

Kern 46/99 Separation Bridge Replacement Project

Kern County, California
06-KER-46-PM 57.35/57.8
Project ID 0612000105

Initial Study with Proposed Negative Declaration



Prepared by the
State of California Department of Transportation

December 2013



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration, which examines the potential environmental impacts of alternatives being considered for the proposed project near the city of Wasco in Kern County. The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment that could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document.
- Additional copies of the document and technical studies are available for review at the Caltrans district office at 1352 West Olive Avenue, Fresno, CA 93778 and the Kern County Library, Wasco Branch at 1102 7th Street, Wasco, CA 93280.
- The document will also be available on the internet at <http://www.dot.ca.gov/dist6/environmental/envdocs/d6/>

If you would like a public hearing or wish to make any comments, write to Caltrans by the deadline at the address below. Submit your request and/or comments via U.S. mail to:

Michelle Ray
Acting Senior Environmental Planner
Caltrans Environmental Division
855 M Street, Suite 200
Fresno, CA 93721

- Submit comments via email to michelle.ray@dot.ca.gov.
- Submit your request and/or comments by the deadline: March 7, 2014

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

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Replace the State Route 46/99 separation bridge in Kern County

**INITIAL STUDY
with Proposed Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation

12/20/13
Date of Approval


Christine Cox-Kovacevich
Chief, Central Region Environmental
California Department of Transportation
CEQA Lead Agency

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to build a new bridge on the south side of the existing State Route 46/State Route 99 separation bridge and replace the existing ramps on State Route 99. The existing bridge would be demolished after the new bridge is in place. The southbound ramps would be replaced with half-diamond standard ramps, and the northbound ramps would be connected with a T-intersection at Famoso Road. The new bridge and ramps would be consistent with current design standards for the State Route 99 corridor.

Determination

This proposed Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Negative Declaration is subject to change based on comments received from interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on land use, growth, community character and cohesion, environmental justice, cultural resources, geology, soils, seismicity, topography, paleontology, noise, natural communities, or plant species.

The proposed project would have no significant effect on relocations and real property acquisition, farmland/timberland, utilities and emergency services, visual/aesthetics issues, hydrology and floodplain, waters of United States, traffic and transportation, water quality and storm water runoff, hazardous waste/materials, air quality, animal species, invasive species, or threatened and endangered species.

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

Date

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Chapter 1 **Proposed Project**

1.1 Introduction

The California Department of Transportation (Caltrans), as the lead agency under the California Environmental Quality Act, proposes to replace the existing State Route 46/State Route 99 separation bridge. The new bridge would be located on the south side of the existing structure, and existing ramps would be modified to connect the new bridge with State Route 99 and Famoso Road. The existing southbound ramps on State Route 99 would be modified and replaced with half-diamond standard ramps, and the State Route 99 northbound ramps would be connected with a T-intersection at Famoso Road. The new bridge and new ramps would be consistent with State Route 99 current design standards. The existing bridge would be demolished after the new bridge is completed (see Figures 1-1 and 1-2).

The project sits in Kern County about 15 miles north of the city of Bakersfield. The westbound leg of the two-lane structure serves traffic exiting State Route 46 to State Route 99. The eastbound leg connects Famoso Road to State Route 99. The Famoso Road T-intersection with State Route 46 is controlled by stop signs.

This project is programmed in the 2012 State Highway Operations and Protection Program under the Bridge Rehabilitation Program in the 2015/2016. The estimated capital cost plus right-of-way cost for the proposed build alternative is \$18.288 million.

Because funding for the proposed project includes federal funds, a National Environmental Policy Act Categorical Exclusion would be prepared after circulation and public comment of this document.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to enhance safety and improve traffic operations by increasing the height of the bridge over State Route 99. The standard 16.5-foot-high vertical clearance would reduce risks to the structure from hits by tall trucks.

1.2.2 Need

The existing State Route 46/State Route 99 bridge structure has suffered damage from being struck by tall trucks. The bridge was severely damaged in 2008 and was closed

for an extended period. During inspection, significant fatigue cracking was found throughout the structure. The vertical clearance of the existing bridge ranges from 14 feet 10 inches on one side to 15 feet 2 inches on the other. Because of the low vertical clearance, the bridge will continue to experience hits from tall trucks.

1.3 Project Description

Caltrans proposes to replace the existing State Route 46/State Route 99 separation bridge. The new bridge would be constructed on the south side of the existing bridge. The existing interchange ramps would be modified or replaced.

1.4 Project Alternatives

Several alternatives were evaluated during the project scoping phase, but were eliminated due to the inclusion of non-standard design features. For more information on the alternatives eliminated, see Section 1.6 Alternatives Considered but Eliminated.

Now under consideration for the project are a build alternative (Alternative 4) and the No-Build Alternative.

1.4.1 Build Alternative (Alternative 4)

A new bridge would be constructed along the south side of the existing State Route 46/State Route 99 separation bridge and connect to Famoso Road. The existing southbound State Route 99 ramps would be converted to a half-diamond interchange with the allowance for future conversion of a full-diamond interchange. The State Route 99 northbound ramps would be connected with a T-intersection at Famoso Road.

Due to the high embankment at the west end of the bridge, an existing irrigation canal would be relocated and modified to maintain minimum right-of-way at the toe for easy movement of equipment required for canal maintenance. An embankment side slope of 2:1 or retaining wall may be provided to avoid or reduce the relocation cost of the irrigation canal. Appendix C shows the layouts of the proposed build alternative.

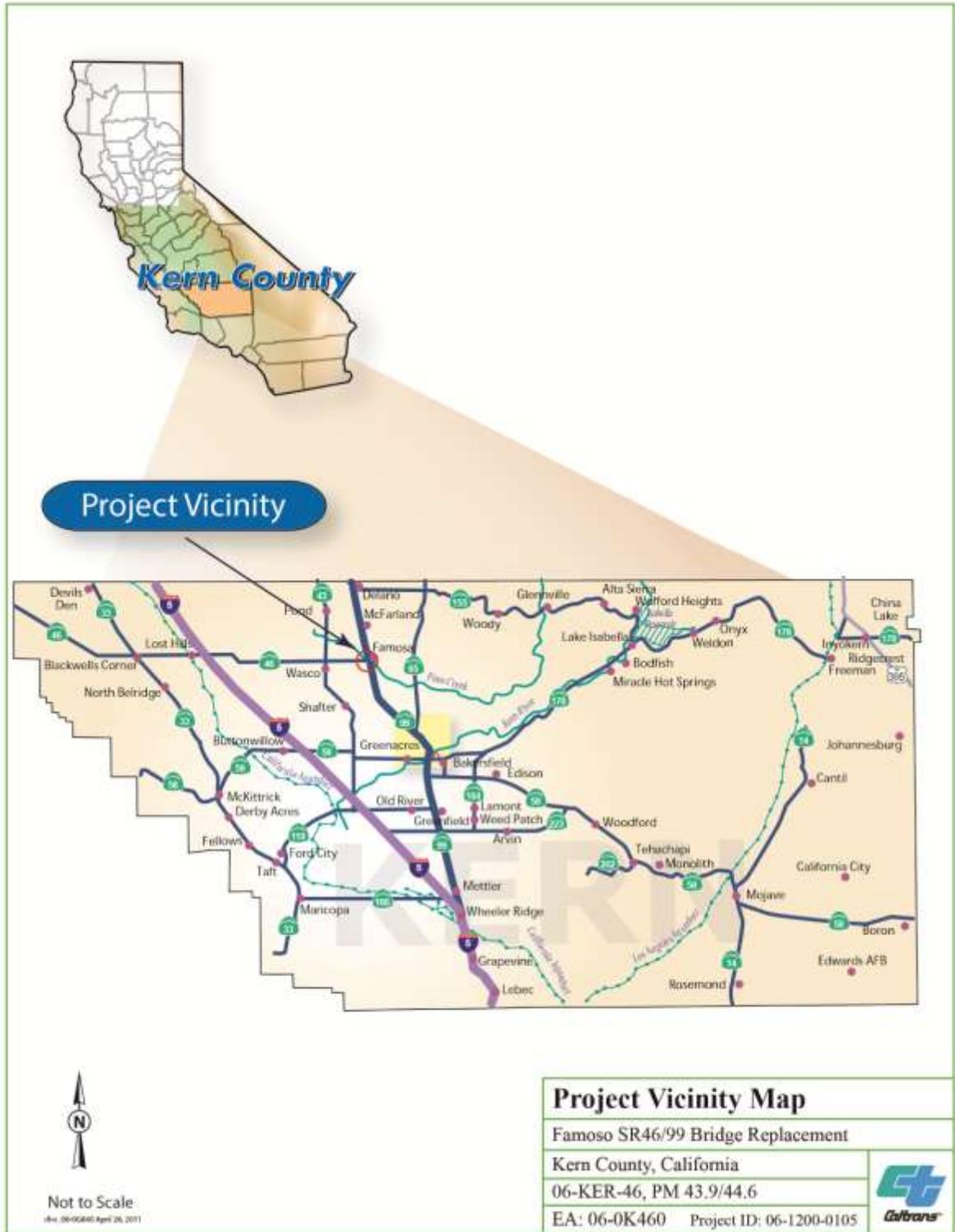


Figure 1-1 Project Vicinity Map

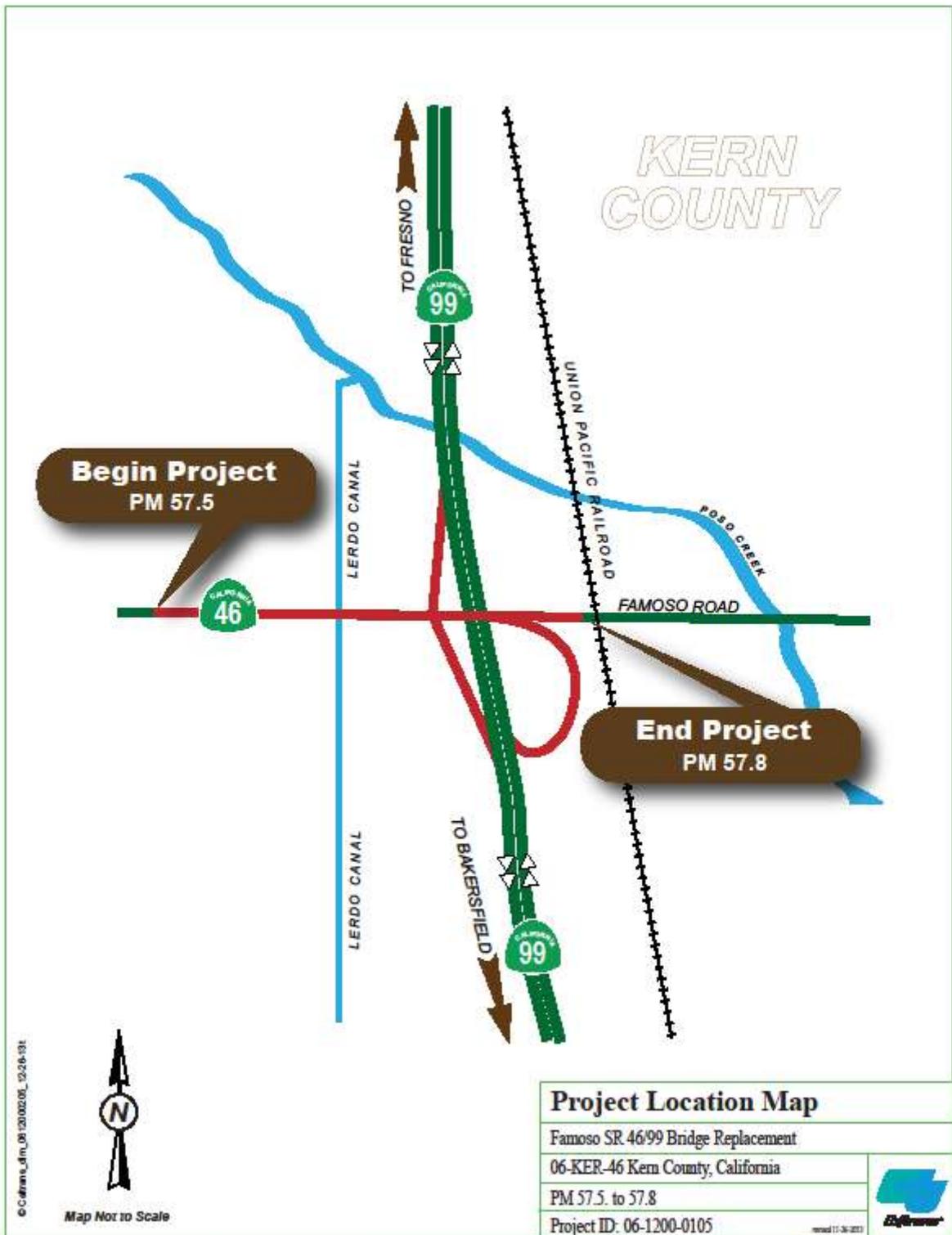


Figure 1-2 Project Location Map

1.4.2 No-Build Alternative

The No-Build Alternative would keep the bridge in its current condition. Tall trucks may continue to strike the bridge, adding to the existing damage. As damage and fatigue continue, the bridge could fail.

1.5 Comparison of Alternatives

The comparison criteria show how the build alternative would affect the environmental resources in the study area and meet the purpose and need.

Project Purpose and Need

With minimal effects to the environment, the proposed build alternative meets the purpose and need by improving traffic operations and enhancing the safety of the State Route 46/State Route 99 separation bridge. The No-Build Alternative does not meet the purpose and need for the project and could lead to complete bridge failure.

Relocations and Real Property Acquisition

A total of 11.22 acres of new right-of-way would be required for the project. Linear strips of six properties from agricultural, industrial, or residential properties on both sides of the existing bridge would be acquired. Full acquisitions of three small vacant properties on the southeast corner and one small vacant property on the southwest corner of the existing bridge would be also required.

The proposed project would not result in the relocation of any existing businesses.

Utilities Services

The Build Alternative would require realignment of nine Pacific Gas and Electric (PG&E) poles and two American Telephone and Telegraph (AT&T) poles.

Visual/Aesthetics

The Build Alternative requires the removal of vegetation. However, due to the mature vegetated landscapes on the neighboring properties, the view of the new bridge would be consistent with existing conditions within the project limits.

Wetlands and Other Waters (Potential Impacts to Lerdo Canal)

Expected permanent impacts to the canal include fill placement and relocation. The project would also pipe parts of the canal within the project area and extend the culvert. Temporary impacts include removing water from the canal and removing fill once work is completed in the work areas. The estimated impact from the proposed

build alternative is 0.75 acre of temporary effects and 0.4 acre of permanent effects to Waters of the United States.

1.6 Alternatives Considered but Eliminated From Further Discussion

A Project Study Report, approved in November 2011, initially presented three build alternatives for replacing the State Route 46/State Route 99 separation bridge. Each of the proposed alternatives would replace the bridge to meet safety and integrity issues for the bridge.

- Alternative 1 proposed to build the new bridge on the north side of the existing bridge to connect with Famoso Road. State Route 46 would then be connected to the existing loop connector ramps to State Route 99.
- Alternative 2 proposed to build the new bridge on the north side of the existing bridge as well and connect to the existing loop connector ramp to State Route 99. The difference between Alternatives 1 and 2 were connection to Famoso Road.
- Alternative 3 proposed to build the new bridge on the south side of the existing bridge and connect to the existing loop connector ramp to State Route 99.

Another alternative with two options to replace the existing bridge and existing southbound State Route 99 on- and off-ramps with improved ramps was discussed by the Project Development Team. Alternative 4A proposed to build a half-interchange with curved alignment to State Route 99. Alternatives 1 through 4A required non-standard design features and were eliminated from future consideration.

1.7 Permits and Approvals Needed

Table 1.1 shows the permits, reviews, and approvals required for building the proposed project.

Table 1.1 Permits and Approvals

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	Nationwide Section 404 Permit for filling or dredging waters of the United States	Application for Section 404 permit anticipated during final design.
Regional Water Quality Control Board	Water Discharge Permit	Application for Section 401 permit anticipated during final design.
California Department of Fish and Wildlife	1600 Agreement for Streambed Alteration	Application for Section 1600 permit anticipated during final design.

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

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

- Land use—The existing land use in the immediate project area is mostly agricultural, commercial or industrial. The project is also consistent with state, regional, and local plans. The proposed project conforms to the 2007 Metropolitan Bakersfield General Plan; 2011 Kern Regional Transportation Plan; and 2010 Regional Transportation Improvement Program. (Community Impact Checklist Memo, October 2013)
- Growth—The proposed project is not expected to induce or influence future growth. (Community Impact Checklist Memo, October 2013)
- Farmlands/Timberlands— The Natural Resources Conservation Service Farmland Impact Rating was completed for the project in November 2013 (see Appendix D). The farmland impact rating was 135 points. The impact rating is less than 160 points, the level that triggers consideration of greater protection under the Farmland Protection Policy Act. (Community Impact Checklist Memo, October 2013)
- Community Character and Cohesion—The project would not disrupt community character or cohesion. The new bridge and ramps would improve access to and from existing businesses (Community Impact Checklist Memo, October 2013).
- Environmental Justice—The project would not disproportionately impact any minority or low-income populations as stated in Executive Order 12898 regarding environmental justice. (Community Impact Checklist Memo, October 2013)
- Cultural Resources—No prehistoric or historic archaeological resources were identified as the result of the surface pedestrian survey, but the vertical Area of Potential Effect for the project was not part of the identification phase. An Extended Phase I geoarchaeological study will be conducted between the draft

environmental document circulation and publication of the final environmental document. Four built-environment resources were identified and were formally evaluated. All four properties were determined not eligible for listing in the National Register of Historic Places under any qualifying criteria (Historic Resource Evaluation Report, 2013) (Historic Properties Survey Report, November 2013)

- Hydrology and Floodplain—The Flood Insurance Rate Map (FIRM) was used to determine if any portion of the proposed project is in an area subject to flooding. Map Community-Panel Number 06029C 1277E (September 26, 2008) shows the project area is in areas designated “Zone A,” a 100-year floodplain whose elevations are not determined. The proposed project location is within a regulatory floodway; however, the level of risk associated with the project is low. (Floodplain Study, June 2013)
- Geology/Soils/Seismic/Topography—The project would not adversely affect geology, soils, seismicity or topography. The site is not within an Alquist-Priolo Fault Rupture Hazard Zone. The potential for surface fault rupture is considered negligible. (Structure Preliminary Geotechnical Report, April 2013)
- Paleontology—The project has low sensitivity for paleontological resources and is unlikely to encounter any significant paleontological resources if excavation is limited to a shallow surface disturbance. (Paleontological Identification Reports, October 2011 and January 2013)
- Noise—The project would neither increase the existing traffic capacity nor alter the location of the highway. No further investigation concerning traffic noise is needed. (Noise Study Report, October 2013)
- Natural Communities—No natural communities of concern were identified in the project area. (Natural Environment Study, May 2013, and revised memorandum, October 2013)
- Plant Species—No special-status plant species were identified in the project area. (Natural Environment Study, May 2013, and revised memorandum, October 2013)

2.1 Human Environment

2.1.1 Community Impacts

2.1.1.1 Relocations and Real Property Acquisition

Affected Environment

Additional right-of-way would be acquired on each side of the existing bridge. Based on data and field reviews, the proposed build alternative would require linear strips of land from agricultural and industrial properties. No business would be relocated.

Environmental Consequences

The project requires a total of 11.22 acres of additional right-of-way. Linear strips of six properties from agricultural, industrial, or residential properties on both sides of the existing bridge would be required. Full acquisitions of four vacant parcels on the southeast and southwest corners of the existing bridge would be also required.

The proposed project would not result in the relocation of any existing businesses. Travelers and businesses would benefit from the new bridge and improved access to businesses and nearby highways.

Avoidance, Minimization, and/or Mitigation Measures

All land acquisitions are subject to the Uniform Relocation Act. Caltrans must comply with the act requirements and the Caltrans' Relocation Assistance Program. A summary of relocation benefits is found in Appendix E.

2.1.2 Utilities/Emergency Services

Affected Environment

Utilities within the project limits include aerial electric lines, aerial and buried telephone lines, gas lines, cable television, irrigation lines and petroleum oil line. It is anticipated that nine PG&E electric poles and two AT&T telephone pole line adjacent to the north/south of existing right of way boundaries will need to be relocated. In addition, communication lines and gas line may require potholing and/or relocation.

Kern County provides law enforcement, fire protection, and emergency medical and rescue services for the project area and surrounding area. The Kern County Sheriff's Department and contracted ambulance companies also use the freeways to gain access to their rural areas of jurisdiction. The California Highway Patrol is responsible for traffic enforcement on State Route 99 and State Route 46.

Environmental Consequences

Right-of-way would be purchased for the proposed project where the above-mentioned affected utilities would be relocated.

The build alternative requires that nine PG&E poles and two AT&T poles would be affected by the proposed project.

The proposed new bridge would have a beneficial effect on fire protection, law enforcement, emergency medical and rescue services, and other public services by providing improved traffic operations in the area and faster fire and medical response times to emergencies in the area.

The proposed project would, however, temporarily create traffic delays during construction. Construction effects on traffic and transportation would be minimized with the use of a Traffic Management Plan.

Avoidance, Minimization, and/or Mitigation Measures

During construction, a Traffic Management Plan would be developed to minimize delays and maximize safety for motorists (see 2.4 Construction Impacts and 2.4.1 Traffic and Transportation).

2.1.3 Pedestrian and Bicycle Facilities

Affected Environment

State Route 46 is a conventional state highway between San Luis Obispo County and State Route 99. The highway functions as a major route for agricultural products and is open to bicycle travel under a “share-the-road” basis. The retail and commercial properties within the intersection on both sides of the bridge are used mainly by vehicle traffic.

Environmental Consequences

The new bridge would be open to bicycle travelers and pedestrians on a “share-the-road” basis. The new bridge would comply with safety standards.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.1.4 Visual/Aesthetics

Affected Environment

A Visual Impact Assessment for the proposed project was completed in February 2013 and updated in August 2013. This assessment defined the visual resources of the project setting and identified and assessed the visual character and quality in the project area. The study assessed the changes that would be introduced by the project by evaluating the visual character and the visual quality resources before and after construction of the proposed project.

According to the State Scenic Highway database, State Routes 46 and 99 within the project location are not designated or eligible state scenic routes and no qualifying scenic resources, as defined in Section 15300 of the California Environmental Quality Act Guidelines, would be affected by the project.

Environmental Consequences

The build alternative would be built south of the existing bridge, requiring removal of vegetation, and introduce temporary visual impacts created during construction. However, the proposed project would have a high level of compatibility with the existing visual character of the area.

Avoidance, Minimization, and/or Mitigation Measures

The following measures were proposed by the district landscape architect and will be considered in final design:

- Design of the new facility will incorporate architectural and aesthetical treatments to maintain the overall character of the landscape.
- Use erosion control treatments in all areas of soil disturbed during construction.
- Build slopes of 1:4 or flatter angles with rounded tops and bottoms to stabilize the slope surface and vegetation.
- Preserve remaining mature vegetation within the right-of-way, and replace vegetation where possible.
- Soften the effects of the new bridge structure with replacement planting.
- Plant replacement vegetation on the side slopes.
- Replace trees and shrubs with species consistent to existing conditions
- Replace vegetation in those locations most affected by the widening project.

- Reduce glare from the additional reflective surfaces with bridge accent colors. Architectural bridge fencing would be added to the bridge to match the accepted teal green bridge accent of Kern County.

2.2 Biological Environment

2.2.1 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (33 U.S. Code 1344) is the primary law regulating wetlands and surface waters. One purpose of the Clean Water Act is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce.

To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the U.S. Environmental Protection Agency.

The U.S. Army Corps of Engineers issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the U.S. Army Corps of Engineers' Standard permits.

For Standard permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 Code of Federal Regulations Part 230) and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative that would have less adverse effects. The guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed action that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences.

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

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Wildlife, the State Water Resources Control Board (and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600–1607 of the California Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The California Department of Fish and Wildlife jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Boards also issue water quality certifications for impacts to wetlands and waters in compliance with Section 401 of the Clean Water Act.

Affected Environment

The information in this section is based on the Natural Environment Study (May 2013).

No wetlands were found in the Biological Study Area.

The Lerdo Canal is in the project area and would be affected by the proposed project. The canal originates at the Kern River east of the city of Bakersfield and continues northwest parallel to the Friant-Kern Canal. Lerdo Canal provides a hydrologic connectivity to a federal jurisdictional waterway. It is expected that impacts would occur to waters that would be considered jurisdictional by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and the California Department of Fish and Wildlife.

Environmental Consequences

Work in the Lerdo Canal would be needed to extend the existing box culvert to match the minor realignment of State Route 46. The expected permanent impacts to the canal include fill placement and extension of the existing box culvert. Temporary impacts would include removing water from some areas and removing fill once the work is completed in the work areas. The proposed project would permanently affect an estimated 0.4 acre of the canal and temporarily affect 0.75 acre of Waters of the United States. Before construction work would be started at Lerdo Canal, permits would be obtained from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will comply with all permit requirements. Best Management Practices would be included so that the smallest practical footprint would be used to minimize temporary, indirect and permanent impacts to jurisdictional Water of the United States.

2.3 Construction Impacts

2.3.1 Traffic and Transportation Facilities

Affected Environment

The entire length of State Route 46 is a conventional state highway open to bicycle travelers on a “share-the-road” basis.

Environmental Consequences

The proposed project would replace the existing bridge. The new bridge would comply with current transportation standards.

Avoidance, Minimization, and/or Mitigation Measures

A Traffic Management Plan would be developed to reduce delays and congestion and maximize safety for motorists during construction.

The Traffic Management Plan would include, but is not limited to, the following:

- Project information released through brochures and mailers, press releases, and advertisements managed by the Public Information Office.
- Fixed and portable changeable message signs.
- Incident management through the Construction Zone Enhancement Enforcement Program and the Transportation Management Center.
- Precautionary measures and project phasing.

2.3.2 Water Quality

Affected Environment

A water compliance study for the proposed project was completed in September 2013. The proposed project is within the South Valley Floor Hydrologic Unit 558.80. The Lerdo Canal runs south of the project and Poso Creek runs north of the project.

Environmental Consequences

During construction, the project has the potential to temporarily affect water quality. No permanent water quality impacts would occur.

Avoidance, Minimization, and/or Mitigation Measures

The following best management practices would be used:

- A Notification of Intention would be submitted to the Central Valley Regional Water Quality Control Board at least 30 days prior to the start of construction.

- A Storm Water Pollution Prevention Plan would be used during construction.
- A Notice of Termination would be submitted to the Regional Water Quality Control Board when construction and site stabilization is completed. A project would be considered complete when the criteria for final stabilization in the Construction General Permit are met.

2.3.3 Hazardous Waste/Materials

Affected Environment

Caltrans conducted a hazardous waste environmental assessment in October 2013. The assessment included a review of hazardous waste databases and records, site reviews, an aerially deposited lead survey, asbestos and lead paint surveys of the existing bridge, and an investigation of land parcels that could be acquired for the proposed project.

Environmental Consequences

The assessment concluded that no significant hazardous waste issues were identified in the project area, and any contaminations were found during the study are not considered to have a potential to affect the project.

Paint samples on the bridge girders were indicated to have hazardous concentrations of lead. However, if the paint is left intact on the girders during bridge demolition, the girders could be reused or recycled without any hazardous waste restrictions. If the paint is disturbed, any paint residue would become a hazardous waste and should be managed accordingly.

Avoidance, Minimization, and/or Mitigation Measures

During construction, procedures outlined in Caltrans Hazards Procedures for Construction should be followed if any unknown hazardous waste/material is found.

The project would need to use the following hazardous waste provisions: SSP 7-1.02K(6)(j)(iii) (Earth Material Containing Lead), SSP 15-1.03B (Residue Containing Lead from Paint and Thermoplastic), and SSP 14-11.07 (Remove Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue).

The bridge girders are covered with lead-based paint. If the paint on the bridge girders is removed during demolition, a lead abatement plan would be required. Any paint residue should be managed as a hazardous waste. The Caltrans Non-Standard

Special Provision (NSSP) 14-11.08 (Disturbance of existing paint systems on bridges) would be required for paint removal from the girders.

2.3.4 Air Quality

Affected Environment

An air quality compliance study was prepared in August 2013. The proposed project is within the San Joaquin Air Basin in Kern County.

Environmental Consequences

During construction, the proposed project would generate air pollutants. Exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, and various other activities. The impacts of these activities would vary each day as construction progresses. Dust and odors during construction could cause occasional annoyance and complaints from travelers and businesses along the state right-of-way.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements would be required and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 14-9.02 (Air Pollution Control) and Section 14-9.03 (Dust Control), require the contractor to comply with the San Joaquin Valley Unified Air Pollution Control District's rules, ordinances, and regulations. A Dust Control Plan would be needed if 2,500 cubic yards of material or more are moved in a single day for at least three days of the project or if 5 or more acres of land are disturbed during construction. If a Dust Control Plan is required, the contractor would be responsible for submitting the plan and associated fees.

2.3.5 Construction Noise

A Noise Study Report was completed in October 2013. During construction of the project, noise from construction activities could occasionally be louder than the noise environment in the immediate area.

Table 2.1 shows noise levels produced by equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 80 to 89 decibels at a distance of 50 feet.

Table 2.1 Construction Equipment Noise

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

Source: Federal Transit Administration, 2006

No adverse noise impacts from construction activities are expected as construction would be done under Caltrans Standard Specifications Section 7-1.01I and applicable local noise standards. Construction noise would be short term, intermittent, and overshadowed by local traffic noise.

Avoidance, Minimization, and/or Mitigation Measures

Using the following measures would minimize the temporary noise impacts from construction:

- No equipment would have an unmuffled exhaust.
- As directed by Caltrans, the contractor would use appropriate additional noise reduction measures: change the location of stationary construction equipment; turn off idling equipment; reschedule construction activities; notify nearby residents in advance of construction work; and install acoustic barriers around stationary construction noise sources.
- Construction noise is regulated by Caltrans Standard Specifications Section 7-1.01I, Sound Control Requirements, which states that noise levels generated during construction would comply with applicable local, state, and federal regulations, and that all equipment would be fitted with adequate mufflers according to the manufacturers' specifications.

2.3.6 Animal Species

Affected Environment

A Natural Environment Study for this project was completed in May 2013 and updated in September 2013. During biological surveys in the project study area, existing habitat and any observed species were documented.

Environmental Consequences

The existing habitat is classified as ruderal and disturbed. Non-native vegetation and a grove of large non-native eucalyptus trees are within the project area. These trees are potential nesting habitat for migratory birds.

Avoidance, Minimization, and/or Mitigation Measures

A preconstruction migratory bird survey would be required to determine if these trees are being used for nesting.

2.3.7 Threatened and Endangered Species

Affected Environment

A Natural Environment Study for this project was completed in May 2013 and updated in September 2013. During biological surveys in the project study area, existing habitat, as well as any animal and plant species observed were documented. The habitat in the biological study area consists of roadside ruderal areas, cultivated agricultural fields, and urban development.

No plants listed by the California Native Plant Society (CNPS) with the potential to occur within the project vicinity were found during surveys. No critical habitat designated by the U.S. Fish and Wildlife Service is located near the project area or would be impacted as a result of the proposed project.

Environmental Consequences

According to the California Natural Diversity Database and the U.S Fish and Wildlife Service, the Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*) and the San Joaquin kit fox (*Vulpes macrotis mutica*) have the potential to occur within the biological survey area.

However, within the project impact area Tipton kangaroo rat habitat qualities do not exist and the project impact area habitats that support San Joaquin kit fox foraging and den sites are not present. Although, agricultural land is located adjacent to the project impact area which can serve as foraging habitat for kit foxes, no take of this potential foraging habitat is anticipated. Caltrans will continue to coordinate with the USFWS during the project design phase if needed.

Avoidance, Minimization, and/or Mitigation Measures

Preconstruction surveys and standard special provisions for the San Joaquin kit fox and migratory birds would be included in the construction contract and used to avoid and minimize impacts to listed species:

- A qualified biologist would conduct preconstruction surveys and ensure that all avoidance measures are being maintained.
- The contractor would be required to coordinate with the appropriate irrigation districts regarding their “dry season” (typically October to January) and work within their rules.
- If during construction the qualified biologist determines there is a potential for take of a federal or state listed species, all work would cease immediately until Caltrans initiates consultation with the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife.
- If work occurs during the nesting season (February 15 to September 1), preconstruction surveys for raptors would be required. If a raptor nests in the project area during construction activities, delays to construction could occur and work buffers would be enforced.
- Environmental compliance training would be required of all construction workers.
- All construction-related access must be kept within the project limits and to existing highways and associated paved/graded shoulders or other designated areas clearly marked on the ground.
- Project-related traffic would observe a 20-mile-per-hour speed limit except on roads or highways open for public use.
- The contractor would immediately notify the resident engineer if a dead, injured, or entrapped kit fox or a similar animal that is believed to be a kit fox is found. All construction activity within the 150-foot radius of the kit fox would be halted and may not resume until the project biologist is consulted and the resident engineer provides written authorization. Any entrapped kit fox would be permitted to escape. No injured or dead kit fox may be handled or otherwise disturbed.
- If a kit fox den is discovered, all construction activity within the 150-foot radius of the den would be halted and the resident engineer would be contacted immediately. Work would not continue until the resident engineer provides written authorization to the contractor.
- All food-related trash would be disposed of in closed garbage containers provided by the contractor; containers would be emptied daily.
- Pets are prohibited on the work site.

- At the end of each work day, the contractor would take measures to prevent the entrapment of kit foxes in all excavated, steep-walled holes or trenches more than or equal to 2 feet deep. Such measures would include covering excavations with plywood or providing dirt or plank escape ramps from the trenches.
- The contractor would inspect all pipes and culverts with a diameter greater than or equal to 4 inches before burying, capping, or other use. If a kit fox is discovered during this inspection, the pipe or culvert would not be disturbed (other than to move to a safe location if necessary) until after the fox has escaped.

2.3.8 Invasive Species

Affected Environment

A Natural Environment Study for this project was completed in May 2013 and updated in September 2013. The project area was evaluated for the presence of invasive species based on the California Noxious Weed List (California Department of Food and Agriculture, 2010), the California Invasive Plant Council List (California Invasive Plant Council 2010), and the U.S. Department of Agriculture Federal Weed List (U.S. Department of Agriculture 2010).

Environmental Consequences

No invasive species were identified in the project area. However, reducing the potential spread of noxious weeds to or from the project site is required.

Avoidance, Minimization, and/or Mitigation Measures

Invasive species would be handled in accordance with Executive Order 13112 that pertains to invasive species and by best management practices that would be used to reduce the potential spread of noxious weeds to or from the project site. This would include using only clean dirt for fill and properly disposing of any excavated materials. Caltrans would also deploy proper erosion and storm water control techniques and hydro-seeding to revegetate disturbed areas.

2.4 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World

Meteorological Organization in 1988 has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of greenhouse gas emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of greenhouse gas emitting sources. The dominant greenhouse gas emitted is CO₂, mostly from fossil fuel combustion.

Typically, two terms are used when discussing the impacts of climate change. “Greenhouse Gas Mitigation” is a term for reducing greenhouse gas emissions in order to reduce or “mitigate” the impacts of climate change. “Adaptation” refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).¹

There are four main strategies for reducing greenhouse gas emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled, 3) transitioning to lower greenhouse gas-emitting fuels, and 4) improving vehicle technologies. To be most effective, all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation, including State Senate and Assembly bills and executive orders, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change.

Assembly Bill 1493, Pavley: Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions

¹ http://climatechange.transportation.org/ghg_mitigation/

standards were designed to apply to automobiles and light trucks beginning with the 2009-model year. In June 2009, the U.S. Environmental Protection Agency administrator granted a Clean Air Act waiver of preemption to California. This waiver allowed California to implement its own greenhouse gas emission standards for motor vehicles beginning with model year 2009. California agencies will be working with federal agencies to conduct joint rulemaking to reduce greenhouse gas emissions for passenger cars model years 2017 to 2025.

Executive Order S-3-05 (signed on June 1, 2005, by former Governor Arnold Schwarzenegger): The goal of this executive order is to reduce California's greenhouse gas emissions to 1) 2000 levels by 2010; 2) 1990 levels by 2020; and 3) 80 percent below 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32, the Global Warming Solutions Act of 2006, Núñez and Pavley: Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that the Air Resources Board create a scoping plan (which includes market mechanisms) and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.”

Executive Order S-20-06 (signed on October 18, 2006 by former Governor Arnold Schwarzenegger): This order further directs state agencies to begin implementing Assembly Bill 32, including the recommendations made by the California's Climate Action Team.

Executive Order S-01-07 (signed on January 18, 2007 by former Governor Arnold Schwarzenegger): This order set forth the low-carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020.

Senate Bill 97 Chapter 185, 2007: This bill required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act Guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Caltrans Director's Policy 30 Climate Change (approved June 22, 2012): This directive is intended to establish a Caltrans policy that would ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This

policy contributes to Caltrans' stewardship goal to preserve and enhance California's resources and assets.

Federal

Although climate change and greenhouse gas reduction is a concern at the federal level, currently there are no regulations or legislation that have been enacted specifically addressing greenhouse gas emissions reductions and climate change at the project level. Neither the U.S. Environmental Protection Agency nor the Federal Highway Administration has promoted explicit guidance or methodology to conduct project-level greenhouse gas analysis.

As stated on the Federal Highway Administration's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies set forth by the Federal Highway Administration to lessen climate change impacts do correlate with efforts that the state has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in the growth of vehicle hours traveled.

Climate change and its associated effects are also being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the National Clean Car Program and Executive Order 13514—Federal Leadership in Environmental, Energy and Economic Performance. Executive Order 13514 is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and that

the U.S. Environmental Protection Agency has the authority to regulate greenhouse gas. The court held that the U.S. Environmental Protection Agency administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the U.S. Environmental Protection Agency administrator signed two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The U.S. Environmental Protection Agency administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The U.S. Environmental Protection Agency administrator found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. Environmental Protection Agency's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles, which was published on September 15, 2009.*² On May 7, 2010, the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register.

The U.S. Environmental Protection Agency and the National Highway Traffic Safety Administration are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced greenhouse gas emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever greenhouse gas regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle greenhouse gas regulations. These

² <http://www.epa.gov/oms/climate/regulations.htm#1-1>

steps were outlined by President Barack Obama in a Presidential Memorandum on May 21, 2010.³

The final combined U.S. Environmental Protection Agency and National Highway Traffic Safety Administration standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide (CO₂) per mile (the equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO₂ level solely through fuel economy improvements). Together, these standards will cut greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016).

On November 16, 2011, the U.S. Environmental Protection Agency and National Highway Traffic Safety Administration issued their joint proposal to extend this national program of coordinated greenhouse gas and fuel economy standards to model years 2017 through 2025 passenger vehicles.

Project Analysis

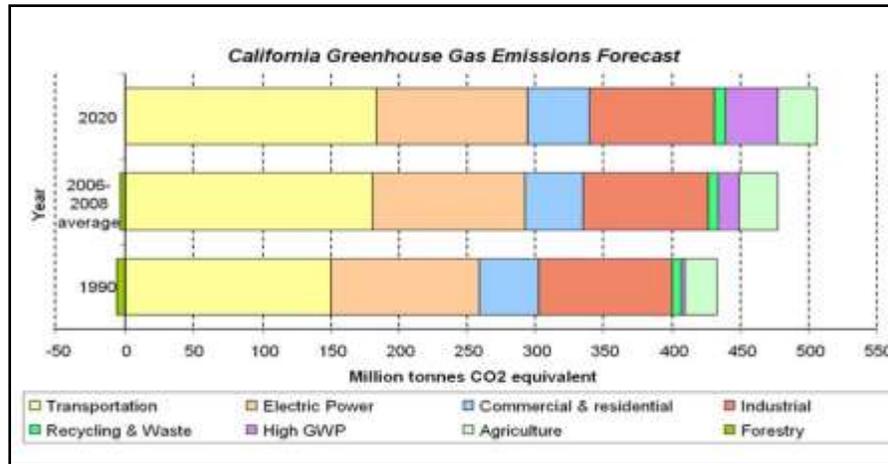
An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its incremental change in emissions when combined with the contributions of all other sources of greenhouse gases.⁴ In assessing cumulative impacts, it must be determined if a project's incremental effect is “cumulatively considerable” (California Environmental Quality Act Guidelines, Sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

The scoping plan mandated by Assembly Bill 32 contains the main strategies California will use to reduce greenhouse gas emissions. As part of its supporting

³ <http://epa.gov/otaq/climate/regulations.htm>

⁴ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

documentation for the Draft Scoping Plan, the Air Resources Board released the greenhouse gas inventory for California (see Figure 2-1). The forecast, last updated on October 28, 2010, is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were used. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas inventory for 2006, 2007, and 2008.



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

Figure 2-1 California Greenhouse Gas Forecast

Caltrans and its parent agency, the California State Transportation Agency (formerly the Business, Transportation, and Housing Agency), have taken an active role in addressing greenhouse gas emissions reduction and climate change. Recognizing that 98 percent of California’s greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is using the Climate Action Program at Caltrans published in December 2006.⁵

One of the main strategies in the Caltrans Climate Action Program to reduce greenhouse gas emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide (CO₂) from mobile sources, such as automobiles, occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 2-2).

⁵ Caltrans Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

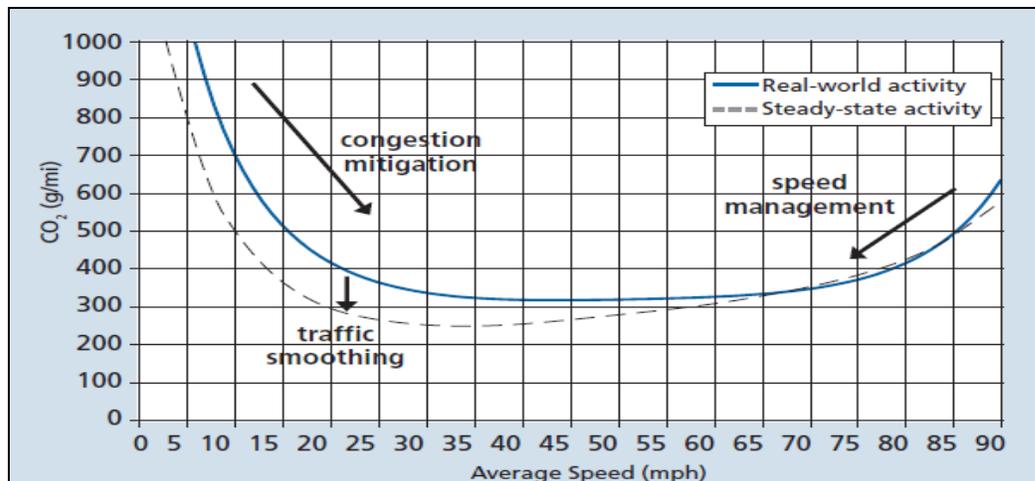


Figure 2-2 Possible Effect of Traffic Operation Strategies in Reducing On-Road CO₂ Emissions

The purpose of the proposed project, located within the San Joaquin Air Basin in Kern County, is to improve the safety of vehicles traveling across and under the bridge by adjusting the vertical clearance of the State Route 46/State Route 99 separation bridge. Lane configurations would remain the same, and this project is not expected to increase capacity, so increases in operational greenhouse gas emissions are not expected to occur as a result of this project. However, greenhouse gas emissions resulting from construction activities would be unavoidable.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction greenhouse gas emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions would be temporary, but produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

California Environmental Quality Act Conclusion

While the project will result in a slight increase in greenhouse gas emissions during construction, it is anticipated that the project will not result in any increase in operational greenhouse gas emissions. While it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and California Environmental Quality Act significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

Assembly Bill 32 Compliance

Caltrans continues to be involved on the Governor's Climate Action Team as the Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32 (AB 32). Many of the strategies Caltrans is using to help meet the targets in Assembly Bill 32 come from then-Governor Arnold Schwarzenegger's Strategic Growth Plan for California.

The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in greenhouse gas emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain carbon dioxide reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 2-3: Mobility Pyramid.

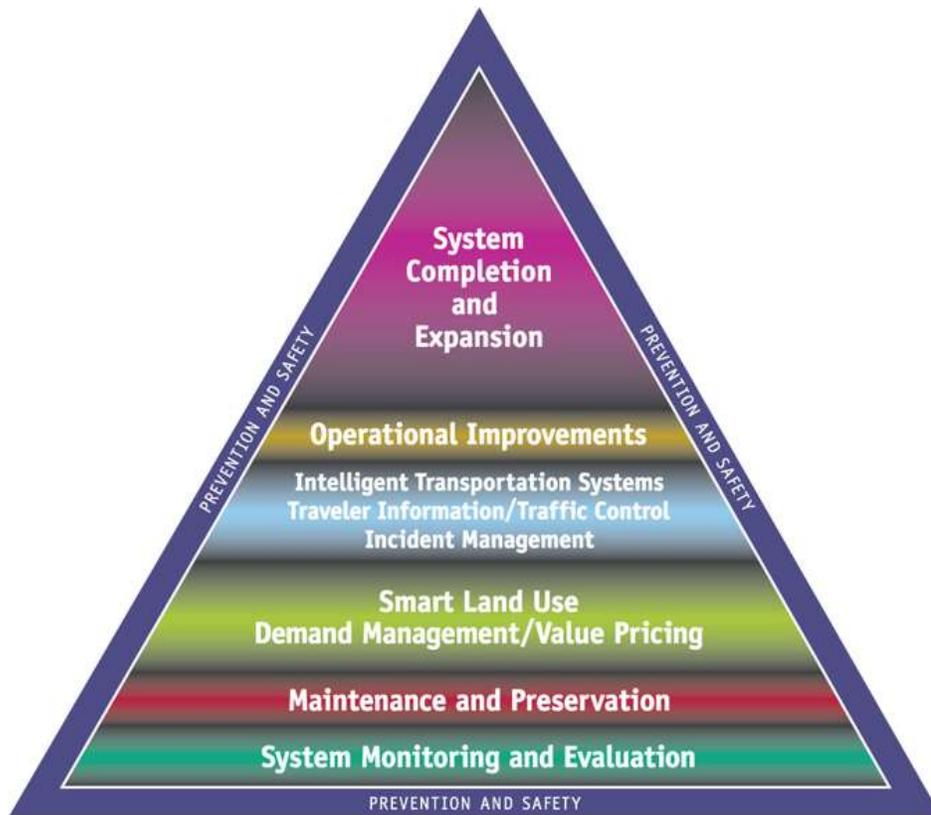


Figure 2-3 Mobility Pyramid

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities, but does not have local land use planning authority. Caltrans assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. Environmental Protection Agency and the Air Resources Board.

Caltrans is also working towards enhancing the state's transportation planning process to respond to future challenges. Similar to requirements for regional

transportation plans under Senate Bill 375 (Steinberg 2008), Senate Bill 391(Liu 2009) requires the state's long-range transportation plan to meet California's climate change goals under Assembly Bill 32.

The California Transportation Plan is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. The California Transportation Plan defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system.

The purpose of the California Transportation Plan is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the California Transportation Plan 2040 will identify the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs.

Table 2.2 summarizes the Departmental and statewide efforts that the Department is implementing to reduce greenhouse gas emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

Table 2.2 Climate Change/CO₂ Reduction Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings Million Metric Tons (MMT)	
		Lead	Agency		2010	2020
		Smart Land Use	Intergovernmental Review (IGR)		Caltrans	Local governments
Planning Grants	Caltrans		Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
Regional Plans and Blueprint Planning	Regional Agencies		Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Transportation System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	0.07	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, ARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.045 0.0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	0.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries	2.5 % limestone cement mix	1.2	4.2	
			25% fly ash cement mix	.36	3.6	
			> 50% fly ash/slag mix			
Goods Movement	Office of Goods Movement	Cal EPA, ARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

The Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013)⁶ provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

The following measures would also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project:

- Landscaping reduces surface warming and decreases CO₂ through photosynthesis.
- According to Caltrans' Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's rules, ordinances, and regulations regarding to air quality restrictions.

Adaptation Strategies

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

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011⁷, outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provides an update on

⁶ http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/projects_and_studies.shtml

⁷ <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

actions in key areas of federal adaptation, including building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks.

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

On November 14, 2008, then-Governor Arnold Schwarzenegger signed Executive Order S-13-08, which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This executive order set in motion several agencies and actions to address the concern of sea level rise.

In addition to addressing projected sea level rise, the California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop *The California Climate Adaptation Strategy* (Dec 2009)⁸, which summarizes the best-known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to Executive Order S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including the California Environmental Protection Agency; California State Transportation Agency; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

⁸ <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

The National Academy of Science was directed to prepare a Sea Level Rise Assessment Report⁹ to recommend how California should plan for future sea level rise. The report was released in June 2012 and included:

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

In 2010, interim guidance was released by the Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the state's infrastructure due to projected sea level rise. Subsequently, CO-CAT updated the Sea Level Rise guidance to include information presented in the National Academies Study.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise are directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

All projects that have filed a Notice of Preparation as of the date of Executive Order S-13-08 and/or are programmed for construction funding from 2008 through 2013 or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed State Route 46/State Route 99 separation bridge project in Kern County is outside the coastal zone, and direct impacts to transportation facilities due to projected sea level rise are not expected.

⁹ *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at http://www.nap.edu/catalog.php?record_id=13389.

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

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

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted in response to Executive Order S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

Chapter 3 **Comments and Coordination**

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings and interagency coordination meetings. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

Coordination with Public Agencies

On April 16, 2013, a memorandum for particulate matter (PM₁₀ and PM_{2.5}) hot-spot conformity was submitted to the interagency consultation partners. Concurrence was received on April 17, 2013, that this project is not a project of air quality concern.

A species list for federally threatened and endangered species that may be affected by the project was originally obtained from the U.S. Fish and Wildlife Service. Caltrans on February 05, 2013. Caltrans has determined that further coordination with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife is not required. With avoidance and minimization measures and preconstruction surveys, no special status species will be affected by the proposed project.

Coordination with Native American Groups

The Caltrans District 6 Native American Coordinator was notified about the project in October 2012. The coordinator concluded that due to a moderate to high sensitivity in the project area that notification to local tribal representatives would be necessary. The Archaeological Survey Report completed in November 2013 was provided to local tribes.

Coordination with State Historic Preservation Officer

A Historic Properties Survey Report (HPSR) was prepared in November 2013 and submitted to the State Historic Preservation Officer (SHPO). On December 19, 2013 the SHPO concurred with findings presented in the HPSR.

Chapter 4 List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Alhabaly, Allam; Transportation Engineer. B.S., California State University, Fresno, School of Engineering; 13 years in Environmental Engineering unit.
Contribution: Prepared the Air, Noise and Water compliance studies.

Assi, Jamal; Environmental Planner. Doctoral degree in Agricultural Sciences - Pannon University of Agriculture, Hungary; more than 5 years of postdoctoral experience at the University of California Davis; more than 5 years of experience in environmental planning at Caltrans. Contribution: Prepared the Community Impact Memorandum, wrote the environmental document, and conducted environmental coordination.

Brady, Jon; Associate Environmental Planner (Architectural History/Archaeology). B.A. degrees in Political Science and Anthropology, and M.A. in History (emphasis Historical Archaeology), California State University, Fresno, California; over 34 years of experience in preparing NEPA and CEQA environmental compliance documents; 12 years of experience at Caltrans.
Contribution: Prepared the Historic Properties Survey Report.

Chowdhury, Tarek; Professional Engineer (PE) - Transportation Engineer. Masters of Civil Engineering, University of Concordia, Montreal, Canada; more than 12 years of experience in transportation engineering. Contribution: Prepared Project Design and the Project Report.

Foster, Zachary; Biologist (Consultant). B.S, Biology, California State University, Fresno; 3 years of wildlife/fisheries biology experience. Contribution: Prepared the Natural Environment Study (Minimal Impacts).

Gallo, Kevin; Landscape Architecture, California Polytechnic State University, San Luis Obispo; 7 years of experience in Landscape Architecture. Contribution: Prepared the Visual Impact Assessment.

Goewert, Clemens; Environmental Planner (Hazardous Waste Specialist). B.A., Geology, St. Louis University, St. Louis, Missouri; 42 years of combined experience in geology, engineering geology, environmental studies, and hazardous and nuclear waste management. Contribution: Hazardous waste reviews and studies.

Hobbs, Kelly; Senior Environmental Planner. B.A., History, California State University, Fresno; 16 years experience in California history; 13 years of experience in environmental planning management. Contribution: Environmental branch supervisor.

Llanos, Joseph; Graphic Designer III. B.A., Graphic Design, California State University, Fresno; 16 years of visual design and public participation experience. Contribution: Project mapping and graphics.

Meyers, David; Audio/Visual Specialist, Photography. Fine Arts/Music, California State University, Fresno; A.A., Liberal Studies, College of the Sequoias, Visalia; more than 25 years of graphic visual design, journalism, photography, advertising-marketing, public participation, multimedia and fine arts/music experience. Instructor at State Center Community College District, 13 years; Contribution: Project mapping and graphics.

Ray, Michelle; Biologist. B. S., Environmental Toxicology and Biology, University of California Riverside; 7 years with Caltrans as an environmental planner and Biologist. Contribution: Re-evaluation of NES and acting environmental branch senior.

Sarkar, Jagannath; Transportation Engineer – P.E. 29 years experience as a civil/transportation engineer. Contribution: Prepared the preliminary Location Hydraulic/Floodplain Study.

Stewart, Richard C; Engineering Geologist, P.G. B.S., Geology, California State University, Fresno; 24 years of hazardous waste and water quality experience; 5 years of paleontology/geology experience. Contribution: Prepared the Memorandum of Paleontology.

Appendix A California Environmental Quality Act Checklist

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

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IV. 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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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VII. GREENHOUSE GAS EMISSIONS: Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- 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?
- 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?
- 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?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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X. LAND USE AND PLANNING: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XI. MINERAL RESOURCES: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XII. NOISE: Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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XIII. POPULATION AND HOUSING: Would the project:

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

XIV. PUBLIC SERVICES:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XV. RECREATION:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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XVI. TRANSPORTATION/TRAFFIC: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVIII. 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN, Jr., Governor

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711
www.dot.ca.gov



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Be energy efficient!*

March 16, 2012

NON-DISCRIMINATION 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, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

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

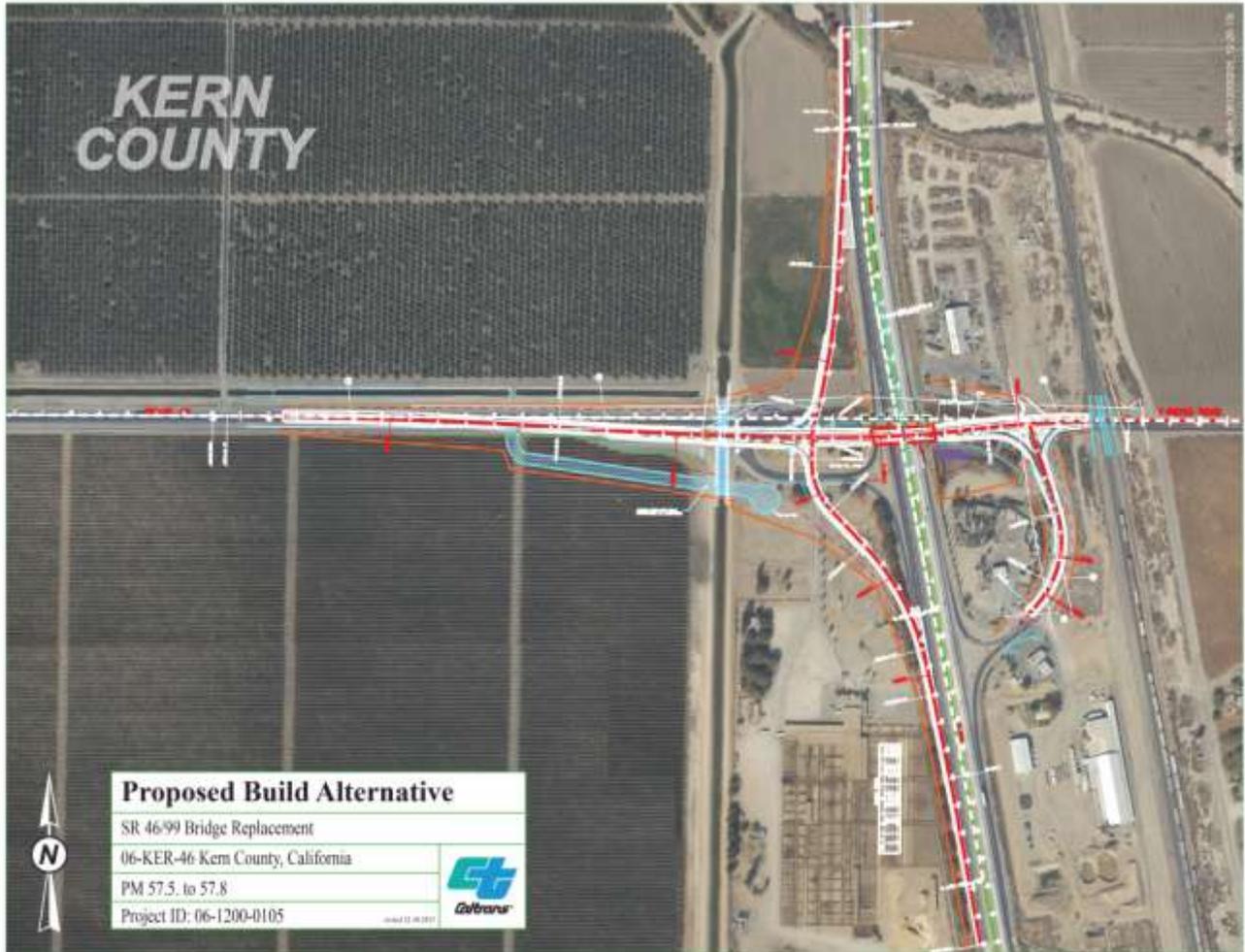
Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Mario Solis, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811.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

A handwritten signature in blue ink that reads "Malcolm Dougherty".

MALCOLM DOUGHERTY
Acting Director

"Caltrans improves mobility across California"

Appendix C Alternative Layout



Appendix D Farmland Conversion

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-GPA-100
(Rev. 1-01)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 11/8/13	4. Sheet 1 of 1	
1. Name of Project Kern 46/99 Separation Bridge Replacement		5. Federal Agency Involved CALTRANS		
2. Type of Project Transportation		6. County and State Kern, California		
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 11/8/13	2. Person Completing Form ZAKIA BOYLAND	
3. Does the corridor contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form.) YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated / Average Farm Size 912,584 / 1,428		
6. Major Crops Almonds, cotton, grapes	8. Farmland Land in Government Jurisdiction Acres: 1,054,228 % 20.2	7. Amount of Farmland As Defined in FPPA Acres: 703,387 % 13.5		
9. Name of Land Evaluation System Used California State System	10. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 11/13/13		
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment One (Alternative A/B)		
		Corridor A	Corridor B	Corridor C
A. Total Acres To Be Converted Directly		0.52		
B. Total Acres To Be Converted Indirectly, Or To Receive Services		0		
C. Total Acres In Corridor		456.40		
PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland		6.52		
B. Total Acres Statewide And Local Important Farmland		0		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		Data Not Available		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		Data Not Available		
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative Value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)		90		
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points		
1. Area In Nonurban Use		15	10	
2. Perimeter In Nonurban Use		10	5	
3. Percent Of Corridor Being Farmed		20	10	
4. Protection Provided By State And Local Government		20	8	
5. Size Of Present Farm Unit Compared To Average		10	3	
6. Creation Of Nonfarmable Farmland		25	8	
7. Availability Of Farm Support Services		5	3	
8. On-Farm Investments		20	10	
9. Effects Of Conversion On Farm Support Services		25	10	
10. Compatibility With Existing Agricultural Use		10	2	
TOTAL CORRIDOR ASSESSMENT POINTS		180	0 45	0 0 0
PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V)		100	0 90	0 0 0
Total Corridor Assessment (From Part VI above or a local site assessment)		180	0 45	0 0 0
TOTAL POINTS (Total of above 2 lines)		200	0 135	0 0 0
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project: 6.52	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>	
6. Reason For Selection:				
 Signature of Person Completing this Part:		NOV. 18. 2013 DATE		

NOTE: Complete a form for each segment with more than one Alternate Corridor

Appendix E Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Declaration of Policy

“The purpose of this title is to establish a **uniform policy for fair and equitable treatment** of persons displaced as a result of federal and federally assisted programs in order that such persons shall not suffer disproportionate injuries as a result of programs designed for the benefit of the public as a whole.”

The Fifth Amendment to the U.S. Constitution states, “No Person shall...be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation.” The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations (CFR) Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

Fair Housing

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This Act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state’s relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of

negotiations, and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Caltrans relocation advisor.

Relocation Assistance Advisory Services

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will 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, so long as they are legally present in the United States. Caltrans will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe and sanitary.” Nonresidential displacees will receive information on comparable properties for lease or purchase (For business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe and sanitary” replacement dwelling, available on the market, is offered to them by Caltrans.

Residential Relocation Payments

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving

expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing. Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used (see the explanation of the Last Resort Housing Program below).

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by Caltrans prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when Caltrans determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of

certain costs incidental to the purchase, subject to certain limitations noted under the Down Payment section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is \$5,250. If the total entitlement for rent supplement exceeds \$5,250, the Last Resort Housing Program will be used.

In order to receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans’ initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a “decent, safe and sanitary” replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$22,500 and \$5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, Caltrans will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced;
- Specific arrangements needed to accommodate any family member(s) with special needs;
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family;

- Preferences in area of relocation; and
- Location of employment or school.

Nonresidential Relocation Assistance

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the right-of-way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.
- Expenses related to searching for a new business site, up to \$2,500, for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses which meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 nor more than \$20,000.

Additional Information

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any federal law providing local “Section 8” Housing Programs.

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Caltrans relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a public project. A list of ineligible expenses can be obtained from Caltrans Right of Way. California’s law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

The Division of Right of Way administers the statewide program for right of way acquisition, and real property management, in support of Caltrans’ purpose, mission, vision and goals. All inquires should be addressed to Caltrans Central Region Right of Way Division at 855 M Street, Suite 200, Fresno, CA 93721.

Appendix F Minimization and/or Mitigation Summary

Environmental commitments for the proposed project are described in the Avoidance, Minimization, and/or Mitigation sections in their respective environmental categories in this Initial Study. This section summarizes these environmental commitments.

Summary of Avoidance and Minimization Measures

Utilities/Emergency Services

During construction, a Traffic Management Plan would be developed to minimize delays and maximize safety for motorists.

Visual/Aesthetics

The following measures would be used with concurrence from the district landscape architect:

- Design of the new facility will incorporate architectural and aesthetical treatments to maintain the overall character of the landscape.
- Use erosion control treatments in all areas of soil disturbed during construction.
- Build slopes of 1:4 or flatter angles with rounded tops and bottoms to stabilize the slope surface and vegetation.
- Preserve remaining mature vegetation within the right-of-way, and replace vegetation where possible.
- Soften the effects of the new bridge structure with replacement planting.
- Plant replacement vegetation on the side slopes.
- Replace trees and shrubs with species consistent to existing conditions
- Replace vegetation in those locations most affected by the widening project.
- Reduce glare from the additional reflective surfaces with bridge accent colors. Architectural bridge fencing would be added to the bridge to match the accepted teal green bridge accent of Kern County.

Wetlands and Other Waters

Before construction work at Lerdo Canal, permits would be obtained from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. All permit requirements would be adhered to.

Construction Impacts

Traffic and Transportation

During construction, a Traffic Management Plan would reduce delays and congestion and maximize safety for motorists. The Traffic Management Plan would include but is not limited to the following:

- Release information through brochures and mailers, press releases, and advertisements managed by the Public Information Office.
- Use fixed and portable changeable message signs.
- Use incident management through the Construction Zone Enhancement Enforcement Program and the Transportation Management Center.
- Use precautionary measures and project phasing.

Water Quality

The following best management practices would be used:

- A Notification of Intention would be submitted to the appropriate Regional Water Quality Control Board at least 30 days prior to the start of construction.
- A Storm Water Pollution Prevention Plan is to be prepared and used during construction to the satisfaction of the resident engineer.
- A Notice of Termination would be submitted to the Regional Water Quality Control Board when construction and site stabilization is completed. A project would be considered complete when the criteria for final stabilization in the Construction General Permit are met.

Hazardous Waste/Materials

During construction, procedures outlined in Caltrans Hazards Procedures for Construction should be followed if any previously unknown hazardous waste/material is found. This includes proper handling and disposal practices where Standard Special Provisions—such as SSP 7-1.02K(6)(j)(iii) (Earth Material Containing Lead), SSP 15-1.03B (Residue Containing Lead from Paint and Thermoplastic), and SSP 14-11.07 (Remove Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue)—would be included when necessary.

The existing bridge girders are covered with lead-based paint. If the paint is removed during demolition, a lead abatement plan would be required. Any paint residue should be managed as a hazardous waste. The Caltrans Non-standard Special Provision

(NSSP) 14-11.08 (Disturbance of existing paint systems on bridges) would be required for paint removal from the girders.

Air Quality

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements would be a required for all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of the Caltrans Standard Specifications, Section 14-9.02 (Air Pollution Control) and Section 14-9.03 (Dust Control), require the contractor to comply with San Joaquin Valley Unified Air Pollution Control District rules, ordinances, and regulations. A Dust Control Plan would be needed if at least 2,500 cubic-yards of material are moved in a single day for at least three days or 5 or more acres of land are disturbed. If a Dust Control Plan is required, the contractor would be responsible for submitting the plan and associated fees.

Construction Noise

Using the following measures would minimize the temporary noise impacts from construction:

- No equipment would have an unmuffled exhaust.
- As directed by Caltrans, the contractor would use appropriate additional noise reduction measures: change the location of stationary construction equipment; turn off idling equipment; reschedule construction activities; notify nearby residents in advance of construction work; and install acoustic barriers around stationary construction noise sources.
- Construction noise is regulated by Caltrans Standard Specifications Section 7-1.01I, Sound Control Requirements, which states that noise levels generated during construction would comply with applicable local, state, and federal regulations, and that all equipment would be fitted with adequate mufflers according to the manufacturers' specifications.

Animal Species

A preconstruction migratory bird survey would be required to determine if nesting birds are using the existing trees.

Threatened and Endangered Species

Preconstruction surveys and standard special provisions for the San Joaquin kit fox and migratory birds would be included in the construction contract and would be used to avoid and minimize impacts to listed species:

- A qualified biologist would conduct preconstruction surveys and ensure that all avoidance measures are being maintained.
- The contractor would coordinate with the appropriate irrigation district regarding their “dry season” (typically October to January) and work within irrigation district rules.
- If during construction the qualified biologist determines there is potential for take (killing) of a federal or state listed species, all work would cease immediately until Caltrans initiates consultation with the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife.
- If work occurs during the nesting season (February 15 to September 1), preconstruction surveys for raptors would be required. If a raptor nests in the project area during construction activities, delays to construction could occur and work buffers enforced.
- Environmental compliance training would be required for all construction workers.
- All construction-related access must be kept within the project limits, existing highways and associated paved/graded shoulders, or other designated areas clearly marked on the ground.
- Project-related traffic would observe a 20-mile-per-hour speed limit except on roads or highways open for public use.
- The contractor would immediately notify the resident engineer if a dead, injured, or entrapped kit fox or similar animal believed to be a kit fox is found. All construction activity within a 150-foot radius of the kit fox would be halted and would resume until the project biologist is consulted and the resident engineer provides written authorization. Any entrapped kit fox would be permitted to escape. No injured or dead kit fox would be handled or otherwise disturbed.
- If a kit fox den is discovered, all construction activity within a 150-foot radius of the den would be halted, and the resident engineer would be contacted immediately. Work would not continue until the resident engineer provides written authorization.

- All food-related trash would be disposed of in closed garbage containers provided by the contractor. Containers would be emptied daily.
- Pets are prohibited on the work site.
- At the end of each work day, the contractor would take measures to prevent the entrapment of kit foxes in all excavated, steep-walled holes or trenches more than or equal to 2 feet deep. Such measures would include covering excavations with plywood or providing dirt or plank escape ramps from the trenches.
- The contractor would inspect all pipes and culverts 4 inches in diameter or wider before burying, capping, or other use. If a kit fox is discovered during this inspection, the pipe or culvert would not be disturbed (other than to move to a safe location if necessary) until after the fox escaped.

Invasive Species

Invasive species would be handled in accordance with Executive Order 13112 pertaining to invasive species and by the best management practices used to reduce the potential spread of noxious weeds to or from the project site. This would include only using clean dirt for fill and properly disposing of any excavated materials. Caltrans would also deploy proper erosion and storm water control techniques and hydro-seeding to revegetate disturbed areas.

List of Technical Studies

Community Impact Checklist Memorandum

Historic Properties Survey Report

Location Hydraulics Study

Paleontological Identification Report Memorandum

Noise Study Report

Natural Environment Study (Minimal Impacts)

Visual Impact Assessment

Water Compliance Study Memorandum

Hazardous Waste Environmental Assessment Memorandum

Environmental (Air) Scoping Memorandum