources of the U. S. and California? Please answer this question in the DEIR because the existing inadequate DEIR provides none of this legal information that we can find.

Instead Caltrans provides in Volume II of the DEIR Appendix K titled National Environmental Policy Act 404 memorandum of Understanding Concurrence Letters. How does a NEPA memo (letter) of understanding rise to the legal level that federal trust agencies must under CEQA and NEPA provide "concurrence" with developers such as Caltrans? They can probably do this if they want based on a letter of "understanding", but what difference does it make based on the true charge of these public trust agencies to protect natural resources?

We believe that it serves no logical purpose for Caltrans to make this "concurrence" claim in its DEIR other than to potentially cause the public to be less careful in its environmental review of the proposed project and its DEIR. After all, why waste a lot of time reviewing the DEIR when the public trust agencies "concur" with Caltrans on it, implying that all environmental matters have already been adequately taken care of for this proposed project.

In fact, in this Permits section of the DEIR Summary, Caltrans furthers this misleading claim that the public can be assured that adverse environmental impacts from the proposed project have been taken care of when it states "early and frequent coordination, a cornerstone of this process, has resulted in the reduction of many potentially significant impacts".

However, CASA's review of the DEIR indicates this claimed "reduction of many potentially significant environmental impacts" due to this "early and frequent coordination" (DEIR, page vi) is not true, as these written comments indicate throughout.

If CEQA and/or NEPA truly legally require interagency "concurrence" coordination from environmental trust agencies with developers as Caltrans, instead of only the widely known required coordination to protect the public's and all other species natural resources, then why are only letters of "concurrence" from federal trust agencies provided in Appendix K? If letters of "concurrence" had any coordination legal merit for a CEQA project such as Caltrans' proposed project, wouldn't letters of concurrence also be "required" from California trust agencies? Please answer this question in the DEIR.

Finally despite the DEIR's claims about "concurrence" and "early and frequent" coordination, besides the lack of evidence in the DEIR of this "concurrence" by State natural resource trust agencies, there is evidence in the DEIR that this "early and frequent" coordination has not effectively

occurred. For examples, in their responses to Caltrans' Notice of Preparation (Vol. II, Appendix G), CDFG provided a very brief, neutral letter and the California RWQCB provided strong recommendations on wetland protection and mitigation that Caltrans is ignoring in the DEIR.

In their letter, the RWQCB states "According to the California Wetlands Policy the project must ensure no overall net loss and achieve a long-term net gain in the quantity, quality and permanence of wetland acreage and values in California. The Regional Board prefers to avoid any loss of wetlands. If loss is unavoidable, a mitigation plan should be developed and implemented to achieve at least a 3:1 replacement ratio". Instead of doing this for the DEIR's stated permanent loss of 4.87 to 11.44 acres of wetlands, as we have already commented, the DEIR claims this big expressway would improve the quality and quantity of wetlands due to some "re-connectivity" of the existing Wye wetlands if possibly one of three (4, 5, 8b) of the 6 Wye alternatives were chosen, therefore, no other mitigation is needed to replace wetlands at no net loss or at a 3 to 1 replacement to loss ratio.

As we already stated, the DEIR needs to acknowledge these significant and cumulatively significant impacts to wetlands in the DEIR and provide true mitigates and alternatives for them.

Chapter 5: Environmental Significance Checklist (pages 179-189)

12

In our comments on the DEIR Summary we addressed most of the natural, physical, social, and cultural resources that are listed in the Environmental Significance Checklist (Checklist) that both the Summary and Checklist indicate environmentally significant or cumulatively significant impacts would not occur to from this proposed project and CASA believes that they will occur. So to avoid repetition, here we will primarily only address those resources that were not discussed in the Summary of the DEIR and are indicated in the Checklist as the proposed project not having a significant impact on them. When in reality we believe a significant and/or cumulatively significant impact would occur to them.

5.2.1 Biological Resources (page 184): We made comments on the DEIR Summary regarding biological resources and we will make further comments on the Biological Resources section (3.2 of the DEIR) demonstrating that although we agree with the Checklist regarding its conclusion that "Potentially Significant Impacts" will occur to biological resources, we believe that more significant impacts would occur to biological resources than the Checklist indicates (for example, wetlands, raptors, wildlife road kills, oak habitat, etc.) and that mitigations claimed in the DEIR to reduce some of these impacts to less than significant and cumulatively significant are very inadequate and do not reduce these impacts to less than significant or cumulatively significant. Therefore, the DEIR needs to admit to, discuss, and adequately mitigate for and provide alternatives to these additional biological impacts we cover in our comments on the Biological Resources section of the DEIR.

5.4.4 Land Use & Planning (page 186): Land use and planning were not covered in the Summary and they should have been. We disagree with the Checklist conclusion that "Potentially Significant Impact", and cumulatively

significant impacts, will not occur to land use and planning. Currently, as the DEIR has indicated in several places, most of the proposed project is in rural lands ranging from more community, grapescape, farm, ranch, and ranchette development to the west to more truly wild and rural to the east (pages ii, 71, 72, 76, 77, etc.).

The replacement of the existing mostly 2-lane road with the proposed 4-lane expressway combined with California law mandating that SLO County build thousands of new houses in the foreseeable future, further combined with County planners' and Supervisors' continual talk of creating 2 or more new County communities to comply with the State's growth mandate, means that the mild valley land all along the Highway 46 corridor will be a prime candidate for one of these new communities, or, if not actual communities, at least many more houses along the Highway 46 corridor.

And much of this potential future growth in the North County along the Highway 46 corridor will hinge on Caltrans building this proposed expressway to handle all this potential future growth, because the existing road would not handle it. In many cases the County will be very reluctant to change existing zoning in the County Land Use Plan from current more rural zoning to more dense residential zoning along the Highway 46 corridor unless Caltrans builds this proposed project! So we draw Caltrans' attention to "b)" under Land Use & Planning in the Checklist which in reference to the proposed project states "Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?".

Obviously, based on the forgoing discussion, if Caltrans builds this project, it will cause significant repeated changes to the County's General Plan and Zoning Ordinances. It is time that Caltrans got out of its self-induced vacuum on the significant growth-inducing aspects of this proposed project and discuss this issue in detail in the DEIR and provide mitigations and alternatives relative to this issue. The overall DEIR is so inadequate in this respect that a new DEIR needs to be done for the public to review instead of a Final EIR being done.

Caltrans doing a new DEIR to replace this very inadequate one is especially important because contrary to what Caltrans erroneously told the media and they reported, as the 2 Telegram Tribune articles (April 22 & May 5) and New Times summary article (April 24 - May 1), Caltrans held no true public hearings on this proposed project. There were no hearings where people could orally testify and other people could hear them and the media could report their concerns, pro and con, in the news. Instead Caltrans held project promotional workshops where people could be sold the merits of the project by Caltrans staff and project proponents milling about. And if someone was upset with this NO-TRUE-HEARING format, as we were, then Caltrans told them that they could quietly go over to the "public" recorder and privately complain about the process.

This is a terrible excuse for what a real hearing is meant to accomplish-- a fair public arena where the public and the media can hear everyone else's concerns pro and con about the proposed project as a necessary process in the overall decision making process. But Caltrans' "public hearing" process was so

sanitized in order to avoid controversy and adversity and to promote project consensus (this is what Caltrans staff told us) that the members of the public and news media that were there could not reasonably hear from other members of the public what their concerns and issues with the proposed project were. This obviously explains why, contrary to standard local newspaper procedures, the Tribune and New Times provided no followup articles immediately after the "hearings"-- there was no public news to report due to Caltrans eliminating it at the "hearings"!

Public hearings are meant to publicly air controversy and adversity over proposed development as a necessary step in the public's and public agencies' decision making process? However, Caltrans' effective silencing of the public at its alleged "public hearings" is remindful of the closed door hearings held in the McCarthy era of the early 1950's.

Whether or not CEQA speaks to how agencies conduct their public hearings, it is very doubtful that the drafters and legislative passers of CEQA ever imagined that agencies (as Caltrans is doing) would systematically prevent the public from being reasonably heard by the public and media at public hearings.

Caltrans not only needs to do a new DEIR due to their major misrepresentation in the existing one that the proposed project will not cause increased traffic, growth, development, etc., but also because contrary to what Caltrans told the media and they therefore erroneously reported, there never were any public hearings on this proposed project!

5.4.5 Population & Housing (page 186): We made comments on "Growth" discussed in the Summary and those comments apply to "Population & Housing" in the Checklist-- that is, contrary to what the Checklist indicates the proposed big highway project will have significant and cumulatively significant growth inducing impacts including population and housing and the DEIR needs to discuss these impacts and provide adequate mitigations and alternatives for them.

5.4.7 Recreation (page 187): Section "b)" under "Recreation" in the Checklist states "Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?". As we have already commented on, contrary to what the DEIR indicates including in the Checklist, this proposed expressway would have significant increased traffic, growth, and population impacts on the environment including Central Coast recreational parks along the Pacific Ocean. In fact, the DEIR admits on page 6, paragraph 2, that there is a big demand by Central Valley residents for this project to be done to facilitate their ability to get to the coast for weekend recreation.

The increased recreation that the proposed project would cause on natural coastal parks would have significant and cumulatively significant adverse impacts on wildlife and their habitat in these coastal parks. And this increased recreation would necessitate building more facilities in these parks to accommodate this increase in recreation, and the construction of these park facilities would further have cumulatively significant and significant adverse impacts on the natural resources of these coastal parks. The Checklist and DEIR need to admit to and discuss the adverse impacts that this project-caused

increased recreation would have on coastal natural resources and need to discuss mitigations and alternatives for these impacts.

5.4.8 Transportation & Traffic (page 187): The DEIR Summary did not directly address the increased transportation that this proposed project will cause. However, based on our preceding comments that the proposed project would cause significant and cumulatively significant increases in traffic (and transportation), the Summary, DEIR body, and Checklist need to admit to this and adequately discuss it and provide mitigation and alternatives for it. And as part of this important new DEIR discussion, all such erroneous statements as "The Route 46 Corridor Improvement Project would not increase vehicle trips" (Chapter 4: Cumulative Impacts, page 168, last paragraph), need to be eliminated from the DEIR.

5.4.9 Utilities & Service Systems (page 188): As with all our preceding comments that the big proposed expressway project will cause growth and associated significant and cumulatively significant adverse environmental impacts, so too will it cause the need for growth in utilities and service system along the Highway 46 corridor. In this respect we especially draw Caltrans attention to sections as "b)" and "c)" under Utilities & Service Systems, since the proposed project and the growth it would cause if it is built will also cause the need for the construction of new or expansion of existing water and wastewater treatment facilities, and the construction of new or expansion of existing storm water drainage facilities. The Checklist and DEIR need to acknowledge and address the significant and cumulatively significant impacts to utilities and service systems that the proposed project would have and provide mitigations and alternatives for these adverse impacts.

5.5 Mandatory Findings of Significance, "b) Does the project have impacts that are individually limited, but cumulatively considerable?" (page 189): We have already discussed in our preceding comments that the proposed project will have at least cumulatively significant impacts on wetlands, farmland and ranchland, prehistoric and paleontology, flooding and floodplains, water quality, air quality, cumulative impacts & growth, land use & planning, population & housing, recreation, transportation & traffic, and utilities & service systems, and more biological resources than admitted to in the DEIR. The DEIR needs to admit to and adequately address all of these cumulative adverse impacts the proposed project will help cause and discuss mitigations and alternatives for them.

3.2 Biological Environment (3.2.1 Biological Resources)

Affected Environment

13 Regulatory Setting (page 71): This section again claims that for 3 years CDFG and USFWS have been involved in the "development of this project". As we stated in our comments on the Permits section of the Summary, we do not find this claim to be supported by the DEIR. We do not consider brief, rather neutral letters by these agencies in response to the Notice of Preparation, memos of proposed project need "concurrence", a USFWS provided brief sensitive species letter (Appendix J), 2 other brief USFWS letters in the Environmental Assessment part of the EA/DEIR (section B, another sensitive species list letter, and section II, a letter on standardized kit fox protocol for

developers to follow), and CDFG Natural Diversity Database (page.72) information available on the internet, as representative of 3 years of "frequent" coordination (DEIR, page vi, 1st paragraph) with biological resource trust agencies.

Nor is the statement in this section that joint field reviews have taken place supported by letters in the DEIR describing what these agencies' lists of concerns and recommended mitigations and alternatives were. And, as we said in our comments on the Summary Permits section, in the DEIR Caltrans is ignoring the RWQCB's strong recommendations to comply with California Wetlands Policy for the project to have a long-term net gain of wetlands and if any loss of wetlands occurs from the project, wetlands be mitigated at 3 acres of wetlands gain for every acre of wetlands destroyed.

Vegetation (pages 71-73): We find it difficult to understand that of the many species of rare plants listed in Table 3.2.1-1 (Potentially Occuring Sensitive Plant Species in the Project Area) that potentially are in the project area, and considering that the DEIR designated project area of influence for the biological environment is 1 mile to either side of the proposed 24 mile-long expressway (discussion page 76, and Figure 3.2.1-1), Caltrans only found 3 of these species. This brings into question the adequacy of the biological surveys.

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Also several places in this "Vegetation" section it is stated that the predominant grasslands in the proposed project corridor are "annual", "non-native", "disturbed" grasslands (pages 71-72). This is true, but this DEIR discussion fails to mention that these non-native grasslands mostly replaced native grasslands throughout most of the valleys in California many decades ago starting with caucasians significantly tampering with the California valley ecosystem over 200 years ago. In order for the many valley wildlife species to survive, they long ago adapted to using these mostly non-native grasslands for their critical survival habitat needs as forage, cover, mating, nesting/denning, etc..

There have been a number of local Environmental Assessments, EIRs, Negative Decs, etc., that have done a good job discussing the critical ecological functions provided for wildlife by these nearly entirely non-native valley grasslands. It is inappropriate for this DEIR to imply something less than significant, major, and substantial importance of these "non-native", "disturbed", "annual" grasslands for wildlife survival just because they are not native grasslands. The days of native grasslands in almost all valley land in California is long gone, but the non-native grasslands that have replaced them have been doing well providing the same critical ecological benefits/functions to nearly all wildlife species as did the native grasslands long ago.

This DEIR will not be adequate until it recognizes and discusses these facts in this "Vegetation" section, eliminating the existing DEIR's implication non-native, disturbed grasslands are perhaps not good quality wildlife habitat and therefore perhaps not in need of discussion, mitigation, and alternatives due to proposed project impacts to them.

Wildlife (page 74-76): Regarding the discussion and table listing sensitive species that potentially could occur in the area, we believe that the federal and state endangered California Condor should be included. The eastern part of the

proposed project where good condor deep-soiled valley grassland foraging habitat exists is easily within the daily flight range of condors from their release sites near the Machessa Mountain Wilderness.

Also the discussion and table in this section overlook nearly the entire complex of USFWS and CDFG sensitive raptor species that not only potentially occur in the proposed project area, but that we have seen over the years along the existing Highway 46 in the project area. These include the Golden eagle (nesting and wintering), Cooper's hawk (nesting), Ferruginous hawk (wintering), Northern harrier (nesting), White-tailed kite (nesting), and Merlin (wintering).

In determining the nesting habitat of sensitive raptor species it is critical that nests not be the only consideration. It does no good to protect nests of raptor species if the foraging habitat of wide-ranging nesting season raptors is not also protected. Because the proposed project area (1 mile to either side of the proposed expressway) and the 324-352 acres (page 102) of deep-soiled valley grassland foraging habitat (critically necessary for sensitive nesting raptor species to successfully rear their young) that the project will destroy are within the many miles that most nesting raptor species can fly to forage, then clearly this project will significantly and cumulatively significantly (when combined with grapescape and other area hardscape projects that obliterate this critical deep-soiled valley grassland raptor foraging habitat) adversely impact the survival of the above listed nesting California and federal sensitive raptor species and their young. The DEIR needs to acknowledge, discuss, mitigate, and provide alternatives for these impacts to raptors.

We believe that the discussion on page 74 of the existing Highway 46 being a wildlife barrier is misleading. Some of the literature on the important issue of highways versus wildlife migration academically referring to highways as wildlife barriers is not the issue or point. The real issue and point is just what the DEIR states, "The existing route, being mostly in a rural setting, is frequently crossed by many wildlife species" followed by "This is most evident, unfortunately, by the varied and frequent wildlife species found dead along the highway". A highway such as the existing Highway 46 in the proposed project area is not at all a barrier to wildlife species small and large. Much more accurately it is a killing field to wildlife of every type!

Humans discuss the 12 fatal accidents in 6 years on the existing highway with sensitive concern and compassion. For wildlife on this same 24-mile stretch of existing highway, though unfortunately no fatality statistics exist, 12 fatal accidents a day would be a low estimate. Most wildlife species, especially smaller ones, that get killed on a highway, are never seen by anyone, as they get flattened to unrecognizable smithereens by vehicle after vehicle, scavenged fast by other wildlife, or simply not seen by motorists zooming by.

But maybe if a more honest/accurate term than "barrier" was used (especially since in most instances highways are not and must not be barriers to wildlife migration/movement) to describe the horrendous toll highways take on wildlife survival, then people would have more sympathy for large numbers of wildlife dying on these highway killing fields. Killing fields may not be the proper substitute for "barrier" (maybe migration gauntlets, carnage zones, etc.), but killing fields certainly is honest, accurate, and would get the much needed attention of the public.

The DEIR fails to adequately assess the significant difference in the wildlife killing field effect between the existing highway and the proposed one, even though the DEIR admits to the increased difference in this killing field effect with the proposed project when it states on page 74, paragraph 3, "the number of successful wildlife crossing events decreases with the size and use of the road". That's a euphemistic way of saying the bigger the size and use of the road, the greater the number of wildlife killed on it.

And in the "Wildlife Movement" section of the DEIR (pages 110-111) it is stated "It is nearly impossible to quantify the effect of highway expansion to wildlife". This is only true if Caltrans continues to unacceptably refuse to make this comparative road kill quantification study. Caltrans needs to be doing wildlife road kill surveys right now to get baseline data with the existing smaller mostly 2-lane Highway 46. Then if the proposed project ever gets built, Caltrans needs to do post construction wildlife road kill surveys to see how much greater road kills are with the proposed expressway project than with existing Highway 46. Then post construction mitigations can be devised to significantly reduce project caused road kills to levels no greater than prior to the project.

Also, given that the DEIR admits that big highways kill more wildlife than smaller ones ("the number of successful wildlife crossing events decreases with the size and use of a road", page 74), the "Wildlife Movement" section of the DEIR with its proposed mitigations is far too inadequate to conclude like it does that the proposed project will have less than a significant impact on wildlife migration and movements.

For example, the kit fox mitigation of providing 36" culverts under the proposed highway every one-third mile (page 103) is better than nothing. But for most wildlife, these culverts will be too far apart and too small to significantly reduce the additional wildlife carnage that will occur with the proposed expressway compared to what occurs with the existing highway. Many wildlife migrating/moving through the area will not be familiar with where these too far apart (1/3 mile) "mitigation" culverts are. So they will cross without the benefit of these culverts and as the DEIR concluded, big highways kill more wildlife than smaller ones, and an increase in wildlife carnage will occur. Also many smaller wildlife species as amphibians, reptiles, and rodents, will nearly totally not benefit from culverts 1/3 mile apart, as these species almost all cross a road right where they encounter it.

And the 3 deer crossing box culverts (12' x 12') that will be installed under the proposed project are likewise much too far apart for the 24 mile-long proposed project, to significantly benefit deer and other large or small wildlife throughout the project region.

Though not proposed as mitigation in the DEIR, chain-link fences all along the proposed project would significantly reduce the increased wildlife killing field effect of the proposed expressway, but extensive, wildlife insurpassable chain-link fences are true barriers to migrations of entire, or significant portions of, wildlife populations, thus dramatically reducing viable gene pools and in turn survivability of populations severed by chain-link fenced highways, as Highway 101 between Atascadero and Paso Robles.

Due to neither alternative of a true wildlife barrier with chainlink fencing or an increased wildlife killing field with the DEIR's very inadequate wildlife movement mitigations being acceptable to CASA, we must recommend the "abandon the project" alternative. This is the only true alternative in the DEIR, and it thankfully eliminates this needless growth inducing, wildlife road kill increasing, and likely fatal vehicle accident increasing proposed project. All the other alternatives causing hoardes more vehicles travelling much faster wasting precious energy supplies, so Caltrans can stay stuck in its 1950's style massive publics works anti-sustainability mode, is unacceptable to us.

Wetlands & Vernal Pools (pages 78-79): As our comments on the DEIR Summary indicated, we find the discussion of wetlands on these 2 pages too artificial and an inappropriate justification for the DEIR not truly mitigating for the proposed project's destruction of from 4.87 to 11.44 acres of wetlands depending on which "alternative" is built.

What this DEIR wetlands discussion depicts versus what we have observed about the Wye wetlands in the field over the years are very different. It may be academically correct to state that due to differential grazing levels (and this DEIR conclusion is highly suspect since Hearst Corporation heavily grazes all the wetland areas discussed in this section) the wetlands south of Highway 46 have "greater habitat value" than those north of Highway 46 and between highways 41 and 46. But what we have observed over the years is that functionally for wildlife all these wetlands seem to have comparable wildlife values.

For example, we have seen the referred to local herd of antelope around the wetlands areas on both sides (north and south) of Highway 46. And (except for the Cooper's hawk which we have not seen in the Wye wetlands area) we have seen the sensitive raptor species that we previously commented on, as well as other non-sensitive designated raptors, comparably using the wetlands on both sides of Highway 46 and between the 2 highways. In fact, over the years we have seen Northern harriers, White-tailed kites, and Ferruginous hawks in the wetland areas north of Highway 46 and between the 2 highways more than we have seen them in the wetland area south of Highway 46. And we have noted wading birds (as egrets, herons, American avocets, and Black-necked stilts), shore birds (Long-billed curlew, Killdeer, and sandpipers), ducks (as Mallards and Teal), and Meadowlarks, as much in the wetland areas north of Highway 46 and between the 2 highways as south of Highway 46.

The bottom line is that the wetland complex at the Wye functions as a complete wetland ecosystem for these discussed wildlife species and many others regardless of whether the wetlands are on the north side of Highway 46, between highways 46 and 41, or on the south side of Highway 46. These 3 wetland areas are part of the whole wetland system in the Wye area and all have been comparably adversely impacted over time by heavy grazing by the Hearst Corporation and by the fact the existing 2 highways bisect them all with similar results.

For the DEIR to conclude that the wetlands south of Highway 46 are good and the ones north of Highway 46 and between the 2 highways are not good, is absurd. Worse, it apparently sets up Caltrans DEIR premise, which we already attacked in our comments on the DEIR Summary, that the proposed project

would enhance the wetlands in the Wye area by providing better wetland connectivity than now exists for wetlands on either side of existing highways 46 and 41, thus bonified wetland replacement mitigation is not needed. Therefore nowhere in the DEIR is it indicted that Caltrans will provide the required mitigation that the California RWQCB recommended in its letter to Caltrans (Appendix G) stating that if project caused wetland loss occurs "a mitigation plan should be developed and implemented to achieve at least a 3:1 replacement ratio".

Since the DEIR admits that from 4.87 to 11.44 acres of wetlands will be destroyed by the project (page iii), why doesn't the DEIR provide clear mitigation saying that depending on which alternative is selected, from 4.87 to 11.44 acres of wetlands multiplied by 3 (three) will be provided as wetland loss replacement mitigation, as recommended by the RWQCB?

It is such a myth that this wetland destroying project will somehow enhance wetlands of the Wye area to the point that Caltrans does not have to truly mitigate or provide alternatives for project caused loss of from 4.87 to 11.44 acres of wetlands, that the DEIR needs to be redone and redistributed for public review relative to this issue.

Environmental Impacts

In General (pages 80-81): These 2 pages give a very brief discussion of the differences in biological impacts for the "alternatives" for the 4 proposed expressway sections. Other than for the Wye section where obvious biological impacts differences exist between the "alternatives", contrary to what the DEIR concludes, there is not enough biological impacts difference between the "alternatives" to make a logical decision which "alternative" is best for each section.

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For example, the DEIR concludes that for the Shandon Section, Alternative 2 would result in greater impacts to kit fox habitat than Alternative 1. We believe that since Alternative 2 is longer than Alternative 1, if Alternative 2 were chosen, less impacts would occur to kit fox habitat if the Alternative 1 alignment, which appears to contain the existing Highway 46, were restored to valley grassland (and or valley scrubland) habitat.

Similarly, the DEIR concludes that for the Cholame Section, Alternative 2 would generally affect a greater amount of habitat for many species than Alternative 1, based only on Alternative 2 being closer to Cholame Creek. This perspective perpetuates the myth that one type of habitat critical for wildlife survival is more important than other habitat types critical for wildlife survival. There will be just as many if not more sensitive and non sensitive species (including many reptiles, raptors, other birds, and prey/predator mammals) adversely impacted by Alternative 1, due to it more significantly fragmenting (than Alternative 2 would) the large, critical, deep-soiled valley grassland area to the north of the proposed expressway. In other words, similarly to Alternative 2 being closer to Cholame Creek adversely impacting many species, "sensitive" or not, Alternative 1 more seriously fragmenting the large deep-soiled valley grassland (Alternative 2 is closer to the south side of this large valley grassland area) adversely impacts many species "sensitive" or not.

Also, from a biodiversity perspective hardly any of the DEIR 4-lane "alternatives" make enough difference to be considered true alternatives. Except for the Wye section, where any environmental decision maker would have to acknowledge the terrible choice of putting the enormous highway interchange system in the wetlands or on Antelope Grade (especially now that antelope have finally returned to using Antelope Grade [we have antelope photographs from 5/10/02 supplementing the DEIR's acknowledgement of this fact], prior to its decision to propose 3 of the 6 interchange alternatives there, did Caltrans think about why this long, mild grade was named Antelope Grade many decades ago?), the different alignments in the other sections are merely different ecologically valuable places to put the same huge proposed highway project.

This no-true-alternatives to the proposed project is not at all what the U. S. EPA had in mind in their letter to Caltrans in Appendix K (federal letters of project "concurrency"). In their letter, EPA said the prior name of the project, "Highway 46 Four-Lane Widening Project" was too constraining from a NEPA Perspective because "Widening a two lane highway to a four lane expressway represents one alternative for increasing highway safety and reducing congesting" (the claimed project justification in the DEIR, page 1). The EPA then stated "It may be the preferred alternative, but under NEPA and Section 404, other potentially less environmentally damaging alternatives to accomplish the project purpose should be thoroughly explored".

Instead of thoroughly exploring other alternatives, as more collision barriers, more passing lanes, etc., which the DEIR admits have been successful to date (page 9, Table 2.2.1-1, Project Action History on State Route 46, and also on page 9, discussion of the successful "Route 46 Corridor Improvement Project"), Caltrans chose to ignore EPA's alternatives recommendation. Instead the very inadequate DEIR gives one "alternative" after another of the same environmentally destructive big 4-lane expressway. This is not alternative analysis, it is "here it is, take it or leave" hoping that the public will panic and take it because there are no true alternatives to the proposed project to consider.

Therefore, unless Caltrans decides to choose number "(2)" on the first page of the DEIR, which is "undertake additional environmental studies" (and do a new DEIR for public/agency review), then because the current DEIR is so environmentally and legally inadequate, we are left with no choice but to strongly recommend that Caltrans choose number "(3)" on the same page, which is "abandon the project"!

Blue Oak Woodland (pages 81-82): This section indicates that 147 blue oaks of various ages, but mostly mature, would be destroyed by the proposed project on 3.53 acres, and that 89 more blue oaks on unstated acreage would also be destroyed by the project. This section also states that no significant impact will occur from the destruction of these oaks due to the DEIR mitigation. CASA believes that the DEIR inadequately mitigates the losses of these many blue oaks and therefore cannot conclude insignificant impacts to them.

Blue oaks do not function as an isolated entity in an ecosystem. They are integral components of surrounding and within grasslands (definition: almost

entirely grasslands with only an occasional tree and/or shrub) and savannahs (definition: grasslands intermixed with scattered trees, as oaks, and/or shrubs). Most of the wildlife species that utilize blue oaks also use intermixed and surrounding grasslands and savannahs (salamanders, frogs, toads, lizards, snakes, upland nesting pond turtles, egrets, herons, raptors, owls, shrikes, insectivorous/herbivorous/omnivorous song birds, many predator and prey mammals, etc.). It is unacceptable that 30 years after environmental laws were passed such as CEQA, NEPA, California and federal ESA's, Clean Water Acts, etc., EIR's as this one are still promoting little bits and pieces of "mitigations" nearly unrelated to the context of a whole, sustainable, biodiverse ecosystem.

The true ecological adverse impacts of this proposed expressway project are not the separate loss of blue oaks on 3.53 acres, to possibly be "mitigated" on a DEIR proposed 30 acre piece of property likely not available (page 82), and the separate losses of all other natural resources, to likewise be compensated by other inadequate bits and pieces of "mitigation". Instead the true adverse impacts to blue oaks and all integrally related grasslands and savannahs and associated wildlife species are the proposed project's destruction of a total of from 324 to 352 acres of deep-soiled valley grasslands, savannahs, scrublands, and various woodlands shown in Table 3.2.1-12 ("Estimated Direct San Joaquin Kit Fox Habitat Impacts). Also concerning this table, we already discussed in our comments on the DEIR Summary that it is unacceptable that this table back on page 102 is the only place in the DEIR that we could find an admission to the total acreage of critical valley habitat being destroyed by this project.

Valley habitats taken as a whole (whether titled "kit fox habitat" or anything else, for example, valley grazing or grass or ranch lands, etc.), are so critical because they are rapidly disappearing everywhere, as along the entire proposed project corridor (as discussed in the DEIR (page 74 [bottom], 77 , etc.), throughout SLO County, California, the U.S., and everywhere else in the world (see PBS's fairly new one-hour documentary "Grasslands, Sea of Change", especially the part on our Country's devastating conversions of valley grasslands by especially monoculture, cities, and highways), decision makers need to start mitigating for entire valley ecosystems and not just bits and pieces of it. Else the entire, biodiverse valley ecosystem complex will nearly completely disappear in the too near future!

How can this DEIR take a more whole approach with its oak mitigation and the overall proposed project destruction of 324 to 352 acres of critical deep-soiled valley habitat (critical, because unless all we expect to have remaining in the not too distant future are residual populations of most predator and prey species in the bedrock overlain, mostly thin-soiled, steep areas, where prey species as rodents and rabbits cannot adequately burrow in enough numbers to sustain their and their predator species populations)? That is the big question. And it needs to start having big answers, especially on proposed projects such as this one that cost hundreds of millions of dollars and get away with at most a couple million dollars of biological environment "mitigation". Where is the justice, balance, fair play, etc., for all the other species of the world? The buck stops here with this big project.

And the DEIR does have a partial answer to this issue society must start seriously dealing with. Or the only way we will continue to keep more and more species off the endangered and extinct species lists is with the same bad

politics and economic imbalance that has so unjustly prevailed to date at biodiversity's expense.

We said that the DEIR has a partial answer, but that will have to wait until we comment on the "San Joaquin Kit Fox" section of the DEIR. However, relative to the proposed project, we can use the Blue Oak Woodlands section of the DEIR to comment on the complete answer to the issue of the unacceptable loss of all valley habitats including oaks. The incomplete answer to this question that is unacceptable is the one given in the DEIR for the proposed project's destruction of 236 blue oaks associated with the within and surrounding grasslands/savannahs and all reliant wildlife species.

The DEIR notably failed to indicate the acreage of savannahs and grasslands the other 89 blue oaks are in (besides the 147 oaks tightly packed in the 2.37 acres of oak woodland), and the important and significant ecological functions of these oaks being widely dispersed in oak savannahs and grasslands. But it can be reasonably speculated, since the DEIR fails to address the actual acreage of these 89 oaks (but a new/revised DEIR must delineate this acreage), that these 89 oaks were spread throughout an acreage of savannahs and grasslands vastly greater than the 2.37 acres admitted to in the DEIR for the other 147 oaks.

Therefore, the unacceptable answer to the critical loss of 236 blue oaks dispersed widely throughout the savannahs and grasslands that would be destroyed by the proposed project is "mitigating" the loss of all these oaks on a small piece of property Caltrans ultimately hopes to buy somewhere, as proposed in the DEIR. So true and whole mitigation would need to use a replacement site much larger than the 30 acre one adjacent to Hunter Golf Course (or some other small site to replace all of the 236 oaks) that the DEIR says Caltrans would like to buy if it is available.

Because the DEIR proposed oak mitigation is inadequate, CASA recommends that Caltrans choose the complete answer to the issue of unacceptably losing far too much critical valley wildlife habitat. That complete answer is the "abandon the project" alternative for this huge, excessive valley habitat destroying, growth ending proposed project.

Wildlife (pages 87-112): Nowhere in the entire "Wildlife" section could CASA find a analysis of the proposed project's potentially significant and cumulatively significant impact on larval monarch butterfly habitat.

16 Along the proposed project's biological corridor of influence, and likely in its proposed construction easement, at least 2 species of milkweed exist that are important to the foraging and survival of the monarch butterfly. These milkweed species are Asclepias cryptocarpa (Indian milkweed) and A. fascicularis (narrow-leaf milkweed). Both species could likely be found in the proposed project easement if they are surveyed for. They are critical to the survival of monarch butterfly larva in San Luis Obispo County.

The CDFG California Natural Diversity Data Base (CNDDDB) Special Animals list, January 2001 edition, designates the monarch butterfly as "S3" meaning "restricted range, rare" in California. Unless there is a newer CNDDDB list indicating otherwise, the cited list seems to be indicating it is the adult

wintering habitat and not the larvae foraging habitat that has the referred to sensitivity designation. If this is true, this is likely a significant ecological oversight.

Some biologists at Cal Poly University and elsewhere believe that the cumulatively significant loss of these monarch butterfly foraging habitat plants is as much or possibly more critical to overall monarch butterfly survival success or decline than is their woodland wintering habitat. The former habitat type is significantly in valley habitat areas, as along the proposed project corridor, that are rapidly being destroyed in California (as are all valley wildlife habitats) for human use alone by especially monoculture and city and highway hardscape.

The DEIR needs to be revised and redistributed for public review after incorporating studies and results of the adverse impacts that the proposed project would have on the critical milkweed habitat of the monarch butterfly, and provide mitigations and alternatives for such impacts.

Sensitive Plants and Plant Communities Summary (page 87): This section completely ignores, as we discussed in our previous comments on "Blue Oak Woodland", that likely one of the most, if not the most, rapidly disappearing of valley plant communities and critical wildlife habitats is deep-soiled valley grasslands. It is being significantly adversely impacted along with the proposed project caused loss of 324 to 352 acres of endangered kit fox habitat, since most of this kit fox habitat is deep-soiled valley grasslands.

As we also discussed in our previous comments on Blue Oak Woodland relative to their close ecological association with deep-soiled valley grasslands and savannahs and reliant wildlife species, the massive rapid destruction of these valley grasslands will in the not too distant future render heretofore burrowing prey species and their various predator species to nothing but residual populations in the mostly thin-soiled steep lands. Again these steep lands overall do not contain enough deep diggable soils to sustain prey species as rodents in large enough numbers to supply adequate populations of prey species. So the entire valley grassland ecosystem of wildlife will crash to nothing but meager steep-land populations unless society starts reacting to this crash that is already happening with the rapid loss of valley grasslands everywhere.

This DEIR is completely inadequate until it takes the responsibility to acknowledge and discuss the proposed project's destruction of about 324 to 352 acres of wildlife critical deep-soiled valley grasslands, savannahs, scrublands, etc., and in turn adequately mitigates and provides alternatives for this significant and cumulatively significant impact.

California Tiger Salamander (FSC) (page 88): We do not understand how this section of the DEIR can conclude that the proposed project's permanent destruction of and complete lack of real mitigation for 4.87 to 11.44 acres of wetlands (potential breeding habitat) and an unspecified (paragraph 3, page 88) amount of adjacent uplands grassland habitat (potential non-breeding season habitat in rodent burrows) in the Wye area only a few miles from known federal special concern species California tiger salamander habitat, is an insignificant impact to them. The only "mitigation" indicated in the DEIR

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(proposed project's wider bridge and culverts than the existing ones) is not an adequate mitigation for tiger salamanders potentially existing in the proposed project destroyed wetland and upland habitats.

The DEIR inexplicably comes to this conclusion of insignificance with very inadequate mitigation despite its admission that "no surveys were specifically conducted for California tiger salamanders" (page 88, paragraph 3). How does the DEIR make this conclusion when tiger salamanders were not even surveyed for near known populations in potentially adequate wetland and upland habitat proposed to be destroyed by the project?

Also there are many permanent pools of water in Cholame Creek in Hearst Corporation's Jack Ranch south of Highway 46 and especially just north of the Highway in the Wye area where tiger salamanders could breed or survive other life cycle phases. Since tiger salamanders were not surveyed, it is entirely possible they inhabit these typically perennial pools. So the DEIR's conclusion stating "Adverse effects to California tiger salamander movements between ponds is unlikely due to the distance between ponds on either side of the highway and because the existing highway is a complete dispersal barrier due to the high traffic volumes" (paragraph 4, page 88). The more distant ponds mentioned in the above quote from the DEIR are not the permanent pools we just referred to in Cholame Creek nearer to either side of the Highway 46 in the area of the Wye.

And we already commented on the inappropriate use of the misleading term "wildlife barrier" in the DEIR "Wildlife" section (page 74). Relative to tiger salamanders, it is unsupportable and unacceptable to state that the existing Highway 46 is a "complete dispersal barrier due to the high traffic volumes" This statement is used in the DEIR to erroneously conclude that the proposed huge project will overall benefit tiger salamanders due to the proposed wider bridge (paragraph 4, page 88). In reality, the proposed much larger expressway will significantly harm tiger salamanders more than the existing highway due to the much greater road kill impact of the former versus the latter. On cool damp days and nights during rainy periods nothing will keep tiger salamanders from dispersing across Highway 46 in search of habitat, mates, forage, etc..

For example, several years ago, a New Times reporter did an article on many Western spadefoot toads that he saw on a rainy night crossing Parkfield Road in the Wye area. The article reported that some of the toads, but nowhere near all of them, were being killed by careless drivers. Tiger salamanders will likewise not be stopped from crossing Highway 46. Tiger salamanders do not know they will potentially be killed by crossing highways, so they will do it, and some will make it and some will be killed. So a killing field for tiger salamanders and any other wildlife species, the existing highway certainly is. But a barrier to tiger salamanders and any other wildlife species, it is not. Nor will the proposed highway be a barrier to them. It will just be a greater killing field.

So it is unjustifiable to say the proposed expressway will not have a significant adverse impact on tiger salamanders erroneously based on the existing highway being "a complete dispersal barrier (sic)" to them.

We recommend that before the proposed project advances any further, tiger salamanders be surveyed for in both their potential wetland breeding and upland non-breeding habitats that would be destroyed by the proposed project or that is in the proposed project's 1-mile corridor of biological influence to either side of the highway in the Wye area. And afterwards a new revised DEIR be done incorporating the results of these studies and providing mitigation and alternatives (1) for any tiger salamanders found or (2), if not found, for any habitat determined by these studies to be tiger salamander habitat, since tiger salamanders are known from nearby.

Pronghorn Antelope (pages 107-108): CASA believes that the antelope undercrossing and overcrossing structures being proposed in this section are far too speculative for achieving success for the DEIR to conclude insignificant impacts will occur to antelope from the proposed massive highway.

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The DEIR admits that highway "widening to four-lanes has been shown to completely prevent pronghorn antelope from crossing highways in Wyoming, Arizona, and Northern California (paragraph 2, page 107). Yet the DEIR then states "It is theorized that an undercrossing would work for pronghorn if it is sufficiently wide enough and tall enough to minimize the perceived linear barrier effect of the structure". How can Caltrans conclude on "theorized" mitigation that the admitted significant impacts to antelope from the proposed project will be reduced to insignificance? This alone proves significant irrational bias for the project by Caltrans at unacceptable cost to the ecosystem.

The DEIR also states "The Western Association of Fish and Wildlife Agencies (WAFWA) recently resolved to study pronghorn antelope response to undercrossings and overcrossings....The results of these studies should factor into the final design of the Wye section, which is not planned for many years". But the DEIR says at the very beginning that in reviewing the DEIR no one can choose the no-project alternative for just one of the 4 proposed project sections. What if the studies by WAFWA conclude after several years that neither the DEIR proposed undercrossing or overcrossing will work?

The EIR is being done right now and the only choice that the Caltrans decision makers are allowing themselves and the public is the entire 4-lane expressway or the no-project alternative. And since Caltrans will make that Final EIR decision fairly soon on very incomplete information since adequate WAFWA studies likely cannot be done by then, what good are either after-the-decision studies or WAFWA studies that conclude what Caltrans does not want them to conclude-- that neither of the proposed project expressway crossing structures will work. This section of the DEIR makes it very clear that Caltrans does not really care what the WAFWA studies conclude or when they conclude it, Caltrans is already planning to proceed with the entire 4-lane expressway before this critical study information can be made available.

Complicating these WAFWA studies is not just the fact that the success of the proposed undercrossing is a Caltrans theory (as the DEIR admitted and as Caltrans staff admitted to us at the Paso Robles alleged "public hearing" when they told us that none of wildlife agencies knew if the antelope undercrossing or overcrossing would work and all of these agencies are waiting for Caltrans

to decide if they will work-- sounds like Caltrans has already theorized they will work and that is enough to claim insignificant antelope impacts!), but also the fact that 4 of the 6 alternatives for the massive Wye interchange, including Alternative 8b that incorporates the antelope overcrossing, are designed on Antelope Grade (as we previously commented, how telling the name) immediately adjacent to the proposed antelope overcrossing (DEIR Volume II, Appendix A.4, Alternative 8b, W5 of 10).

What are the chances that pronghorn will use this overcrossing when the only overcrossing alternative in the entire DEIR is immediately next to the project proposed massive interchange on Antelope Grade! The chances are likely not good.

Because the Pronghorn Antelope section and all the other pro-project biased "evidence" in the DEIR points to Caltrans irrationally deciding to do this project without good, true, alternatives anywhere in the DEIR to consider, we must recommend to Caltrans that it choose the only sensible alternative in the DEIR-- the "abandon the project" alternative!

San Joaquin Kit Fox (FE, ST) (pages 101-104): Previously in our comments on the Blue Oaks Woodlands section of the DEIR, we said that we would comment on the DEIR's partial answer to the unacceptable loss of wildlife's critical deep-soiled valley grasslands and other deep-soiled valley habitats as savannahs, scrublands, etc.

19 Associated with this referred to partial answer, our earlier comments stated that it is only valleys (as opposed to the mostly bedrock overlain thin-soiled steep hill and mountain areas) that provide large areas of deep, diggable soils for many prey species as rodents and rabbits that can therefore produce these prey species in large enough numbers to adequately sustain their populations and those of all their avian (as eagles, hawks, falcons, owls, egrets, herons) and terrestrial (as snakes, shrews, weasels, badgers, skunks, foxes, coyotes, bobcats, etc.) predator species. The rocks, bluffs, cliffs, and woodlands of steep lands and narrow valley riparian zones may be adequate for many of these free-roaming predator species to hide, breed, and rear their young in, but what good is it preserving these lands alone (unless only small residual wildlife populations are sadly deemed "adequate") if expanses of the critical deep-soiled valley foraging lands of all these free-roaming predator species are not likewise preserved?

So the partial answer that the DEIR gives in the San Joaquin Kit Fox section to save adequate supplies of deep-soiled valley grassland and other deep-soiled valley habitats to prevent valley wildlife from becoming nothing but memories other than steep land and narrow riparian zone residual populations, are Caltran's legal promise in the DEIR to fund the purchase of kit fox habitat conservation easements at the habitat-preserved to habitat-destroyed acreage ratios described in the DEIR (pages 103-104: 1/3:1 for temporary impacts and for permanent impacts 2:1 from Jardine Road to postmile 37.6, 3:1 from Airport Road to Jardine Road, and 4:1 from postmile 37.6 to postmile 56.3). The DEIR further states that although this mitigation will be off-site, it will be "in the project vicinity" (page 103).

This latter part of the mitigation is very important as it prevents the inappropriate "mitigation" of kit fox habitat far away (as Carrizo Plains, Kern County Fan, McKittrick area, Camp Roberts, etc.) from the rapidly disappearing kit fox habitat in the proposed project area! A hallmark of wildlife trust agency mitigation (as that of the USFWS and CDFG) has long been to mitigate adverse impacts to wildlife and their habitat first on-site, and if that is not possible, as in this case (due to "on-site" being the proposed expressway), then adjacent to or near the project site (that is, "in the project vicinity", DEIR, page 103). This has been a hallmark of wildlife mitigation because it only does the local resident and migrating-through wildlife populations any good if their local habitat is preserved, else they die in proportion to their local habitat that is destroyed. So by preserving large amounts of local habitat, populations of local wildlife and migrating-through wildlife (as migrating wildlife cannot survive when there is no survival sustaining migration habitat) will survive with it.

Furthermore, for the kit fox habitat easement mitigation to be adequate, it must be for the purchase of easement land that would otherwise likely be destroyed by future development. It does no good to justify "mitigation" that will save/preserve habitat to compensate for project destroyed habitat, if that "saved/preserved" habitat was already permanently saved/protected from future development. However, this would not be a hard task for the proposed project and its EIR to accomplish, since nearly the entire proposed project biological corridor of influence (1 mile to either side of the proposed project, and adjacent wild and rural lands) is in harms way of future private and public development, especially due to the DEIR unadmitted nature of this growth producing proposed expressway!

The above proposed mitigation ratios to save large areas of critical deep-soiled valley habitat (whether designated kit fox habitat or designated any other way ecologically, as all valley reliant wildlife are rapidly disappearing from earth with massive, accelerated destruction of critical deep-soiled valley habitat) is still only a partial mitigation solution to the rapid loss of deep-soiled valley habitats because any small project or large project (as the proposed expressway) has cumulatively significant and significant net habitat loss from its footprint and surrounding areas of human disturbance rendered unsuitable for wildlife existence. In other words, it does not matter how "adequate" the EIR proposed mitigation is, as the habitat-acquired to habitat-destroyed ratios in this DEIR, there still will be a significant or cumulatively significant loss of wildlife habitat with any mitigated project.

So we have two serious concerns with this big proposed project relative to the above good mitigation as a partial solution to the rapid loss of deep-soiled valley habitat and all reliant species. Following are several examples demonstrating our first serious concern.

First, the deep-soiled habitat preservation ratios in the DEIR are bonified mitigation for kit fox and many other valley fauna and flora species. And the acreages proposed in these ratios will provide adequate opportunity to mitigate most or all of the 236 blue oaks this proposed project will destroy. But whether or not Caltrans presently intends to do the DEIR stated habitat ratio mitigation, the local history of EIR "mitigated" projects strongly indicates Caltrans will likely never do all or even any of this mitigation.

For example, for the mid 1990's Hunter Ranch Golf Course Project on Highway 46, kit fox mitigation was devised in the CEQA assessment process (a Negative Declaration was done instead of an EIR). Although kit fox were not found on the private site (the old Spiller Ranch) prior to project construction, due to access limitation by the golf course developer, they were found during construction. Money was designated for compensating kit fox habitat preservation on adjacent Heurheuro Creek. Instead of kit fox habitat being purchased and protected there, Paso Robles used the kit fox habitat mitigation money along with other funding to build Barney Swartz Park on Heurheuro Creek. This recently natural creek and upland kit fox habitat is now a people park complete with anti-kit fox survival features as monoculture lawn ball fields, bleachers, paved roads, buildings, 100's of daily and nightly people, and maybe worst of all, high intensity ball field night lighting!

Another example. In south San Luis Obispo County, the 1980's to 2000's multi-phased Rancho Grande housing and commercial development FEIR mitigation approved by the Arroyo Grande City Council was supposed to provide money to buy deep-soiled valley grasslands nearby to mitigate 100's of houses and big commercial centers being built on the deep-soiled valley grasslands of the site. No such nearby deep-soiled valley grassland wildlife habitat was ever acquired. Instead the money went to a land conservancy for its significant administrative costs.

But Caltrans would never renege on its DEIR mitigation-- would it? It is a big, wealthy, California State public works construction agency well funded by State and federal tax payers money. Why would it not faithfully do the mitigation used in its "Route 46 Corridor Improvement Project" DEIR to justify Caltrans decision makers approving the project? Good question needing a good answer. But local history is not good for such State agencies either.

For example, Caltrans' sibling wealthy construction agency the California Department of Water Resources (DWR) that recently built the Coastal Branch of the State Water Project was supposed to purchase near the project water pipeline 255 acres of flora and fauna habitat land or easements to compensate for project destroyed habitat. A flaw in DWR's FEIR was that the whereabouts of all this near-the-project-site mitigation land was not specified in DWR's EIR-- just like the situation is here with Caltrans comparably inadequate DEIR. CASA sued DWR on this issue. The Court determined CASA had no business interfering with DWR's popular growth-inducing project (just like this big proposed project is alleged to be), and ruled against our request to be able to track DWR's EIR phantom mitigation.

Still, we and our attorney attempted to track DWR's EIR mitigation. The best we could determine without more costly legal action, was that DWR never purchased any near-the-project compensating habitat. Instead, some money in the plus or minus one million dollar range changed hands from rich DWR to relatively poor CDFG to manage some land in Kern County far from the water pipeline nearly all in San Luis Obispo and Santa Barbara counties, and to help preserve some CDFG positions during economic downturn. Maybe some of the money that exchanged hands went to purchase some habitat somewhere, maybe not. But either way, 5 years now after the water pipeline project has been finished, where are those 255 acres of flora and fauna habitat supposedly purchased near the project pipeline site promised in DWR's EIR to justify DWR

decision makers approving the big, long, environmentally destructive corridor project?

We could site other local examples of various agencies' promised CEQA mitigations going astray and/or never being done, but the above examples set the stage for an overall terrible mitigation history locally. And given the facts that Caltrans' proposed big expressway project will admittedly take many years to build from west to east (DEIR, page 108, 1st paragraph), how is the public going to track or ever know if Caltrans does any of the kit fox habitat-preserving-ratio mitigation promised in its proposed project DEIR to justify its decision makers' likely ultimate approval of this big, environment destroying project? We think it will be impossible to track Caltrans DEIR promised mitigation over the many years it takes for Caltrans to do this project.

There no doubt are some projects worth this kind of unmitigable environmental destruction (the net 324-352 acres of habitat destroyed that can never be replaced, compensated, etc.). But this DEIR unadmitted but clearly growth/development inducing, wildlife road kill slaughtering, likely vehicle accident increasing rather than DEIR alleged accident decreasing proposed project is not one of them!

Finally on the issue of the rapid destruction of deep-soiled valley habitats, as grasslands, and all their reliant flora and fauna, we do have a good mitigation recommendation. Although it would still result in the net loss of from 324 to 354 acres of deep-soiled valley wildlife habitat, it would be the long-awaited fair answer to all the bad mitigation that has occurred up to now. That massive bad mitigation has resulted from developers', as Caltrans, DWR, etc., socially-culturally-economically-environmentally-and-ecologically unacceptable "principle" that it is alright to spend hundreds of millions of dollars on huge public works project, as the proposed one, but not alright to spend more than a few million dollars on mitigation for all the other species significantly and cumulatively significantly being wiped out by such projects.

For example, at Caltrans' alleged Paso Robles "public hearing" on April 23, 2003, we told Caltrans staff that the only fair mitigation for this massive growth inducing proposed project would be for Caltrans to purchase the adjacent Hearst Corporation Jack Ranch in the Wye area for deep-soiled valley habitat preservation in perpetuity. Caltrans staff replied to us that they did preliminarily discuss this proposed project bonified mitigation with Hearst representatives and the Hearst people told Caltrans that it might cost Caltrans as much as the construction cost of the proposed project. So Caltrans told us they ended these negotiations with Hearst.

To end such important and significant habitat preservation mitigation negotiations for the above reason is environmentally unconscionable on Caltrans part. Why is it that it is OK to spend hundreds of millions of dollars on enormous, human benefitting, growth inducing projects that destroy large areas of habitat and all other reliant species, but it is not OK to spend a comparable amount of money on mitigation if that is what it takes to preserve the habitat and lives of all the other species of the world? The true, moral, ethical, and everything else answer to the above question is that it is not OK to do the former, but not do the latter.

So, Caltrans' reply to us on 4/23/03 is completely unacceptable. Caltrans needs to do the morally correct thing in this case, and rekindle the negotiations for Hearst's adjacent Jack Ranch to be purchased and preserved in perpetuity as mitigation for this big propose project. Because the other mitigations in the DEIR, including the kit fox habitat preservation ratios, are individually and collectively inadequate!

One final very revealing point on the above subject. Caltrans' admission to us on 4/23/03 that Hearst negotiators told them the adjacent Jack Ranch might cost as much as the proposed project construction costs, is a clear admission by Caltrans that this big proposed project is enormously growth inducing. Right now Hearst's Jack Ranch is mostly a wild and rural ranch that has nowhere near the value that Caltrans told us they said it did. A ranch, even a big ranch, in eastern San Luis Obispo County, is not worth hundreds of millions of dollars merely as a working ranch. It can only have that kind of potential value if it has huge future development potential.

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Clearly the Hearst people see Caltrans' huge proposed expressway as the future development inducing jackpot of all jackpots if it gets built, and that is why Hearst put such an enormous price tag on their wild and rural ranch! Everyone including Hearst see this big expressway project for exactly what it is-- a growth and development producing economic boon for the up-to-now wild and rural area of Caltrans' proposed expressway project.

So it is time that Caltrans did a new and truthful DEIR finally admitting to, analysing, discussing, mitigating, and providing alternatives for this obviously growth/development inducing project!

Due to our above discussed serious concerns with the growth/development inducing aspects of the proposed project and its woefully inadequate DEIR in this and many other respects, we again strongly recommend that Caltrans choose the complete remedy to the unacceptable loss of this critical deep-soiled valley habitat. That complete remedy is the "abandon the project" alternative in the DEIR-- the only true alternative in the entire DEIR!

Wetlands & Vernal Pools (pages 115-116): We have commented on several other sections of the DEIR regarding the DEIR's complete inadequacy on wetland mitigation in the Wye area where approximately 4.87 to 11.44 acres of wetlands would be destroyed by the proposed project. We will not reiterate those comments here but ask that you refer to our comments on the other sections of the DEIR (especially pages iii, 78-79, and 88) on proposed project caused loss of wetlands and the completely inadequate lack of mitigations in the DEIR for this wetland loss.

Chapter 6: Best Management Practices and Mitigation Summary (pages 191-220): In various places throughout this DEIR section it is indicated that the District or Project Biologist will perform particular duties for the associated BMPs and mitigations to succeed. We are not sure District 5 Caltrans has a biologist. At Caltrans 4/23/03 "public hearing" in Paso Robles on the proposed project, we were introduced to Caltrans' wildlife biologist who is a graduate of Cal Poly's Department of Natural Resource Management in the College of Agriculture (page 224 of the DEIR and personal communication).

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The 2001-2003 Cal Poly Catalog indicates that the NRM Department offers degrees in either Forestry and NR or Recreation Administration. The Recreation Administration option requires only one 4-unit life science course. The Forestry/NR option requires only two 4-unit biology courses. These 2 low level one-quarter biology courses, neither of which require biology prerequisites, are Botany 121 and Wildlife Biology 227. The second one is only a lecture course with no laboratories. Can someone with possibly only 2 introductory level college biology courses be a Caltrans wildlife biologist? What are Caltrans engineers required to take in college? The DEIR also indicates (page 225) that a botanist who is a Ph.D. candidate in Plant Biology also worked on the DEIR. But a botanist is not a wildlife biologist, and the DEIR indicates significant work on the wildlife sections of the DEIR were done by the Caltrans Cal Poly NRM graduate (for example, page 76). Please clarify this situation.

In summary, based on all of our foregoing comments, we respectfully recommend that Caltrans choose the "abandon the project" alternative in the DEIR-- the only true alternative in the entire DEIR!

Sincerely for CASA,

A handwritten signature in black ink that reads "Phil Ashley". The signature is written in a cursive, flowing style with a long horizontal stroke extending to the right.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Upon reviewing the terminology used in the environmental document, we have found that it does not conflict nor have intentions of confusing any member of the public or resource agency.
2. Your disagreement with many of the DEIR assessments has been noted. The Summary correctly reflects the assessments made in the environmental document based on the numerous cited technical studies prepared for this document.
3. Analysis of impacts to Waters of the US in combination with the proposed mitigation support the determination of no significant impacts to these resources. The necessary permits to impact these sensitive resources require rigorous analysis and review. The regulatory agencies charged with issuing these permits will make a final judgement as to whether the criteria of “no net loss” to these resources has been met prior to the issuance of any permits.
4. Concerning the DEIR’s assessment of impacts to farmland, the DEIR addressed cumulative impacts to this resource. Caltrans has no control over county planning organizations that issue development permits and oversee zoning designations. This project is being proposed to accommodate existing traffic congestion and safety concerns not for growth, either planned or unplanned.
5. Please see Section 1.3.3 in the EA/FEIR for accident data. At this time it is neither prudent nor relative to discuss accident data on State Route 101 since there is no valid comparison of data from two completely different transportation facility types.
6. The addition of impervious surfaces due to this project will result in greater runoff and decreased percolation, however, this runoff will be detained within roadside vegetated swales and retention basins to provide for control of the runoff as well as a return of that water to the soil.
7. Please see the detailed discussion of water quality, Section 3.1.4 of the EA/FEIR. Minimization measures and best management practices have been included in the project to reduce the chances of roadside pollutants entering any of the natural drainages within the project area.
8. State Route 46 is currently designated as a route for hauling hazardous materials/waste. These designations would not change with the incorporation of the project.
9. In response to your comment concerning Air Quality, page v, paragraph 1, comment noted.
10. The DEIR has adequately addressed growth inducing and cumulative impacts associated with the proposed project, please see Chapter 3, Section 3.3.4 and Chapter 4 for these discussion.
11. The 404 Memorandum of Understanding (NEPA 40 MOU) process is a formal process to provide for, “early and frequent coordination” on large transportation projects. The MOU was developed in conjunction with and signed by the US Army Corps of Engineers, the US Environmental Protection Agency, the US Fish and Wildlife Service, the National Marine Fisheries

Sanctuary, and the Federal Highway Administration. This formal process provides for review and concurrence at different steps in the NEPA process. Caltrans and the Federal Highway Administration have complied with the MOU by developing the purpose and need and reasonable range of alternatives in conjunction with the signatories to the MOU and by asking for and receiving concurrence on these steps of the NEPA process.

Through project design changes impacts to wetlands have fallen below the limits set forth in the MOU. Because of this, Caltrans and FHWA have formally withdrawn from the NEPA 404 MOU process. A letter was sent to the Environmental Protection Agency on December 2, 2005 stating our withdrawal from the process and the reasons for doing so. Caltrans will be pursuing nationwide permits under the Clean Water Act for the first three sections of the project and will work with the Army Corps of Engineers in the future to obtain an Individual Permit for construction of the Wye section. All commitments and agreements made between the EPA and Caltrans have been incorporated into this EA/FEIR and into the project design itself. In addition, Caltrans has selected the alternative with the least impacts to jurisdictional wetlands and will adhere to the no net loss policy set forth in Executive Order 11990.

12. Regarding your comments on the Environmental Significance Checklist: Caltrans as the Lead Agency under the California Environmental Quality Act has provided evidence and analysis for the determinations made in the checklist. Your comments and dissension with the determinations made have been noted.

13. Regarding your comments on the Biological Environment: Intensive coordination work consisting of many meetings, field reviews, and correspondence has been and continues to be ongoing with the reviewing/regulatory agencies. This includes continuous, informal correspondence via e-mail and telephone calls that would be awkward to document in the DEIR.

14. Regarding your comments on Vegetation, Wildlife, and Wetlands & Vernal Pools: All biological surveys and analysis were conducted by qualified biologists trained to conduct these surveys and analysis. Your comments have been noted.

The DEIR does not imply or state that the project's biological influence extends 1 mile from the highway. The discussion on page 76, and Figure 3.2.1-1, illustrate different habitat qualities as a function of land uses in the highway corridor.

The DEIR describes the existing environment, including plant communities, and does not discount the wildlife habitat values of those plant communities. The 2:1 - 4:1 mitigation ratios for impacts to San Joaquin kit fox and other upland species habitat (annual grasslands) reflect our recognition of that plant community's habitat values. Every square meter of annual grassland that the project would remove would be mitigated for at a minimum 2:1 ratio to replace lost wildlife habitat.

Regarding wetland mitigation: the primary purpose of CEQA and NEPA are to disclose a project's impacts to the public. A CEQA or NEPA document is not a mitigation plan. The wetland mitigation will be developed when alternatives are selected and project design is refined, so that we know exactly how much mitigation will be required. The mitigation plan will be required prior to

obtaining the permits necessary for filling wetlands. The primary permitting agency (US Army Corps of Engineers) will require no net loss of wetlands.

It is important to distinguish between permanent impacts, temporary impacts, wetland impacts, and impacts to other Waters of the US. The DEIR discusses that permanent impacts to other Waters of the US are in highly degraded ephemeral channels. If you observe table 3.2.1-19 you will see that the permanent impact to wetlands, without the Wye section, is 0.27 acre. We are mandated to select the least environmentally damaging practicable alternative, which means that at the Wye we would likely select 8b or 7 because of its minimized wetland impacts. If you read the Natural Environment Study of which you requested and received a copy, you will find that there are opportunities to further reduce wetland impacts at the Wye. Those opportunities will not be ignored as final engineering plans are refined and drawn and permit applications are reviewed by regulatory agencies.

15. Regarding your comments on Environmental Impacts, In General and Blue Oak Woodland: The Lead Agency feels that the support of resource agencies in the strategy for mitigation of oak losses is indicative of the fact that our creative mitigation strategies shall adequately compensate for the losses that would occur with the proposed project.

16. Regarding your comments on the monarch butterfly: There are no known winter roosts in or near the project area where the preservation of Indian milkweed or Narrow-leaf milkweed would be prudent. Winter roosts and ovipositor sites are typically on the coast.

17. Regarding your comments on the California tiger salamander: No potential California tiger salamander breeding habitat would be affected. As the DEIR states, all vernal pools would be avoided and all affected wetlands, except at the Wye, are associated with ephemeral channels. Ephemeral channels are not potential breeding sites. The wetlands at the Wye are highly alkaline. Alkali sink habitats and highly alkaline wetlands are not potential breeding habitat for California tiger salamanders.

18. The studies being conducted by the Western Association of Fish and Wildlife Agencies (WAFWA) are being closely followed by the Project Biologist. It will be at least 8 years before construction in the Wye area would begin. Our Project Biologist has determined that the proposed undercrossing structures is more than adequate to address the issue of fragmentation of the pronghorn antelope population in this area. Please see Chapter 3, Section 3.2.1 of the EA/FEIR for an updated discussion of impacts to pronghorn antelope.

19. Regarding your comments on the mitigation for San Joaquin kit fox impacts: To compensate for impacts to San Joaquin kit fox a large ranch is being considered for purchasing a conservation easement. This ranch is currently not in preservation thus, it could be developed and in fact is being pursued for purchase by a biomedical research facility. This ranch has been identified by the California Department of Fish and Game and the US Fish and Wildlife Service as being a key ranch to the survival of the western populations of kit fox. It contains ideal habitat for many of the San Joaquin valley species including a large acreage of “deep-soiled valley grassland”. Purchasing a conservation easement on this ranch at a higher than 1:1 ratio is accepted as appropriate mitigation by the resource agencies whose mission it is to protect endangered species. Caltrans and the Federal

Highway Administration feel that this mitigation strategy is sufficient to compensate for impacts associated with this project to “deep-soiled valley grassland” habitat and other native flora and fauna. In addition, the preserved property would be enhanced and managed specifically for the benefit of the San Joaquin kit fox and other affected species, in perpetuity. This would improve the habitat value over existing conditions, thus offsetting the linear habitat losses incurred by the project.

20. Caltrans is not in a place to respond to other agency's mitigation successes or failures.

21. Regarding the qualifications of State Personnel in their job classifications and the ability for them to do their job duties: Caltrans personnel are highly skilled, highly trained individuals who are well qualified to perform the duties that their jobs require. Our biologists work closely and continuously with agency representatives on numerous projects throughout the central coast of California. Caltrans biologists are highly respected by various State and Federal agency personnel including the United States Army Corps of Engineers, the United States Environmental Protection Agency, the United States Fish and Wildlife Service, the National Marine Fisheries Service, the California Coastal Commission, and the California Department of Fish and Game.



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May 17, 2003

Mr. Larry Bonner
Caltrans – District 5
1150 Laurel Lane #275
San Luis Obispo, CA 93401-5415

RE: Hwy 46/41 Realignment Project – Comments on Draft Environment Document

Dear Larry:

Thanks for meeting with us at the Jack Ranch to go over the Highway 46/41 Realignment Project and the DEIR dated February 2003. Here are The Hearst Corporation's ("Hearst") general comments:

1. At all new and/or retrofitted bridges, maintain adequate clearance to make room for ranch vehicles, equipment, and cattle movement.
2. The existing bridge on Cholame Creek continues to cause sediment to build up at the bridge and create flooding on the Jack Ranch property. We request that the new design corrects this design problem and also fixes the sediment build-up problem in the bridge vicinity so the proper drainage can be restored.
3. New box culverts will need to be designed to allow for the proper movement of cattle and ranch equipment. Also, water pipes may need to be routed through culverts or under the highway to get water across the highway.
4. At the medians and some of the ranch gate entrances/exits, enough room is needed to allow a semi-truck to enter and exit safely. Sonny Sanders, the Ranch Manager, can work with you to identify the appropriate locations.
5. Out of the options presented, Alt. 8b looks like it works the best for Hearst. Here are a few comments:
 - a) Need access for corrals at Hwy 41
 - b) The existing Hwy 41 road should remain for ranch use to connect to the bull corrals. Safe ingress and egress will be needed for vehicles including semi-trucks.
 - c) Need adequate and safe access onto Hwy 41 from ranch roads/gates.
 - d) At Wye Section, need cattle crossing through box culvert to get from one side to the other @ Hwy 41 at bull corrals. Access for water line will also be needed.

Larry Bonner
May 17, 2003
Page 2

6. Box culverts need to be designed to handle 8-10 cattle side-by-side moving through the box culvert at a time. Possible funnel type fencing design is preferable at the entrance of the box culverts. Also, gates will be needed at culvert areas. Coordinate fencing and gate design and locations with Sonny Sanders.
7. Need water access to corrals in Alt 8b – same as Alt. 8 Wye section (W5 of 6).
8. At the Jack Ranch Café, Hearst will need separate safe two-way access for both proposed truck and car parking lots.
9. Design needs to minimize noise and vibration impacts at Jack Ranch Café since road is being moved closer to the Jack Ranch Café.
10. A new well may need to be developed if road behind the Jack Ranch Café is expanded.
11. Proposed new improvements at Jack Ranch Café should not encroach or interfere with current commercial zoning envelope.

Thank you for the opportunity to comment. As always, please feel free to contact us to work on the details of the design as it relates to our ranching operations.

Sincerely,



Martin Cepkauskas

MC/sgm

cc: Sonny Sanders
Tim Carmel, Esq.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Thank you for your comments. The State and the Hearst Corporation have been coordinating on many aspects of the development of this project as it relates the Hearst Properties. We appreciate the continued willingness of the Hearst Corporation to work with us. The State will coordinate with the Hearst Corporation during the final design and right of way phases of this project to address the issues in your comment letter.



Comment Card

NAME: DAVE SPURR

ADDRESS: P.O. BOX 1920 CITY: PASO ROBLES ZIP: 93447

REPRESENTING: DAVE SPURR

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, DISTRICT 5
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

5-17-03

Both DESIGN drawings FOR the shadow Area
by Lucy Brown rd will not work. I can't see why you
want to take property from 10 owners to go around the
Tosco plant when there is enough room to stay
within the right of way. I'm not very happy with
the design caltrans submitted. I have never been
contracted by anyone about the new design. I
have some ideas on a new alignment that
would not impact the land owners as much.
Please contact me to arrange a meeting.
A formal letter will follow
Thank you Dave Spurr

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Lucy Brown Road will be connected to the proposed Route 46 by a standard public road intersection. There is not enough room within the existing right of way to fit four lanes. Additional right of way is needed to meet highway design standards. Moving the highway away from Cholame Creek and around the Tosco Plant benefits future maintenance of the highway and the health and ecological functions of Cholame Creek.



Comment Card

NAME: Navarro

ADDRESS: 2176 Bel Air Place CITY: Paso Robles ZIP: 93446

REPRESENTING: _____

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: **CALTRANS, DISTRICT 5**
ATTN: Larry E. Bonner
50 Higuera St.
San Luis Obispo, CA 93401.
E-mail: larry_bonner@dot.ca.gov

I would like the following comments filed in the record (please print):

Closing Vintage Hills is a wonderful thing
you are doing, it sure will be a lot safer
to use Branch Rd. My only concern is getting
in and out of Branch Rd, I think you need
to consider putting in some traffic lights there to
make it even more safer. Especially since CDF
is there, they need to get out of there as
quickly as possible in an emergency and that
is hard to do now, I can't imagine when we
have four lanes.

Please respond by May 17, 2003

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Many people believe a traffic signal to be a cure-all. This belief is not grounded in fact. At best, traffic signals provide for a more orderly movement of traffic through an intersection, provide less delay for side street traffic, and reduce certain types of accidents. They may also, however, increase other types of accidents, notably high-speed rear-end accidents. Signals are a trade-off. In attempting to decrease the incidence of one type of accident, we realize that we may be increasing the incidence of another type.

Traffic signal warrants, based on research, have been developed on the national level in an attempt to define circumstances under which signals may be beneficial. These warrants are based on traffic volumes and on accidents. If warrants are not met, the indication is that a traffic signal will not benefit the location under study, could increase delay and accidents, and should not be considered at the location in question. Ignoring this could result in an increase in the number of accidents and the number of people injured. For the State Route 46/Branch Road intersection, Caltrans studies indicate that traffic signals are not warranted at this time.

Flashing beacons at fire station driveways or at intersections immediately adjacent to a fire station may be installed on State highways. The flashing beacon will supplement appropriate signs and be actuated from a non-illuminated state by a switch at the fire station. Caltrans, in conjunction with the California Department of Forestry and Fire Protection, will determine the need for a device of this type at this location.

Comments made to the Court Reporter, April 23, 2003 and Responses

RICHARD MACEDO: My name is Richard J. Macedo. My work number is 805-781-4338. I have driven Highway 46 East over 1,000 times between the coast and San Joaquin Valley. I have assisted at many automobile accidents. I encourage Caltrans to continue to move forward as soon as possible on this critical public safety project. While there is concern about environmental issues on the 46 corridor, the most endangered species on Highway 46 are we, the people, human beings. More deaths on Highway 46 are unacceptable. Thank you very much.

Thank you for your comments and support on this important transportation project. Your comments have been noted in the record.

FELICIA & RICHARD LAMBERT: We have been living on Jardine Road for 16 years and are subject to the traffic on Highway 46 when we try to go to town and when we return from town. The area on Jardine Road and Hog Canyon Road has increased in population greatly. The need for a traffic signal at 46 and Jardine Road is necessary. Please consider this need. Also, we drive to Bakersfield often to see loved ones and pray this four-lane highway will begin building soon. Thank you for all the work of planning a safe Highway 46.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Please see page 356 for a response to your comment concerning a traffic light at State Route 46 and Jardine Road.

JOHNIE DILBECK: Concerning the Vintage Hills project area, Branch Road, I believe if the County and Caltrans goes with that recommendation, that they blacktop Branch Road all the way down to Champagne for the reasons of health and safety and the dust area and stuff like that. What else do we want to say on that? The consensus of the property owners was that it needs to be blacktopped because the engineering over there said that all they're looking at right now is some class 2 road base; i.e. dust. That's their proposition to us. And I'm saying no. Raise our taxes, blacktop it.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The northerly extension of Branch Road will be paved.

RICHARD HOLLISTER: I live at 35 South Whitley Gardens Drive. The way that map shows it, on one of the alternates, it goes right through my house. And then they took and put a frontage road around and took the remainder of my property in front. So what I was concerned about is: Are they

going to take all of my property? They've got all of the front footage on it. I have no way to get in or out of it the way it is, if they do this, if they take alternate 8, so that's what my problem is now. I have been told that there's a possibility that they would take the property but when they put this frontage road in, I wasn't concerned because I have 20 acres. I figured, I will just move over, tear a chicken house down, and build a house over there. But I can't do that now so... and I don't know who I go to talk to.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Please see page 387, #1 for a response to your comment concerning the acquisition of your property.

MICHAEL KELLEY: My name is Michael Kelley. I live at 6225 Burgundy in Paso Robles, and my concerns are the water run-off from the widening of the highway. Two things come to play out there where we live, is that all the culverts are basically undersized to the roads. Some of the neighbors have doubled the size of the culverts to kind of remedy the runoff problem, but now with the widening of the road, they're going to be doubling the amount of water run-off and that's going to be an over concern for us because historically when it does rain, and it rains hard, some of the roads are non-passable for an hour or maybe two hours, and that's my big concern. The safety of the project is excellent. It's an excellent idea, and the alternatives that they've come up with are very good choices. And I think that most people that live in our little Tract area are agreeable to the entrance, the new entrance to the road, mainly because of the safety. And that's all I've got to say. My phone number is area code 805-239-0394.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The project will increase runoff from the roadway in this area from 6 cubic feet per second (cfs) to 12.5 cfs. All runoff from the roadway in this area will be routed to a new detention basin located near the present intersection of State Route 46 and Vintage Hills Way. The detention basin will limit the flow to the original 6.0 cfs.

2. The two culverts crossing the highway east and west of Vintage Hills Way will be extended, but the amount of flow from these culverts will not change. It is separate from the flow coming from the roadway.

BRENDA BAKER: I am a homeowner. My name is Brenda Baker. My address is 6355 Champagne Lane, Paso Robles, 93446. My phone number is 227-0570. I have two comments about the proposal. My first comment is the proposed northerly Branch Road extension; this road needs to extend clear to Champagne Lane as written on the proposal. So that's good. However, I was told it has a class 2 road base right now. I think it needs to be paved for two reasons. No. 1, this road is going to go along an existing vineyard owned by Meridian. The prevailing winds will carry the dust to the grapevines of Meridian, and it will ruin their crop, essentially. Right now they can control that

because it's a private road. So if they pave it, that will take care of the dust problem. Secondly, the paving then is also going to reduce the speed, especially if they can put speed bumps in, and there are several property owners concerned about speeding around and creating dust problems there. If you can cut that dust problem down, that will be very good. And also there's a third issue. The paving will also reduce noise for the homeowners. My second comment is a more general comment. I do believe that by law, every tract needs to have exits for emergency. As proposed right now, there's only one exit to Highway 46 and there needs to be two. I would suggest the planners look at the extreme west side of tract 22. There's already an existing road. They could make a right turn only on to Highway 46 in case of emergency so people can get out. And it probably wouldn't impact traffic that much but it would be a good emergency thing, especially since there are so many more people moving into that division. Right now if everybody jams up, it's going to be a problem. Those are my comments.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Please see Page 328 for a response to your comments concerning the paving of Branch Road and the access to the Vintage Hills community.

SUSAN HARVEY: My name is Susan Harvey. I live at 2430 Geneseo Road, Paso Robles, 805-239-0542. I'm disappointed that there's not the kind of hearing that facilitates everyone hearing what everyone else is going to say. I understand this is going to be in the public record, but I think that the other kind of hearing serves to broaden people's education and adds a better understanding of what the issues are because you hear from all sides. And even though some people might be precluded from expressing their views, I think that loss is more than made up for by having whatever that other kind of hearing, normal kind of hearing. I talked to the environmentalist about the wider median, and I'd like to see -- he indicated they spent a lot of time looking into finding ways to have the narrow median beyond Shandon, and you have to have a clear impact, and there's nothing that would be, you know, causing that out there, but I would still like them to consider having the 43-foot median instead of the 61-foot median. Let's see. What are my other complaints. As I read the first part of the environmental impact report, I noticed that the deaths on this highway were only slightly higher than equivalent roads around the state which led me to wonder why we weren't just putting a jersey barrier up, and also the second reason is their level of service. They want to carry more cars. But any time I've been on the road, I've never been in a situation where I even had to slow down, you know, so I'm not sure that the level -- I think what's driving this is the commercial interests. They just want four lanes so that more people can get into the wineries, can get into the golf course, and I don't think that it's completely predicated on level of service or even the deaths on the highway. So I'm not sure it's such a great financial investment. Let's see. What are my other complaints? Besides the width of it. There was something else. I guess my main complaints are the size of the median and the hearing process. Oh, I know. It seems to me this is setting up the entire north county for having nuclear waste from Diablo Canyon come through the north county and across Highway 46 to get out of here because this will -- in 20 years, it will be a four-lane to Highway 5 and at about that time, they will be ready to move that stuff and it will be coming through the north county. And I'm not happy about it being moved at all, but I will bet you dollars to donuts this is where it's going to come. But the other possibility, 166 is -- I don't see them making that any -- I

don't like either, but previously it was going to go down and across 166, and -- when this is four lanes, it's going to be this road. Thank you.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your comment regarding the public hearing format has been noted.
2. Your comment regarding a narrower median for the eastern sections of the project has been noted. Current safety standards for an expressway facility require the construction of a 63 foot median.
3. Although the accident rate for State Route 46 is slightly below the average statewide accident rate for similar facilities, this project is needed because the current levels of service (measuring congestion) are below the desired levels for a properly operating facility. For a complete discussion of the purpose and need for this project, please see Chapter 1 in the environmental document.
4. Your comment regarding your opposition to the movement of nuclear waste has been noted.

ERIC GREENING: My name is Eric Greening. I live at 7365 Valle Avenue, Atascadero, 93422, 461-1955. And I share the concerns of the previous speaker, specifically in regards to process. I think the public's coming together and hearing each other is a very important part of either reaching a consensus or recognizing differences and different concerns and people with different concerns hearing each other. I know I have certain areas that I know very little about, and I would appreciate being educated by members of the public who have studied that just as others might appreciate what I would have to say about areas they haven't looked into. That said, relating to the need for the project; obviously, the current highway has a lot of problems, and as a non-driver, I find it scary to be a passenger on it, but primarily because everybody is being so fast that drivers feel pushed. The only real excuse for this in my mind would be if there would be a genuine slow lane that you could be guaranteed would be a slow lane for those of us who bite our knuckles otherwise. That said, though, I know that speed is usually the reason given for a project like this, and so my question is, and I would like to look at this as one entire project from here to Interstate 5. I strenuously protest the segmentation. I strenuously protest doing everything from the Wye east on a negative declaration, a separate project, even though from an environmental standpoint, it is all one project with a set of impacts. But looking at the project as a whole or even this part of it, how much time is expected to be saved by the traveling public compared to not doing the project per trip, say, 10 or 20 years out, and then the next question is, will the time lost to the traveling public during construction ever be amortized back to the public during the lifetime of this project? And then a further dimension that probably tilts the answer even farther into the negative is how much time is invested by taxpayers earning the money to pay for this project and paying it in taxes compared to the amount of time saved by people on the road? And time spent on the road is not lost. It's just spent on route rather than at a destination. Maybe it's time you would rather be doing something else but the same can be said of the time people work to pay taxes. Regarding the safety impact, you know, what Susan referred to as the somewhat but not notably higher accident rate; there is one factor that no project will change, which is that during the

sunrise hours and the sunset hours, the alignment of the road simply points people's eyes straight into the glare. There's no number of lanes that can change that, and so the safety issue, I don't know how that particular thing can be fixed except seismically by a major reorientation of California. In relation to total project impacts, I am concerned about the lack of assessment of off-site impacts relating to either quarrying of material for this project and/or disposal of material from this project. When I talked to the environmental manager, he said that it would actually be a net creator of road base because of all the heavy excavation in the Whitley Gardens area, and then he proceeded to tell me that they were planning to dispose of that material on the Jack Ranch. The Jack Ranch is very, very important habitat. It's valley grassland, deep soiled. It's the deep soiled valleys that are the anchor of the food chain. Environmentally they're even more important than scenic crags because of their top soil. Where are the environmental impacts and mitigations assessed of whatever area will be chosen for disposal of this material? Then the question is, there may be a net export of material but wouldn't there still be some import of material to serve this project? I remember with the Cuesta Grade project there was nothing in the EIR on that project about off-site impacts of the material brought in. I remember reviewing the Rocky Canyon Quarry EIR and that set particular limits on the rate of extraction. Come to find out, once the Cuesta Grade project was underway, that they blasted right through those extraction limits in order not to delay the project and, of course, the response given to those who objected was, Well, we don't want to have to stop an important project; do we? My concern then is that the environmental review of the Cuesta Grade project should have been assessed, and to whatever extent possible, mitigated the impacts on the removal of material from Rocky Canyon and whatever other sources, the Santa Maria River, wherever material from this project came from, as well as the truck trips that brought it in. I'm asking that the same be done for this project. These are impacts connected with this project. I am generally pleased with the level of attention given to wildlife and to wildlife crossings; however, I am very, very seriously troubled that the segmentation of this project means that we have no comprehensive picture of what is happening to the wildlife in similar habitats, even in the Cholame Creek watershed, because the boundary of projects is not at Polonio Pass, not at the county line which is the boundary between Caltrans districts. It is well within this county and this watershed. Wildlife impacts such as the impacts on the burrowing owls just beyond the end of this project are not mitigated in the negative declaration, and people here have no real process for getting those issues addressed. There is no public comment and response to comments on a negative declaration. To challenge a document where the lead agency is in Fresno is extremely difficult and to even find people in that area who share the same concerns is impossible if their hearing -- quote unquote, hearing -- at Lost Hills is this type of format which goes back to my endorsement of Susan's comments that this format short-circuits the process of the public educating itself. We, the people, are paying for this project which is being done by a public agency. It is the responsibility of the public agency to make sure that we, the people, have a sense of ownership of this project if it is to go forward, and the only way we can have a sense of ownership is to be trusted to hear each other, influence each other's thinking, and not just be shown around by handlers. I could say a lot more, but my further comments will probably be contained in comments made by Life on Planet Earth and Canyons and Streams Alliance and possibly Paso Watch. So, to be continued. I'm not done. Thank you for the opportunity to speak.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your comment regarding the public hearing format was addressed earlier in our response to your written comments on Page 315.
2. Your comment regarding the need for the project was addressed earlier in our response to your written comments on Page 315.
3. Your comment regarding the alignment of the highway and the safety factor during sunrise and sunset has been noted.
4. Your comment regarding borrow and disposal material was addressed earlier in our response to your written comments on Page 315.
5. Your comment regarding wildlife has been noted.

PHIL ASHLEY: My name is Phil Ashley. I live at 1586 La Cita Court, that's L-a C-i-t-a, San Luis Obispo, 93401, and that's 544-9741. And I'm here 24 on Planet Earth. And I'm not going to make all my comments today. I haven't read the document yet, but my biggest concern is with process, the way the hearing is being conducted. I feel for 30 years hearings, since the environmental era have started, have worked very well where members of the public have their period of time, whether it's two minutes, three, four, five, whatever the allotted time, or a trust agency such as Caltrans lets that person speak and every person that's at the hearing can hear that person speak and every person that wants to speak can have everybody else at the hearing hear what they have to say, but this process of coming in and just having a workshop, basically, and calling that a hearing, and nobody, no matter what they believe or feel about the project, knows what anybody else is thinking, based on this so-called hearing, is an abomination to the hearing process and the way it's worked and worked well for 30 years now. The idea that this is creating consensus, good feelings, people working well amongst themselves; that may be fine, but we need to hear opposing points of view, and typical hearings work that way well and are not disorganized, are not rowdy, and people have adequate time before and after such hearings to talk to each other based on hearing each other's opinions and typically have adequate time to talk to staff of that agency. And my final comment on this issue is, I hope Caltrans seriously takes it into consideration that if this is the way we're going in this new millennium, this new century, 30 years after our environmental laws have shown the other way has worked well and people appreciate the other way, this new way really is an attempt to divide and conquer where differing points of opinion aren't heard until the Final EIR when nearly the final stamp of approval is being put on the process by the agency or the project proponent; in this case, Caltrans. I have many other comments on environmental issues, but that's enough for tonight because that is the issue tonight; the process. It's being undermined at the expense of the public and the environmental process. Thank you.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your comment regarding the public hearing format has been noted.

STEVE ORMONDE: My name is Steve Ormonde. I have a business at 2348 Golden Hill Road on the corner of 46 and Golden Hill. I'm here representing the California Trucking Association. We have two concerns with the Wye out at the Cholame intersection. One is for oversized loads going across 46. We cannot have an overpass or any restrictions to oversized loads at that Wye intersection. We prefer the intersection alternative 7 or 4. And the Estrella dip, we prefer the option 8-N. I can be reached at area code (805) 238-1466 and we will also formalize a letter from the California Trucking Association stating our concerns and our preferred options. Thank you.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. While we have made note of your preference for the Wye Section alternatives, any of the alternatives could be designed with a 20-foot vertical clearance if requirements deem it appropriate.
2. Your support of Estrella Section, Alternative 8N has been noted.

MARK WINSBORROW: My name is Mark Winsborrow. My phone number is 661-549-0586. I'm out of the Bakersfield area and I represent the California Trucking Association. Looking over the Highway 46-41 interchange, we recommend that we use alternate 7 and alternate 4. And the reasons for that is for our heavy haulers that run across Highway 46. They will have direct access to 46 to the coast. With the heavy haulers, they are concerned with bridge overpasses. Most of these heavy haulers are hauling anything from 16 feet to 20 feet in height. So we recommend that we have these alternatives 4 and 7 because there is no bridge over 46. The other is the Estrella section, and we recommend 8-N, the reason being is it will cut the 6 percent grade to 4 percent grade which will flatten it out for our trucking industry. And those are the comments for me.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. While we have made note of your preference for the Wye Section alternatives, any of the alternatives could be designed with a 20-foot vertical clearance if requirements deem it appropriate.
2. Your support of Estrella Section, Alternative 8N has been noted.

Comments made to the Court Reporter, April 24, 2003 and Responses

HERMAN SCHWARTZ: My name is Herman Schwartz. I'm the general partner of Continental Vineyards. My address is 11,000 Highway 46 East, Paso Robles, 93446. My office number at that property is area code (805) 238-2562, and my fax number is (805) 238-2575. The subject property, Continental Vineyards, is a 2500-acre piece of property with approximately one mile of frontage along Highway 46 East on the north side of the highway. I bought the property in 1969, and on the title report and policy of title insurance, it was noted that on -- we have two methods of ingress and egress to our property, on the west end of the frontage and the east end of the frontage. And based on a letter that I sent to Thomas Houston of the Department of Transportation on May 8th, 2001, I cited that -- I'm going to read one paragraph that I delivered to you copies of two grant deeds executed by Emma B. Kester, in favor of the State of California recorded on March 24, 1954, and March 22, 1957, accepting and reserving to the grantor the right to access -- I'm quoting now, "the right to access to the freeway over and across the following described lines." And I sent them copies of those two grant deeds, and I also, in addition to -- that was the first written communication I had with Tom Houston to present my case, which I'll explain in a minute. And prior to that, I think the first letter I sent going back was April 25, 2001, and that was to Jay Walter, District Director of the Department of Transportation. Then the second letter was May 8th that I just cited to you. The third letter was dated May 9th from Jay Walter to me acknowledging my letter and saying that they'll look up all the facts and hopefully satisfy all parties. And the fourth letter, which I'm going to give to you also, is dated October 2, 2001, and that's my letter addressed to Tom Houston of the Department of Transportation, once again, dealing with the fact that the proposed widening of the highway indicates that -- this I just got off the Internet and this I'm looking at map -- it's entitled Estrella section, alternative 8(n) and then E 18 of 18. And it indicates there's an access opening to the property both on -- this is our property here on the north side of the highway and across the road, but there is no indication of a left-turn lane to go into our property on eastbound traffic. And for that matter, there is no method of leaving this property and making a left-turn lane to go east on this new proposed four-lane highway and that's what I object to because we use both the west end, which I'm referring to now, and the east gate, and we need access to the property coming from and going east and west. The second map I'm going to refer to indicates the east entrance to our property, and that's located -- the map I'm referring to is Shandon section, alternatives one and two, and then it looks like big S, little H, 2 of 17. And this opening, as well as the one I previously described, actually is an opening that serves two contiguous properties, so the first one I gave to you a little earlier is an opening for two properties, one, our neighbor. The one I'm referring to now here on 2 of 17 is actually the same situation where there is -- there is a left-turn lane provided eastbound on this, our main entrance, but I don't see any way of coming out of our property and turning left or going east, and it doesn't look like there's a provision to do that. So based on the grant deed of the Emma Kester grant of the State of California, it is mandated by that document, legal document that's recorded on our property, that we have ingress and egress from Highway 46 on both the east and west gates to our property. That means when we leave that property, we can turn -- we should be able to turn either east or west. It may not -- they've indicated it doesn't fit into their plans right now, but that's something they're going to have to work out. They don't have the legal authority to prevent me and my business invitees and customers not to be able to get into our property. As a matter of fact, on

the west end of our property, there is a 50-acre parcel which is designated as a potential winery site. Without having the appropriate and safe ingress and egress that would be approved by the County of San Luis Obispo, the County would never grant a license or a building permit to build a winery on that site. So there's an economic consideration as well as a legal consideration. I think that is it at the present time. The last paragraph of the May 9th, 2002, letter from Jay Walter, which I referred to earlier, to me that -- I'm going to quote, Caltrans is committed to working with all adjacent property owners in reaching acceptable and reasonable accommodations on issues concerning access. Then he says, if you have any additional questions as the project proceeds throughout the project development process, please contact Tom Houston, and there's a phone number and e-mail, et cetera. So it may be a token comment that he's throwing out to appease me, but I'm going to take that at face value that they should make a conscious effort to take care of the legal obligations that the State of California entered into with the previous owner to our property. Referring to map number entitled Shandon section alternatives 1 and 2 and the letters Sh, 2 of 17, there's some small numbers here, and I'm told this is 108, and that should be brought to the attention of the engineers that when you're leaving our property, the access opening, and you want to turn east, go east on the new highway, that it was recommended that they consider a speed lane coming from my property to turn left to go east and hook up to the highway. So take a look at that. Okay. That's it. (See attached letters.)

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. The State recognizes your right of ingress and egress at these locations and access will be provided or you will be compensated for those rights however you will not be left landlocked.

For the west end of your property, a median opening to allow access in and out for both westbound and eastbound traffic cannot be provided at this location because of its proximity to Almond Drive. This is based on the Highway Design Standards, which does not allow for a median opening within 800 meters (2,625 feet) of a public road intersection. Future negotiations to move this access location to the east could be beneficial to both parties.

For the east end, there will be a median opening that allows for access in and out for both westbound and eastbound traffic.

JERRY WHITE: I'm Jerry White. We lease the Peck Ranch property which is probably about five miles along Highway 46 both East and West of McMillan Canyon Road, and then we also have the owner in the Granger property that's over by the Union 76 Station which is about -- it goes through the middle of our property, about two miles through the middle of our property there. I'm concerned about on the Peck Ranches, the drainage coming out of section 019-131-015 and it connects to section 019-131-016. In that area there's a drainage comes out of the north of that which would be out of section 015, and I want to make sure that that tunnel under the new part of the highway is the same size as the existing one so we can move cattle under there and also so we can access both north and south of the freeway with tractors. And also on section 019-131-015 there's an existing road that you can access Highway 46, and there's also a frontage road along the front of that property. When you take -- you're going to take that hill out and you aren't allowing us to have a frontage road on

that north side of 46 where we can access, and we need -- we farm in the back there. There's about 2700 acres of grain that we haul grain out of those fields, and we need an access to Highway 46 there. And what you're doing is just eliminating all of our accesses and even our side roads to where we can go down to our grain storage which is about three miles east of there. And also when you take -- if you do put in an access road, we would like to have the access road at the ground level, at the same level as the highway, and then cut back so that the cattle won't have to go up and over the top of the hill and the same way with our trucks as they do now on the frontage road, they have now, it would be better to take more of the dirt and then use ground level so the cattle and the trucks and everything don't have to go up over the top of the hill on the cut that they're going to be taking out of that area. And then also down on section 019-131-017, and it also connects 019-131-018, that goes into the home site, and just west of there there's 60-foot gates on both sides of the highway where we presently and for the last 27 years have been crossing Highway 46 there, and we want also to have equipment crossing at the same areas that we do have now and that we have been using for the last 27 years that we have leased from the Peck Ranches. And the reason I'm stating all this is it's an absentee ownership, and it's managed by bank trust, and that's why they don't have the hands-on exactly what needs to be done in the right-of-ways, but when they do go to purchasing the property, the right-of-ways, I'm going to make sure to stress that we have access to the highway and also what I'm asking for at this time. And then down at the McMillan Canyon Road, we feel -- our family feels that with the growth there, they should have an overpass instead of the existing thing that they're going to -- not thing, but -- what do you call it? Access to the freeway that they have proposed. We think it should be an overpass where it would be -- because of the growth in Shandon and the amount of vineyards in the area and the number of trucks that go in and out of there, it would be a real hazard without an overpass and it would be senseless to spend \$200 million on a freeway and have a stop sign there or a stoplight. I think that's all I have on that. And then on the Granger property, we would rather have a thick -- we would rather have both lanes and existing right-of-way, or expand the existing right-of-way instead of going through the middle of our property out by Cholame. It's east of the Standard pump station. Our property is going to be -- as far as the value of our property and everything, it would be better to have both lanes in the existing right-of-way, just expand that instead of having one lane go through the middle of our property and the other one on the present right-of-way. I think that's all. The main thing is the drainage ditch and the right-of-ways and then the equipment crossing and then being able to -- because we have trucks that haul grain in and out of our grain storage at McMillan Road. It would be better for us to have an overpass instead of waiting for the traffic because sometimes on weekends, you'll wait for 15 minutes to get out on the freeway, and when it's four lanes, it's going to be that much worse and people going a lot faster, it would be a lot safer and less hazardous to have an overpass to go east on McMillan Road. And I thank you for taking these comments into consideration. My phone number is 238-0309. And the frontage road, station 134, plus 50, is the area that we're concerned about where the access road should be because that's off the map and then they'll know exactly where that's at. Thank you.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding your comment on access at Station 134+00, access will be provided at approximately Station 134+00, the plans have been revised to reflect this.

2. Regarding your comment on the private access road, the decision on the new location of the private access road will be determined during the right of way acquisition process. Your opinions and recommendations will be included at that time in the decision.
3. Regarding your comment on the existing equipment crossing (box culvert), this equipment crossing will be extended. It is actually at Station 134+00.
4. At this time, future traffic projections do not warrant the construction of a separated grade interchange at McMillan Canyon Road.

TIM WOODLE: My name is Tim Woodle. I am an architect representing the Vina Robles property at the intersection of Mill Road and Highway 46. My office address is 3450 Broad Street, Suite 106. My phone number is (805) 541-5604. I'm just here to go on the record. We found out yesterday that the current plan and the current EIR indicates acquisition of the Vina Robles property as part of the mitigation for the highway improvements. Our clients are adamantly opposed to selling their property or giving up their property in any way. They are a long ways down the road on a development project that includes an annexation to the City of Paso Robles which is completed. It includes the design of a hotel, a winery, visitor center, restaurant, tasting room, and spa complex. We have City approval for that project, and we are proceeding with working drawings as well. After our discussion last night, I've been assured that the City would not pursue condemnation if they don't have a willing seller, so I don't believe that we have an issue but I thought it is important to go on record.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding your comment on the acquisition of the Vina Robles property for mitigation purposes, the State is no longer considering a full acquisition of this property for mitigation.

PAMELA BARRETT: My name is Pamela Barrett. I live at 540 Punta Gorda Place, Shandon. I'm part of the Advisory Committee in Shandon. My concern is that it's going to be difficult for us to get onto McMillan Canyon; that we're going to need an overpass at McMillan Canyon to be able to go up to Chapel Hill and back and forth because of the five lanes. I just want to make that a part of the record. At Whitley Gardens, the bridge that's there, we would like to see 8-n which is the one that goes up over the hill rather than making the existing bridge wider or adding another part to the existing bridge. We would like to actually see the one that bypasses that and goes over -- the bridge at Whitley Gardens be the part that's called 8-n and that bypasses the existing bridge. I think it's called part B, but I didn't see it on there.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. At this time, future traffic projections do not warrant the construction of a separated grade interchange at McMillan Canyon Road.

2. Regarding your support of Estrella Section, Alternative 8N, your comment has been noted.

MARY CHAMBERS: I'm Mary Ellen Chambers. I live at 1744 Ponderosa Lane, Paso Robles, California, 93446. My phone number is (805) 239-2888. I'm chairman of Fix 46. We've been working on this project with Caltrans, with the California Highway Patrol, with the community since 1995. We started at a town hall meeting in Paso Robles and we have all been working as a unit right up until now hoping that we start in July of 2005. The projects that I've helped do and I still believe is the best one for the 46-41 is No. 4. And I don't know the number of the other one. Anyway, I'm real proud of everybody. Jack Walker is doing a really good job with the design and construction. Due to finances, we took a hit with some of our money. With the cost of gas, everything has increased. Making it asphalt, everything has increased, but I'm real happy with how everything is going. Larry Bonner is the environmental planner. He has a college education. He's a teacher. He's done this project. He's got it approved by the federal. Real proud of him. Nevin Sams is for safety. He goes all over our county and our district, the whole district, and works with everybody. Tom Houston; great guy. Talks with everybody. I'm just real happy with the whole project. I hope everybody is happy. There are folks that are going to lose their home construction. I feel bad for them. I hope they get a fair price for their homes. I just want it to be a safer highway. I don't want them to disturb the beauty of the environment and they're not. We're not putting ugly cement barriers up there. You can put ugly in quotes. I'm just real happy with the project. I was there last night. I was busy and didn't see you, so I didn't get to mention anything on the record. That's it. I have been working -- let's see. I have been working with the Executive Director for SLOCOG Ronald DeCarli and Darren Brown, planner from SLOCOG, and the Supervisor of District 1, Harry Ovitt. I just wanted them to know that I have been working with both of those people in this. They are part of the Fix 46 Committee, and there are ten of us in the committee. We started with ten. Some have moved away, some have dropped out, but I still send them mail. Our committee includes the CHP which Dwight Doggins has gone up to captain now in San Luis, and we have had two other lieutenant commanders since Dwight, so it started with Dwight Doggins and Harry Ovitt and Ron Carli. We were as a group. And we have advanced over the eight years. Good group.

Thank you for your support of the proposed project. Your comment has been noted in the record.

PETE CLARK: My name is Pete Clark. I grew up here in Shandon. My family -- our home ranch is up McMillan Canyon. My father bought our first ranch up McMillan Canyon in approximately 1960. My four brothers and sisters and I were raised here and have deep roots in the area. I am hoping that my comments will be considered, and I have had previous meetings with different people at Caltrans. My first concern would be the intersection at McMillan Canyon Road. I think that an overpass needs to go in there rather than what is currently being offered due to the fact that Shandon, the community itself, is being considered for at least as many as another thousand homes. The agricultural traffic, primarily grape trucks during harvest season, will create a horrific traffic problem at that intersection, and primarily for safety reasons, I think that an overpass should be constructed at McMillan Canyon instead of the current configuration. Moving east from McMillan Canyon, our family owns parcel 019-181-010, and the current configuration gives us access to those -- to that parcel; however, it does not show speed access lanes going east or west from what our

ownership there is under the name of Vineyard Hill Partnership. And we have two accesses there now which the current configuration does acknowledge and is providing for access in the future, but it does not give us speed access lanes going the opposite directions. So I would like as many trailers as we come out of these accesses with hauling horses and cattle and other ag commodities. We definitely need speed access lanes at, well, it would be sheet 2 of 17 and sheet 3 of 17 of the Shandon portion of the plan. Those two parcel numbers are 019-151-017 and 019-151-018. My other concern on the north side of that highway; as proposed now, the extended easement which is shown in green on the map, heavily impacts the operation of our ranch there by -- the easement would go right through an existing barn which we utilize, and it also is removing interior ranch roads which are imperative to our operation. So I would like to have that point addressed as well. We just have to have access on those roads, and by extending northerly the easement, it removes our roads which access the back of the ranch. What else do I have? So primarily in summation, an overpass at McMillan Canyon and then our speed access lanes to the west at our Vineyard Hill Ranch and that happen pretty much is it. I can be reached at our business offices which is area code (805) 238-7110. And as I say, we have been in the area a long time. The Whites are our good neighbors as well as the Peck Ranch. We all operate together and help each other. And I know they feel the same, primarily on these access points and having the speed access lanes and then also the concern about McMillan Canyon and the installation of an overpass instead of the current configuration. I would also be interested in hearing, in return for extending the easement, which is shown by the green line on the map, how a value is going to be arrived at. So I think that's it. And I would like to request a copy of the transcript.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. At this time, future traffic projections do not warrant the construction of a separated grade interchange at McMillan Canyon Road.
2. Regarding your comment on the proposed easement on the north side of the highway that goes through an existing barn, the barn could be purchased or relocated and the ranch roads would be relocated to provide the same utility that they serve now.
3. Determination of location and length of acceleration lanes, inside and outside, will be made during the design of the Shandon section. Typically, where left turns are allowed into local access, median acceleration lanes will be provided for traffic entering Route 46. Right turn acceleration lanes are based on volumes and type of entering traffic since a ten-foot outside shoulder is available.
4. Regarding your question of how a value is going to be arrived at for the purchase of an easement on your property, the value will be determined by a market value appraisal.

STEPHAN GREETHER: My name is Stephan Grether. I am the trustee of the Hans Georg Grether Trust, and the parcel in question is parcel No. 017-131-027. My phone number is (805) 278-9077, and the administrative address is 5415 Santa Clara Avenue, Camarillo, California, 93010. The comments I have are with respect to the two proposals; the Cholame section of the Highway 46 widening project, in particular, stations 116 through 117. The road would bisect -- well, not exactly

bisect but intersect a corner of our property, isolating a relatively small acreage, making it not very viable or inviable for farming purposes once the road project had been completed, and also this is then perpendicularly bisected, this orphaned piece of property, by the Cholame Creek itself, making the south end virtually inaccessible by either proposal, and due to the fact that you don't want to run farm machinery over a busy road, you'd rather find a different alternative method of doing that. The road north of the Cholame Creek is a larger -- then would be a larger piece and could possibly be accessed via the bridges, the proposed bridges going over the Cholame Creek, as you might say sort of the access road co-located alongside the creek, parallel with the creek, where the farm equipment could be driven underneath the bridges or the overpasses, making that northern section or I should say the section of orphaned property north of the creek accessible; however, that would have to be balanced off against the cost of lengthening the bridges unless they are already proposed to do that and/or buying the property outright. The southern portion of this, for lack of a better word, orphaned property, is another matter. Any kind of access that we have built in the past to go through the creek is just washed out and it's never really been viable. We've never been able to, short of building a bridge, or anything like that, it's just not -- it's not a good idea, it's not a practical idea to be driving through the creek back and forth from one side of the property to the other, so we have always used Highway 46 over the existing bridge to get from one side to the other and on the -- alongside the road using the easement on the north side of the road to be able to access the other piece of property, and that wasn't all that great either. I just want to go on record saying that there is approximately a 12-acre piece of ground that would be cut off by the road that is very -- would make its economic viability via farming quite questionable. It is also, to reiterate, bisected by the creek, making the southern section of that piece of property virtually inviable as an economic unit. And the northern section, if we could get access underneath the new highway via the proposed bridges, would allow that to be continued to farm as it is. But if that in any way was hindered or not possible or not practical, then we would propose that the state buy that portion of it as well. And if they can't buy the small piece without buying the big piece, then our option would be just to sell the whole thing. I think I've stated it as succinctly as I can. Basically stated it twice. Those are my comments. Thank you.

STEPHAN GREETHER: This is a continuation of my earlier comments concerning the access to an orphaned piece of property once the proposed highway is constructed. If it is Caltrans's option to lengthen the bridges, then it has to be stipulated that they need to accommodate a wide variety of agricultural equipment. It has to be high enough or wide enough for a wide variety of agricultural equipment such as combines, grape harvesters; things that are wide and high in stature, because -- it could give us access but just being able to drive a pickup through there wouldn't be adequate. In other words, the columns that support the bridge would need to be of sufficient -- of having sufficient spacing to allow us to go between them, and the elevation of the bridge would have to be sufficient for us to get the equipment under the bridge without -- with a good margin of safety so that we're not actually hitting the bridge with the equipment. And the other issue -- this is changing the subject -- would be that Highway 46 with respect to either alternative in the Cholame section poses an additional security risk to our, you might say, shop facilities, storage facilities because the road, the public road is now 200 feet -- within 200 feet of the shop area as opposed to 500 yards. And I don't know how these things are addressed, but we might have to fence it off; we don't know. So I just wanted to go on record saying this is a concern of ours both the scope and elevation, length, size of the bridge, and the change in security issues with respect to the road being that much closer to our existing shop facilities. That's all.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding the Cholame alternatives and how they would bisect your current parcels that are actively farmed and the remnants that may remain, the state would offer to purchase any uneconomic remnant of property created by our project. During the right of way acquisition negotiation process there will be opportunities to discuss this matter in detail.
2. Regarding the construction of the new bridges to accommodate large farm equipment, your comment has been noted.
3. Regarding the potential security risk to your shop facilities due to the relocation of the proposed highway substantially closer to the shop facilities, the state would be willing to negotiate an appropriate mitigation to reduce this risk. This would be determined and discussed during the right of way acquisition negotiation process.

TIMOTHY COCKRUM: My name is Timothy R. Cockrum. I reside at 2469 West Roberts, Fresno, California. My telephone number is (559) 999-4235. I'm speaking in reference to parcel No. 017-131-039 or informally known as the Cockrum garage property. As the property now exists, there are two access points from Highway 46. Both designs alternative one and alternative two have eliminated the quality of access that we now have and have only provided easements to the property from the highway. We would like to see efforts in redesigning or to improve the access to something equal to what we now have or something closely aligned with what's available at the Cholame Cafe. Also, if the highway in front of the garage property now is abandoned with alternative one, will that property be available for sale to adjacent property owners? If so, could I please be contacted? Thank you for considering my comments.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding the changes in access and frontage for State Route 46 in relation to your property, your comments have been noted.
2. Regarding excess lands as a result of the project, if the property is not needed then it will be available for sale.

MONICA MARTIN: My name is Monica Martin. My address is 8950 Union Road, Paso Robles, and I'm concerned with the Estrella section mapping. My phone number is 239-2204. I would like the designers to reconsider the movement of the proposed -- the new highway away from the Tobin James Cellars. That's an active business. And across the highway, which would be north of the highway, north of 46, it's just bare land. And that would be a better place to move the highway. Also, there's a natural curve in the highway, and if they did move the highway north, it would

straighten out that curve a little bit better. It wouldn't be such a sharp curve. It would be more straight. That's all. Thank you.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Your comment has been noted in the record.

KEN WHITE: My name is Ken White, Box 105, One McMillan Canyon Road in Shandon, California, 93461, (805) 238-5509. The two concerns that we have are, other than what my brother already expressed, is at station 168, the access from McMillan Canyon Road and access from -- or McMillan Canyon Road to Highway 46 from the Shandon side. We have the shop facilities and the farm yard right across kattie-corner -- it would be on the north-western corner of that easement. We're losing currently the elevator portion of our grain storage facility. Our concerns are, this highway cuts our operation in half, our farm operation, so we have the movement of equipment on both sides of the highway, heavy equipment; not only trucks but tractors with equipment that have for our farm operation. But our concern is if we use the current access arrangement there, we'd much prefer an overpass. Down further at Station 151, we should have on record an encroachment permit for crossing the highway. There are two 60-foot equipment gates on both sides of the highway for movement of farm equipment across Highway 46 currently. We have an encroachment permit that was acquired in 1974 or 1976, I'm not exactly sure, and we were told at that time that it was only -- we only needed to do that one time, a one-time permit. If we lose that access or that ability to move equipment across 46, we would prefer an overpass at the station 168 on the access going into Shandon just from a safety factor and from the fact that we'll have -- like I say, it cuts our farm operation in half and we utilize it regularly. We also are landlocked on land parcel 019-131-015. We have no access in or out of that parcel. I thought I had the other one, but I don't; I'm sorry. Maybe -- well, could we add these two parcels -- that's what are involved on this station 168 as far as the access and easement. They're 101-131-022 and this one's 014. Anyway, getting back to the -- we have no access to this portion of the property, and it involves about 3,000 acres of crop land plus a livestock operation. Right now we have side -- I guess you'd call them dirt frontage roads, dirt ranch frontage roads on the north side of the highway, and in the new plan, those are removed with the right-of-way change, and also there's no accommodations for this type of a road arrangement on that side which is necessary for us or else we need the option of an on or off easement to Highway 46 from the current access that we have onto Highway 46. And that's essentially it.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding your comments pertaining to the effects of the proposed project on your grain storage facility, negotiations with right of way during the right of way acquisition process will take into account the physical impacts to the grain storage facility. The state would either reconstruct or pay you to reconstruct this facility so that it was operable with the proposed project.
2. Regarding your comment pertaining to access at Station 151, access will be provided at Station 134+00.

3. Regarding the reconstruction of the access/frontage roads for your operations, the decision on the new location of the private access roads will be determined during the right of way acquisition negotiation process. The state could pay for or reconstruct replacement ranch roads.
4. The existing equipment crossing at Station 134+00 will be extended.

ROBERT ANDERSON: My name is Robert Anderson. I live at 1411 Center Street in Shandon. My phone number is (805) 238-2833. What I have been having is that the backside of my property goes for over 3,000 feet along Cholame Creek. I have been experiencing for the last 18 to 20 years an erosion problem that I feel is generated by the existing bridge at Highway 46. I live downstream two pieces of property above me, but we are all losing land, a tremendous amount of land. My neighbor nearest the bridge has had to have his power pole removed. It fell off in the river because of the erosion. They lost their back yard and the former owners moved out and gave it back to the bank. They quit making payments on the land because they moved out. The bank took the property over because they couldn't -- they were feeling that their house was going to go in the river. It has continued from the silt to fill in the initial channel of the river that has caused the river to change course all the way down from the bridge now. At the present time, several years back Caltrans hauled in riffraff to put at the lower side of the river. And at that time I had went to San Luis Obispo. I exercised a concern because my business was in construction, and I understood the features of it. They said that their engineers had done all the plotting of it and they didn't need my advice. So within three years, the first initial rock that they placed in there came out and then they brought another contractor in, replaced it, and added additional rock. Within three years again, all of that rock came out and went downstream up to 60 feet away from the initial point of the installation. That is now altering the flow of the river and the rock. Caltrans recognized that they still had a problem with the base of the bridge, so they hired a contractor, this time pile-driving metal interlocking pieces across the lower part of the bridge. But evidently, the Fish and Game wouldn't let them go after their rock that had flowed downstream, which is now altering the course of the river, because they thought that the Kangaroo rat or the blunt nose lizard might have taken up habitat in the rocks. So Caltrans did not opt, in my conversation with them, did not want to go through the environmental impact study and return when and if they ever got approval to remove the rock, so they waved goodbye to me and they're still there. And since then, I have lost approximately, in some areas, 60 feet and a lot of areas 40 feet encroachment into my property for over 3,000 feet of my river property line, an irrigation well, and I have 20-foot straight-up-and-down embankments that full length now that naturally break off even in the summer months, and as soon as the rains come, they're gone again. I attempted to, even though I own that property, Fish and Game said I am denied to put a tractor down there because I'm going to kill the fish that's in the river. These fish would have to have legs at least 11 and a half months of the year in order to navigate the land. Most of the time the water only runs for about maybe a week at the most once a year, but when it does come, it does flow occasionally pretty good. But this has nothing to do with Caltrans. But now the river is starting to get a growth of trees in the old aqua flow because of the sand depositing, changing and altering it, it has allowed willow trees to grow, and the Fish and Game informed me that I could not remove the willow trees because it was a bird sanctuary. So my concern is by looking at the map 1 and map 2, one alternative is to double-lane the road through that area and abandon a small area where the existing road is. And the other thing is at the present bridge, when it was engineered, I felt way back at the original time of engineering, they placed the pillar support system not to

accommodate the flow of the river but they placed it to accommodate the width of the highway, so it created not a direct flow, it created a wing-like effect that started an eddy condition at high water and that has been an ongoing thing for over 20 years. It's not only Caltrans's fault but there is an embankment above it that started the eddy condition before it approached the bridge. So we have a double -- we have a double thing there. We have, by nature, water is starting to do its eddy thing and by that time, it draws into the bridge embankment and that is then increased. Caltrans went underneath and built supportive conditions, and they winged that also to the present -- at the time that they did it, to the present flow that looked right to them. But if you stand in the original river flow, then all of this stuff becomes obvious that it was not put in to accommodate the natural river flow. And it's been done now 20 years so -- but I've only been in the area 18 years. I spent many years in the construction business, and so -- not building houses but doing earth work. I have earth movers and water trucks and bulldozers. So I understand a little bit about what takes place, but I've never had anybody help. Nobody can help me. All I've got is passed off and even the County people said, Oh, it's too bad. I went to the soil conservation people; it's too bad. My only thing that I get is, it's a natural thing for rivers to change course. It's been doing it for a thousand years. And I have pictures of showing in the 18 years I've had of how much the land has changed. I'm at loose ends. Too bad. You know, as far as people are concerned, as long as it don't affect them immediately, their interest in gone. That's all I have to say. I hope somebody listens. I haven't been able to get anybody to listen for the last 18 years.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding your comment pertaining to Cholame Creek and its impact on your property, your comments have been noted and the information sent to our Maintenance department in Shandon. The erosions problems in Cholame Creek are regional in nature and the State, like yourselves, has experienced scour and stream bank erosion at several locations along the creek. Cholame Creek experiences flash floods and when winters are severe the erosion problems follow. Caltrans involvement in the channel has not altered the natural occurrence of erosion as it pertains to your property.

SERENA DRUCKER: My name is Serena Friedman-Drucker, and I am speaking on behalf of my husband Michael Drucker. We are owners of parcel 015-041-005 also known as Oak Creek Vineyard on Highway 46 East in Paso Robles. My mailing address is 28705 Wagon Road, Agoura, California, 91301. My phone number is (805) 526-9242. We are the owners of Oak Creek Vineyard on Highway 46 East -- Highway 46 East of Meridian Vineyard. We hope also to be able to develop commerce on this site to include both a wine tasting room and possibly a bed and breakfast. For the last 13 years we have had to dodge the traffic entering and exiting our property. We have employees who multiple times each day enter and exit this parcel. The crossing is so dangerous that only good fortune has prevented an accident. This is especially dangerous for those people newly visiting our property. We strongly support the turn lanes and acceleration lanes in this project as proposed. We also feel it will relieve congestion and reduce accidents. We're very pleased with the Estrella section proposal and the lower-costing alternative at Whitley Gardens. We want to sincerely thank all those who have been working these many years on this project. We appreciate the thoroughness of the

proposal and feel it meets the needs for the area for years to come. Now we would like you to hurry up and get started.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR), your comments have been noted in the record.

WILLIAM ALLEY: My name is William J. Alley. My address is P.O. Box 24, Shandon. My home phone is (805) 238-2697. I have two concerns. One is with the Wye alternative No. 4. In traveling from Davis Road to the west, you would need to cross extra traffic lanes that are eastbound. That is an ag area. We own property up that road, and most of it is trucks with trailers or vehicles with trailers, cattle trailers. That seems a little excessive in that alternative. The other concern I have is with the McMillan Canyon Road access. Most of the traffic from Shandon, and a lot of it is trucks, turns left; that is, westbound, and is there going to be adequate space in the center for trucks to be trapped between the traffic lanes? It appears to be only about 34 feet between the edges of the traffic lanes. And I understand that a truck would be at an angle and there is an acceleration lane there, but I'm concerned if there's going to be enough room and if that's been looked at. Let me add two more things real fast. I want to thank the people who set it up for having the court reporter system. I much prefer to talk than to write this stuff down or to handle it in some other fashion. And the second concern is -- let me think for a second. The other one is I'm gratified to see that all of the alternatives conserve the current access to the Shandon Cemetery. That was an earlier concern and I'm glad that it's been taken into account.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Regarding your comment on the alignment and configuration of Davis Road, your comment has been noted.
2. Regarding your comment on the median width, the proposed median width meets current highway design standards for expressways. Any adjustments to this width will be investigated during the final design phase of each section of the project.

CLAIRE SILVER: My name is Claire Silver. My address is 8950 Union Road, Paso Robles, 93446, and the phone number is (805) 239-2204. This is about our concerns for our business, Tobin James Cellars at 8950 Union Road. We also have a residence there. We have a letter from March of 2000 from John Wollman, the project manager, because we wrote letters to him stating our concerns about the effects of this widening on our business. And he said they will be looking into "widening it primarily to the north of its existing alignment, and it appears to avoid any significant impacts to your business and property." And by the looks of things tonight, that's not happening, and we're very concerned. We really want every effort made to extend it to the north instead of on our side. The land on the north is just grazing land and a dump up on the hill, and we have 25 employees and a residence, a historical building. We have our business at stake, so we can't -- we can't expand anywhere for our parking lot. If they come closer to us and take over our property, that's going to render the house useless, the residence useless, the guest house useless. Our parking lot will be

diminished I don't even know by how many spaces, but it's going to affect our business, and we have families to feed here and are really concerned and we want every effort made to align the highway so that it goes to the north instead of the south. Thank you.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your comment regarding the location of the proposed highway and its relation to your business has been noted in the record. The highway was redesigned in this area to minimize the impacts to your property and business to the greatest extent possible. Please see Volume II, Appendix A of the EA/FEIR for the new plans in this area.

LANCE SILVER: My name is Lance Silver. We own a business at 8950 Union Road. That is on the corner of Union and 46. The business is Tobin James Cellars and has been operating for almost 20 years, 12 at that site. When we were first informed of the 46 widening we spoke with a John Wollman and wrote letters and he responded after seeing the first conceptual design that it was encroaching on our property and not on the north side of the highway where there is no development at all. Mr. Wollman responded with a letter dated March 10th, 2000, stating that there is an alternative to widen Highway 46 primarily to the north of its existing alignment instead of to the south and appears to avoid any significant impacts to your business and property. This letter did quite a bit to assuage our concerns, and it wasn't until this meeting tonight where we saw that the highway is not going to be widened to the north side but, rather, to the south side. Looking at the drawings and speaking with Tom Houston and Jose Arguello, the highway is going to encroach approximately 60 feet onto our property bringing the highway 60 feet or possibly more closer to a 140-year-old historical site that is currently being used as a residence, a single-family residence, and a two-room bed and breakfast. The encroachment also will destroy almost half of our parking lot. There are no alternatives for additional parking on our site. We have maxed out, according to the County, on where we can expand any parking or buildings. Several concerns regarding the movement of the highway. First would probably be the noise level that would make living and staying at a B & B undesirable. The second, of course, would be having cars rumbling past twice as close as they currently are. The third, the current configuration on the map that I saw stops my circular right-of-way within the winery, which would mean I would no longer be able to accommodate trucks that pull in and deliver items and pick up items and then make a loop around my guest house and are able to get out. According to the way the configuration states, there would be no room for that. This current configuration I see as affecting my business, possibly cutting my sales in half or more, eliminating jobs, eliminating the residence, eliminating a hotel which is vital to this area as anyone in the hospitality business knows. Certainly, in a perfect world, our concept would be to widen the highway on the other side of the road where there is only agriculture. There are no buildings within a mile of that side of the highway, and a landfill. As Mr. Houston and Mr. Arguello pointed out, there might be grade considerations; however, we strongly feel at Tobin James Cellars that jobs and a business that has taken 20 years to build should take precedence over moving some more land. All of us at Tobin James Cellars respectfully request that a more user-friendly alternative be adopted. Respectfully, Lance Silver.

Thank you for taking the time to comment on the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Responses to your comments follow.

1. Your comment regarding the location of the proposed highway and its relation to your business has been noted in the record. The highway was redesigned in this area to minimize the impacts to your property and business to the greatest extent possible. Please see Volume II, Appendix A of the EA/FEIR for the new plans in this area.

Chapter 8: Consultation and Coordination

Agencies formally or informally contacted and consulted during the preparation of this environmental document include the following:

- Bureau of Indian Affairs (BIA)
- California Department of Fish and Game
- California Department of Planning and Research
- California Highway Patrol
- California Native Plant Society
- California State Office of Historic Preservation
- California Transportation Commission
- Chamber of Commerce (San Luis Obispo)
- City of Paso Robles
- Federal Aviation Agency
- Federal Emergency Management Agency
- Federal Transit Administration
- Land Conservancy
- Natural Resource Conservation Service
- Paso Robles Unified School District
- Regional Water Quality Control Board
- San Luis Obispo Council of Governments
- San Luis Obispo County (Engineering, Parks, Planning)
- San Luis Obispo County Air Pollution Control District
- San Luis Obispo Environmental Center
- San Luis Obispo Regional Transit Authority
- U.S. Army Corps of Engineers
- U.S. Department of the Interior (Fish and Wildlife Service)
- U.S. Environmental Protection Agency

An extensive list of federal, state, and local agencies received the Notice of Preparation to prepare a DEIR for review. Correspondence received from these agencies is presented in Volume II, Appendix G.

Chapter 9: List of Preparers

The following people contributed directly and significantly to the production of this document and the project in general and were instrumental in managing the project through to the preparation of this document.

BONNER, LARRY E. – ASSOCIATE ENVIRONMENTAL COORDINATOR

7 years experience in environmental analysis and documentation
B.S. Degree in Forestry & Natural Resources Management
Prepared Environmental Assessment/Draft Environmental Impact Report

HOODE, SUMI – TRANSPORTATION ENGINEER

5 years experience in highway design and construction
B.S. and M.S. Degrees in Civil Engineering, Registered Civil Engineer
Project Engineer, Prepared Project Report

HOUSTON, TOM – PROJECT MANAGER

25 years experience in highway design and construction
Registered Civil Engineer
Project Manager

WALKER, JACK – SENIOR TRANSPORTATION ENGINEER

20 years experience in highway design and construction
B.S. Degree in Civil Engineering, Registered Civil Engineer
Senior Project Engineer

ARGUELLO, JOSE M. – TRANSPORTATION ENGINEER

15 years experience in highway design and construction
B.S. Degree in Civil Engineering, M.S. Degree in Soil Mechanics, Registered Civil Engineer
Project Engineer

ALMAGUER, HUMBERTO – TRANSPORTATION ENGINEER

7 years experience in highway design and construction
B.S. Degree in Civil Engineering
Project Engineer

The following people contributed to the preparation of this environmental document through the preparation of supporting technical reports, sections of this environmental document, or through review of the document and/or mentoring of the staff working on the project.

BERTAINA, LARA – ASSOCIATE ENVIRONMENTAL PLANNER

6 years experience in environmental analysis and documentation
B.S. Degree in Environmental Studies and Planning
Prepared Original Farmland Evaluation Section

BEWLEY, KAREN – ENVIRONMENTAL PLANNER

1 year experience in environmental analysis and documentation
B.A. Degree in Environmental Studies
Document Peer Reviewer

CARR, BOB – LANDSCAPE ARCHITECT

17 years experience in landscape design, construction and visual impact assessment
B.S. Degree in Landscape Architecture
Prepared Visual Impact Assessment

**HACKER, DAVE – ASSOCIATE ENVIRONMENTAL PLANNER
(Biologist)**

8 years experience in environmental analysis and documentation
B.S. Degree in Forestry and Natural Resources Management
Prepared Natural Environment Study, Conducted Section 7 Consultation

**LEVULETT, VALERIE A. – SENIOR ENVIRONMENTAL PLANNER
(District 5 Heritage Resource Coordinator)**

35 years experience in Archaeology
M.A. Degree and PhD in Anthropology
Coordinated Cultural Resource Studies and Preparation of the Historic Property Survey Report

LUCHETTA, JOHN – SENIOR ENVIRONMENTAL PLANNER

16 years experience in environmental analysis and highway construction
B.S. Degree in Natural Resources Management
Oversaw preparation of Environmental Assessment/Draft Environmental Impact Report

**MILLS, WAYNE W. – TRANSPORTATION ENGINEER
(District 5 Paleontology Coordinator)**

21 years experience with Air, Noise and Water Quality Studies
B.A. Degree in Social Science, B.S. Degree in Earth Science
Prepared Air, Noise, and Paleontology Technical Reports

NEWLAND, JANET – ASSOCIATE ENVIRONMENTAL PLANNER

16 years experience in environmental analysis and documentation
B.A. Degree in Liberal Studies
Document peer reviewer

OGLETREE, SHAWN – ENVIRONMENTAL PLANNER

5 years experience in environmental analysis and documentation
B.S. Degree in Environmental Conservation of Natural Resources & Wildlife Fisheries Management
Managed preparation of the Initial Site Assessment and Preliminary Site Investigation

**O'NEAL, JENNIFER – ENGINEERING GEOLOGIST
(District Stormwater Coordinator)**

6 years experience in water quality analysis

B.S. Degree in Geology
Prepared Water Quality Technical Report

PAVLIK, ROBERT C. – SENIOR ENVIRONMENTAL PLANNER

(Architectural History)

21 years experience in History and Architectural History

M.A. Degree in History

Prepared Historic Architectural Survey Report and Historic Resource Evaluation Report

RIDER, BRANDY – ASSOCIATE ENVIRONMENTAL PLANNER

9 years experience in environmental analysis and documentation

B.S. Degree in Biology

Prepared Updated Farmland Study

ROBISON, RAMONA – BOTANIST

13 years experience in botanical surveys

B.S. Degree in Botany, Ph.D. Candidate in Plant Biology

Conducted Botanical Surveys, Assisted in Preparation of Natural Environment Study

Prepared Wetland Delineation

SWANGER, BRUCE – SENIOR HYDRAULICS ENGINEER

14 years experience in hydrologic/hydraulic analysis and design

B.S. Degree in Civil Engineering, Registered Civil Engineer (California, Arizona, and Nevada)

Prepared Floodplain Evaluation/Location Hydraulic Study

Chapter 10: Distribution List

The Environmental Assessment/Final Environmental Impact Report was sent to the following agencies and people for review and comment:

Federal

Natural Resources Conservation Service
United States Army Corps of Engineers
United States Congressperson Lois Capps
United States Environmental Protection Agency
United States Fish and Wildlife Service
United States Senator Barbara Boxer
United States Senator Diane Feinstein

State

California Department of Fish and Game
California Department of Forestry and Fire Protection
California Highway Patrol
Regional Water Quality Control Board
State Clearinghouse

County

San Luis Obispo Council of Governments
San Luis Obispo County Air Pollution Control District
San Luis Obispo County Board of Supervisors
San Luis Obispo County Environmental Health Department
San Luis Obispo County Library
San Luis Obispo County Planning and Building Department
San Luis Obispo County Public Works Department

City

City of Paso Robles
Paso Robles City Council
Paso Robles City Library
Paso Robles City Planning Department

Other

Each person or entity who submitted a comment on the Environmental Assessment/Draft Environmental Impact Report.

Chapter 11: Title VI Policy Statement

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January 14, 2005

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, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.


WILL KEMPTON
Director

"Caltrans improves mobility across California"