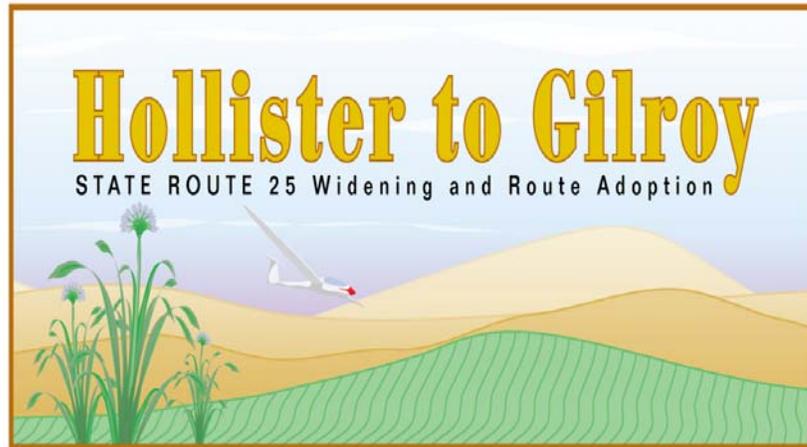


Hollister to Gilroy State Route 25 Widening and Route Adoption

San Benito and Santa Clara Counties, California
05-SBt-25 (PM 51.5/60.1), 04-SCI-25 (PM 0.0/2.6)
and 05-SBt-156 (PM R10.5/R12.2)

05-485400

Draft Environmental Impact Report and Tier I Draft Environmental Impact Statement



State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the California Department of Transportation under its assumption of responsibility pursuant to 23 U.S.C. 327.

April 2010



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans), as CEQA lead agency, as assigned by the Federal Highway Administration, has prepared this Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement, which examines the potential environmental impacts of alternatives being considered for the proposed project in San Benito and Santa Clara counties in California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement. Additional copies of this document as well as the technical studies are available for review at:
 - Caltrans District 5 office, 50 Higuera Street, San Luis Obispo, CA 93401
 - San Benito County Free Library, 470 5th Street, Hollister, CA 95023, (831) 636-4107
- Attend the public hearing on May 11, 2010.
- We welcome your comments. If you have any concerns regarding the proposed project, please attend the public hearing or send your written comments to Caltrans by the deadline.
- Submit comments via U.S. mail to Caltrans at the following address: G. William "Trais" Norris III, Branch Chief, Sierra Pacific Environmental Analysis Branch, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, CA 93726.
- Submit comments via email to: trais_norris@dot.ca.gov.
- Submit comments by the deadline: June 10, 2010.

What happens next?

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration, may do additional environmental and/or engineering studies. A Final Environmental Impact Report/Final Tier I Environmental Impact Statement will be circulated; the final document will include responses to comments received on the Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement and will identify the preferred alternative. Following circulation of the Final Environmental Impact Report/Final Tier I Environmental Impact Statement, if the decision is made to approve the project, a Notice of Determination will be published for compliance with the California Environmental Quality Act and a Record of Decision will be published for compliance with the National Environmental Policy Act. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: G. William "Trais" Norris III, Sierra Pacific Environmental Analysis Branch; California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, CA 93726 (559) 243-8178 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

Widen from two-lane conventional highway to four-lane expressway (SBT-25-51.5/55.3)
and route adoption (SBT-25-51.5 to SCL-25-2.6) near Hollister and Gilroy on
State Route 25 in San Benito and Santa Clara Counties

DRAFT ENVIRONMENTAL IMPACT REPORT

AND

DRAFT TIER I ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327

THE STATE OF CALIFORNIA
Department of Transportation

San Benito County
Santa Clara County

4/13/10
Date of Approval


Richard Krumholz
District Director
California Department of Transportation

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

G. William "Trais" Norris III, Branch Chief, Sierra Pacific Environmental Analysis Branch, California
Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, CA 93726. Phone (559) 243-8178.

Abstract: This project encompasses two proposed projects: (1) a route adoption for an 11.2-mile four-lane expressway, and (2) construction of a proposed 3.8-mile four-lane expressway project within the limits of the proposed route adoption. The purpose of the proposed route adoption project is to: Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand. Facilitate local and regional land use planning by identifying future right-of-way needed for the State Route 25 corridor. The purpose of the proposed build project is to: Improve traffic flow and reduce delays on State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County. Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural San Benito County. This project would have significant impacts to farmland.

Comments on this project are due by June 10, 2010. Please mail comments to G. William "Trais" Norris III,
California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, CA 93726, or email to
trais_norris@dot.ca.gov.



Summary

Overview of Project Area

State Route 25, a two-lane conventional highway officially designated as a south to north route, runs northwest through the relatively flat terrain of the Hollister Valley, ending at U.S. 101 after crossing the Pajaro River and Carnadero Creek. In San Benito County, State Route 25 is also known as Bolsa Road from San Felipe Road to the San Benito-Santa Clara county line. The highway is named Hollister Road in Santa Clara County from the county line to the Bloomfield Avenue intersection, and it is named Bloomfield Road from that intersection to U.S. 101.

Agriculture dominates the surrounding landscape, with farms and houses scattered along the study area. Residences, retail businesses, and agriculture-related commercial operations are near both ends of the route adoption study area, on the outskirts of Gilroy and the edge of Hollister.

Purpose and Need

The purpose of the proposed route adoption project is to:

- Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand.
- Facilitate local and regional land use planning by identifying future right-of-way needed for the State Route 25 corridor.

The purpose of the proposed build project is to:

- Improve traffic flow and reduce delays on State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.
- Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural San Benito County.

Slow-moving farm equipment and trucks share this two-lane roadway with local and commuter traffic. An increasing number of vehicles travel this stretch of State Route 25. During peak commute hours, the roadway is congested. Traffic flow is delayed by vehicles turning into and out of the many intersecting driveways and local roads, affecting the flow of the faster moving vehicles. Commercial truck traffic traveling through the area on State Route 25 is subject to delays as well. A new route alignment should be adopted so that the appropriate area for a future expressway can be

incorporated into the San Benito and Santa Clara County General Plans now, before future development occurs along this stretch of highway.

Proposed Action

The California Department of Transportation (Caltrans), as CEQA lead agency, in cooperation with the Council of San Benito County Governments and the Santa Clara Valley Transportation Authority, is proposing the eventual replacement of 11.2 miles of the existing State Route 25 two-lane highway with a four-lane expressway in San Benito and Santa Clara counties. A future interchange at State Route 25/State Route 156 would require widening State Route 156 between post miles R10.5 and R12.2.

This combined Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement evaluates two proposed projects: (1) a route adoption and (2) a proposed construction project within the limits of the proposed route adoption. Five alternatives are under consideration: a No-Build Alternative; Alternatives 1 and 2 are route adoption alignments; Alternatives A and B are proposed build alternatives.

Route Adoption

A route adoption would allow San Benito and Santa Clara counties to adopt a specific corridor for a future expressway into their General Plans. At some time in the future, most or all of the parcels within the defined area would eventually be acquired for the expressway.

The route adoption study extends from San Felipe Road within the City of Hollister (post mile 51.5) to the San Benito/Santa Clara County line (post mile 60.1) and on to the end of State Route 25 at U.S. 101, south of the City of Gilroy (post miles 0.0 to 2.6 in Santa Clara County).

Both of the route adoption alternatives—Alternatives 1 and 2—are 11.2 miles long and share the same alignment from ½ mile south of Shore Road in San Benito County to U.S. 101 in Santa Clara County. Between ½ mile south of Shore Road and the southern end of the proposed project at San Felipe Road, the two proposed route adoption alternatives separate. Alternative 1 proposes to align the future four-lane expressway generally to the east of the existing highway. Alternative 2 would be aligned mostly to the west of the existing two-lane highway. Both alignments would be wide enough to accommodate a future four-lane expressway, which would be 342 feet in width including the median, and frontage roads on one or both sides. The alignments would also be wide enough to accommodate an interchange near the

existing intersection of State Route 25 and State Route 156 and a replacement State Route 25/U.S. 101 interchange north of the existing interchange.

Other improvements include new bridges over the Pajaro River and Carnadero Creek, and overcrossings of the Union Pacific Railroad Hollister branch line and the Union Pacific Railroad main line just east of U.S. 101 (see Figure 2-1).

Build Alternatives

The proposed construction project limits extend 3.8 miles in San Benito County, from San Felipe Road in Hollister to just west of Hudner Lane (post miles 51.5 to 55.3). A four-lane expressway would replace the existing two-lane conventional highway. Unlike the route adoption alternatives, the build alternatives propose a realigned and widened at-grade intersection—instead of an interchange—at State Route 25 and State Route 156. Both construction alternatives would transition back to the existing two-lane highway just west of Hudner Lane.

Alternative A would be constructed at the southeastern end of the Alternative 1 route adoption alignment. Direct access to the expressway would be available from San Felipe Road, Wright Road, Flynn Road, State Route 156, two west-side frontage roads and one eastside frontage road. An undercrossing would be built at the Don Chapin gravel quarry driveway to provide access to this parcel (see Figure 2-2).

Alternative B would be built at the southwestern end of the Alternative 2 route adoption alignment. Direct access to the expressway would be possible from San Felipe Road, Wright Road, Briggs Road, two west-side frontage roads, State Route 156, an eastside frontage road, and Hudner Lane (see Figure 2-2).

No-Build/No-Action

Caltrans road construction projects normally have a No-Build Alternative (in federal language this is called the No-Action Alternative). However, because this project is really two projects, it would be possible for the No-Build Alternative to be selected instead of a construction project (Alternative A or B), and to also have an action: a route adoption. The term “No-Build” rather than “No-Action” will be used in most instances in this document.

The No-Action Alternative would result in no action being taken. The alignment of a future expressway would not be secured by a route adoption within the 11.2-mile-long corridor. No further improvements would be made to State Route 25 other than Phase One of the State Route 25 Safety and Operations Enhancement project (post

miles 55.1 to 60.1), which began construction in May 2009 and is scheduled to be completed in May 2010. The proposed improvements to this segment of State Route 25 include widening to provide inside shoulders, installing a temporary concrete median barrier, consolidating private driveways and constructing private unimproved access roads, improving the Hudner Lane and Shore Road intersections, and constructing left-turn lanes to new access road intersections.

A proposed State Route 25/U.S.101 interchange is now part of a Caltrans District 4 project, the U.S. 101 Widening Project State Route 129 to Monterey Road. That project will include widening U.S. 101 from its interchange with State Route 129 in San Benito County northward to the Monterey Avenue off-ramp in Gilroy in Santa Clara County. The U.S. 101 Widening Project State Route 129 to Monterey Road overlaps with this project on State Route 25 for one mile east of U.S. 101 in Santa Clara County. This 1-mile segment, including the area of the new interchange, will be discussed in more general terms in this Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement.

Joint California Environmental Quality Act/National Environmental Policy Act Document

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act and the National Environmental Policy Act. Caltrans is the lead agency under the California Environmental Quality Act and the National Environmental Policy Act. In addition, the Federal Highway Administration's responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

Some impacts determined to be significant under the California Environmental Quality Act may not be lead to a determination of significance under the National Environmental Policy Act. Because the National Environmental Policy Act is concerned with the significance of the project as a whole, it is quite often the case that a "lower level" document is prepared for the National Environmental Policy Act. One of the most commonly seen joint document types is an Environmental Impact Report/Environmental Impact Statement.

After comments are received from the public and reviewing agencies, Caltrans may do additional environmental and/or engineering studies. A Final Environmental Impact Report/Final Tier I Environmental Impact Statement will be circulated; the Final Environmental Impact Report/Final Tier I Environmental Impact Statement will include responses to comments received on the Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement and will identify the preferred alternative(s).

Following circulation of the Final Environmental Impact Report/Final Tier I Environmental Impact Statement, if the decision is made to approve the project, a Notice of Determination will be published for compliance with the California Environmental Quality Act, and a Record of Decision will be published for compliance with the National Environmental Policy Act.

Project Impacts

The proposed build alternatives would result in impacts to farmland because farming is the main land use in the project area and farmland cannot be avoided. A noise impact could occur at one location. Potential impacts to visual resources, biological resources, aggregate mining, paleontology, and hazardous waste could also be caused by the build alternatives. Other potential impacts include construction impacts, and relocations of residences, businesses, and utilities.

Readers should keep in mind while reading this document that discussions of the route adoption alternatives' impacts are general in nature because construction is not proposed. However, potential impacts of a four-lane expressway along Alternative 1 and Alternative 2 are examined in this document. Detailed analysis and mitigation measures would be done in the future when one or more Tier II environmental documents are prepared for specific portions of the alignment as funding becomes available for construction.

In this document, the analysis of Alternatives A and B is more detailed than that of Alternatives 1 and 2 because construction is proposed in 2015 for this portion of the route adoption alignment.



Summary

Table S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact		Route Adoption		Build Alternatives		No-Action Alternative
		Alternative 1	Alternative 2	Alternative A	Alternative B	
Land Use Is the project consistent with the General Plans of:	City of Hollister	Four-lane expressway planned	Four-lane expressway planned	Four-lane expressway planned	Four-lane expressway planned	An expressway would not be built
	County of San Benito	Four-lane expressway planned from Hollister to the Santa Clara County line	Four-lane expressway planned from Hollister to the Santa Clara County line	Four-lane expressway planned from Hollister to the Santa Clara County line	Four-lane expressway planned from Hollister to the Santa Clara County line	An expressway would not be built
	County of Santa Clara	Six-lane freeway planned from U.S.101 to Bolsa Road	Six-lane freeway planned from U.S.101 to Bolsa Road	This portion of the proposed project is not within Santa Clara County	This portion of the proposed project is not within Santa Clara County	Neither an expressway nor a freeway would be built
Growth		Growth is not reasonably foreseeable as a result of this project	Growth is not reasonably foreseeable as a result of this project	Growth is not reasonably foreseeable as a result of this project	Growth is not reasonably foreseeable as a result of this project	No change
Farmland Acres of farmland converted	Total	657	660	180	189	No land would be acquired.
	Prime/Unique	408	411	180	189	
	Williamson Act	121	159	13.3	51.1	
Community Character and Cohesion		Disrupts a church community	Not expected to result in any disruption or isolation of a community	Disrupts a church community	Not expected to result in any disruption or isolation of a community	No impacts
Relocation Will the project result in any displacement of:	Business	10	4	8	4	No businesses would be acquired.
	Housing	21	14	14	9	No land or residences would be acquired.
	Utilities	Would relocate: <u>AT&T</u> aboveground telephone lines and underground telephone cables. <u>PG&E</u> aboveground electric lines and underground electric cables. Would also relocate portions of the Sargent-Hollister 115kV electrical line. <u>City of Hollister</u> recycled water pipeline.	Would relocate: <u>AT&T</u> aboveground telephone lines and underground telephone cables. <u>PG&E</u> aboveground electric lines and underground electric cables. Would also relocate portions of the Sargent-Hollister 115kV electrical line. <u>City of Hollister</u> recycled water pipeline and also water lines in Wright Road.	Would relocate: <u>AT&T</u> aboveground telephone lines and underground telephone cables. <u>PG&E</u> aboveground electric lines and underground electric cables. Would also relocate portions of the Sargent-Hollister 115kV electrical line. <u>City of Hollister</u> recycled water pipeline.	Would relocate: <u>AT&T</u> aboveground telephone lines and underground telephone cables. <u>PG&E</u> aboveground electric lines and underground electric cables. Would also relocate portions of the Sargent-Hollister 115kV electrical line. <u>City of Hollister</u> recycled water pipeline and also water lines in Wright Road.	No utilities would be relocated.
Emergency Services		When completed, would likely have a positive effect on emergency response time.	When completed, would likely have a positive effect on emergency response time.	When completed, would likely have a positive effect on emergency response time.	When completed, would likely have a positive effect on emergency response time.	Emergency response time would worsen as congestion increases.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Level of service would improve. Frontage roads provided would change local access.	Level of service would improve. Frontage roads provided would change local access.	Level of service would improve within limits of this alternative. Frontage roads provided would change local access. During construction traffic delays and detours could occur	Level of service would improve within limits of this alternative. Frontage roads provided would change local access. During construction traffic delays and detours could occur.	Traffic delays and average travel speed would continue to worsen.

Summary

Potential Impact	Route Adoption		Build Alternatives		No-Action Alternative
	Alternative 1	Alternative 2	Alternative A	Alternative B	
Visual/Aesthetics	Impacts would be loss of agricultural vegetation and increased paved surface in previously undeveloped land; and diminished rural agricultural character. The large overhead bridges at the Pajaro River and Carnadero Creek and the two interchanges would create visual impacts.	Impacts would be loss of agricultural vegetation and increased paved surface in previously undeveloped land; and diminished rural agricultural character. The large overhead bridges at the Pajaro River and Carnadero Creek and the two interchanges would create visual impacts.	Impacts would be loss of agricultural vegetation and mature trees, removal of rural buildings, increased pavement in previously undeveloped land, raised road profile, encroachment of human-made elements such as fencing, signs and lighting, and diminished rural agricultural character in general.	Impacts would be loss of agricultural vegetation and mature trees, removal of rural buildings, increased pavement in previously undeveloped land, raised road profile, encroachment of human-made elements such as fencing, signs and lighting, and diminished rural agricultural character in general.	The existing landscape viewed from the highway and the view of the highway would not be changed.
Hydrology and Floodplain	The expressway would be placed on an embankment within the 100-year floodplain. A combination of drainage ditches, cross culverts, and new bridges at the Pajaro River and Carnadero Creek would allow flood waters to pass and flow in their historic patterns.	The expressway would be placed on an embankment within the 100-year floodplain. A combination of drainage ditches, cross culverts, and new bridges at the Pajaro River and Carnadero Creek would allow flood waters to pass and flow in their historic patterns.	No floodplain is present.	No floodplain is present.	No change
Water Quality and Storm Water Runoff	No long-term groundwater impacts are expected from the project. The construction of new bridges at the Pajaro River and Carnadero Creek could result in short-term impacts to water quality.	No long-term groundwater impacts are expected from the project. The construction of new bridges at the Pajaro River and Carnadero Creek could result in short-term impacts to water quality.	No direct, indirect, or long-term impacts to water quality or groundwater. Any short-term impacts to surface water quality during construction of this project would be minimal with the use of avoidance and minimization measures.	No direct, indirect, or long-term impacts to water quality or groundwater. Any short-term impacts to surface water quality during construction of this project would be minimal with the use of avoidance and minimization measures.	No change
Geology/Soils/Seismic/ Topography	Bridges in the vicinity of the Calaveras Fault where it crosses the highway would be sited and designed to withstand potential ground displacement caused by an earthquake. Future construction would affect designated and mapped deposits of aggregate mineral resources in the SCL/Bolsa sand and gravel mine.	Bridges in the vicinity of the Calaveras Fault where it crosses the highway would be sited and designed to withstand potential ground displacement caused by an earthquake. Future construction would excavate in a sand and gravel hill opposite Briggs Road which has not been designated and mapped as a mineral resource.	The proposed undercrossing would be designed to withstand potential ground displacement caused by an earthquake. Construction would affect designated and mapped aggregate mineral resources of the SCL/Bolsa sand and gravel mine.	Construction would excavate in a sand and gravel hill opposite Briggs Road (northern intersection), which has not been designated and mapped as a mineral resource.	No bridges would be built, and no construction excavation would occur.
Paleontology	There is a potential to affect fossils in the U.S. 101/State Route 25 interchange area. The gravel hills south of State Route 25/State Route 156 on the east side of the existing highway are also highly sensitive for fossils.	There is a potential to affect fossils in the U.S. 101/State Route 25 interchange area. The gravel hills south of State Route 25/State Route 156 on the west side of the existing highway are also highly sensitive for fossils.	There is a potential to affect fossils in the gravel hills south of State Route 25/State Route 156 on the east side of the existing highway.	There is a potential to affect fossils in the gravel hills south of State Route 25/State Route 156 on the west side of the existing highway.	No highway construction that would affect fossils would occur.

Summary

Potential Impact	Route Adoption		Build Alternatives		No-Action Alternative
	Alternative 1	Alternative 2	Alternative A	Alternative B	
Hazardous Waste or Materials	Eleven potential hazardous waste sites are in the alignment. The potential for impacts on this alternative are: Minimal –1 site Low –2 sites Low to moderate -1 site Moderate -- 5 sites High – 2 sites	Five potential hazardous waste sites are in the alignment. The potential for impacts on this alternative are: Minimal –1 site Low to moderate -1 site Moderate - 2 sites High –1 site	Nine potential hazardous waste sites are in the alignment. The potential for impacts on this alternative are: Minimal –1 site Low –2 sites Low to moderate -1 site Moderate -3 sites High -2 sites	Three potential hazardous waste sites are in the alignment. The potential for impacts on this alternative are: Minimal –1 site Low to moderate -1 site High -1 site	No land would be acquired.
Air Quality	Area is currently classified as attainment/maintenance for federal standards and attainment/unclassified for state standards for carbon monoxide (CO).	Area is currently classified as attainment/maintenance for federal standards and attainment/unclassified for state standards for carbon monoxide (CO).	Would improve the level of service to a range of A to C from existing level of service E. The project would promote smoother traffic flow by reducing congestion and would improve carbon monoxide levels in an area that is currently in attainment. During construction, there would be a temporary increase in air emissions and airborne dust. Dust and odors at some residences very close to the right-of-way could probably cause occasional annoyance and complaints.	Would improve the level of service to a range of A to C from existing level of service E. The project would promote smoother traffic flow by reducing congestion and would improve carbon monoxide levels in an area that is currently in attainment. During construction, there would be a temporary increase in air emissions and airborne dust. Dust and odors at some residences very close to the right-of-way could probably cause occasional annoyance and complaints.	Carbon monoxide levels would worsen.
Noise and Vibration	No impact	No impact	At one noise receptor, there would be a predicted increase in the noise level from 59.9 decibels to 65.9 decibels. Construction noise would be short term, intermittent, and overshadowed by local traffic noise.	At one noise receptor, there would be a predicted increase in the noise level from 46.3 decibels to 58.5 decibels. Construction noise would be short term, intermittent, and overshadowed by local traffic noise.	Noise levels would increase
Natural Communities	Potential impacts to riparian habitat and wildlife migration corridors along the Pajaro River and Carnadero Creek.	Potential impacts to riparian habitat and wildlife migration corridors along the Pajaro River and Carnadero Creek.	No impacts are expected.	No impacts are expected.	No change
Wetlands and Other Waters of the U.S.	An estimated 4 acres of jurisdictional waters and wetlands would be affected.	An estimated 4 acres of jurisdictional waters and wetlands would be affected.	Potential temporary impacts to a seasonal wetland could be 0.02 acre.	No impacts are expected.	No change

Summary

Potential Impact	Route Adoption		Build Alternatives		No-Action Alternative
	Alternative 1	Alternative 2	Alternative A	Alternative B	
Threatened and Endangered Species	<p>Potential impacts to critical habitat for Central California steelhead in the Pajaro River and Carnadero Creek.</p> <p>Impacts to California tiger salamander: Direct impacts to upland habitat estimated to be 21 acres.</p> <p>Indirect impacts to upland habitat estimated to be 82 acres.</p> <p>Indirect impacts to breeding habitat expected to be 3.7 acres.</p>	<p>Potential impacts to critical habitat for Central California steelhead in the Pajaro River and Carnadero Creek.</p>	<p>Impacts to California tiger salamander: Direct impacts to upland habitat estimated to be 21 acres.</p> <p>Indirect impacts to upland habitat estimated to be 82 acres.</p> <p>Indirect impacts to breeding habitat expected to be 3.7 acres.</p>	<p>No impacts are expected.</p>	<p>No change</p>
Cumulative Impacts	<p>Right-of-way acquisition for this project would have cumulative impacts to farmland.</p> <p>The visual impacts of building an expressway in this location would be cumulative.</p> <p>Any paleontological impacts would be cumulative.</p>	<p>Right-of-way acquisition for this project would have cumulative impacts to farmland.</p> <p>The visual impacts of building an expressway in this location would be cumulative.</p> <p>Any paleontological impacts would be cumulative.</p>	<p>Right-of-way acquisition for this project would have cumulative impacts to farmland.</p> <p>The visual impacts of building an expressway in this location would be cumulative.</p> <p>Any paleontological impacts caused by construction would be cumulative.</p>	<p>Right-of-way acquisition for this project would have cumulative impacts to farmland.</p> <p>The visual impacts of building an expressway in this location would be cumulative.</p> <p>Any paleontological impacts caused by construction would be cumulative.</p>	<p>No change</p>

Coordination with the Public and Other Agencies

Environmental compliance for Build Alternative A would require a Biological Opinion from the U.S. Fish and Wildlife Service and a California Department of Fish and Game 2080.1 Consistency Determination for impacts to the California tiger salamander, if Alternative A is selected as the preferred build alternative, after distribution of the draft environmental document. A California Department of Fish and Game 2080.1 Consistency Determination would then be necessary. Both build alternatives would adhere to the National Pollutant Discharge Elimination System permit.

Permits that could be required in the future for Tier II projects within the footprint of the proposed route adoption alignments are listed at the beginning of Section 3.3 Biological Environment.

Table S.2 Permits and Approvals Needed for Build Alternatives

Agency	Permit/Approval	Status	Alternative
State Water Resources Control Board	National Pollutant Discharge Elimination System	National Pollutant Discharge Elimination System permit is in force	Alternative A or Alternative B
Central Coast Regional Water Quality Control Board	Notification of Construction	Would be submitted to the Regional Water Quality Control Board at least 30 days before construction starts	Alternative A or Alternative B
U.S. Fish and Wildlife Service	Biological Opinion	A Biological Assessment would be prepared by Caltrans and submitted if Alternative A is selected as the preferred alternative	Alternative A
Department of Fish and Game	Section 2080.1 Consistency Determination	Would be applied for one month following receipt of the Biological Opinion	Alternative A



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List of Abbreviated Terms

Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
FEMA	Federal Emergency Management Administration
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PM	post mile
CO ₂	carbon dioxide
PM _{2.5}	particulate matter that is 2.5 microns or less in diameter
PM ₁₀	particulate matter that is 10 microns or less in diameter

Chapter 1 Purpose and Need for the Project

1.1 Introduction

The California Department of Transportation (Caltrans), in cooperation with the Council of San Benito County Governments and the Santa Clara Valley Transportation Authority, is proposing the eventual replacement of 11.2 miles of the existing State Route 25 two-lane highway with a four-lane expressway in San Benito and Santa Clara counties. The project extends from San Felipe Road in the City of Hollister (post mile 51.5) in San Benito County to the end of State Route 25 at U.S. 101 (post mile 2.6), south of the City of Gilroy in Santa Clara County. A future interchange at State Route 25/State Route 156 would require widening State Route 156 between post miles R10.5 and R12.2 (see Figures 1-1 and 1-2).

This combined Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement includes both a route adoption study (a broad Tier I environmental analysis) and a proposed build project (a project-specific analysis). The build project is a four-lane expressway within the limits of the proposed route adoption from San Felipe Road (post mile 51.5) to just west of Hudner Lane (post mile 55.3). A route adoption would identify a specific corridor for placement of an expressway for future needs, while the construction portion of the project is proposed for construction in 2015. The route adoption also serves the purpose of looking at environmental issues on a broad scale.

The State Route 25 Widening project was listed as a constrained project in the Council of San Benito Governments' 2005 Regional Transportation Plan (the most recent plan issued to date). Currently, the build portion of this project and the route adoption are funded to complete the preliminary design and environmental analysis phase of the project development process. Funding will be sought in a future State Transportation Improvement Program cycle for future project phases (Plans, Specifications and Estimate, Right-of-Way, and Construction). The Council of San Benito Governments intends to pursue funding for the remaining highway segment in the county within the proposed route adoption, between Hudner Lane and the San Benito County/Santa Clara County line. That section of State Route 25 was included in the constrained project shown in the 2005 Regional Transportation Plan.



Figure 1-1 Project Vicinity Map

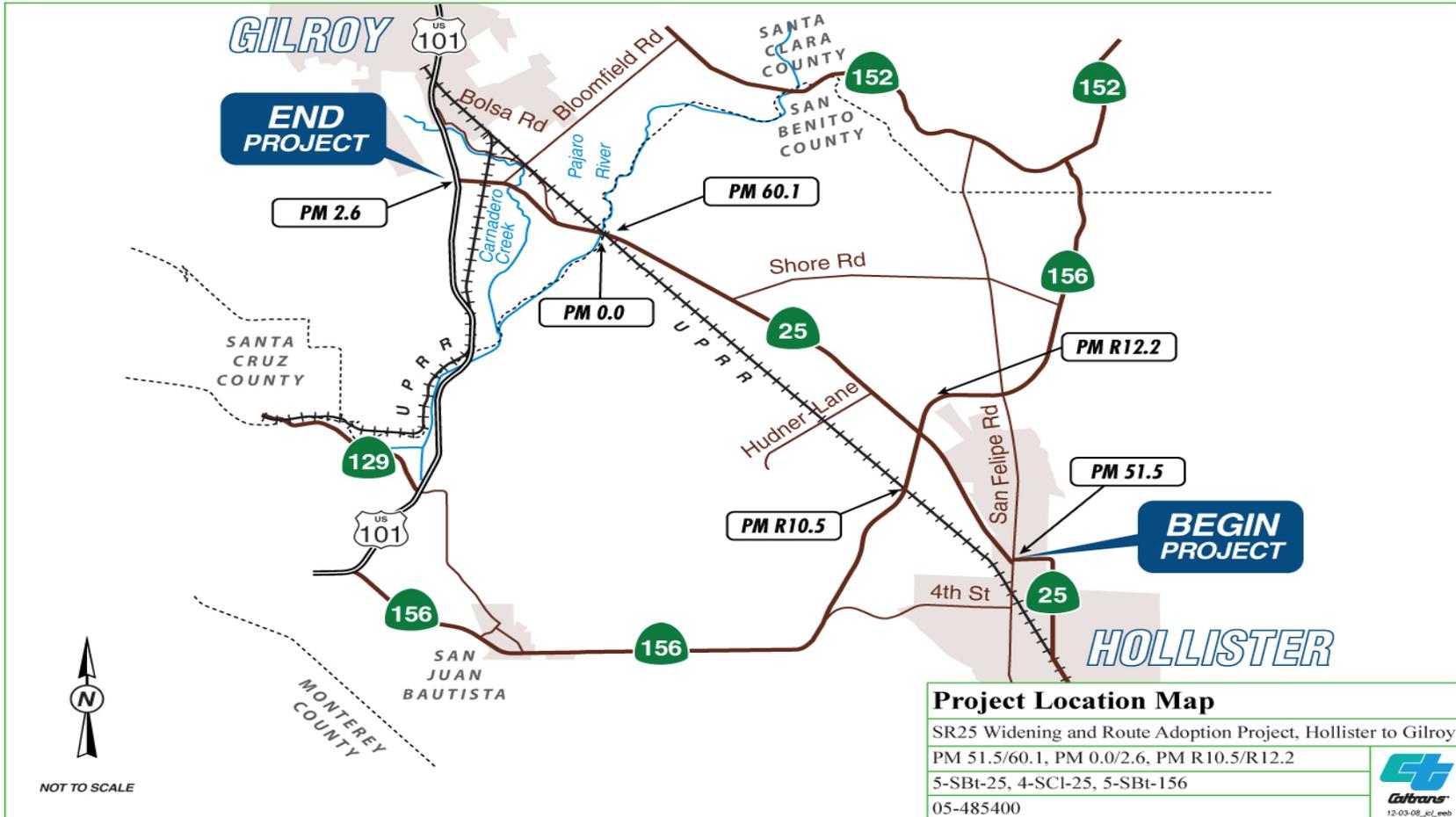


Figure 1-2 Project Location Map

In San Benito County, this project was in the 2002 and 2006 San Benito County Regional Transportation Improvement Program (RTIP).

For Santa Clara County, this project was in the Metropolitan Transportation Commission's 1998 Region Transportation Plan and the 1998 cost-constrained Regional Transportation Improvement Program. It was also in the Valley Transportation Plan 2030.

1.2 Purpose and Need

The Purpose and Need section of the document discusses the reasons for the proposed project and provides structure for the development of alternatives. In the alternative selection process, the alternatives are evaluated and compared on how well they meet the Purpose and Need, as well as the potential environmental and economic costs.

1.2.1 Purposes

The purpose of the proposed route adoption project is to:

- Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand.
- Facilitate local and regional land use planning by identifying future right-of-way needed for the State Route 25 corridor.

The purpose of the proposed build project is to:

- Improve traffic flow and reduce delays on State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.
- Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural San Benito County.

1.2.2 Need for Route Adoption

A route adoption is needed in order to identify and preserve the location of a transportation corridor on State Route 25 between Hollister and U.S. 101 with the fewest environmental effects on resources. Preliminary design for two 10.2-mile-long four-lane expressway alternatives was completed and environmental studies were almost finished for a proposed construction project before the project changed in January 2008 to propose a route adoption instead of the construction project. The

reason for the change was that such a long expressway is too expensive to obtain funding for and construct as a single project in San Benito and Santa Clara counties.

A new route alignment should be adopted so that the appropriate area for a future State Route 25 expressway between Hollister and U.S. 101 can be incorporated into the San Benito and Santa Clara County General Plans now, before future development occurs along this stretch of highway. The decision to locate a highway along a specific alignment allows for future land use planning, including establishment of right-of-way boundaries and protection of that right-of-way through local land use controls (a county General Plan). At some time in the future, most or all of the parcels within the defined area would eventually be acquired for the expressway.

State Route 25 within the project limits is the main connector between the cities of Hollister and Gilroy; it is a daily commute route and motorists expect to travel it at relatively high speeds. Between Hollister and U.S. 101 south of Gilroy, the highway has functioned both as a major intercity route and a primary commuter route since about 1990. An increased number of vehicles travel this stretch of State Route 25 due to the rapid population growth and commuter traffic between northern San Benito County and San Jose and the northern Santa Clara Valley.

State Route 25 between Hollister and U.S. 101 passes through agricultural land and includes pullout areas used by agricultural equipment. At peak commute hours, traffic becomes heavy, resulting in congestion. Traffic is often delayed by vehicles turning into and/or out of the numerous driveways and local roads, affecting the flow of the faster-moving vehicles. Conflicts between faster-moving vehicles and slower-moving agricultural traffic occur during off-peak traffic hours.

This segment of State Route 25 is a conventional highway, so access to driveways is not limited. Along the length of the route adoption project there are approximately 54 driveways and 11 intersections with local roads. Some of these intersections do not have left-turn lanes.

Commercial truck traffic travels through the area on State Route 25 and is also subject to delays due to the congestion. According to the latest Caltrans traffic census data from 2007, truck traffic makes up about 10% of the total traffic on State Route 25 near Briggs Road and 6.5% at the U.S. 101 junction.

According to the traffic analysis completed for the project, on State Route 25 the existing annual average daily traffic count is 14,700 vehicles between San Felipe Road and State Route 156; 21,300 vehicles between State Route 156 and the San Benito County-Santa Clara County line; and 22,500 vehicles between that point and U.S. 101 in Santa Clara County. The traffic volumes are lower at the Hollister end of the project because some drivers turn off of State Route 25 at Bloomfield Avenue, some motorists turn off of the highway at Shore Road to get to State Route 156, and some traffic turns south onto State Route 156 to access neighborhoods on the west side of Hollister.

In 2015, on the existing State Route 25 between San Felipe Road and State Route 156, predicted average annual daily traffic is expected to increase by 37%, with 5,400 more daily vehicles than in 2006. In 2035, traffic on this segment will have increased by 9,700 more vehicles per day, a 61% increase in traffic. Although the segment of highway between State Route 156 and Hudner Lane is predicted to have only 7.5% more traffic in 2015 (1,600 more daily vehicles than use the road today), by the year 2035 traffic will have grown by 36% from current conditions, adding 7,600 more daily vehicles to the highway than drive on it now. The segment from Hudner Lane to U.S. 101 would see less than 1% traffic increase in 2015, according to the traffic study. However, by the year 2035, 9,700 more daily vehicles are expected to be on this stretch of roadway, a 43% increase from existing traffic. Traffic conditions are discussed further in Section 3.1.7.

Table 1.1 shows the annual average daily traffic counts for segments of the route adoption area measured in 2006 (existing conditions), the predicted traffic in 2015 (the construction year of the proposed build project), and predicted traffic in 2035 (future conditions).

Table 1.1 Existing and Predicted Annual Average Daily Traffic Without Projects

Alternatives		Segment on State Route 25	Daily Traffic (Percentage) Increase		
			2006 (Existing)	2015	2035
Route Adoption Alternatives	Build Alternatives	San Felipe Road to State Route 156	14,700	20,100 (37%)	23,700 (61%)
		State Route 156 to Hudner Lane	21,300	22,900 (7.5%)	28,900 (36%)
		Hudner Lane to U.S. 101	22,500	22,700 (0.9%)	32,200 (43%)

Source: Caltrans Traffic Operations, June 2009

Because State Route 25 has a striped median that prohibits passing throughout the length of the project, traffic lines up behind slower vehicles, especially during the morning and evening commute hours.

“Average travel speed” and “percent time spent following” (percentage) are the criteria used to determine Level of Service for Class I two-lane highways. State Route 25 within the project limits is classified as a Class I two-lane highway because it is a daily commuter route and the main connector between the cities of Hollister and Gilroy. “Average travel speed” for vehicles is measured in miles per hour. “Percent time spent following” (percentage) is defined as the average percentage of travel time vehicles spend traveling in lines behind slower vehicles due to their inability to pass. The data for these two criteria were plotted on a graph to determine level of service (see Figure 1-3). Whenever percent time spent following is measured at 80% or more, the resulting level of service is recorded as level of service E by the model used for two-lane highways. Level of service F occurs whenever the traffic flow rate exceeds the capacity of the roadway, with 100% time spent following and average travel speed of less than 30 miles per hour.

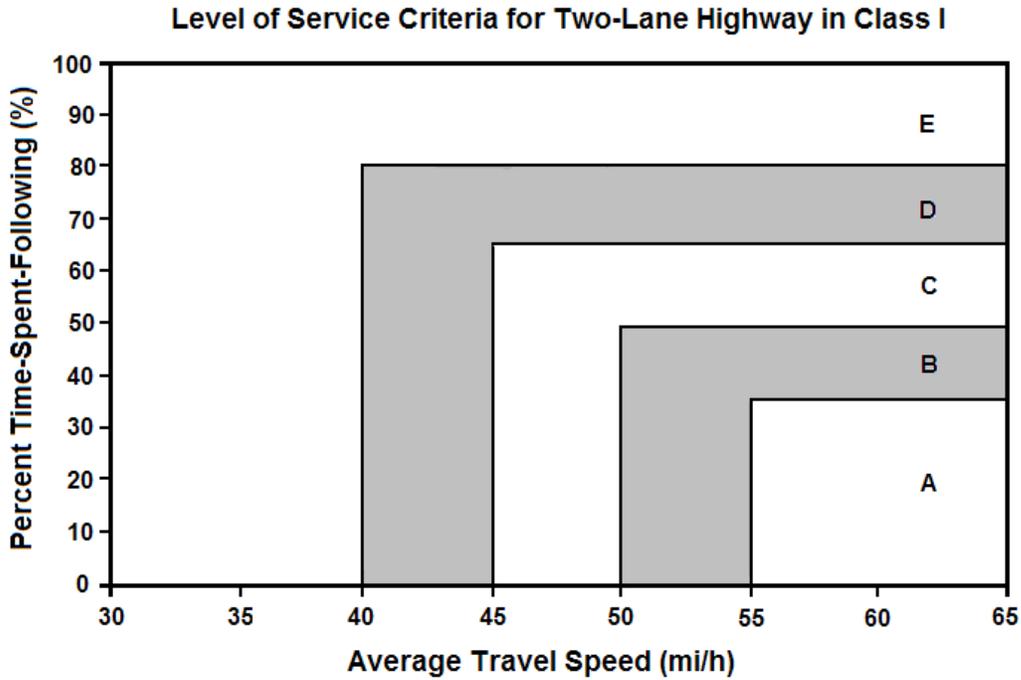


Figure 1-3 Level of Service Criteria for Two-Lane, Class I Highways

The current level of service for the existing two-lane highway within the study area is level of service E. During the peak morning and evening commute hours, vehicles travel in lines behind slower moving vehicles because they cannot pass more than 80% of the time; and average speeds are 43.7-44.9 miles per hour during the morning and 42.4-45.0 miles per hour during the evening peak traffic hour. This is below level of service C, the minimum acceptable to Caltrans and local agencies for this type of highway. Table 1.2 shows the existing levels of service including average travel time and percent-time-spent-following.

Table 1.2 Existing and Predicted Level of Service Without Projects

Alternatives		Segment on State Route 25	Peak Hour	Percent Time Spent Following Another Vehicle			Average Travel Speed (miles per hour)			Level of Service		
				2006/2007	2015	2035	2006/2007	2015	2035	2006/2007	2015	2035
Route Adoption Alternatives	Build Alternatives	San Felipe Road to State Route 156	AM	83.1	83.9	90.9	44.9	44.5	38.8	E	E	E
			PM	82.3	84.5	89.3	45.0	45.2	40.4	E	E	E
		State Route 156 to Hudner Lane	AM	82.0	87.9	92.4	43.7	40.8	37.4	E	E	E
			PM	84.6	89.6	91.2	42.4	41.5	38.8	E	E	E
	Hudner Lane to U.S. 101	AM	82.0	87.9	92.4	43.7	40.8	37.4	E	E	E	
		PM	84.6	89.6	91.2	42.4	41.5	38.8	E	E	E	

Source: Caltrans Traffic Operations, June 2009

State Route 25 crosses both the Union Pacific Railroad main line near U.S. 101 in Santa Clara County and the Union Pacific Hollister line just east of the county line (the Pajaro River) in San Benito County. Both of the railroad crossings are at-grade intersections, so vehicle traffic must stop for trains. Waiting at train crossings is another factor adding to delay along the route.

The route adoption alternatives propose eventual construction of overheads (bridges) over the railroad tracks at both of these locations. The overheads would separate the expressway traffic from the train traffic, providing a safety benefit in addition to improving average travel time for commuters.

1.2.3 Need for Build Alternatives

Improve Traffic Flow and Reduce Delays

Because State Route 25 has a striped median that prohibits passing throughout the length of the project, traffic backs up behind slower vehicles, especially during the morning and evening commute hours. Adding another through lane in each direction would allow for safe passing of slower-moving vehicles.

Currently, 31 driveways have uncontrolled access to State Route 25 between San Felipe Road and Hudner Lane. Vehicles turn directly onto the highway from these driveways in front of approaching vehicles moving at highway speeds. Motorists on the highway often have to slow down as drivers pull onto the highway in front of them, especially during peak traffic hours. In some places, there are breaks in the rumble strips in the median, opposite driveways. Some drivers turn left from driveways crossing the paved median rather than drive out-of-direction to a local road intersection to turn around.

The total annual cost of traffic delays between San Felipe Road and Hudner Lane is calculated to be \$1,008,000 (2008 dollars).

Increase Capacity

In 2015, the predicted average annual daily traffic is expected to increase by 37% on State Route 25 between San Felipe Road and State Route 156, with 5,400 more daily vehicles than in 2006. In 2035, traffic on this segment will have increased by 9,700 more vehicles per day, a 61% increase in traffic. Although the segment of highway between State Route 156 and Hudner Lane is predicted to have only 7.5% more traffic (an additional 1,600 daily vehicles) in 2015, by 2035 traffic will have grown by 36% from current conditions, adding 7,600 more daily vehicles to the highway than drive on it now (see Table 1.1).

Chapter 2 Project Alternatives

2.1 Alternatives

The purpose of the proposed route adoption project is to:

- Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand.
- Facilitate local and regional land use planning by identifying future right-of-way needed for the State Route 25 corridor.

The purpose of the proposed build project is to:

- Improve traffic flow and reduce delays on State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.
- Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural San Benito County.

Slow-moving farm equipment, commercial trucks, and local and interregional commuter traffic share this two-lane segment of State Route 25. With an increased number of vehicles traveling it, this stretch of State Route 25 is congested during peak commute hours. Traffic flow is slowed by vehicles turning into and/or out of the numerous driveways and local roads, affecting the flow of the faster-moving vehicles. Commercial truck traffic, much of it related to the agricultural economy of the region, travels through the area on State Route 25 and is subject to delays as well.

If a new route alignment is adopted, the appropriate area for a future expressway can be incorporated into the San Benito and Santa Clara County General Plans now, before future development occurs along this stretch of highway.

Five alternatives are under consideration, including the No-Build Alternative: Alternative 1 and Alternative 2 are route adoption alignments; Alternative A and Alternative B are proposed build alternatives.

Alternatives 1 and 2 (the route adoption alternatives) extend from San Felipe Road within the City of Hollister (post mile 51.5) to the San Benito/Santa Clara County line (post mile 60.1) and on to the end of State Route 25 at U.S. 101 south of the City of Gilroy (post miles 0.0 to 2.6) in Santa Clara County. Both Alternatives A and B (the build alternatives) would extend 3.8 miles in San Benito County, from San Felipe Road (post

mile 51.5) to just west of Hudner Lane (post mile 55.3). Unlike the route adoption alternatives, the build alternatives propose a realigned and widened at-grade intersection instead of an interchange at State Route 25/State Route 156. Both build alternatives would transition back to the existing two-lane highway near Hudner Lane.

Although the project proposes five alternatives, more than one alternative could be selected for further consideration (also known as the preferred alternative), for example, one build alternative plus the corresponding route adoption alternative. Other possibilities include the selection of one route adoption alternative, or no action might be taken.

State Route 25 is officially designated as a route that runs from south to north, but it actually follows a northwestern path between the city of Hollister and U.S. 101. The proposed route adoption alignments crisscross the existing route several times. Therefore, in the descriptions of the alternatives, the word “north” is often actually east according to the compass, and the word “south” is often actually west (see Figure 1-2).

2.1.1 Route Adoption Alternatives

Common Design Features of the Route Adoption Alternatives

Both of the route adoption alternatives, Alternatives 1 and 2, are 11.2 miles long and share the same alignment from about half a mile south of Shore Road in San Benito County to U.S. 101 in Santa Clara County. Between a half mile south of Shore Road and the southern end of the proposed project at San Felipe Road, the two alignment alternatives separate: Alternative 1 proposes to align the future four-lane expressway generally to the east of the existing highway. Alternative 2 would be aligned mostly to the west of the existing two-lane highway.

Both route adoption alternatives would accommodate the following in the future:

- A four-lane expressway with a 62-foot-wide median within a 342-foot-wide right-of-way.
- Frontage roads on one or both sides of the expressway, as needed.
- A new interchange to replace the State Route 25/State Route 156 at-grade intersection; the interchange would require grade separation (State Route 156 would cross State Route 25 with a bridge).
- New bridges over the Pajaro River and Carnadero Creek.
- New overheads (bridges) to cross over the Union Pacific Railroad Hollister branch line near the Pajaro River and the Union Pacific Railroad main line east of U.S. 101.

- A new State Route 25/U.S. 101 interchange to replace the existing interchange.
- A new intersection to connect to frontage roads on either side of the expressway would be located 1.7 miles south of Shore Road.
- A realigned intersection at Shore Road and State Route 25 would intersect at right angles to improve drivers' ability to see oncoming traffic.
- A realigned Bolsa Road intersection southeast of the existing one (with a connector to the western frontage road opposite Bolsa Road).
- Cul-de-sacs of Bolsa Road and Bloomfield Avenue; Bloomfield Avenue would no longer be connected to State Route 25.
- New frontage roads would incorporate the existing State Route 25 roadway where feasible.
- The profile (the height of the roadway) of the new alignment from the Pajaro River northwestward to U.S. 101 must be raised to a minimum height of 7 feet because this segment would be in a floodplain. Culverts would be required to prevent the roadway from acting as a dam during floods.

The cross section for the preliminary design of the four-lane expressway is shown in Figure 2-3. The cross section for the preliminary design for the frontage roads is shown in Figure 2-4.

Unique Features of the Route Adoption Alternatives

Alternative 1

The alignment of Alternative 1 would begin at San Felipe Road and would follow the existing alignment of State Route 25 to the northern intersection of Briggs Road and State Route 25. The new alignment would remain east of the existing route from that point until just past Hudner Lane, where it would cross the existing State Route 25. The new alignment would be west of the existing highway for only a short distance before crossing the highway again between Hudner Lane and Shore Road. From that point, the new alignment would stay east of the existing State Route 25 until just past Carnadero Creek where it would realign with the existing State Route 25 until reaching U.S. 101 (see Figure 2-1).

Alternative 2

The alignment of Alternative 2 would begin at San Felipe Road and run west of and parallel to the existing State Route 25 before crossing the route south of Shore Road. From that point, the new alignment would be the same as for Alternative 1, remaining east of the existing State Route 25 until just past Carnadero Creek where it would realign with the existing State Route 25 until reaching U.S. 101 (see Figure 2-1).

2.1.1.1 Comparison of the Route Adoption Alternatives

The route adoption alternatives (when fully built) would relieve traffic congestion and improve traffic flow by providing additional travel lanes. In addition, the conflict between interregional travelers and slower-moving traffic would be reduced with the construction of additional travel lanes, frontage roads, and controlled access.

Criteria used to compare the route adoption alternatives were the cost and potential resource impacts where the effects would differ between Alternative 1 and Alternative 2. The comparison in Table 2.2 below shows that Alternative 1 is the most expensive alternative (about \$317.5 million), and would also have the most potential effects on the environment. Alternative 2 would cost about \$32 million less to build than Alternative 1 and would have fewer potential effects on the environment.

Table 2.1 Comparison of Route Adoption Alternatives

Evaluation Criteria	Alternative 1	Alternative 2	No-Build Alternative
Cost	\$317,457,000	\$285,742,000	Maintenance and repair costs
Farmland acquisition	657 acres	660 acres	No change
Williamson Act parcel acquisition	121 acres	159 acres	No change
Residential relocations	21	14	No change
Business relocations	10	4	No change
Utilities relocations	Cost \$3,289,073	Cost \$2,626,747	No change
Visual Impacts	<p>Impacts would be loss of agricultural vegetation and increased paved surface in previously undeveloped land; and diminished rural agricultural character.</p> <p>The large overhead bridges at the Pajaro River and Carnadero Creek and the two interchanges would create visual impacts.</p>	<p>Would expand pavement, signs, fencing, and some utilities into previously undeveloped agricultural land. Fewer existing rural buildings would be removed than for Alternative 1.</p> <p>The large overhead bridges at the Pajaro River and Carnadero Creek and the two interchanges would create visual impacts.</p>	No change
Mineral resources	Construction would affect designated and mapped aggregate mineral resources of the SCL/Bolsa sand and gravel mine.	Construction would excavate in a sand and gravel hill opposite Briggs Road, which has not been designated and mapped as a mineral resource.	No highway construction excavation would take place
Hazardous Waste Impacts	Eleven potential hazardous waste sites	Nine potential hazardous waste sites	No land would be acquired.
Threatened and Endangered Species Habitat Loss	<p>Potential impacts to critical habitat for Central California steelhead in the Pajaro River and Carnadero Creek.</p> <p>Direct impacts to California tiger salamander upland habitat estimated to be 21 acres. Indirect impacts to California tiger salamander upland habitat estimated to be 82 acres.</p> <p>Indirect impacts to California tiger salamander breeding habitat expected to be 3.7 acres.</p>	Potential impacts to critical habitat for Central California steelhead in the Pajaro River and Carnadero Creek.	No change
Cumulative Impacts	Farmland acquisition, visual resources, and paleontological resources	Farmland acquisition, visual resources, and paleontological resources	No change

2.1.2 Build Alternatives

Common Design Features of the Build Alternatives

Alternatives A and B, the build alternatives, extend 3.8 miles. Both would start at San Felipe Road (post mile 51.5) and transition back to the existing two-lane highway just west of Hudner Lane (post mile 55.3). The build alternatives are shown in Figure- 2-2

Both propose:

- A four-lane expressway with a 62-foot-wide median within a 342-foot-wide right-of-way.
- Frontage roads on one or both sides, as needed.
- An at-grade (ground-level) intersection where State Route 25 and State Route 156 meet.

The cross section for the preliminary design of the four-lane expressway is shown in Figure 2-3. The cross section for the preliminary design for the frontage roads is shown in Figure 2-4.

The highway design features for the build alternatives are presented in more detail compared to the route adoption alternatives because the intent of the route adoption is to preserve a corridor for long-term transportation planning; whereas the build alternatives are discussed in more detail to determine environmental impacts, right-of-way costs, and funding approval for construction in the near future.

Alternative A

Alternative A would be built at the southern end of the Alternative 1 route adoption alignment. This build alternative begins at San Felipe Road and ends just north of Hudner Lane. The existing roadbed would be used from just south of Flynn Road to where the north/south section of Briggs Road now crosses the highway. The expressway would be built to the east of the existing highway from that point north to Hudner Lane (see Figure 2-2).

Structures (Bridges)

The structure required for a local roadway to cross under a state route is called an undercrossing. An undercrossing (bridge) would be required to maintain access to the Don Chapin gravel quarry on the east side of the expressway across from McConnell Road. The cross section for the preliminary design for the undercrossing at the gravel quarry is shown in Figure 2-5.

Profile or Roadway Height Changes

The profile of Alternative A would match the existing highway profile from San Felipe Road to Flynn Road. The new alignment would be raised at the Don Chapin gravel quarry's driveway for the construction of the undercrossing. The undercrossing requires the expressway to be elevated to a maximum of 25 feet (see Figure 2-5). After crossing the quarry driveway, the roadway would be lowered to the existing elevation before reaching State Route 156.

Frontage Roads

A frontage road is a local street or road located on the side of a highway for service to adjoining property and adjacent areas and for control of access to the highway. A western frontage road, on the existing highway roadbed, would extend from the Sheriffs' Training Center (the shooting range) on the south to a cul-de-sac just past the gravel quarry driveway on the north end on the existing highway (a cul-de-sac is considered a local road open at one end only, with room to turn around easily at the end.) Another western frontage road north of State Route 156 would also use the existing highway roadbed, with a southern extension curving west to join McConnell Road. The northern end of this frontage road would end at Hudner Lane. An eastern frontage road would extend from just north of State Route 156 to just past Hudner Lane. This frontage road would end with cul-de-sacs, but would have access just south of Hudner Lane.

Intersections

An intersection is the general area where two or more roadways join or cross. Wright Road and the new expressway would join each other at right angles to create an intersection that provides drivers with clear views to the right and left. Briggs Road would be extended north to Flynn Road, forming a T-intersection. Flynn Road would be extended westward to the western frontage road, and its intersection with the expressway would also be aligned at right angles to State Route 25. A new intersection would be constructed just south of Hudner Lane to provide access to the expressway from the eastern and western frontage roads.

Circulation Changes

Direct access onto the new expressway would remain for San Felipe Road, Wright Road, Flynn Road, and State Route 156. Briggs Road would no longer connect to State Route 25; all three road segments intersecting the existing State Route 25 would end as cul-de-sacs. Instead, Briggs Road would be extended northward to Flynn Road, which will intersect with the new expressway. Flynn Road would be extended westward to the western frontage road. McConnell Road would end with a cul-de-sac just past its

intersection with the eastern frontage road (existing highway) south of State Route 156. North of State Route 156, McConnell Road would be connected to the westside frontage road. Hudner Lane would end at a frontage road instead of entering directly onto the expressway.

Alternative B

Alternative B would be built at the southern end of the Alternative 2 route adoption alignment. See Figure 2-2.

Profile (Roadway Height) Changes

The new expressway would be elevated to 5 feet above the original ground.

Frontage Roads

Two frontage roads would provide access west of the new expressway. The first frontage road would be built between an extended Briggs Road on the south and to a point south of State Route 156 on the north. This frontage road would have cul-de-sacs at both ends. The second frontage road would begin north of State Route 156 and extend from just south of McConnell Road almost to Hudner Lane, ending in cul-de-sacs.

The two eastern frontage roads would be built on existing highway segments. The first frontage road would extend from just north of San Felipe Road to just past McConnell Road, ending in cul-de-sacs. The second frontage road would begin north of State Route 156 and end just short of Hudner Lane. This frontage road would have cul-de-sacs on both ends.

Intersections

Wright Road and the new expressway would join each other at right angles to create an intersection that provides drivers with clear views to the right and left. Just north of the State Route 25/State Route 156 intersection, McConnell Road would have a new T-intersection with the western frontage road. An intersection south of Hudner Lane would connect the frontage roads on both sides of the expressway.

Circulation changes

Direct access to the highway would remain for San Felipe Road, Wright Road, Briggs Road, State Route 156, and Hudner Lane. Briggs Road would be extended west from its northern intersection with State Route 25 to connect to a west-side frontage road. The Flynn Road intersection would be unchanged. South of State Route 156, McConnell Road would end with a cul-de-sac just past its intersection with the eastern frontage road

(existing highway). North of State Route 156, McConnell Road would connect to the westside frontage road.

2.1.2.1 Comparison of the Build Alternatives

The comparison shows that Build Alternative B would cost less to build than Alternative A (about \$61 million in comparison to about \$102 million, a difference of \$41 million).

Table 2.2 Comparison of Build Alternatives

Evaluation Criteria	Alternative A	Alternative B	No-Build Alternative
Improves traffic flow	Provides controlled access and turn lanes	Provides controlled access and turn lanes	No improvement
Reduces traffic delays	Minimizes conflict between slow and fast traffic	Minimizes conflict between slow and fast traffic	Traffic delays would increase
Enhances the movement of goods	Improves traffic operation, provides cost savings due to elimination of delays, and provides faster highway for large trucks on interregional trips	Improves traffic operation, provides cost savings due to elimination of delays, and provides faster highway for large trucks on interregional trips	Conflicts between trucks and other traffic would continue
Adds capacity	Adds one lane in each direction	Adds one lane in each direction	Traffic congestion would get worse
Cost	\$97,588,000	\$61,392,000	Maintenance and repair costs only
Farmland acquisition	180 acres	189 acres	No change
Williamson Act parcel acquisition	13.3 acres	51.1 acres	No change
Residential relocations	14	9	No change
Business relocations	8	4	No change
Utilities relocations	AT&T aboveground telephone lines and underground telephone cables. PG&E aboveground electric lines and underground electric cables. City of Hollister recycled water pipeline. Cost—\$1,633,337	AT&T aboveground telephone lines and underground telephone cables. PG&E aboveground electric lines and underground electric cables. City of Hollister recycled water pipeline and also potable water lines. Cost—\$2,263,880	No utilities would be relocated
Visual Impacts	The view of the valley landscape would be more intact over time than would result from Alternative B.	Would expand pavement, signs, fencing, and some utilities into previously undeveloped agricultural land. Fewer existing rural buildings would be removed than for Alternative A.	The highway would remain two lanes
<i>(Continued on next page)</i>			

Evaluation Criteria	Alternative A	Alternative B	No-Build Alternative
Mineral Resources	Construction would affect mapped deposits of aggregate mineral resources in the SCL/Bolsa sand and gravel mine area.	Construction would excavate in a sand and gravel hill opposite Briggs Road, which has not been designated and mapped as a mineral resource.	No construction excavation would take place
Hazardous Waste Impacts	Nine potential hazardous waste sites	Three potential hazardous waste sites	No land would be acquired
Noise Impacts	One residence with substantial noise impact under National Environmental Policy Act	One residence with substantial noise impact under California Environmental Quality Act	Noise levels will increase slightly
Wetland Impact	Potential temporary impacts to a seasonal wetland would be 0.02 acre.	No impacts are expected	No change
Threatened and Endangered Species Habitat Loss	Direct impacts to California tiger salamander upland habitat estimated to be 21 acres. Indirect impacts to California tiger salamander upland habitat estimated to be 82 acres. Indirect impacts to California tiger salamander breeding habitat expected to be 3.7 acres	No impacts are expected	No change
Cumulative Impacts	Farmland acquisition, visual resources, and paleontological resources	Farmland acquisition, visual resources, and paleontological resources	No change

2.1.3 No-Build/No-Action Alternative

The No-Action Alternative would result in no action being taken, and no further improvements would be made to State Route 25 within the route adoption limits other than the State Route 25 Safety and Operations Enhancement Project, Phase I.

The No-Build/No-Action Alternative provides a baseline for consideration of other alternatives and may be preferred if other alternatives have significant impacts on the environment, do not serve the stated purpose and need, or are economically infeasible.

The No-Action Alternative would keep the roadway as a two-lane conventional highway. Construction of the separate State Route 25 Safety and Operations Enhancement Project, which began construction in May 2009, would start just south of Hudner Lane (post mile 55.1) and end just south of the Union Pacific Railroad Hollister line crossing (post mile 60.1) in San Benito County. Roadway widening would consist of two 5-foot inside shoulders and placement of a temporary concrete median barrier, two 12-foot travel lanes, and two 10-foot-wide outside shoulders. Rumble strips would be installed on all

inside and outside shoulders. The Hudner Lane and Shore Road intersections would be improved.

Routine maintenance of the highway would continue. Future operational improvements may be considered, but would require a separate design process and may require additional environmental studies.

The No-Action Alternative would not meet the purpose and need of the proposed project. Traffic would be subject to conflicts between slower- and faster-moving traffic, and passing would continue to be prohibited. No interchange or frontage road network would be built. The level of service would remain below the minimum level of service acceptable to Caltrans and local agencies for this type of highway. Operations and capacity deficiencies would continue to deteriorate as projected growth in the region occurs.

After the public circulation period of this document, all comments will be considered, and Caltrans will identify a preferred build alternative and/or a preferred route adoption alternative and make the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act, Caltrans will certify that the project complies with the act, prepare findings for all significant impacts identified, prepare a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance, and certify that the findings and Statement of Overriding Considerations have been considered prior to project approval. Caltrans will then file a Notice of Determination with the State Clearinghouse that will identify whether the project will have significant impacts, whether mitigation measures were included as conditions of project approval, whether findings were made, and whether a Statement of Overriding Considerations was adopted. Similarly, Caltrans, as assigned by the Federal Highway Administration, will document and explain its decision regarding the selected alternative, project impacts, and mitigation measures in a Record of Decision in accordance with the National Environmental Policy Act.

2.1.4 Environmentally Superior Alternative

The California Environmental Quality Act requires the identification of the “Environmentally Superior Alternative,” the alternative with the fewest adverse environmental impacts. The No-Action Alternative is not to be considered as the Environmentally Superior Alternative for the purpose of this discussion.

The route adoption alternatives and their corresponding build alternatives (1 with A, and 2 with B) differ in their effects on the environment. Alternatives 2 and B have fewer residential and business relocations than Alternatives 1 and A, avoid more potential hazardous waste sites identified within the project limits, avoid potential impacts to designated mineral resources and endangered species, and require less change to the local traffic circulation patterns.

For the route adoption alternatives, Alternative 2 has fewer environmental impacts than Alternative 1. Of the build alternatives, Alternative B has the fewest adverse environmental impacts overall. Therefore, Alternative 2 and Alternative B are considered the Environmentally Superior Alternatives.

2.1.5 Alternatives Considered but Eliminated from Further Discussion

In spring 2001, when this project was initiated, three alternatives were proposed: (1) a limited-access expressway with frontage roads on both sides, (2) a four-lane conventional highway, and (3) a No-Build Alternative. One alternative, the four-lane conventional highway was dropped from further consideration in 2003.

Four-lane Conventional Highway Alternative - The project development team decided to drop the four-lane conventional highway alternative because that alternative did not meet the purpose and need of the project, was not consistent with the Route Concept Report (which envisions an expressway), and had numerous impacts to environmental resources. Within this 11.2-mile stretch of State Route 25 are 11 local road intersections and about 54 driveways. The addition of two additional lanes would not eliminate the numerous access points or the slower-moving vehicles on the highway, factors that slow down the flow of traffic. Widening the existing highway would result in the removal of all the existing buildings and utilities along the highway, which would result in a substantial impact to the human environment and would have had significant impacts to wetlands and cultural resources. The project development team concluded that, once the alignment of the additional lanes was designed to avoid these impacts, the new highway would essentially become an expressway.

2.2 Permits and Approvals Needed

Environmental compliance for Build Alternative A, if it were selected as the preferred alternative, would require a Biological Opinion from the U.S. Fish and Wildlife Service after the draft environmental document distribution. Both build alternatives would adhere to the National Pollutant Discharge Elimination System permit.

Table 2.3 Permits and Approvals Needed for Build Alternatives

Agency	Permit/Approval
State Water Quality Control Board	National Pollutant Discharge Elimination System
Central Coast Regional Water Quality Control Board	Notification of Construction
U.S. Fish and Wildlife Service	Biological Opinion (Alternative A)
Department of Fish and Game	Section 2080.1 Consistency Determination

2.3 Alternative Maps and Cross Sections

The route adoption alternatives are shown in Figure 2-1. The build alternatives are shown in Figure 2-2.

The cross section for the preliminary design of the four-lane expressway is shown in Figure 2-3. The cross section for the preliminary design for the frontage roads is shown in Figure 2-4. The cross section for the preliminary design for the undercrossing at the gravel quarry is shown in Figure 2-5.



State Route 25 Widening Project and Route Adoption:
Hollister to Gilroy (San Felipe Road to US 101)

ROUTE ADOPTION
ALTERNATIVES 1 & 2

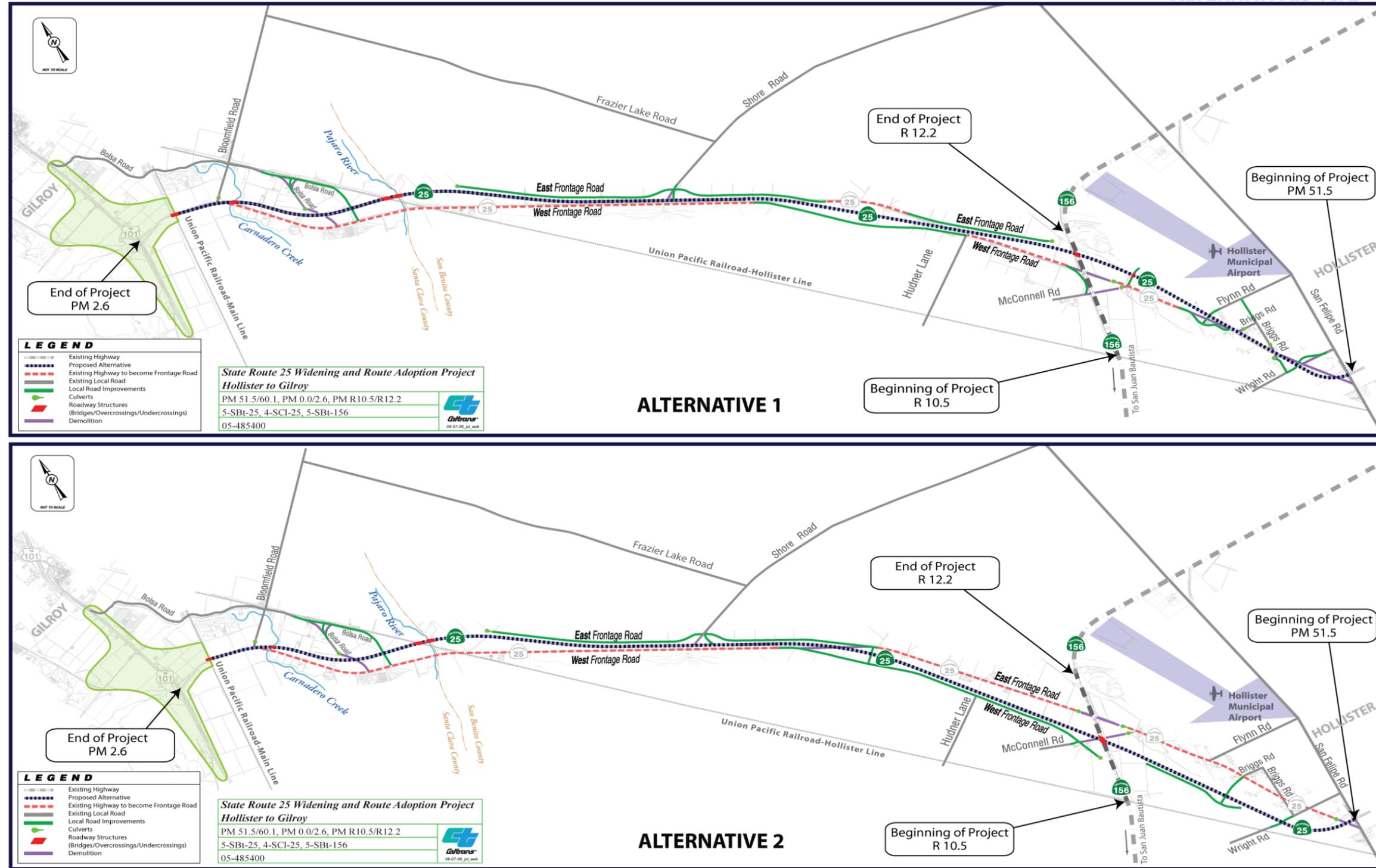


Figure 2-1 Alternative 1 and Alternative 2

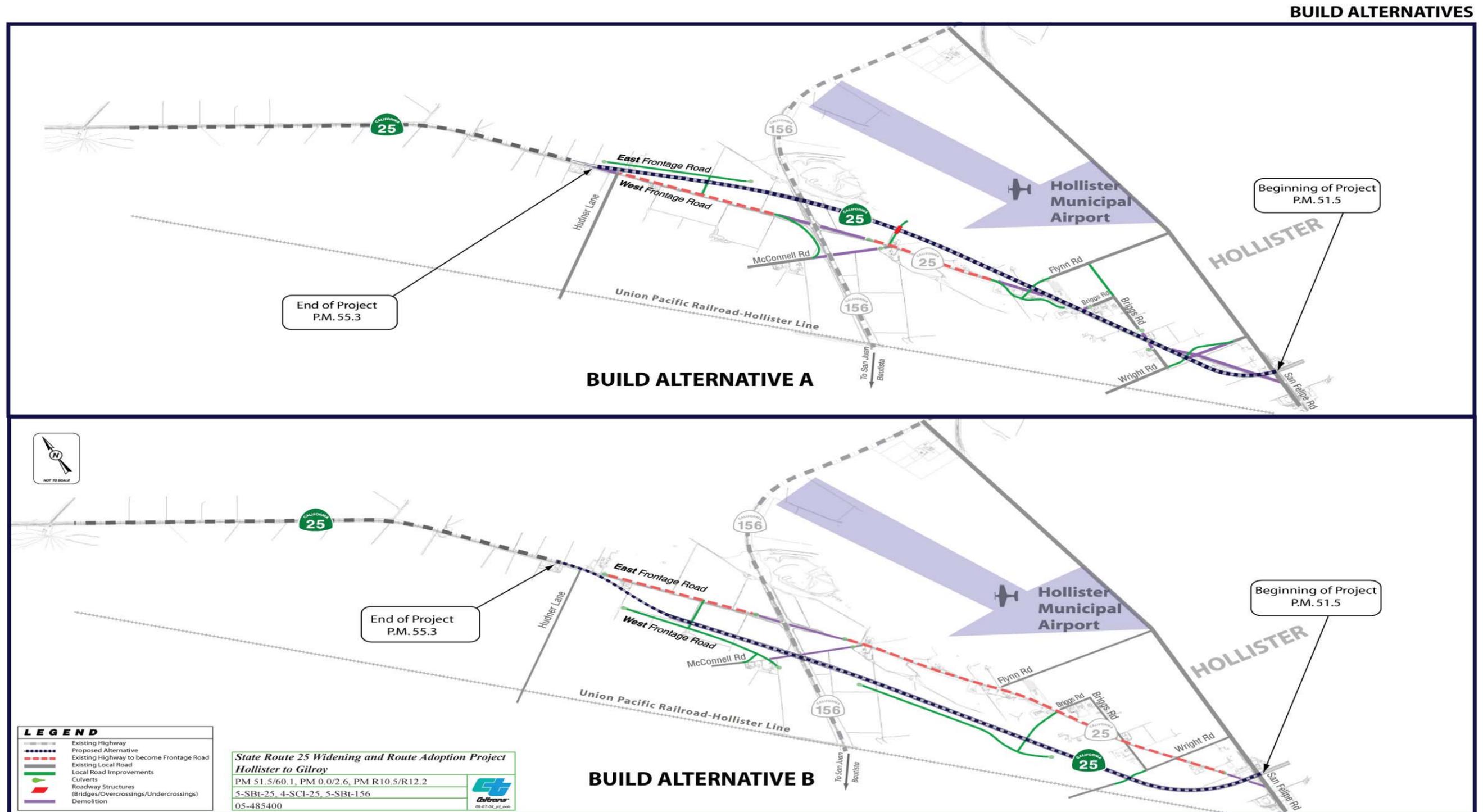


Figure 2-2 Alternative A and Alternative B

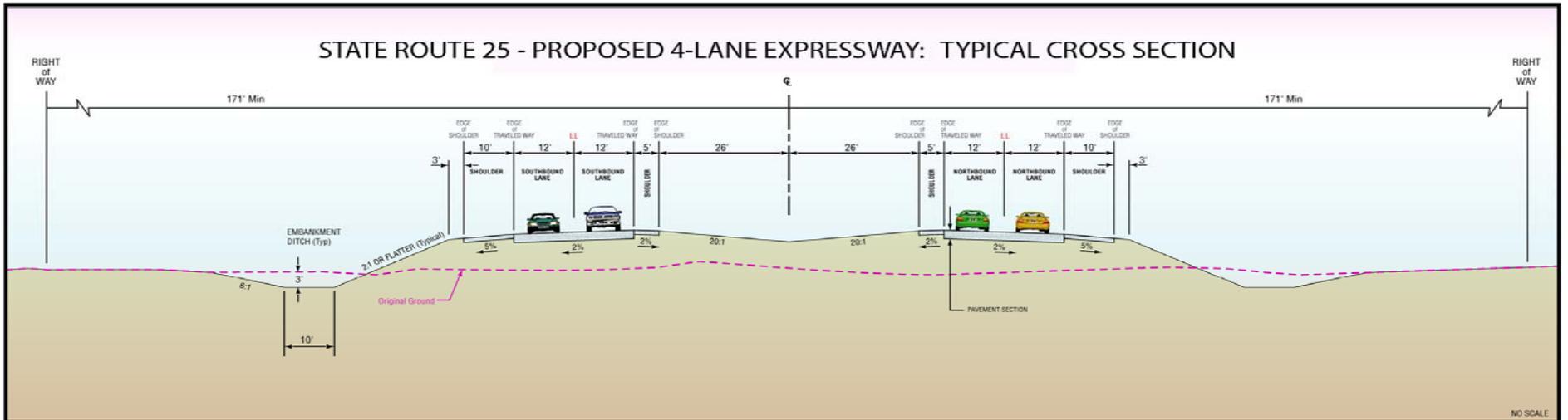


Figure 2-3 Typical Cross Section of Expressway

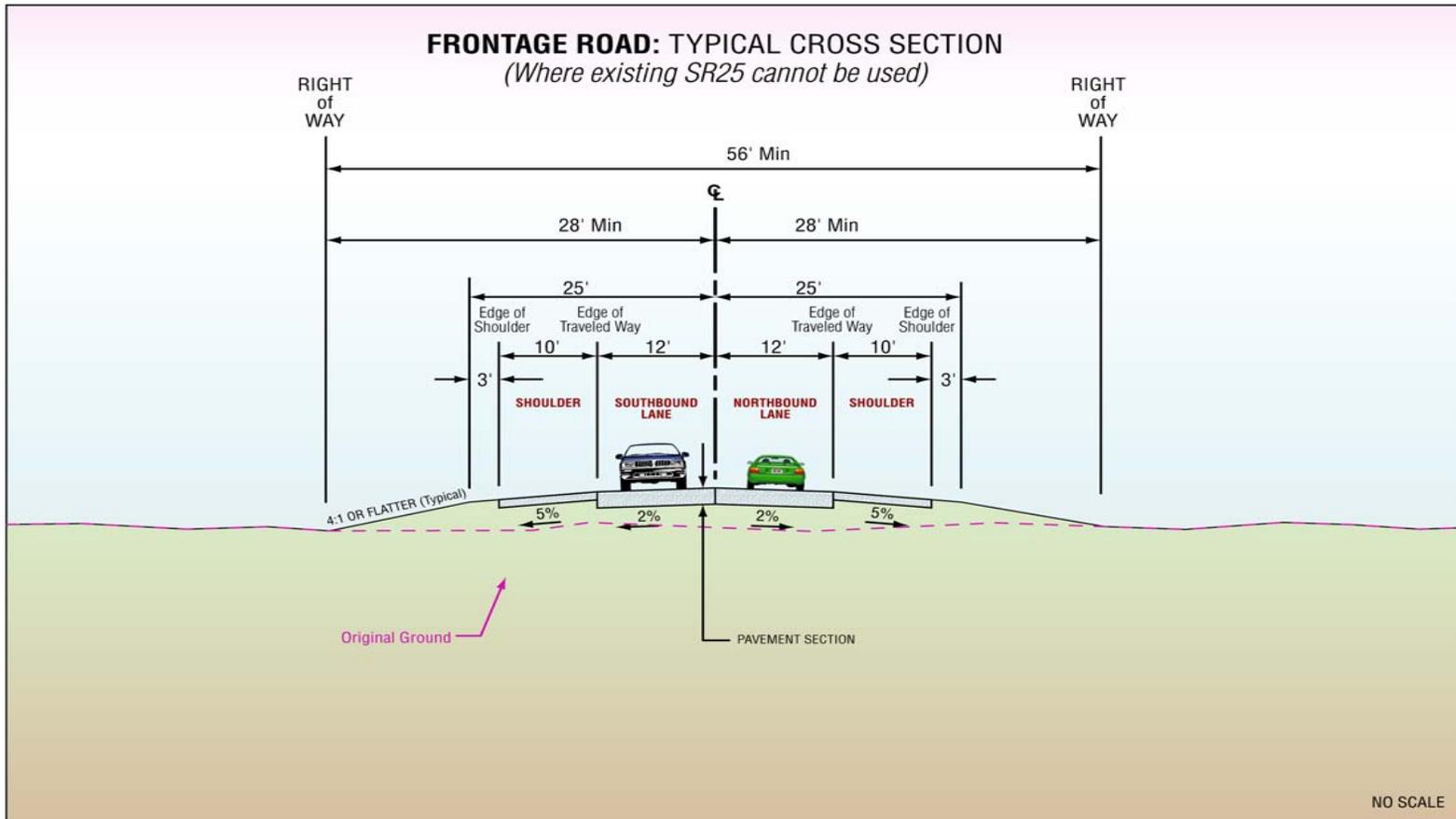


Figure 2-4 Typical Cross Section of Frontage Roads

UNDERCROSSING -ALTERNATIVE A Typical Cross Section

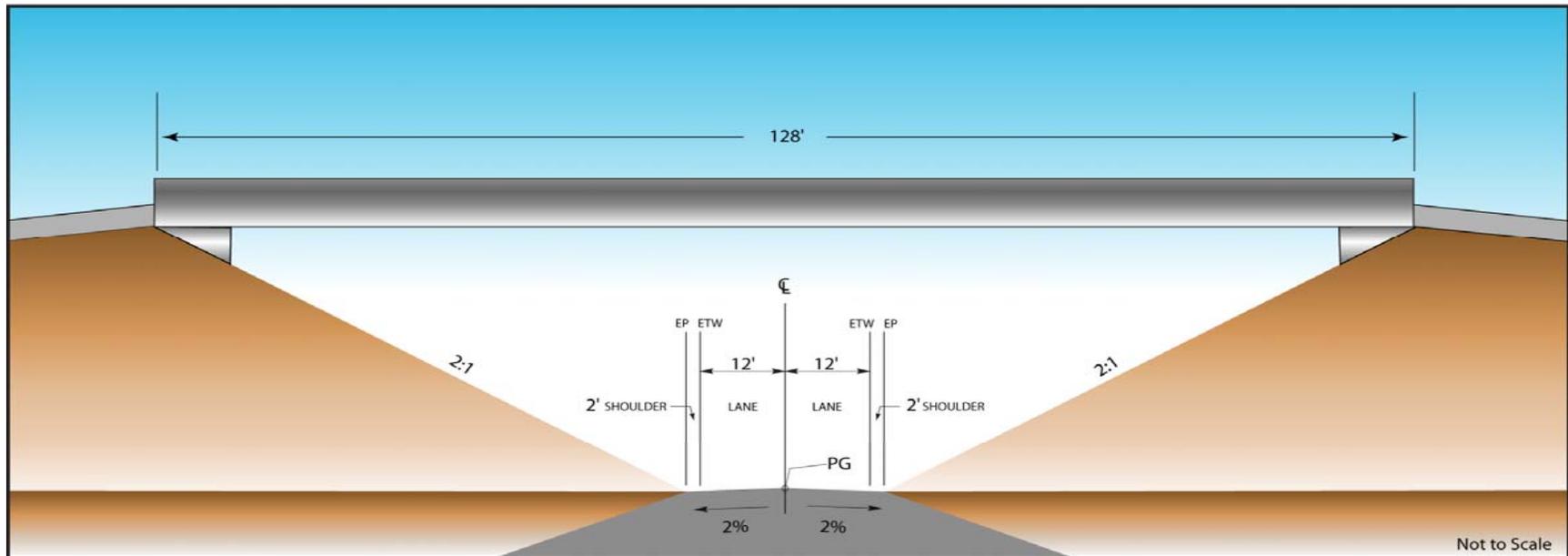


Figure 2-5 Typical Cross Section of Undercrossing



Chapter 3 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

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

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but determined to be not relevant:

- Coastal Zone – The proposed project is not located in the coastal zone (Community Impact Assessment, January 2010)
- Wild and Scenic Rivers – No rivers classified as Wild and Scenic were identified in the proposed project area (Community Impact Assessment, January 2010).
- Parks and Recreation – No parks or recreation facilities were identified in the proposed project area (Community Impact Assessment, January 2010).
- Farmland/Timberlands – No timberlands are located in the proposed project area. Farmland impacts are discussed in Section 3.1.3 (Community Impact Assessment, January 2010).

3.1 Human Environment

3.1.1 Land Use

3.1.1.1 Existing and Future Land Use

Affected Environment

A Community Impact Assessment was completed for this project in January 2009 and updated in January 2010.

According to the U.S. Census Bureau 2006 estimates, Santa Clara County has a land area of 1,291 square miles and a population estimated to be nearly 1.7 million people, for an average density of 1,303 people per square mile. Santa Clara County is the fifth most populous county in California, with almost a quarter (24%) of the San Francisco Bay area's total population living within its jurisdiction (Santa Clara County Planning

Department of Economic Planning). However, most of the population is in the northern part of the county. The southern part of the county, near the cities of Morgan Hill and Gilroy, has an agriculture-based economy. In August 2008, Santa Clara County issued a new land use map under the existing General Plan (adopted in 1994). The map shows that the project area within Santa Clara County is used for agriculture and would continue to be agricultural, at least in the near future.

The City of Gilroy General Plan, adopted in 2002, shows in its future land use map for the year 2023 that the city does not plan to expand into the project area and intends for the area to remain in agriculture.

San Benito County covers an area of 1,389 square miles. According to the county General Plan (adopted 1994), nearly all (99%) of the county is unincorporated land, with about 95% of that land being used by agriculture: farmland, rangeland, forest, and federal land, including The Pinnacles National Monument and the Bureau of Land Management Clear Creek Recreation Area.

Within the route adoption areas in San Benito County, almost all land is agricultural, except within the city limits of Hollister. In the northern Hollister area between Route 25, State Route 156, and San Felipe Road, most parcels within the city limits are zoned for light industrial uses. There are also some airport-related businesses next to the Hollister Municipal Airport. A motel facing San Felipe Road just north of the intersection of State Route 25 and San Felipe Road is within the new North Gateway commercial area. A church south of Wright Road on the west side of the highway is also in this area. Agricultural fields and orchards are still the dominant land use in the project area where the route adoption and build alternatives are planned in Hollister. See Figure 3-1 for existing land uses in the route adoption area.

Business uses within the project area include agriculture-related businesses such as packinghouses, cold storage, and a commercial composting facility. Some farmers also have seasonal fruit and produce stands along the highway. Near Hollister, businesses within the project area include a gravel quarry, trailer sales, a mini-storage facility that also stores vehicles, an equipment rental, plumbing and irrigation supply, a chocolate factory, an auto body shop and painting business, a church, and a private day care facility.

County facilities in the area are the Sheriffs' Training Center (shooting range) on the west side of the highway and the county jail and juvenile detention complex just east of the project area.

Future Land Use

The City of Hollister’s sphere of influence as shown in the city’s General Plan (adopted in 2005 and amended in June 2007) includes almost all of the land that is east of State Route 25 and south of State Route 156 within the project area (see Figure 3-1). Land uses within the project area are planned to be industrial and airport-related in the planning horizon year of 2023. The land west of State Route 25 and south of Wright Road would also be in the city. High-density residential use is planned for this area.

Table 3.1 shows developments approved or under consideration near the project area. The study area for Table 3.1 includes the greater Hollister area (San Benito County), the southern outskirts of Gilroy (Santa Clara County), and the area along State Route 25 between Hollister and U.S. 101. All of the developments are outside the limits of this project except for El Rancho San Benito, a proposed “new town” that would be south of the existing State Route 25 from the land grant line (east of Shore Road where the highway bends) to the county line at the Pajaro River.

Table 3.1 Proposed and Approved Developments

Development	Jurisdiction	Proposed Uses	Status
El Rancho San Benito	San Benito County	6,800-unit development on 5,790 acres off U.S. 101 and State Route 25 between Hollister and Gilroy	Application for Specific Plan withdrawn May 2009
Santana Ranch	San Benito County	1,000-plus-unit development east of Fairview Road on about 290 acres	Specific plan application pending
West of Fairview	San Benito County	677-unit development west of Fairview Road and north of State Route 25 (Airline Highway) on 125 acres	Tentative map approved June 2007
Fairview Corners (part of Gavilan College campus development)	San Benito County	220 single-family homes on 57 acres off Fairview Road immediately north of the proposed campus	Final EIR in preparation
Gavilan College San Benito Campus	San Benito County	New campus to serve 3,500 students on 80 acres at the northeast corner of Fairview Road and State Route 25 (Airline Highway)	Final EIR in preparation
Glen Loma Ranch Specific Plan	Santa Clara County	1,643-unit development of 392 acres on Santa Teresa Boulevard within the City of Gilroy	Specific Plan Adopted into Gilroy’s General Plan

Santa Clara County issued a new land use map in August 2008 under the existing General Plan (adopted in 1994) whose planning year is 2010. The map shows that, within the project area in Santa Clara County, parcels would continue to be in large-scale agriculture, at least in the near future.

The City of Gilroy General Plan, adopted in 2002, shows in its future land use map for the year 2020 that the city does not plan to expand into the project area, but intends to keep the area in agriculture.

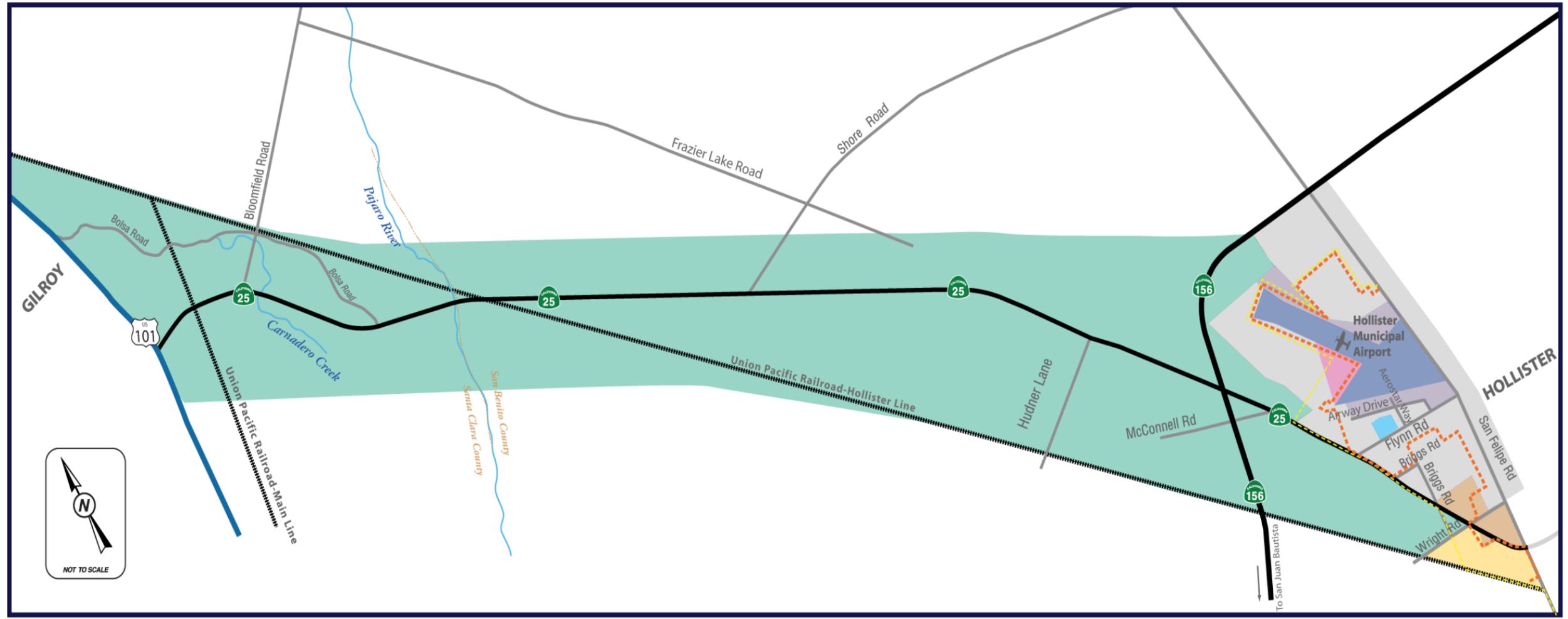
Environmental Consequences

The route adoption would affect local planning because it must be included in the local plans once approved. The proposed project identifies linear strips of land that could be preserved for future highway use adjacent to or near the existing highway to the east or west. Most of the right-of-way needed is currently used for agricultural purposes, and some residences and businesses near the north and south end of the route adoption alternatives would also be affected. For impacts to farmland, see Section 3.1.3. See Section 3.1.4.2 for relocation impacts to residences and businesses.

In regard to future development, if the proposed route adoption were built, the proposed El Rancho San Benito development would become more accessible. However, the route adoption would not open new areas to development or lead to changes in land use because access would be controlled and jurisdictional counties would have to approve future development within or adjacent to the area preserved for the route adoption.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are needed.



Existing and Future Land Use

LEGEND	
	High Density Residential
	North Gateway Commercial
	Industrial
	Airport
	Airport Support
	Airport Safety
	Agricultural
	Local Roads
	Railroad
	101
	25 156
	City Limits
	Sphere of Influence

**State Route 25 Widening and Route Adoption Project
Hollister to Gilroy**

PM 51.5/60.1, PM 0.0/2.6, PM R10.5/R12.2
5-SBt-25, 4-SCI-25, 5-SBt-156
05-485400

Figure 3-1 Existing and Future Land Use Between San Felipe Road and U.S. 101



3.1.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

The State Route 25 Widening project was included in the 2005 San Benito County Regional Transportation Plan (the most recent plan issued) and was also in the 2002 and 2006 San Benito County Regional Transportation Improvement Program plans, the Metropolitan Transportation Commission's 1998 Region Transportation Plan, and the 1998 Cost-Constrained Regional Transportation Improvement Program.

The Santa Clara County General Plan envisions State Route 25 from the new State Route 25/U.S.101 interchange to the vicinity of Bloomfield Avenue as a six-lane freeway. This plan is also stated in the Valley Transportation Plan 2030 (2005) and is in the Metropolitan Transportation Commission's 1998 Region Transportation Plan and the 1998 Cost-constrained Regional Transportation Improvement Program.

The General Plan for the City of Hollister includes the project, but also shows an additional interchange at State Route 25 and San Felipe Road in the Land Use Plan map.

Environmental Consequences

Route Adoption Alternatives

The route adoption project is contrary to Santa Clara County's vision of a freeway between U.S. 101 and the vicinity of Bloomfield Avenue because the route adoption proposes a four-lane expressway alignment of State Route 25. The improvements proposed in the route adoption alternatives are compatible with the San Benito County General Plan; however, the General Plan assumes a build project for the entire portion of State Route 25 as an expressway, not a route adoption. The City of Hollister's General Plan proposes an interchange at State Route 25 and San Felipe Road, but the route adoption does not propose an interchange at that location. In addition, Hollister's plan for a perimeter road at the Hollister Airport appears to encroach into the route adoption's alignment for Alternative 1, but would not conflict with Alternative 2.

Build Alternatives

The build alternative project would not conflict with any plans proposed by Santa Clara County because the proposed improvements to State Route 25 do not extend into Santa Clara County. The improvements proposed in the build project for an expressway are compatible with San Benito County's General Plan. The City of Hollister's General Plan proposes an interchange at State Route 25 and San Felipe Road, but the build project does not. In addition, Hollister's plan for a perimeter road at the Hollister Airport appears to

encroach into the build project's alignment for Alternative A, but would not conflict with Alternative B.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will continue to coordinate with the Council of San Benito County Governments and the Valley Transportation Authority, both of which have provided funding for the project.

3.1.2 Growth

Regulatory Setting

The Council on Environmental Quality regulations, which implement the National Environmental Policy Act of 1969, requires evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council on Environmental Quality regulations, 40 Code Federal Regulations 1508.8, refers to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act also requires the analysis of a project's potential to induce growth. California Environmental Quality Act guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

Affected Environment

Caltrans conducted a preliminary analysis to determine whether there would be a potential for project-related growth. Caltrans considered the interrelated factors of accessibility, project type, project location, and growth pressure. The analysis considered changes in travel time and cost, and accessibility to destinations, such as employment and shopping, and how those changes, if any, would affect travel behavior and patterns. Consideration was given to whether any change in accessibility would affect growth or land use change, and what resources of concern would be affected by any growth or land use change. In addition, Caltrans consulted San Benito County Planning in regards to forecasted growth and planned development.

Santa Clara County's General Plan places emphasis on making the most efficient use of existing urban areas and their infrastructure and confining new growth in, or adjacent to, existing cities.

The land use goals and objectives of the San Benito County General Plan emphasize managing growth to maintain the county's rural atmosphere, character, and amenities.

The route adoption alternatives propose improving the existing access onto State Route 25 at U.S 101, Bolsa Road (a new alignment), Shore Road, State Route 156, Flynn Road (Alternative 1 only), Wright Road, San Felipe Road, and the northern segment of Briggs Road (Alternative 2 only). A new access point is proposed between Hudner Lane and State Route 156 for both alternatives. The proposed project would not provide any other additional access points (driveways or easements) or result in zoning changes.

The build alternatives propose improving the existing access onto State Route 25 at State Route 156, Flynn Road (Alternative A only), Wright Road, San Felipe Road, and the northern segment of Briggs Road (Alternative B only). A new access point is proposed between Hudner Lane and State Route 156 for both alternatives. The proposed project would not provide any other additional access points (driveways or easements) or result in zoning changes.

Both the route adoption and build alternatives would reduce the number of access points on State Route 25 by combining existing driveways and local roads along frontage roads.

Environmental Consequences

Based on the initial analysis, Caltrans concluded that no further analysis on growth would be required. With or without the proposed improvements to State Route 25, the project area may experience growth based on the jurisdictional counties' proposed future land use (see Section 3.1.1.1 Existing and Future Land Use).

The route adoption would preserve land for future improvements. Although no construction would directly result from a route adoption alignment decision, once adopted, the new route alignment is mandated to be incorporated in all planning documents with jurisdiction in the study area. Therefore, project-related growth could be avoided or minimized based on the goals and objectives adopted in the general plans of both jurisdictional counties.

Both the build alternatives propose limited access and eliminate several existing intersections. This project would result in a decrease in some travel time, but it is unlikely

that the amount of time saved (1.4 minutes in 2015 and 1.9 minutes in 2035) would lead to changes in travel behavior, trip patterns, or other destinations.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation measures pertaining to growth inducement are included in the proposed project because growth is not reasonably foreseeable as a result of this project.

3.1.3 Farmlands

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (7 U.S. C. 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Affected Environment

A Community Impact Assessment was completed for this project in January 2009, and updated in January 2010.

Agriculture is the main land use and economic source for San Benito County. According to the 2007 Crop Report for San Benito County, agriculture continues to be the county's major producing industry, with a 2007 gross value in excess of \$293 million. This is the largest increase in value for the county since 2004, and an increase of almost 8% above the 2006 total. There are 893,440 acres of land in the county, and 35,000 acres (4%) are planted in row crops. Row crops that do well in the area include artichokes, broccoli, cabbage, celery, cilantro, and lettuce. Other row crops include kale, spinach, onion (dry bulb), bell peppers, chards, and tomatoes. Approximately 508,000 acres in San Benito County (57% of the county's area) are rangeland or open space land used for grazing

livestock, such as cattle and sheep. Fruit crops, such as apples, apricots, cherries, wine grapes, and olives, were profitable in the year 2007, as were nut crops. Fruit and nut crops were produced on about 7,667 acres (0.8% of the county's area) in 2007 and grossed almost \$38 million last year. The top-valued crop was nursery stock, with a gross value in excess of \$34 million. Nursery stock includes mushroom spawn, vegetable transplants, turf, Christmas trees, nursery plants and trees and cut flowers (dry and fresh).

According to the 2007 Crop Report for Santa Clara County, the total gross value for agricultural production in 2007 was \$255 million, an increase of 4.3% from the 2006 value of \$244 million. Nursery stock crops remained the county's number one agricultural crop, grossing almost \$88 million.

Environmental Consequences

A Natural Resources Conservation Service Farmland Conversion Impact Rating was completed for the proposed project. Natural Resources Conservation Service Farmland Conversion Impact Rating forms NRCS-CPA-106 (corridor studies) were completed for the route adoption segments in San Benito County and Santa Clara County in March 2008 and updated in September 2008; the Natural Resources Conservation Farmland Conversion Impact Rating form (AD-1006) was completed in March 2008 for the build alternatives (see Appendix O).

The Natural Resources Conservation Service determines the relative value of farmland to be converted by using a formula that weighs farmland classification, soil characteristics, irrigation, acreage, creation of non-farmable land, availability of farm services, and other factors. The Natural Resources Conservation Service determined that the proposed project would convert farmland having a relative value between 92 and 100 out of 100 possible points under these criteria. Because acreage converted is only one of several factors, alternatives may be allotted similar points even with dissimilar acreage conversion. An additional 89 to 98 points were factored in on the Natural Resources Conservation Service form using other criteria for a total impact rating ranging from a low of 184 points for farmland in Santa Clara county to a high of 198 points for both route adoption alternatives (Alternatives 1 and 2). Table 3.2 shows farmland conversion information for both route adoption alternatives (Alternatives 1 and 2) in San Benito County.

The Farmland Protection Policy Act requires consideration of impacts from those alternatives exceeding 160 points on the Natural Resources Conservation Service Farmland Conversion Impact Rating. Measures to minimize impacts include selecting the

alternative with the fewest potential impacts that still meets the purpose and need of the project. Selection of the preferred alternative will occur after the public circulation phase of this environmental document is completed. Farmland impact will be a consideration in determining which alternatives would warrant further consideration and which alternatives would be withdrawn.

Table 3.2 shows farmland conversion information for the route adoption alternatives (Alternatives 1 and 2).

Table 3.2 Total Farmland Converted by Route Adoption Alternatives

Category	San Benito County		Santa Clara County		Total Farmland Converted	
	1	2	1	2	1	2
Route Adoption Alternative	1	2	1	2	1	2
Total Land Converted (acres)	525	528	132	132	657	660
Prime and Unique Farmland (acres)	323	326	85	85	408	411
Percentage of Farmland in the County	0.6	0.6	.03	.03	N/A	N/A
Percentage of Farmland in the State	0.002	0.002	0.0005	0.0005	0.0024	0.0024
Farmland Conversion Impact Rating	198	198	184	184	N/A	N/A
Williamson Act Parcels Converted (acres)	13.3	051.1	108	108	121.3	159.1

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-type Projects)

Based on preliminary designs for the route adoption alternatives, Alternative 1 would acquire approximately 657 acres of right-of-way from 65 property parcels in San Benito County and 13 property parcels in Santa Clara County. The Natural Resources Conservation Service classifies 655 acres of the needed right-of-way as farmland, of which 408 acres of the converted farmland are considered prime or unique. The farmland converted represents 0.0026% of the total farmland in California.

Alternative 1 would require approximately 108 acres from 11 parcels under Williamson Act contracts in Santa Clara County, and approximately 13.3 acres from 2 parcels under the Williamson Act in San Benito County. However, the amount of right-of-way needed from any single parcel should not result in the cancellation of any Williamson Act contracts. This alternative has the potential to divide (cut into sections) 9 property parcels, which may remove two orchards from production (a 2.4-acre orchard and a 58.3-acre orchard). It may also result in up to 5 excess or non-farmable parcels. Parcels become excess or non-farmable parcels when the remaining sections become too small to farm or the shape makes farming the property parcel difficult or not cost-effective.

Alternative 2 would acquire approximately 660 acres of right-of-way from 9 property parcels in San Benito County and 13 property parcels in Santa Clara County. The Natural Resources Conservation Service classifies 658 acres of the needed right-of-way as farmland, of which 411 acres of the converted farmland are considered prime or unique. The farmland converted represents 0.0026% of the total farmland in California.

Alternative 2 would require approximately 108 acres from 11 parcels under Williamson Act contracts in Santa Clara County, and approximately 51.1 acres from 2 parcels under Williamson Act contracts in San Benito County. However, the amount of right-of-way needed from any single parcel should not result in the cancellation of any Williamson Act contracts. This alternative has the potential to divide 15 property parcels, which may result in up to 8 excess or non-farmable parcels.

The total for farmland acreage converted in Santa Clara County in Table 3.2 includes only the area between the Santa Clara County line at the Pajaro River and the Union Pacific Railroad main line. Another highway project, the U.S. 101 Widening Project Monterey Road to State Route 129, includes improvements to State Route 25 between U.S. 101 and the Union Pacific Railroad main line and an interchange at U.S. 101 and State Route 25. According to preliminary information obtained from the U.S. 101 Widening Project team, it appears 13 property parcels would be affected by the interchange construction and proposed improvements to State Route 25. An estimated 77.4 acres would be needed for right-of-way. All of the land converted is zoned for agriculture and most of it is considered prime farmland. This project would require approximately 28.1 acres from 8 parcels under Williamson Act contracts from within the route adoption corridor.

Table 3.3 displays farmland conversion information for the Build Alternatives A and B. Both build alternatives are located within San Benito County.

Table 3.3 Farmland Converted by Build Alternatives

Alternatives	Land Converted (acres)	Prime & Unique Farmland (acres)	Percentage of Farmland in San Benito County	Percentage of Farmland in State	Farmland Conversion Impact Rating	Williamson Act Parcels Converted (acres)
A	180	180	0.20	0.00070	198	13.30
B	189	189	0.22	0.00074	198	51.10

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-Type Projects)

Alternative A proposes to align a four-lane expressway to the east of the existing two-lane north/south highway. Alternative A would acquire approximately 180 acres of right-of-way from 45 property parcels; all the acreage is classified as farmland, and all is considered prime or unique. The farmland converted represents 0.00070% of the total farmland in California. This alternative has the potential to divide 9 property parcels, which may result in up to 7 excess or non-farmable parcels.

Alternative A would require approximately 13.3 acres from 2 parcels under Williamson Act contracts in San Benito County, but the amount of right-of-way needed from any single parcel should not result in the cancellation of a Williamson Act contract.

Alternative B proposes to align to the west of the existing two-lane highway. Alternative B would acquire 189 acres of right-of-way from 24 property parcels; all the acreage is classified as farmland, and all is considered prime or unique. The farmland converted represents 0.00074% of the total farmland in California. This alternative has the potential to divide 8 property parcels, which may result in up to 3 excess or non-farmable parcels.

Alternative B would require approximately 51.1 acres from 2 parcels under Williamson Act contracts in San Benito County, but the amount of right-of-way needed from any single parcel should not result in the cancellation of a Williamson Act contract.

Frontage roads and an additional travel lane would offer improved safety for farm equipment operators and other traffic as well. Farm equipment would be moved east and west of State Route 25 via new and improved intersections. Measures were taken to provide access to all farmland and residential properties. In addition, the project would improve the movement of goods, including agricultural produce, which is important to the economy of San Benito and Santa Clara counties.

During the construction phase, farms that have their water pumped across the roadway may experience a disruption in irrigation resources while the pipelines are relocated but, with careful planning and cooperation between Caltrans and the farming community, any disruption would be avoided or minimized.

Although the No-Build Alternative would not convert any farmland, adverse impacts to the transport and processing of local produce may occur as projected traffic increases lead to delays and/or re-routing of farm equipment and produce trucks.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to farmland cannot be avoided because farmland surrounds the proposed project area. Farmland acquisition would occur with any of the alternatives except the No-Build Alternative.

As part of the right-of-way process for purchasing land, Caltrans tries to negotiate parcel exchanges with neighboring farmers to reconfigure split farmland parcels for resale so that the parcels would continue to be farmed and not contribute further to the segmentation and conversion of farmland. Generally, when Caltrans resells or reconfigures land in an area zoned for agriculture as buffers or conservation easements, deed restrictions limiting future use to agriculture would be included to keep land in agricultural use in perpetuity. Caltrans considered measures to convert fewer acres of farmland during the design of the intersections and frontage roads by keeping the alignment as close to the new highway as permitted. Remnant parcels of farmland were avoided as much as possible by acquiring right-of-way in “slivers” or linear strips of property next to the existing parcels.

As noted above, Caltrans also tries to negotiate parcel exchanges with neighboring farmers to reconfigure split farmland parcels for resale so that the parcels can continue to be farmed and not contribute further to the segmentation and conversion of farmland. When possible, Caltrans will allow farmland to be kept in production (after purchase) until it is needed for construction.

Caltrans would provide relocation advisory assistance to any person, business, farm, or non-profit organization that would be displaced, or have onsite investments, such as wells and irrigation systems, displaced as a result of acquisition of real property for public use. Relocation resources would be available to all displaced individuals, free of discrimination.

Cumulative Impacts

Despite the counties’ goals to preserve agriculture areas, cumulative impacts to farmland are occurring as planning for the area includes new housing developments, new industrial facilities, and the infrastructure to support the development. According to the California Department of Conservation Farmland Conversion Report for 2004-2006 (the most current report), both counties have suffered a net loss of agricultural land. San Benito County gained 4,691 acres of grazing land, but lost 424 acres of prime farmland and 5,534 acres of farmland of local importance. The net acreage change for agricultural land was a loss of 798 acres. During the same report period, Santa Clara County gained 71

acres of unique farmland, but lost over 1,860 acres of prime farmland and 1,336 acres of farmland of local importance. The net acreage change for agricultural land was a loss of 3,477 acres.

In comparison, conversions for the project, taken in conjunction with the other proposed projects in the area, would result in cumulative impacts to farmland in the area.

The current zoning maps for San Benito and Santa Clara counties indicate that most of the farmland in the project area is prime and unique farmland and will continue to be preserved for agriculture. Due to the rural setting of the project, it would be impossible to build the project without converting farmland. The only option to avoid the conversion of farmland would be the No-Build Alternative, which does not meet the purpose and need of the project.

3.1.4 Community Impacts

3.1.4.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S. Code 4331(b)(2)]. The Federal Highway Administration in its implementation of the National Environmental Policy Act [23 U.S. Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as, destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

A Community Impact Assessment for the project was completed in January 2009 and updated in January 2010.

Based on field surveys done for the Community Impact Assessment, there are no traditional neighborhoods or distinct geographic divisions between U.S. 101 and State Route 156. Closer to the city limits of Hollister, the farm parcels become smaller and the density of scattered homes and businesses increases, but no schools or public parks were identified within a mile of the project area. The 2000 U.S. Census indicated that the population of census blocks included in the study area in both counties was 100% rural.

The proposed route adoption alignment alternatives pass through an area predominately used for agriculture, but with homes and a few businesses scattered throughout. Most of the residences within the project area are on farms or are ranchettes (rural residential property with acreage), and most of the businesses support some form of agricultural production.

Of the few businesses in the area, none could be considered a gathering place for the community. Neither would the government facilities in the area—the Hollister Municipal Airport, the Sheriffs' Training Center (shooting range), and the county jail and juvenile detention center—contribute to community cohesion. However, there are two private facilities located within the project limits of the route adoption (post mile to post mile): the Abundant Life Four Square Church and a private day care facility.

The non-profit church facility is located on State Route 25 near Wright Road. The church building was formerly a warehouse. A portable building is used for youth activities, and a house serves as an office. The private day care center is located on State Route 25 south of Flynn Road in a single-family residential rental.

Environmental Consequences

Neither the route adoption nor Alternatives A or B would divide a neighborhood or separate residents from community facilities. Public access to a new expressway would be limited. Private driveways and farm roads would not be allowed to enter directly onto the expressway, but would use local roads and new frontage roads provided for access. This indirect access could add travel time for local drivers, depending on where their homes or businesses were located. However, the frontage roads proposed for the project would provide improved safety for pedestrians, bicyclists, and slow-moving traffic.

This project is not expected to cause unplanned growth (see Section 3.1.2 Growth). The land included in the City of Hollister sphere of influence—in the area that is not yet in the city limits—is planned to be used eventually for light industrial and airport support businesses, and a new residential area. Land within the county outside the Hollister sphere of influence is planned to continue in agricultural production and gravel mining.

In regard to Alternatives 1 and 2, the route adoption alternatives, only Alternative 1 would directly affect the Abundant Life Four Square Church and the private day care facility. Both facilities would be displaced and require relocation. The disruption of services provided by these facilities would be temporary, and the relocation of these facilities would not affect school attendance or school district tax revenue. Alternative 2 would have no effect on the community facilities identified within the project area.

In regard to the build portion of the project, Alternatives A and B, only Alternative A would directly affect the Abundant Life Four Square Church and the private day care facility. Both facilities would be displaced and require relocation. The disruption of services provided by these facilities would be temporary, and the relocation of these facilities would not affect school attendance or school district tax revenue. Alternative B would have no effect on the community facilities identified within the project area.

The wider roadway and changes in noise would affect the quality of life for most residents whose homes would be near the new expressway. Potential impacts to visual quality are discussed in detail in Section 3.1.6 Visual/Aesthetics. Potential noise impacts are discussed in detail in Section 3.1.2.7 Noise and Vibration.

Avoidance, Minimization, and/or Mitigation Measures

At the time of acquisition, when relocation would become necessary, all activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended.

3.1.4.2 Relocations

Regulatory Setting

Caltrans' Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations, Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries

as a result of projects designed for the benefit of the public as a whole. Please see Appendix E for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S. Code 2000d, et seq.). Please see Appendix D for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

A Draft Relocation Impact Report was completed for this project in November 2008. A Community Impact Assessment was completed for this project in January 2009 and updated in January 2010.

The report identified a “core” corridor common to all alternatives (where all the alternatives align with the existing State Route 25), but focused on potential impacts from the build portion of the project within San Benito County because the route adoption does not propose construction in the near future. Detailed analysis and mitigation measures (Tier II analysis) would be done in the future for the portion(s) of the route adoption alternatives when construction funding becomes available.

Also, the number of relocations reported in this draft environmental document could be reduced. A field survey conducted for the Community Impact Assessment completed in January 2009 discovered that several homes identified for relocation in the Draft Relocation Impact Report had been demolished. In addition, Caltrans has discussed moving the frontage road proposed by Alternatives 2 and B south of Hudner Lane to avoid or minimize relocation impacts. After a preferred alternative is chosen, Caltrans would complete a Final Relocation Impact Report and the findings would be incorporated into the final environmental document.

The existing highway travels through a rural, agricultural area. Near Hollister, homes and businesses are scattered along the highway and on Wright Road, Briggs Road, Flynn Road, McConnell Road, and near Hudner Lane. The middle part of the project, north of Hudner Lane and south of the San Benito County-Santa Clara County line, is open farmland and grazing land with no structures present until just south of the county line. In Santa Clara County, a few residences and a couple of agricultural businesses sit along on or near the highway. A gravel quarry is southeast of the State Route 156 and State Route 25 intersection, with the entrance on State Route 25 opposite where McConnell Road enters the highway.

Agribusiness operations along State Route 25 in and near Santa Clara County include produce packing, storage, and trucking facilities, seasonal fruit stands, a commercial composting operation, and an agricultural chemical supplier. Near and in Hollister, retail/service businesses include an auto body shop, trailer sales, a mini-storage facility, a chocolate factory, farm equipment sales, a plumbing supply business, a fruit/vegetable stand, and a private day care facility. A church facility sits along State Route 25 near Wright Road.

There are no subdivisions or apartments in the project area, and the quality and size of the houses vary greatly, from small ranchettes to farms on spread-out agricultural lands. In some cases, the farms provide housing for their seasonal field workers. According to the 2000 U.S. Census, an estimated 50% of residents between San Felipe Road and U.S. 101 are renters, and 50% own their homes.

Environmental Consequences

All alternatives would require acquisition of linear strips or small segments of land from property parcels along the length of the project. These partial acquisitions would have an effect on agricultural operations, residences, and businesses. Sometimes, these partial acquisitions become full acquisitions of the property parcel, or structures on the parcel, because the remaining land or structures would not be functional after the project was built. When a full acquisition of a structure occurs, it is called relocation.

Route Adoption Alternatives

Tables 3.4 and 3.5 show the estimated relocations for the route adoption alternatives based on data from the Draft Relocation Impact Report. A more detailed analysis of relocation impacts to the area of the route adoption alternatives north of Hudner Lane would be part of future Tier II environmental documents as portions of the build alignment selected are built.

Table 3.4 Residential Relocations for Alternatives 1 and 2

Type of Structure	Alternative 1	Alternative 2
Owner Occupants of Single-Family Residences	14	5
Tenant Occupants of Single-Family Residences	*2	*4
Tenant Occupants Multiple-Unit Residences	*2	*2
Owner Occupants of Mobile homes	3	3
Tenant Occupants of Mobile Homes	0	0
Total Residential Units	*21	*14

Source: Draft Relocation Impact Report, November 2008

*Numbers may be reduced based on field survey completed in January 2009 (see Section 3.1.4.1 Environmental Justice)

Route adoption Alternative 1 would need right-of-way from 78 property parcels along State Route 25. About 60% of the right-of-way needed would require linear slivers, or small segments, of the property parcels (partial acquisition) and would not result in the relocation of the residential unit(s) or business operations on the parcel. The remaining 40% (31 relocations out of 78 property parcels) would be full-parcel acquisitions.

Table 3.5 Business and Non-profit Relocations for Alternatives 1 and 2

Type of Structure	Alternative 1	Alternative 2
Commercial Businesses	5	1
Industrial/Manufacturing Businesses	2	1
Non-Profit Organization (Church)	1	0
Agricultural/Farms	2	2
Total Non-Residential	10	4

Source: Draft Relocation Impact Report, November 2008

Route adoption Alternative 1 would need right-of-way acquisitions from 78 property parcels along State Route 25. About 60% of the right-of-way needed would require linear slivers, or small segments, of the property parcels (partial acquisition) and would not result in the relocation of the residential unit(s) or business operations on the parcel. The remaining 40% (31 relocations out of 78 property parcels) would be full-parcel acquisitions.

According to the Draft Relocation Impact Report, route adoption Alternative 1 would displace approximately 21 residential units, which include mobiles homes, multiple-unit residences, and single-family residences. The acquisition of residences would displace an

estimated 70 people. This alternative would also displace approximately 10 non-residential units, which include the non-profit church, commercial businesses, industrial/manufacturing businesses, and agricultural/farms.

Route adoption Alternative 2 would need right-of-way acquisitions from 52 property parcels along State Route 25. Approximately 65% of the acquisitions would require slivers or small segments of the property parcels (partial acquisition) and would not result in the relocation of the residential unit(s) or business operations on the parcel. The remaining 35% (18 relocations out of 52 property parcels) would be full-parcel acquisitions.

Route adoption Alternative 2 would displace approximately 14 residential units, which include mobile homes, multiple-unit residences, and single-family residences. The acquisition of residences would displace an estimated 46 people. The alternative would also displace approximately 4 non-residential units, including industrial/manufacturing businesses, commercial businesses, and agricultural/farms.

Table 3.6 Residential Relocations for Alternatives A and B

Type of Structure	Alternative A	Alternative B
Owner Occupants of Single-Family Residences	12	3
Tenant Occupants of Single-Family Residences	0	*4
Tenant Occupants Multiple-Unit Residences	*2	*2
Owner Occupants of Mobile homes	0	0
Tenant Occupants of Mobile Homes	0	0
Total Residential Units	*14	*9

Source: Draft Relocation Impact Report, November 2008

*Numbers may be reduced based on field survey completed in January 2009 (see Section 3.1.4.1 Environmental Justice)

Table 3.7 Business and Non-Profit Relocations for Alternatives A and B

Type of Structure	Alternative A	Alternative B
Commercial Businesses	3	1
Industrial/Manufacturing Businesses	2	1
Non-Profit Organizations	1	0
Agricultural/Farms	2	2
Total Non-Residential	8	4

Source: Draft Relocation Impact Report, November 2008

Alternative A

Build Alternative A requires the acquisition of right-of-way from 45 property parcels along State Route 25. Approximately 60% of the acquisition would be slivers or small segments of the property parcels (partial acquisitions) and would not result in an effect to the residential unit or business operations on the parcel.

According to the Draft Relocation Impact Report, Build Alternative A would result in the removal of approximately 14 residential units, which include mobiles homes, multiple-unit residences, and single-family residences. The acquisition of residences would displace an estimated 53 people. This alternative would also result in the removal of 8 non-residential units, including the non-profit church, commercial businesses, industrial/manufacturing businesses, and agricultural/farms.

Alternative B

Build Alternative B requires the acquisition of right-of-way from 24 property parcels along State Route 25. Approximately 46% of the right-of-way acquisition would require slivers or small segments of the property parcels (partial acquisition) and would not result in an effect to the residential unit or business operations on the parcel.

Build Alternative B would result in the removal of 9 residential units, which include multiple-unit residences and single-family residences. The acquisition of residences would displace an estimated 30 people. This alternative would also result in the removal of four non-residential units, including commercial businesses, industrial/manufacturing businesses, and agricultural/farms.

According to the Draft Relocation Impact Report, adequate homes exist in the area for displaced homeowners to purchase, or the homeowners may be able rebuild on the remainder of their parcel. Adequate, comparable replacement housing exists for the residential owners that may be affected.

Renters do not have adequate replacement rental properties within the project area available to them, and would have to look in the City of Hollister and more distant rural areas of San Benito County for rental housing. Rental housing may be less available during some parts of the year, depending on seasonal labor occupancy.

Adequate, comparable replacement housing exists for the businesses that may be affected. The ability of any business affected by the project to rebuild on the remaining parcels (after right-of-way acquisition) would have to be considered case by case.

Avoidance, Minimization, and/or Mitigation Measures

Build Alternatives

At the time of acquisition, when relocation would become necessary, all activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended.

The ability of any business affected by the project to rebuild on the remaining parcels (after right-of-way acquisition) would have to be considered case by case during appraisal with appropriate severance damages or relocation assistance or, in some instances, both provided to the owner and/or tenants.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees would be entitled to moving expenses. All benefits and services would be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins and disability as specified under Title VI of the Civil Rights Act of 1964.

The relocation area studied was the cities of Hollister and San Juan Bautista, which have amenities, public utilities, and accessibility to public services, transportation, and shopping comparable to the build alternatives' project area. Market availability is expected to remain adequate. The current real estate market in the project area is providing an adequate supply and a stable if not decreasing cost for replacement parcels. Average prices for single-family homes in the area are shown in Table 3.8.

Table 3.8 San Benito County Average Home Prices (Typical Single-Family Homes)

Price Range in Dollars	Number	Percentage in Range
Less than 50,000	27	0.03
50,000-99,999	87	0.90
100,000-149,999	283	3.00
150,000-199,999	963	10.30
200,000-299,999	3,983	42.40
300,000-499,999	3,167	33.70
500,000-999,999	40	9.00
1,000,000 or more	5	0.40

Source: U.S. Census 2006

3.1.5 Environmental Justice

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended, and Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” Title VI states that “No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal or federally funded projects on minority and low-income populations.

Affected Environment

An environmental justice analysis is included in the January 2009 Community Impact Assessment completed for this project. Only the build alternatives were analyzed to determine potential impacts to environmental justice. Because the construction of the route adoption is far into the future, it was determined an environmental justice analysis would not be sensible at this time.

Data from the 2000 U.S. Census were used to complete demographic research of the build portion of the project area (Alternatives A and B). The 2000 U.S. Census provides demographic data by census tract, block groups, and blocks. *Census tracts* are very large areas with populations ranging from 1,000 to 8,000 people that are further broken down into *block groups* containing multiple *block* units. Blocks are the smallest areas and may correspond to individual city blocks bounded by streets (see Figure 3-2).

Data on ethnic or racial makeup of the project area were based on census blocks into which the project would encroach, whether the project would affect only a small percentage of the total area of the census block or the entire block. Both Alternative A and Alternative B pass through Census Tract 1-Block Group 3 and Census Tract 3-Block Group 2.

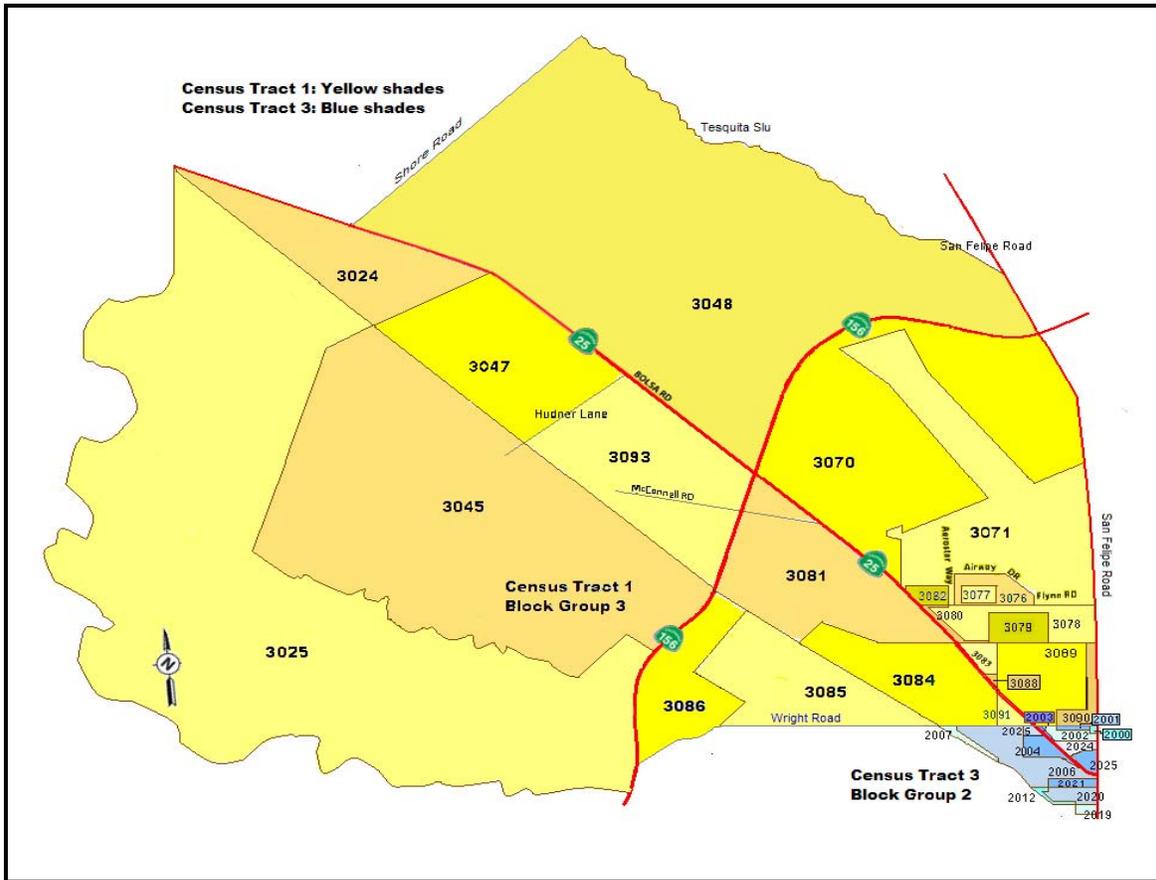


Figure 3-2 2000 U.S. Census Tract Map

Census Tract 1-Block Group 3 covers a vast rural area. It is bordered by Wright Road on the south and San Felipe Road on the east. The census tract extends to U.S. 101 on the west and State Route 152 on the north. Sixteen census blocks are affected by Alternatives A and B as shown in Figure 3-2; of those, five blocks report zero populations. The population reported within the remaining blocks was 252. Sixteen census blocks are affected by Alternatives A and B: 3047, 3048, 3070, 3071, 3078-84, 3088-3093; however, five blocks report zero populations: 3079, 3080, 3082, 3091 and 3092.

Census Tract 3-Block Group 2 covers a large rural area between Wright Road and Buena Vista Road/North Street to the south. The western border of this block group extends almost to State Route 156, and San Felipe Road borders this block group on the east. Nine census blocks are affected by the project: 2002-2006 and 2023-2025; however, seven blocks report zero population: 2001-2003, 2005, 2006, 2023, and 2025. Most of this area is commercial property. Blocks 2004 and 2025 report a total of 5 people.

Table 3.9 compares the ethnic or racial makeup of the project area, the City of Hollister, and San Benito County. In addition, field reviews were completed in and around the project area to help identify residential development not readily apparent in the census data.

Table 3.9 Population Data for Build Alternatives A and B

2000 U.S. Census Bureau State and County Quick Facts	County of San Benito	Percentage of Total	City of Hollister	Percentage of Total	Project Study Area	Percentage of Total
Population, 2000	146,345	100.0	43,207	100.0	263	100.0
One race	140,586	96.1	40,763	94.3	252	95.8
White	112,675	76.9	20,804	48.1	136	51.7
Black or African American	5,231	3.6	1,665	3.9	2	0.8
American Indian or Native American	1,755	1.2	1,207	2.8	4	1.5
Asian	2,991	2.0	618	1.4	8	3.0
Native Hawaiian or Other Pacific Islander	0	0	44	0.1	0	0
Some Other Race	17,934	12.3	16,425	38.0	102	38.8
1 - Total of one race	140,586	96.1	40,763	94.3	190	72.2
2 - Two or more races	5,759	3.9	2,444	5.7	73	27.8
Total Population (1 + 2 =)	146,345	100.0	43,207	100.0	263	100
Hispanic or Latino (of any race)	25,516	47.9	18,949	55.1	102	38.8
Other races	27,718	52.1	15,464	44.9	161	61.2
Total	53,234	100.0	34,413	100.0	263.0	100.0

Based on the 2000 U.S. Census Bureau data, there are approximately 263 people living in the project area. Over half of the population is White. The percentages of minorities within the project limits are below the averages of San Benito County. The Hispanic or Latino (of any race) population within the study area represents 40% of the total population on average, lower than the average of either San Benito County (48%) or the City of Hollister (55%). In addition, the project study area has an Asian population that ranges from 1% to 1.6% higher than the county and city average.

Two blocks (3084 and 3093) have a higher percentage of Hispanic/Latino population than the San Benito County average (over 60% in each block). The blocks are not located near each other, however. Block 3084 is near the beginning of the project, west of State Route 25 and bordered by Wright Road; Block 3093 is north of State Route 156, west of State Route 25 and bordered by the extension of McConnell Road. According to available

aerial photos, Blocks 3084 and 3093 are both primarily farmland with scattered farmhouses and homes scattered throughout.

In January 2009, Caltrans completed a field review to determine whether the project would cause a disproportionately high and adverse effect on the Hispanic/Latino population identified in these two blocks as per Executive Order 12898 regarding environmental justice.

Block 3084 has a large farmstead in the center of the block with several small homes within its complex, presumably for laborers. Two more small homes are located in the northeast corner of the block along State Route 25 near Flynn Road, and there are multiple homes along Wright and Briggs Roads.

Block 3093 has a large farmstead and two tri-plexes, presumably for laborers, in the middle of the block. There is one home along State Route 25 and a couple more along the extension of McConnell Road north of State Route 156.

As a result of the field survey, it was discovered that one single-family residence in Block 3084, which would have been affected by improvements to Wright Road, was vacant or abandoned based on its condition.

Also, in Block 3093, one farmstead complex and several small homes were demolished and no longer exist. These structures would have been affected by the frontage road proposed in Alternative B.

The median income for the project area can be determined at only the Census Tract Block Group level. Table 3.10 shows the comparison of median incomes for the Census Tract Block Groups in the project area in comparison to the median incomes of the state of California, the County of San Benito, and the City of Hollister.

Table 3.10 Comparison of Median Household Incomes

Income	State of California	County of San Benito	City of Hollister	Census Tract 1 Block Group 3	Census Tract 3 Block Group 2
Median Household Income	\$47,493	\$57,469	\$56,104	\$56,042	\$38,750

The median income for Census Tract 1-Block Group 3 is \$56,042, which is comparable to the median incomes of the County of San Benito and the City of Hollister and above

the median income of California. Although the median income for Census Tract 3-Block Group 2 is \$38,750 and below the other median household incomes listed, the project only includes a population of 5 people from this census tract block group, which represents less than 2% of the project study area's population.

Environmental Consequences

Based on the environmental justice analysis and subsequent field survey, Alternatives A and B would not cause disproportionately high and adverse effects on any minority or low-income populations as per Executive Order 12898 regarding environmental justice.

Based on the field survey, it was determined that (1) relocations would be reduced and, (2) the large number of Hispanic/Latino citizens living within Blocks 3084 and 3093 do not reside within the projects' proposed right-of-way.

Avoidance, Minimization, and/or Mitigation Measures

No minority or low-income populations have been identified that would be adversely affected by the proposed project as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898 regarding environmental justice.

3.1.6 Utilities/Emergency Services

Affected Environment

A Community Impact Assessment was completed for this project in December 2008 and updated in January 2010.

Utilities

Pacific Gas & Electric Company owns the overhead electrical lines and underground cable within the project limits. The electrical lines include 12-kilovolt and 21-kilovolt overhead electrical lines and underground cable. The Sargent-Hollister 115-kilovolt electric line crosses over or is adjacent to the existing highway in several places between U.S. 101 and San Felipe Road.

AT&T also has overhead lines and underground cable within the project area.

The City of Hollister installed a 14-inch recycled water pipeline system, which has not been used up to this time because the new wastewater treatment plant was not completed until recently. A branch of this system runs from the new Hollister wastewater facility to the airport. Within the project area, the pipeline is under Wright Road from the west to Briggs Road, then turns north under Briggs Road, crossing the existing highway. From

that point, the pipeline continues north, past the 90-degree turn in the road, through private land, across Flynn Road, and under Aerostar Way onto the airport property.

The City of Hollister Public Works Department is responsible for producing and distributing potable water for about half of the City of Hollister. The Sunnyslope County Water District serves the remaining portion of the city and is also responsible for wastewater collection and conveyance to the wastewater treatment plants. Within the Hollister city limits, city water lines are under the street. Within the project area, the pipeline runs generally north/south and east/west along the local streets, mostly on the east side of State Route 25, although the pipeline crosses State Route 25 several times from San Felipe Road to the north of Wright Road.

Emergency Services

The San Benito County Sheriff's Department and the Hollister city police force provide law enforcement in the project area. In the San Benito County portion of the project area, the Hollister City Fire Department provides fire protection south of State Route 156, and the California Division of Forestry covers rural San Benito County. American Medical Response provides emergency medical transport and ambulance service.

The South County Substation of the Santa Clara County Sheriff's Department is in San Martin, about 13 miles from the north end of the study area. First response for fire emergencies in the Santa Clara County section of the project area, though outside the Gilroy city limits, come from the Chestnut station of the Gilroy Fire Department. Standard ambulance services are available in Hollister and Gilroy; St. Louise Regional Hospital in Gilroy also maintains an emergency helicopter transport service.

Environmental Consequences

Utilities

The project would require the relocation of utility facilities. In March 2008, Caltrans Right-of-Way Division prepared a preliminary data sheet for utility relocation for each alternative, except the No-Build Alternative, which would have no effect on utilities.

The route adoption Alternative 1 would cross the Sargent-Hollister 115-kilovolt electrical lines in two locations: south of the county line and north of Flynn Road. This alternative would require the relocation of approximately 11 wooden telephone poles, 95 wooden electrical poles, 42 joint poles (telephone and electrical), and 17 steel poles. An estimated 1,444 feet of underground telephone line would be relocated, and a portion of the recycled water pipeline that crosses the project area along Wright Road. The total cost to the state for utility relocation is estimated at \$3,289,073.

The route adoption Alternative 2 would cross the Sargent-Hollister 115-kilovolt electrical lines in two locations: south of the county line and south of Flynn Road. This alternative would require the relocation of approximately 46 wooden electrical poles, 63 joint poles (telephone and electrical), and approximately 13 steel poles. An estimated 600 feet of underground telephone line would be relocated as well. A portion of the recycled water pipeline along Wright Road where it crosses the project area and the city-owned water line south of Wright Road would also need to be relocated. Cost to the state for utility relocation is estimated at \$2,626,747.

The build Alternative A would cross the Sargent-Hollister 115-kilovolt electrical lines north of Flynn Road. This alternative would relocate approximately 11 wooden telephone poles, 45 wooden electrical poles, 26 joint poles (telephone and electrical), and an estimated 1,000 feet of the recycled water pipeline that crosses the project area along Wright Road. Cost to the state for utility relocation is estimated at \$1,633,337.

The build Alternative B would cross the Sargent-Hollister 115-kilovolt electrical lines south of Flynn Road. This alternative would relocate approximately 60 wooden electrical poles, 32 joint poles (telephone and electrical), and approximately 10 steel poles. It would also relocate an estimated 1,000 feet of the recycled water pipeline that crosses the project area along Wright Road, and the city-owned water line south of Wright Road. Total cost to the state for utility relocation is estimated at \$2,263,880.

Emergency Services

When completed, the project would have a beneficial effect on fire protection, law enforcement, emergency, and other public services by providing improved safety on an upgraded highway. In addition, the project would improve access to the project area and facilitate faster fire and medical response times to emergencies in the area by providing additional travel lanes, passing opportunities, and improved intersection crossings.

Avoidance, Minimization, and/or Mitigation Measures

Utilities

If Alternative A were selected, extensive utility relocation would be done between San Felipe Road and Flynn Road. But, overall, Alternative B would relocate more power poles than Alternative A would.

Caltrans would coordinate with PG&E and AT&T to relocate utilities. Affected electric and telephone lines would continue to operate during construction. All of the affected electrical and telephone poles, as well as underground cable lines, would be relocated outside the realigned highway right-of-way in new easements.

During the design phase of the build project, a relocation plan for the affected portion of the 115-kilovolt Sargent-Hollister line would be prepared. This relocation plan would require environmental review before approval to comply with California Environmental Quality Act and Public Utilities Commission regulations.

Caltrans would coordinate with the City of Hollister on relocating both the recycled water pipeline and the water pipes under Wright Road.

Emergency Services

During construction, a Traffic Management Plan would be developed to accommodate local traffic patterns and reduce delay, congestion, and accidents. By building the project in construction phases, disruption to local and regional traffic would be minimized.

Caltrans would also coordinate with ambulance, police, sheriff and fire departments before any construction to minimize effects on emergency services.

3.1.7 Traffic and Transportation

Regulatory Setting

Both the National Environmental Policy Act and the California Environmental Quality Act require consideration of impacts to traffic and transportation. In addition, other types of legislation influence traffic and transportation.

Affected Environment

A Traffic Operations Analysis report was completed in September 2008 and revised in June 2009. The analysis was performed using the methods of the Highway Capacity Manual.

The traffic study assumed the construction year of the build alternatives would be 2015 and that the design year would be 2035. The design year is the year for which a roadway is designed, normally 20 years after planned completion, taking into consideration projected volumes of traffic. The forecast traffic volumes for the planned construction year (2015) and the design year (2035) came from the Association of Monterey Bay Area Governments (AMBAG) 2004 travel demand forecast model.

This part of State Route 25 goes through mostly agricultural land and includes pullout areas used by agricultural vehicles. Local traffic includes cars, trucks, and agricultural equipment.

Although this segment of State Route 25 is currently a two-lane conventional highway, it is included as part of California's Freeway and Expressway system. This part of the route is envisioned as an expressway by San Benito County, but Santa Clara County plans an eventual six-lane freeway from the State Route 25/U.S.101 junction to a proposed interchange at Bolsa Road near the county line.

State Route 25 from San Felipe Road to U.S. 101 is in the Interregional Road System, which is a system of state routes considered important to the interregional movement of people and goods. This portion of the route is also designated a terminal access route by the state and can accommodate the largest trucks (trucks whose size is regulated by the Federal Highway Administration).

Commercial truck traffic uses State Route 25 and is subject to delays due to congestion along with other vehicles on the road. Traffic census data from 2006 indicates that the percentage of truck traffic is approximately 10% of all traffic on State Route 25 near Briggs Road and 6.5% at the U.S. 101 junction.

Within the route adoption project limits, there are only two intersections with traffic signals: the intersection of San Felipe Road with State Route 25 and the junction of State Route 156 and State Route 25. In addition, 11 local road intersections and about 54 driveways enter directly onto the highway.

The area of the proposed build project, between San Felipe Road and Hudner Lane, includes both of the intersections with traffic signals, seven local road intersections, and approximately 32 driveways that directly access the highway.

Average traffic volume per year on a segment of roadway can be measured by dividing the total traffic for one year by 365 days to obtain the "annual average daily traffic" count. On State Route 25, the existing annual average daily traffic count is 14,700 vehicles between San Felipe Road and State Route 156; 21,300 vehicles between State Route 156 and Hudner Lane; and 22,500 vehicles between Hudner Lane and U.S. 101. The traffic volumes are lower at the Hollister end of the project because some drivers turn off State Route 25 onto Bloomfield Avenue, some motorists turn off the highway onto Shore Road to get to State Route 156, and some traffic turns south onto State Route 156 to access neighborhoods on the west side of Hollister.

As a result of recent safety improvements, the average accident rates on this two-lane highway have decreased. Between September 1, 2004 and August 31, 2007, 184 accidents were reported between San Felipe Road in Hollister and the Union Pacific main

line railroad crossing in Santa Clara County (accidents at U.S. 101 were not included). None of these accidents had fatalities. Injuries occurred in 65 accidents. The resulting accident rates are below the statewide average for accident rates on a two-lane highway. In addition, at the junction of State Routes 25/156, 13 accidents were reported during the same three-year period. The actual accident rates are lower than the statewide average for similar intersections.

The traffic analysis looked at three segments of highway: San Felipe Road to the junction of State Routes 25 and 156; from this junction to Hudner Lane; and from Hudner Lane to U.S. 101. The first two segments represent the proposed build alternatives, Alternatives A and B. The third segment is included in only the route adoption alternatives.

Table 3.11 shows the annual average daily traffic counts for segments of the project for 2006 (existing conditions), for 2015 (the construction year of the proposed build project), and for 2035 (future conditions). In 2015, just a few years away, predicted annual daily traffic on State Route 25 between San Felipe Road and State Route 156 is expected to increase by 37%, with 5,400 more daily vehicles than in 2006. Assuming the existing highway is still in service in 2035, traffic on this segment will have increased by 9,700 more vehicles per day, a 61% increase in traffic. Although the segment of highway between State Route 156 and Hudner Lane is predicted to have only 7.5% more traffic in 2015, (1,600 more daily vehicles than use the road today), by 2035, traffic will have grown 36% over current conditions, requiring the road to carry 7,600 more daily vehicles than it carries today. The segment from Hudner Lane to U.S. 101 would see a less than 1% increase in 2015, according to the traffic study. However, by 2035, 9,700 more daily vehicles are expected to be on this stretch of roadway, a 43% increase from existing traffic. Traffic conditions are further discussed in Section 1.2 of this document.

Table 3.11 Existing and Predicted Annual Average Daily Traffic Without Projects

Alternatives		Segment on State Route 25	Daily Traffic and Percentage of Increase		
			2006 (Existing)	2015	2035
Route Adoption Alternatives	Build Alternatives	San Felipe Road to State Route 156	14,700	20,100 (37%)	23,700 (61%)
		State Route 156 to Hudner Lane	21,300	22,900 (7.5%)	28,900 (36%)
		Hudner Lane to U.S. 101	22,500	22,700 (0.9%)	32,200 (43%)

Source: Caltrans Traffic Operations, June 2009

The operations of roadways are described with the term “level of service.” Level of service is a quantitative and qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined, ranging from level of service A (the best operating conditions) to level of service F (the worst operating conditions). Level of service E represents “at-capacity” operations. When volumes exceed capacity, stop-and-go conditions result and operations are designated as level of service F.

“Average travel speed” and the “percent time spent following” (percentage) are the criteria used to determine level of service for this type of two-lane highway. “Percent time spent following” is defined as the average percentage of travel time vehicles spend traveling in lines behind slower vehicles due to their inability to pass. The data for these two criteria are plotted on a graph to determine level of service (see Figure 1-3). Whenever time spent following exceeds 80%; the resulting level of service is recorded as E by the model used for two-lane highways. Level of service F indicates that the traffic flow rate exceeds the capacity of the roadway with 100% time spent following and an average travel speed of less than 30 miles per hour.

Table 3.12 shows the existing and predicted level of service if an expressway is not built. The current and predicted level of service for the existing two-lane highway within the study area is level of service E. This is below level of service C, the minimum acceptable to Caltrans and local agencies for this type of highway. During the peak morning and evening commute hours, time spent following exceeds 80%, and average travel speeds are 43.7-44.9 miles per hour during the morning and 42.5-45.0 miles per hour during the evening peak hour.

The existing morning peak traffic hour average travel time on State Route 25 between San Felipe Road and the Union Pacific main line railroad crossing is 14.7 minutes, and the existing evening average travel time is 15 minutes. Between San Felipe Road and Hudner Lane, the existing peak traffic hour average travel time is 5 minutes during both the morning and the evening peak hours.

To determine the level of service of intersections, intersection peak hour turning movement counts were taken on State Route 25 at San Felipe Road, Wright Road, Briggs Road (southern intersection), Briggs Road (northern intersection), Flynn Road, State Route 156, Shore Road, Bolsa Road, and Bloomfield Avenue in September 2006 and May 2007. The San Felipe Road intersection was recalculated in 2008 to take into

account the new signal installed there as part of the Highway 25 Bypass project, which opened in February 2009. The intersection analysis used the adjusted traffic counts to evaluate the level of service for each intersection studied with and without the proposed alternatives.

Table 3.12 Existing and Predicted Level of Service Without Projects

Alternatives	Segment on State Route 25	Peak Hour	Percentage Time Spent Following Another Vehicle			Average Travel Speed (miles per hour)			Level of Service			
			2006/2007	2015	2035	2006/2007	2015	2035	2006/2007	2015	2035	
Route Adoption Alternatives	Build Alternatives	San Felipe Road to State Route 156	AM	83.1	83.9	90.9	44.9	44.5	38.8	E	E	E
			PM	82.3	84.5	89.3	45.0	45.2	40.4	E	E	E
		State Route 156 to Hudner Lane	AM	82.0	87.9	92.4	43.7	40.8	37.4	E	E	E
			PM	84.6	89.6	91.2	42.4	41.5	38.8	E	E	E
	Hudner Lane to U.S. 101	AM	82.0	87.9	92.4	43.7	40.8	37.4	E	E	E	
		PM	84.6	89.6	91.2	42.4	41.5	38.8	E	E	E	

Source: Caltrans Traffic Operations, June 2009

Environmental Consequences

Route Adoption Alternatives

Traffic was analyzed for the route adoption alternatives as if they were completely constructed expressways. However, this would not actually occur all at once. Portions of the proposed route adoption would be constructed, following a Tier II environmental document analysis, as funding becomes available.

The U.S. 101 Widening Project State Route 129 to Monterey Road is proposing work that includes a newly configured State Route 25/U.S. 101 interchange. The interchange construction would include a 1-mile segment on State Route 25 overlapping with the route adoption. The draft Traffic Operations report for that project is in progress, but not yet completed.

The criteria used to evaluate operations for a future four-lane expressway for the route adoption alternatives were based on density (passenger cars per mile per lane) and the typical flow rate (passenger cars per hour per lane) for the roadway segment.

Alternative 1, if built as a four-lane expressway, would operate with a level of service B or better during peak hours of operation until 2035. Alternative 2 would achieve level of service B or better during peak hours of operation until 2035, except that the segment between Hudner Lane and U.S. 101 would fall to level of service C during the evening peak hour in 2035, which is an acceptable level of service for an expressway (see Table 3.13).

Table 3.13 Existing and Predicted Levels of Service for Route Adoption Alternatives

Existing Conditions (2006/2007) Level of Service E			San Felipe Road to State Route 156	State Route 156 to Hudner Lane	Hudner Lane to U.S. 101
Alternative	Year	Time	Level of Service	Level of Service	Level of Service
No-Build	2015	AM	E	E	E
		PM	E	E	E
	2035	AM	E	E	E
		PM	E	E	E
Alternative 1	2015	AM	B	B	B
		PM	A	A	A
	2035	AM	B	B	B
		PM	B	B	B
Alternative 2	2015	AM	B	B	B
		PM	A	A	A
	2035	AM	B	C	C
		PM	B	B	B

Source: Caltrans Traffic Operations, June 2009

Either Alternative 1 or 2 (route adoption alternative) would if fully built maintain a total average travel time of 10.8 minutes for both the morning and evening peak hours between 2015 and 2035, even though the traffic volume on State Route 25 is predicted to increase. Estimated travel times do not include time spent stopped at intersections with traffic signals or at the two railroad line crossings. The four-lane expressway would

provide sufficient capacity at least through 2035 and would still be able to maintain a level of service C or better.

Intersections

The intersections analyzed for route adoption Alternative 1 were San Felipe Road, Wright Road, Flynn Road, Shore Road, and Bolsa Road. For Alternative 2, San Felipe Road, Wright Road, Briggs Road (northern intersection), Shore Road, and Bolsa Road intersections were studied. The northbound and southbound ramps of the interchange proposed at State Route 156 for both alternatives were analyzed as well. If either route adoption alternative were fully built, the level of service of State Route 25 through these intersections would be able to be maintained at level of service A or B through the year 2035, except at the signalized intersections, which would be at level of service C or above.

McConnell Road and Hudner Lane were not analyzed in the traffic study because they are dead-end roads that serve only a few properties, and these roads have so few vehicles using them during peak traffic hours that their impact on highway operations is insignificant. The study also assumed that there would be little or no growth on these roads in the future. The new frontage road intersections with the proposed expressway were not analyzed in the traffic study because they would provide access to farm fields and only a few rural homes.

See Figure 2-1 for a map showing the new and existing intersections for Alternative 1 and Alternative 2.

No Route Adoption Alternative

If neither Alternative 1 nor Alternative 2 is selected and its proposed alignment adopted by San Benito County and Santa Clara County, the opportunity would be lost to reserve an alignment for a future expressway with the least environmental impacts. Without a designated corridor, future development between Hollister and U.S. 101 along or near the existing highway would make highway construction projects more expensive and more disruptive to local residents and businesses.

Build Alternatives

The analysis of future traffic for the build alternatives was modeled using two scenarios. Scenario 1 assumed that the traffic volume on State Route 25 between San Felipe Road and U.S. 101 would remain the same as if the project were not built (a two-lane highway). Scenario 2 assumed that the traffic volumes for Alternative A would be the

same as those forecast for Alternative 1 (a four-lane expressway) and that traffic volumes for Alternative B would be the same as the traffic numbers forecast for Alternative 2 (also a four-lane expressway).

The criteria used to evaluate operations for a future four-lane expressway for the build alternatives were based on density (passenger cars per mile per lane) and the typical flow rate (passenger cars per hour per lane) of the roadway segment.

Existing average travel speeds are 44.9 miles per hour between San Felipe Road and State Route 156 during the morning peak hour and 45.0 miles per hour during the evening peak traffic hour. For the segment between State Route 156 and Hudner Lane, average travel speeds are currently 43.7 miles per hour during the morning peak hour and 42.4 miles per hour during the evening peak traffic hour.

If neither Alternative A nor Alternative B is constructed, average travel speeds on the existing highway would not decrease significantly by 2015 within the proposed build project limits. However, by 2035, speeds between San Felipe Road and State Route 156 are predicted to be reduced to 38.8 miles per hour during the morning peak traffic hour and to 40.4 miles per hour during the evening peak. Between State Route 156 and Hudner Lane, average travel speeds during the morning peak hour would be 37.4 miles per hour, and would be 38.8 miles during the evening peak traffic hour.

A four-lane expressway between San Felipe Road and Hudner Lane would operate at level of service B or better during the peak traffic hours, except that, in Scenario 2, the level of service for Alternative B would drop to level of service C by 2035 during the morning peak traffic (still an acceptable level of service). Although the vehicle density (passenger car per mile per lane) would increase, the average travel speed would remain constant at 59-60 miles per hour during the morning peak hour and about 59.5 miles per hour during the evening peak hour between 2015 and 2035. Table 3.14 shows the existing and predicted levels of service for Alternatives A and B.

The segment of State Route 25 that would remain two lanes, between Hudner Lane and U.S. 101, would not see improved traffic conditions but would continue at level of service E. Under Scenario 2, the level of service is predicted to deteriorate to level of service F by 2035 during the peak traffic hours in both the morning and evening. The traffic volume would be greater than the roadway capacity, with the average travel speed falling below 30 miles per hour. Traffic flow would be stop and go. If traffic volumes actually increase to the level forecast, with the segment between Hudner Lane and the U.S. 101 junction remaining as a two-lane highway, congestion would be extreme.

However, this situation is not likely to occur, as additional construction phases are planned.

Before late 2007, this project proposed construction of an expressway all the way from San Felipe Road to the Union Pacific main line railroad crossing. Full funding for construction of more than 10 miles of expressway (8.6 miles in San Benito County) as a stand-alone project is not possible due to the cost of construction (roughly \$285.7 million to \$317.5 million in 2008 dollars). That is the reason why Alternatives A and B were developed and are proposed as the first construction phase of four phases planned within San Benito County (two additional segments would be in Santa Clara County). Neither Alternative A nor Alternative B was ever intended to be a stand-alone project. The Council of San Benito County Governments plans to fund future phases as funding becomes available.

The traffic report for this project analyzed the cost savings if either Alternative A or Alternative B were built. Factors measured were the cost of passenger delays, truck delay cost, and the cost of wasted fuel consumed during weekday morning peak and evening peak traffic hours.

If either proposed build alternative is constructed, traffic would be free-flowing, with no delays within Alternative A or Alternative B.

Alternative A would achieve a cost savings due to elimination of delays of \$1,681,000 (2008 dollars) in 2015, the build year. By 2035, the annual savings would be \$3,709,000 (2008 dollars). The total savings that would be realized over the life of the project (20 years) would be \$49,830,000 (2008 dollars) for this alternative.

If Alternative B were built, delay cost savings for this alternative would be \$1,716,000 (2008 dollars) in 2015. By 2035, the delay cost savings is predicted to increase to \$3,814,000 annually (2008 dollars). Over the life of the project (20 years), the delay cost savings achieved would be \$51,101,000 (2008 dollars).

On project opening day in 2015, the morning peak hour average travel time between San Felipe Road and Hudner Lane would be reduced from 5.1 minutes to 3.7 minutes for either Alternative A or B. The evening peak hour average travel time would also fall to 3.7 minutes from a 5-minute travel time for the segment for both alternatives. This travel time savings would be maintained through the year 2035.

During the morning peak hour in 2035, if either build alternative is constructed, 2 minutes would be taken off of the average travel time of 5.7 minutes for motorists to travel this stretch of road if neither Alternative A nor Alternative B is built. During the evening peak traffic hour, travel time would be reduced by 1.9 minutes to 3.7 minutes to travel from San Felipe Road to Hudner Lane, while if an expressway is not built the projected travel time is 5.6 minutes.

The build alternatives would change and reduce access so that driveways would only enter onto frontage roads or existing local roads instead of directly onto the proposed expressway. This consolidation of access would provide a safety benefit because vehicles would be able to enter the expressway only from a few roads with turn lanes at the intersections, instead of from many unmarked driveways.

Table 3.14 Existing and Predicted Level of Service for Build Alternatives

Existing Conditions (2006/2007) Level of Service E			San Felipe Road to State Route 156	State Route 156 to Hudner Lane
Alternative	Year	Time	Level of Service	Level of Service
No-Build	2015	AM	E	E
		PM	E	E
	2035	AM	E	E
		PM	E	E
Alternative A or Alternative B (Scenario 1)	2015	AM	A	B
		PM	A	A
	2035	AM	B	B
		PM	A	B
Alternative A (Scenario 2)	2015	AM	B	B
		PM	A	A
	2035	AM	B	B
		PM	B	B
Alternative B (Scenario 2)	2015	AM	B	B
		PM	A	A
	2035	AM	B	C
		PM	B	B

Source: Caltrans Traffic Operations, June 2009

Trucks traveling through the area of the build alternatives would experience improved operating conditions with completion of a four-lane expressway. They would benefit from being able to pass slower-moving vehicles, improved average travel times, and a lack of congestion. Truck delay savings were calculated for this project as part of the total delay savings. Currently, the commercial truck delay cost incurred between San Felipe Road and Hudner Lane on State Route 25 is \$347,000 annually (not including the cost of wasted fuel).

For Alternative A, the savings that commercial trucks are expected to realize by elimination of delays if this alternative is built would be \$132,000 in 2015 (2008 dollars). By 2035, the truck delay cost savings are expected to increase to \$319,000 (2008 dollars) in this stretch of State Route 25.

Truck delay cost savings would be greater for Alternative B: \$134,000 in 2015, increasing to \$328,000 in 2035 (2008 dollars).

Intersections

Level of service for intersections is determined by how many seconds a vehicle must wait at a stoplight or stop sign before turning or driving through the intersection. The Caltrans level of service standard for intersections is level of service C. For signalized intersections, delay time includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of service F occurs when the total delay is longer than 80 seconds. Level of service can be assigned for a signalized intersection as a whole.

At the two-way or side-street stop sign-controlled intersections, on the other hand, level of service was calculated for each movement. Delay time for these intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration. Level of service F occurs when the delay lasts longer than 50 seconds on average at these types of intersections.

The intersection analysis for Alternative A and Alternative B traffic was prepared using Scenario 2 data. For Alternative A, San Felipe Road, Wright Road, Flynn Road, and State Route 156 would all cross the proposed expressway State Route 25. For Alternative B, San Felipe Road, Wright Road, Briggs Road (northern intersection), and State Route 156 would cross the proposed expressway. McConnell Road and Hudner Lane were not analyzed in the traffic study because they are dead-end roads that serve only a few

properties, and these roads have so few vehicles using them during peak traffic hours that their impact on the highway is insignificant. The study also assumed that there would be little or no growth on these roads in the future. For the same reasons, the new frontage road intersections with the proposed expressway were not analyzed by the traffic study. For more details on the locations of all the proposed future intersections, see Section 2.1.1.2. See Figure 2-2 for a map showing the new and existing intersections for Alternative A and for Alternative B.

If either build alternative were constructed, the level of service of State Route 25 through the intersections discussed below would be able to be maintained at level of service A or B through 2035, except at the signalized intersections, which would be at level of service C or above.

No-Build Alternative

If neither Alternative A nor Alternative B is selected and constructed, congestion would increase. Average travel speeds on the existing two-lane highway between San Felipe Road and Hudner Lane are predicted to deteriorate to 37.4-38.8 miles per hour during the morning peak hour in 2035, and the percentage of time spent following another vehicle would increase to 90.9-92.4%. During the evening peak hour, average traffic speed would be 38.8-40.4 miles per hour, and the percent-time-spent-following another vehicle is projected to increase to 89.3-91.2%.

By 2035, the existing San Felipe Road signalized intersection would drop to level of service D during the evening peak traffic hour. At the State Route 156 signal, morning peak hour level of service for the existing intersection would have declined to level of service E, with level of service D during the evening peak traffic hour. Drivers turning from Flynn Road onto the highway or from the highway onto Flynn Road would encounter level of service F during the morning peak traffic hour and a slightly better level of service E during the evening peak traffic hour. Vehicles crossing State Route 25 or turning on to it in either direction from Wright Road and from the southern Briggs Road intersection would experience level of service F during both the morning and the evening peak hours.

Transportation and Parking

An existing Park and Ride lot across from Briggs Road in front of the Sheriffs' Training Center (shooting range) was closed about three years ago because it was not being used as intended, for people to park their vehicles and carpool. According to the Caltrans District 5 Park and Ride Coordinator, no need has been communicated to him and no

request has been made for an additional Park and Ride in Hollister. Alternative A would affect this lot, which lies within the Caltrans right-of-way. No other public or business parking would be affected by this project.

This project would not build bike lanes, however the 10-foot paved shoulders would be open to bicyclists. The local frontage roads would also be available for bicycle riders. Sidewalks are not planned at the proposed future State Route 25/State Route 156 interchange.

The San Benito County Express Transit System provides public transit service within the county and provides limited weekday bus service via State Route 25 to three locations in Gilroy: Gavilan College, the Caltrain station, and the Greyhound bus station.

Currently, only San Benito County High School has a bus stop on State Route 25, and this bus stop is used only in the morning.

During construction, public transportation may experience temporary delays and may have limited access to the project area, which would require adjustments.

Avoidance, Minimization, and/or Mitigation Measures

A Transportation Management Plan has been prepared for the proposed build project. During construction, this plan would be implemented to accommodate local traffic and reduce delay, congestion, and accidents. Standard Caltrans construction practices include information on roadway conditions, portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and a traffic contingency plan for unforeseen circumstances and emergencies. Before construction, Caltrans would meet with local public officials to review the plan as well as publicize plan details. Construction may be scheduled to avoid areas that need access during certain seasons.

As a part of incident management for this project, a Construction Zone Enhanced Enforcement Program (COZEEP) would be required. This policy mandates close collaboration between Caltrans and the California Highway Patrol on specific construction projects to increase safety for workers and the traveling public in highway work zones. Nighttime work may be used to limit traffic disruptions. Most of the construction work proposed could be done outside of the existing alignment or behind temporary barriers, minimizing the amount of time that lane closures would be necessary.

The need to relocate the Park and Ride lot and determination of a new location would be determined in coordination with the Council of San Benito County Governments and the City of Hollister.

3.1.8 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings [42 U.S. Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 U.S. Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

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

Affected Environment

A Visual Impact Assessment was completed for this project in July 2008.

The project setting consists mainly of open space and sparse development, which together create a predominately rural feeling. A backdrop of distant mountain terrain complements the patchwork of valley farmland (row crops, orchards and grazing fields) that dominates the landscape and is an important part of the area’s high visual quality.

The generally straight alignment of the existing two-lane highway bisects the broad flat valley plain and is intersected by State Route 156 and several local roads. The Pajaro River and Carnadero Creek, which cross State Route 25 near its western end, are marked in the landscape by meandering lines of tall green riparian trees and scrub that contrast with the cultivated patterns of low farm fields and the distant grass and oak-covered hills. Railroad tracks also run through the valley and cross the highway. Scattered rural residences, outbuildings, and some commercial structures are seen along the highway and local roads, but are not visually prominent. Long rows of trees are seen in a few

locations, and views of barns and farmhouses typify the rural character of the area and support its agricultural identity.

Most of the view along State Route 25 is expansive and unconstrained in all directions, with panoramic views of distant ridgelines and surrounding farmland. The western end of State Route 25 at the U.S. 101 interchange and its eastern end at San Felipe Road in Hollister define the limits of a distinctive landscape unit for the project. The existing scene is rated high to moderately high for vividness, intactness, and unity. The continuity of the view from the road contributes most to the motorist's experience of regional scenic beauty. Elements including utility poles and overhead lines, traffic signs, signals, and light poles are present and detract occasionally from foreground views, but are relatively unobtrusive in contrast with scenic mid-ground and distant views. A fringe of commercial and suburban development encroaches on rural views near Hollister.

The major viewer group affected by the project would be highway drivers, both local and regional. There are no views from adjacent public properties such as parks. Other viewer groups such as residents already living along the highway are low in number.

Community sensitivity to visual issues, as reflected in local planning documents, is considered to be high with regard to protecting the rural character of the area. Existing scenic qualities and landscape resources identified as being highly valued by the community include:

- Agricultural heritage and rural character and quality of life
- Rural and historic architecture
- The natural world, including night sky observation
- Access to natural areas and recreational uses
- Landscaping

Community members support farming and ranching, and favor preserving open space and using green buffers between development and the existing landscape. Residents favor restricting hillside and ridgeline development to help preserve the rural character of the region. Historic architecture is valued by the community. Protection of vegetation, wildlife habitat, and waterways is seen as a means of preserving views of the natural world. Local residents favor reducing light pollution to preserve the quality of night sky observation. They favor protecting natural beauty and maintaining recreational uses in the area. Creating gateways to the City of Hollister, along with promoting tourism, would contribute to a positive community image in the view of residents. Preserving trees, using

landscaping to screen unattractive views and frame attractive views, and conserving visual resources are all locally supported.

Visual changes viewed as negative by the community include the following:

- Loss of open space and/or agricultural lands
- Loss of open space buffers between communities
- Unconsolidated development, suburban sprawl, and leap-frog growth
- Hillside development or blocked hillside views
- New utility poles and overhead lines
- Obtrusive nighttime lighting and glare

A “viewshed” is defined as the entire area, including the sky, visible from an observer’s viewpoint. The viewshed of State Route 25 is generally unconstrained and is only momentarily interrupted by intermittent features in the foreground. Trees and human-made features are generally confined to the foreground and are scattered along the road edge. The viewshed is expansive in all directions, with panoramic views of the distant ridgelines. As the highway approaches the City of Hollister, the viewshed is hemmed in by adjacent development. Viewshed elevations of the existing roadway range from about 270 feet above sea level near Hollister to 160 feet near Bloomfield Avenue.

Key observer viewpoints are specific locations from which the visual conditions of the proposed project can be assessed. Photos and visual simulations of future conditions are in Appendix G.

Environmental Consequences

Viewers of the existing highway would have various reactions to the change from a two-lane highway to a four-lane expressway. Viewers would be either viewing the scene from a vehicle on the expressway or viewing the expressway from a near, medium, or far distance. Viewers would be:

- Local residents and regular travelers, using the highway for local trips or for commuting
- Intermittent regional users and recreational travelers using the highway to reach a planned destination or a spontaneous trip
- Commercial truck drivers, using the road for agricultural and commerce-related trips
- Local residents, viewing the visual changes from other public spaces, their place of business, or residence

Viewers *from* the road would be:

- Regular highway travelers and local commuters
- Intermittent highway users and recreational travelers

Viewers *of* the road would be:

- Residents living adjacent to the highway or within view of the highway
- Businesses adjacent to the new highway
- Pedestrians and recreational users

A Visual Quality Evaluation was performed by scoring the existing landscape at each key observer viewpoint on vividness, intactness, and unity. Vividness is expressed by how easily a view forms a distinctive visual pattern in the mind that the viewer is likely to remember. Intactness refers to the degree that a view, whether of the natural environment or of human-made structures, has kept its typical elements over time. Unity represents the degree to which the landscape elements join together to form an ordered, harmonious visual pattern.

After the existing views were evaluated, a simulated view of the proposed four-lane expressway at each viewpoint was analyzed. The scoring between the existing and the simulated views was compared to obtain the amount of landscape quality change. The scores were expressed in words as “low,” “medium,” or “high.” The key observer viewpoints are shown in Appendix G, and the analysis is in Appendix H.

Table 3.15 shows the results of the qualitative visual quality scoring for all seven key observer viewpoints.

Table 3.15 Rating of Visual Quality for Alternatives

Viewpoints		Existing (No-Build Alternative)	Route Adoption Alternatives		Build Alternatives	
			1	2	A	B
1	East toward Carnadero Creek	High	Moderately high	Moderately high	n/a	n/a
2	East at Bolsa Road	Moderate	Moderate	Moderate	n/a	n/a
3	East – typical view	Moderately high	Moderately high	Moderately high	n/a	n/a
4	East at Hudner Lane	Moderate to moderately high	Moderate to moderately high	Moderate to moderately high	n/a	n/a
5	East to State Route 25/State Route 156 area	High	n/a	Moderately low	n/a	Moderately low
6	East at Wright Road	Moderate	n/a	n/a	Moderate	n/a
7	East at Wright Road (another view)	Moderate to moderately high	n/a	n/a	n/a	Moderate

Route Adoption Alternatives

Visual impacts that would occur if either of the route adoption alternatives, Alternative 1 or Alternative 2, were constructed include loss of vegetation and increased paved surface in previously undeveloped land, and diminished rural agricultural character in general. Alternative 1 would remove fewer existing rural buildings than would Alternative 2. The large overhead structures (bridges) would create visual impacts.

Storm water pollution prevention features such as biofiltration swales and strips would generally blend with the surrounding vegetation, but they would be wider than existing ditches. Detention or infiltration basins would look like retention ponds.

Build Alternatives

Visual impacts caused by the build alternatives, Alternatives A and B, would include loss of agricultural vegetation, loss of mature trees, removal of rural buildings, and increased

paved surface in previously undeveloped land. The encroachment of human-made elements such as fencing, signs and lighting into the scene are also visual impacts. The vividness, intactness, and unity of the visual scene would decrease, leading to a less rural visual experience along the corridor under either proposed build alternative.

What local viewers would notice the most would be the raised profile of the road, the expanded lanes of the new expressway, the wide median, and new right-of-way fencing, which would all combine to visually separate the road much more distinctly from its rural context. The expressway would put distance between the motorist and the detailed and scenic foreground views of agricultural crops that characterize the visual quality of the existing landscape along the two-lane highway, leading to a diminished rural agricultural character in general.

Storm water pollution prevention features such as biofiltration swales and strips would generally blend with the surrounding vegetation, but they would be wider than existing ditches. Detention or infiltration basins would look like retention ponds.

Alternative B would result in slightly more change and a somewhat greater loss of overall visual quality than Alternative A because it would expand pavement, signs, fencing, and some utilities into previously undeveloped agricultural land. Although Alternative B would have lower potential impacts to rural buildings along the existing highway than Alternative A, Alternative B would be a greater change from the existing rural condition and would likely be a more noticeable visual change in the local community than Alternative A. Because Alternative A would be aligned to the east of existing State Route 25 and would be adjacent to the future airport industrial expansion area, and because it would intersect with State Route 156 east of the current highway, there would be less visual fragmentation of the valley landscape over time than would result from Alternative B.

Temporary impacts during construction would include views of construction signs, disposal sites, material storage, and construction equipment that would briefly detract from the visual quality of the area. Temporary negative visual impacts could affect local community events.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

See Appendix H for recommended detailed avoidance, minimization and mitigation measures for the route adoption alternatives, Alternatives 1 and 2.

Build Alternatives

Avoidance, minimization, and mitigation measures for the build alternatives, Alternatives A and B, would give the expressway an overall sense of visual unity without being monotonous:

- Grading would be done carefully to avoid the loss of mature trees as much as possible.
- New right-of-way fencing would be rural in character: barbed wire or wire mesh on metal posts.
- Detention or infiltration basins would be designed to appear natural and would be shallow so that they would not require fencing.
- Only the number of road signs needed would be used.
- All lighting would be shielded.
- Erosion-control seeding would integrate the new expressway into the general scene.
- The bold scale of planting reminiscent of agricultural windrows or windbreaks (long rows of trees) at a few key locations along the corridor would further tie the region together visually and would provide an appropriate balance to mitigate for the wider expanses of paved area added to the project area. Using a consistent combination of plant varieties would mitigate potential cumulative impacts by increasing visual continuity in the corridor while at the same time providing a distinct and unified regional rural theme. The planted median would have a neutral visual impact because, although it results in a wider overall footprint for both alternatives, the median would be a vegetated buffer between the paved expanses of the expressway lanes and the frontage road system.
- Distinctive landscape planting near the San Felipe Road intersection would strengthen the “gateway” feeling and mark the transition from the expressway into the city.
- Mitigation planting of simple masses and varied-size plant material at the State Route 156 intersection and other key crossroad areas would make the expressway and frontage roads more visually compatible with the natural feeling of the surrounding environment. It would also speed up the screening of undesirable paving views from certain locations.

Temporary visual impacts would be minimized by screening construction trailers and stockpiles in residential and business areas if requested. The contractor would comply with San Benito County’s “dark sky” restrictions on night lighting during construction.

Temporary haul roads, detours, and staging areas would be located to protect existing vegetation as much as possible.

See Appendix H for detailed avoidance, minimization and mitigation measures for the build alternatives, Alternatives A and B.

Cumulative Impacts

In 1996, the State Route 156 Bypass was constructed to re-route truck traffic away from downtown Hollister and included the installation of traffic signals at the intersection of State Routes 25 and 156. Safety improvements such as shoulder widening, soft median barrier, and rumble strips were also added to State Route 25 over the last 10 years. These projects did little to alter the appearance of the road. Until now, the farming heritage of the region has preserved the road's picturesque and pastoral character, and the existing, simple, undivided two-lane highway complements that rural appearance. However, the corridor that has been used historically for access of trucks and farm equipment to agricultural production areas now also carries large numbers of suburban commuters, and the visual landscape is at a tipping point toward a more engineered look.

In February 2009, construction was completed on the Route 25 Bypass four-lane expressway, which runs from Sunnyslope Road to San Felipe Road around downtown Hollister. The new bypass includes long sound walls and other roadway features similar to those proposed by this project. Concrete median barrier that will be constructed in 2009 by the State Route 25 Safety and Operations Enhancement project from Hudner Lane to the county line will further increase the presence of human-made features in the visual environment.

Both Alternatives A and B would join the new Route 25 Bypass expressway at San Felipe Road. The expanded paved area of the proposed alternatives would cover more than twice the surface area of the existing highway and would substantially increase the magnitude of engineered elements seen. Loss of agricultural vegetation and trees and the change in scale created by the expanded footprint and reconfigured frontage and local road systems would diminish the vividness, intactness, and unity of the scene overall, leading to a less rural character under either Alternative A or Alternative B.

The cumulative effect of future transportation projects will likely become more noticeable as the large scale of those changes would be more visually evident. Perception of change on State Route 25 would be amplified by similar expansive changes to adjacent U.S. 101 and nearby stretches of rural highway such as State Routes 152 and 156.

Changes anticipated to be made at the U.S. 101/State Route 25 interchange are likely to have impacts on the visual quality of proposed route adoption Alternatives 1 and 2. The route adoption in and of itself would not physically change the visual landscape of State Route 25 except that it may help to preserve existing land uses and therefore existing views. However, in the future, if features proposed as part of the U.S. 101 widening project or either route adoption alignment were to be built, the area would experience further urbanizing visual change. Negative impacts to vividness, intactness and unity could result due to the loss of natural vegetation or cultivated planting from foreground views and the increased encroachment of human-made elements into the pastoral scene. Views of distant mountains and the feeling of open space would likely be retained, however change to a more homogenous, groomed and expanded expressway configuration would generally diminish the rural feeling of the area. Outside the confines of the highway right-of-way, other potential land use changes could affect the intactness of the view from the road due to loss of farmland and blocking of distant views, and would likely contribute to a further decrease in the scenic rural character for drivers.

3.1.9 Cultural Resources

Regulatory Setting

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

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800).

On January 1, 2004, a Section 106 Programmatic Agreement among the Advisory Council, the Federal Highway Administration, the State Historic Preservation Officer, and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council’s regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal

Highway Administration's responsibilities under the agreement have been assigned to Caltrans as part of the Surface Transportation Delivery Pilot Program (23 Code of Federal Regulations 773) (July 1, 2007).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties. See Appendix C for specific information on Section 4(f).

Historical resources are considered under the California Environmental Quality Act, as well as California Public Resources Code Section 5024.1, which established the California Register of Historical Resources. Section 5024 of the Public Resources Code requires state agencies to identify and protect state-owned resources that meet listing criteria for the National Register of Historic Places. It further specifically requires Caltrans to inventory state-owned structures in its right-of-way.

Affected Environment

Caltrans completed a Historic Property Survey Report and supporting technical documents in December 2006 and submitted them to the State Office of Historic Preservation on December 6, 2006. The State Office of Historic Preservation concurred with the eligibility determinations on March 21, 2007, documented in the Historical Property Survey Report (see Appendix I, State Office of Historic Preservation Concurrence Letters).

Portions of the area of potential effects for this project were covered by two other transportation projects: the State Route 156 Hollister Bypass Project in 1990 and the State Route 152 Corridor Relocation Project in 1991 and 1992. The State Office of Historic Preservation concurrence for the latter project is also provided in Appendix I.

Archaeological Resources

The archaeological area of potential effects includes all areas of the route adoption alternatives and the build alternatives where any ground-disturbing activities are expected to take place in the future as a result of the project. The area defined includes all construction areas, equipment staging and material storage areas, easements, and areas where additional right-of-way would be needed.

The archaeological resources investigations were designed to find previously recorded sites, survey the project vicinity for previously undiscovered historic and prehistoric archaeological sites, and collect archival information from various facilities. Archival

record searches and library research were conducted before fieldwork for the prehistoric archaeological surveys and built-environment surveys.

Previous archaeological surveys within the project limits were conducted for two other Caltrans projects between 1990 and 1993. During those studies, four archaeological sites within the current project area of potential effects were evaluated for their eligibility for listing on the National Register of Historic Places. Site CA-SCL-698 was determined eligible; CA-SCL-699/H was determined ineligible; the prehistoric component of CA-SCL-308H was determined eligible, while the historic portion was unevaluated; and the prehistoric component of CA-SCL-577/H was determined eligible, while the historic component was unevaluated. The State Office of Historic Preservation concurred with the eligibility determinations in a letter dated January 28, 1994 (see Appendix I, State Office of Historic Preservation Concurrence Letters).

In 2002, an intensive on-foot archaeological field survey of the project's area of potential effects was conducted.

A geoarchaeological study was conducted in 2003 to help identify areas that have the likelihood to contain buried archaeological sites. This study included a survey of two areas using ground-penetrating radar and electromagnetic induction to identify possible historical archaeological features that might exist within the cultural resources study area. These include the foundation of the Mariano Castro adobe and the foundation of the 1888 mansion of Henry Miller. Although possible historic features were found, no excavations were conducted to expose them because these areas are outside the revised archaeological area of potential effects.

A supplemental archaeological survey and Extended Phase I testing for potential buried sites were conducted in 2004 using the archaeological sensitivity model developed from the geoarchaeological study in 2003. None of the trenching that was done revealed buried archaeological deposits. Also in 2004, a second round of Extended Phase I investigations determined where the site boundaries exist in relation to the project design at sites CA-SBN-243 and CA-SCL-495. Due to the discovery of human remains at both sites, larger scale excavations designed to evaluate each site for the National Register of Historic Places were not undertaken. The project was redesigned to avoid these sensitive sites.

In 2004, a Phase II archaeological evaluation was conducted by archaeologists at CA-SCL-841H to determine if this historic site were eligible for listing on the National Register of Historic Places. The excavation revealed that the site contains a mixed collection of a small number of artifacts, and lacks quantity, integrity, or association with

important persons or events, so it is not eligible for the National Register of Historic Places.

In 2005, due to design changes, a second supplemental archaeological survey was performed.

Seven archaeological sites, which are eligible for the National Register or are assumed eligible for the purposes of this project or have not been evaluated, would be avoided during construction. Two sites were determined by Caltrans to be ineligible for the National Register.

Built-Environment Historical Resources

The architectural area of potential effects includes not only the area delineated by the archaeological area of potential effects, but also parcels occupied by buildings and structures constructed in 1959 or earlier.

The architectural area of potential effects contains 72 built-environment resources; one of these resources was determined eligible for the National Register of Historic Places before this investigation: CA-SCL-697/H, also known as the Bloomfield Ranch Headquarters. Of the remaining 71 built-environment resources, 18 were determined to be ineligible for the National Register of Historic Places in 1994, and 53 resources were determined ineligible during this investigation.

In 2003, a survey of the historical buildings, roads, railroads, and bridges within the area of potential effects was prepared. In 2005, due to design changes, a supplemental study was conducted by Caltrans.

Environmental Consequences

Route Adoption Alternatives

In the future, the route adoption alternatives, Alternatives 1 and 2, would include construction on State Route 156 of the approaches to the interchange proposed at State Routes 25 and 156. Alternative 1 was redesigned to avoid site CA-SBN-243, but construction would take place adjacent to it. This archaeological site would be designated as an Environmental Sensitive Area during construction. An environmentally sensitive area is a defined area containing sensitive resources that are to be protected by avoidance or by restrictions on activities during construction and maintenance.

The proposed route adoption would not affect any cultural resources protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, if future construction occurs within the proposed alignments.

The Historic Property Survey Report and supporting technical studies were submitted to the State Office of Historic Preservation on December 6, 2006. The State Office of Historic Preservation concurred with Caltrans' determinations in the report on March 21, 2007 (see Appendix I for the State Office of Historic Preservation Concurrence Letters).

Build Alternatives

No cultural resources eligible for the National Register of Historic Places or the California Register of Historical Resources would be affected by either Alternative A or Alternative B.

The proposed project would not affect any cultural resources protected under Section 4(f) of the U.S. Department of Transportation Act of 1966.

The Historic Property Survey Report and supporting technical studies were submitted to the State Office of Historic Preservation on December 6, 2006. The State Office of Historic Preservation concurred with Caltrans' determinations in the report on March 21, 2007 (see Appendix I for the State Office of Historic Preservation Concurrence Letters).

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

The proposed alignments of Alternative 1 and Alternative 2 were developed to avoid cultural resources to the maximum extent practicable. A finding of No Adverse Effect with Standard Conditions for this project was made by Caltrans, and a letter of notification was sent to the State Historic Preservation Officer on August 14, 2008. The conditions under which Caltrans made this finding are outlined in an Environmental Sensitive Area Action Plan prepared in August 2008.

In the future, if Alternative 1 is selected and the interchange at State Routes 25 and 156 is eventually constructed, site CA-SBN-243 would be protected from potential construction impacts by designating an Environmental Sensitive Area, as outlined in the Environmental Sensitive Area Action Plan.

Build Alternatives

The proposed alignments of Alternative A and Alternative B were developed to avoid cultural resources to the maximum extent practicable. A finding of No Adverse Effect

with Standard Conditions for this project was made by Caltrans, and a letter of notification was sent to the State Historic Preservation Officer on August 14, 2008. The conditions under which Caltrans made this finding are outlined in an Environmental Sensitive Area Action Plan prepared in August 2008.

If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains were discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the county coroner contacted. Pursuant Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, which would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact the Central Coast Specialist Branch of the Environmental Division of Caltrans District 5 in San Luis Obispo so that that branch can work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 would be followed as applicable.

3.2 Physical Environment

3.2.1 Hydrology and Floodplain

Regulatory Setting

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

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project

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

Affected Environment

Caltrans completed a Location Hydraulic Study for this project in April 2007. An addendum was written in September 2008.

For this study, Flood Insurance Rate Maps were consulted, the Federal Emergency Management Administration (FEMA) hydraulic calculations were reviewed, and a field review was performed. The study also took into consideration the construction of a new State Route 25 and U.S. 101 interchange, which is proposed as part of the U.S. 101 Widening Project State Route 129 to Monterey Road project, and the transition between the two projects.

The project lies in an area of northern San Benito County and southern Santa Clara County. San Benito County lies along the alignment of the Diablo Range, which stretches from as near as 10 to as much as 70 miles from the Pacific Ocean. The topography in the county is varied, from rolling hills to broad valleys, narrow passes, and mountains. The county ranges in elevation from 76 feet to 3,801 feet. The streams that drain the county flow from the southeast and northeast, emptying into the Pajaro River, which in turn empties into the Pacific Ocean.

Santa Clara County consists of a flat alluvial plain flanked by the Santa Cruz Mountains and the Diablo Range to the west and east. Most of the Santa Clara Valley consists of level terrain that gives way to rolling foothills. The elevations in Santa Clara County range from 140 feet to 1,200 feet. The county slopes toward the south and the Pajaro River.

Both counties have warm summers and cool, moist winters. Normal temperatures range between 46 and 73 degrees Fahrenheit, although occasionally summer temperatures rise above 100 degrees Fahrenheit. Although the winters are generally mild, temperatures may drop substantially for short periods of time. The average yearly rainfall reported for the City of Hollister is 13 inches and 21.7 inches for San Juan Bautista, while the annual rainfall in Santa Clara County is 20 inches. Nearly all of the rainfall occurs from October through May.

Based on Flood Insurance Rate Maps Numbers 06069C0080 C and 06069C0025 C dated September 27, 1991, the area between post miles 51.5 and 59.6 in San Benito County is

designated as Zone X. Zone X is defined by the Flood Insurance Rate Maps as “Areas determined to be outside the 500-year flood plain.” Based on Flood Insurance Rate Maps Numbers 06069C0025 C dated September 27, 1991 and 0603370760 F dated August 17, 1998, the area between post miles 59.6 and 60.1 in San Benito County and the area between post miles 0.0 and 2.0 in Santa Clara County is designated as Zone A. Zone A is defined as “Areas of 100-year flood; base flood elevations and flood hazards factors are not determined.”

This floodplain of the Pajaro River, called the Soap Lake Floodplain, is shown in Appendix Q.

Environmental Consequences

Route Adoption Alternatives

Both route adoption alternatives would encroach on the floodplain within post miles 59.6 to 60.1 in San Benito County and post miles 0.0 to 2.0 in Santa Clara County. The proposed alignment, which is the same for both Alternative 1 and Alternative 2 in this area, crosses the Pajaro River at the San Benito/Santa Clara county line and crosses Carnadero Creek at post mile 1.54 in Santa Clara County. Caltrans has determined that neither route adoption alternative, Alternative 1 or Alternative 2, would support an incompatible floodplain development or constitute a significant floodplain encroachment as defined in 23 Code of Federal Regulations, Section 650.105(q). Although both route adoption alternatives transversely encroach on the 100-year floodplain (Zone A), avoidance measures would be adopted to avoid or minimize any change to the natural flow of water. The proposed project would not be a longitudinal encroachment on the floodplain.

The level of risk associated with constructing an expressway as proposed for this project is low. This project would not cause any significant impacts on the natural and beneficial floodplain values.

The project limits of the build alternatives are not located within the 100-year flood plain (Zone A), but begin and end within Zone X, which is defined as areas determined to be outside the 500-year floodplain. Caltrans has determined that the build alternatives (Alternatives A and B) do not constitute a significant floodplain encroachment as defined in 23 Code of Federal Regulations, Section 650.105(q).

Build Alternatives

The project limits of the build alternatives are not located within the 100-year flood plain (Zone A), but begin and end within Zone X, which is defined as areas determined to be

outside the 500-year floodplain. Caltrans has determined that the build alternatives (Alternatives A and B) do not constitute a significant floodplain encroachment as defined in 23 Code of Federal Regulations, Section 650.105(q).

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

State Route 25 would be placed on an embankment within the floodplain area. The project would install a combination of drainage ditches, cross culverts, and new bridges at the Pajaro River and Carnadero Creek to allow floodwaters to pass and flow in their historic patterns. In the event of a flood, these openings in the roadway embankment, bridges and culverts would allow floodwaters to pass and follow their historic patterns and therefore, not substantially affect the base flood elevations. When construction is proposed in the future for the floodplain area, Caltrans will coordinate with the Pajaro River Watershed Flood Prevention Authority as a Tier II environmental document is in preparation for the project.

Build Alternatives

Because Alternative A and Alternative B are not located within the 100-year floodplain, avoidance, minimization, and mitigation measures are not needed.

3.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board when the project requires a federal permit. Typically, this means a Clean Water Act Section 404 permit to discharge dredge or fill into a water of the United States, or a permit from the Coast Guard to construct a bridge or causeway over a navigable water of the United States under the Rivers and Harbors Act.

Along with Clean Water Act Section 401, Section 402 establishes the National Pollutant Discharge Elimination System for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the National Pollutant Discharge Elimination System program to the State Water Resources Control Board and the nine Regional Water Quality Control Boards. To ensure compliance with Section 402, the State Water Resources Control Board has developed and issued Caltrans a National Pollutant Discharge Elimination System Statewide Storm Water Permit to regulate storm water and non-storm water discharges from Caltrans'

right-of-way, properties and facilities. This same permit also allows storm water and non-storm water discharges into waters of the State pursuant to the Porter-Cologne Water Quality Act.

Storm water discharges from Caltrans' construction activities disturbing one acre or more of soil are permitted under the Caltrans Statewide Storm Water National Pollutant Discharge Elimination System permit. These discharges must also comply with the substantive provisions of the State Water Resources Control Board's Statewide General Construction Permit. Non-Caltrans construction projects (encroachments) are permitted and regulated by the State Water Resources Control Board's Statewide General Construction Permit. All construction projects exceeding one acre or more of disturbed soil require a Storm Water Pollution Prevention Plan to be prepared and implemented during construction. The Storm Water Pollution Prevention Plan, which identifies construction activities that may cause discharges of pollutants or waste into waters of the United States or waters of the State, as well as measures to control these pollutants, is prepared by the construction contractor and is subject to Caltrans review and approval.

Finally, the State Water Resources Control Board and the Regional Water Quality Control Boards have jurisdiction to enforce the Porter-Cologne Act to protect groundwater quality. Groundwater is not regulated by federal law, but is regulated under the state's Porter-Cologne Act.

Affected Environment

Caltrans completed a Water Quality Assessment Report in March 2009 for the proposed project. The Water Quality Assessment identifies impacts on surface water and groundwater resources resulting from the project and describes any necessary avoidance, minimization, and mitigation measures.

Major surface waters of the area are the Pajaro River and Carnadero Creek. The project sits within the Pajaro River watershed, also known as a drainage basin.

The Pajaro River is the main water body in the area. The river carries a total area of 844,972 acre-feet of water. It drains an area of approximately 1,300 square miles of the coastal plains and mountains of Central California, including portions of Santa Cruz, Monterey, Santa Clara, and San Benito counties, and enters the ocean in Monterey Bay near Watsonville.

Carnadero Creek crosses the southern portion of Santa Clara County and drains into the Pajaro River. It flows steadily and slowly within its rocky banks. The bottom of the creek

varies in width from about 18 inches to 3 feet and contains mostly rocks with minimal amounts of sediments.

The proposed project is located within the jurisdiction of the Central Coast Regional Water Quality Control Board. The Central Coast Regional Water Quality Control Board has adopted the Water Quality Control Plan (Basin Plan) for the Central Coast Region, which includes the Pajaro Valley Basin. The board's regional analysis of surface and groundwater water included the Pajaro River as one of the major water bodies targeted for study due to sedimentation, heavy metals, and nitrates.

The Pajaro River is listed on the California 303(d) list of water bodies that exceed allowable limits (loads) of particular pollutants, measured as Total Maximum Daily Loads. Total Maximum Daily Loads have been set for nutrients (nitrate) and sedimentation/siltation. The pollutant/stressors include boron and fecal coliform. A Total Maximum Daily Loads investigation is ongoing for fecal coliform in the Pajaro River. The water quality of the Pajaro River is considered to be impaired under Section 303 (d) of the Clean Water Act.

The other surface water body, Carnadero Creek, has generally good water quality and is not included in the 303(d) list as being impaired. No Total Maximum Daily Loads have been identified for this water body.

To address the exceedances of the Total Maximum Daily Loads for the Pajaro River, the Soap Lake floodplain is being restored to enable the City of Watsonville, located downstream, to meet set water quality goals and to provide additional flood protection. The Soap Lake floodplain extends from San Felipe Lake to U.S. 101 in Santa Clara and San Benito counties. It surrounds the Pajaro River and includes Carnadero Creek within the project area. San Felipe Lake is located at the headwaters of the Pajaro River just south of State Route 152 in San Benito County. Pacheco Creek and the Santa Ana-Los Viboras-Dos Pichachos Creek system drain into San Felipe Lake.

At high storage levels, the floodplain and San Felipe Lake can become one large flood control storage facility. For smaller floods, Soap Lake and San Felipe Lake are two separate storage bodies.

Soap Lake, which consists of land that is mainly agricultural, acts as a natural detention basin during large rainstorms and reduces peak flood flow from the Upper Pajaro River watershed. The floodplain, along with the Lower Pajaro River levee flood control project, protects the town of Watsonville, downstream near the mouth of the river, from floods. A

Joint Powers Authority has been formed between the four counties and four water districts within the Pajaro River watershed to create the Pajaro River Watershed Flood Prevention Authority.

The project is located in the Pajaro Valley Groundwater Basin. The Pajaro River stream flow and local runoff are the two sources of surface water available for groundwater recharge. Long-term groundwater levels in the area have been declining for about the last 50 years due to excessive seasonal pumping. Almost all of the water used to support the huge agricultural industry in the watershed comes from underlying aquifers. In addition, there is widespread contamination of the upper aquifers by nitrates. The conclusion drawn in the Central Coast Water Quality Control Board Pajaro Valley Basin Plan is that the main source of the contamination is agriculture.

Nitrate contamination of groundwater has been identified as a serious water quality problem in the groundwater water basin for many years. Tests of agricultural wells indicate the presence of nitrates in groundwater throughout the basin. Although septic systems, improper handling and storage of farm chemicals, and relatively small-scale confined animal facilities have most likely contributed to the nitrate loading, there is general agreement that crop application is the main nitrate source. As of 1993, average nitrate concentrations in the 180-foot aquifer approached or exceeded the maximum drinking water standard in three of the basin's four hydrologic sub-basins. Between 1987 and 1993, average nitrate concentrations increased in the second-deepest regional aquifer (400 feet deep). This signifies that nitrate contamination is spreading from the uppermost regional aquifer to a deeper zone that had been characterized by higher quality water.

Environmental Consequences

Physical, chemical, and biological factors that can affect water quality and potential short-term impacts to water quality due to each factor are shown for each alternative in Table 3.16.

Table 3.16 Potential Water Quality Impacts of Proposed Alternatives

Factor	Route Adoption Alternatives		Build Alternatives		No-Build Alternative
	Alternative 1	Alternative 2	Alternative A	Alternative B	
Site Topography	Short-Term	Short-Term	Short-Term	Short-Term	None
Vegetation Cover	Short-Term	Short-Term	Short-Term	Short-Term	None
Drainage or Runoff Patterns	Short-Term	Short-Term	Short-Term	Short-Term	None
Soil Erosion	Short-Term	Short-Term	Short-Term	Short-Term	None
Floodplain Area	Short-Term	Short-Term	None	None	None
Groundwater	None	None	None	None	None
Temperature	None	None	None	None	None
Turbidity (water cloudiness)	Short-Term	Short-Term	None	None	None
Dissolved Oxygen	Short-Term	Short-Term	None	None	None
Nutrients (primarily nitrogen and phosphorous)	Short-Term	Short-Term	Short-Term	Short-Term	None
Organic and Inorganic Chemicals	Short-Term	Short-Term	Short-Term	Short-Term	None
Alkalinity and pH	Short-Term	Short-Term	None	None	None

Source: Water Quality Assessment (August 2009)

Route Adoption Alternatives

Caltrans has concluded that, by incorporating proper and accepted engineering practices and best management practices, Alternatives 1 and 2 would not have substantial impacts to water quality during future construction or operation. Long-term water quality impacts are not expected. These alternatives are assumed to have similar water quality impacts because they would have approximately the same amount of paving and other hard surfaces within the completed project: 232 acres for Alternative 1 and 244 acres for Alternative 2.

The proposed water treatment methods for the route adoption alternatives are infiltration devices as well as biofiltration swales and strips. Caltrans would store all runoff within its right-of-way in ditches, which would eventually flow into Carnadero Creek and the Pajaro River.

The route adoption alternatives include future construction of new bridges over the Pajaro River and Carnadero Creek. Bridge construction would occur within both waterways, potentially resulting in short-term impacts from demolition, excavation, grading, and filling activities. These construction activities result in loose soil and an increase in sediments, which affect turbidity (the clearness of the water). Suspended solids, dissolved solids, and organic pollutants in surface water runoff (agricultural sources) could increase as nearby soils are disturbed and dust is generated.

Long-term impacts could include a change in erosion patterns and surface water velocity due to minor increases in impervious (solid) surfaces resulting from the tapering of shoulders around bridges and intersection realignments. The net change from intersection realignments is expected to be close to zero.

Build Alternatives

By incorporating proper and accepted engineering practices and best management practices, Alternatives A and B would not have any direct, indirect, or long-term impacts to water quality or groundwater. The two build alternatives are assumed to have similar water quality impacts. Alternative B would have six more acres of paving and other hard surfaces within the completed project (54 acres) than Alternative A (48 acres). This would not be the result of new construction; more of the existing paved roadway would be used for frontage roads under Alternative B.

The proposed water treatment methods for this project are infiltration devices as well as biofiltration swales and strips. Caltrans would store all runoff within its right-of-way in ditches, which would eventually flow into Carnadero Creek and the Pajaro River. A final determination on managing the runoff will be made by the Caltrans Hydraulics and Storm Water branches.

The net change from intersection realignments is expected to be close to zero.

No groundwater impacts are expected from Alternative A or Alternative B. Several agricultural groundwater wells were found during a site visit. Some of the wells had no pumps or power, while others appeared to still be in use. These wells would require proper abandonment.

Neither surface nor groundwater quality would be affected by the No-Build Alternative.

During construction, short-term impacts to surface water quality could occur. The primary impacts would be from demolition and from exposure to loose soil during excavation, grading, and filling activities during construction. Suspended solids, dissolved solids and organic pollutants in surface water runoff (from agricultural sources) could increase as nearby soils are disturbed and dust is generated. Any short-term impacts to surface water quality during construction of this project would be minimal with the use of avoidance and minimization measures.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

During the planning, design, construction, and operational and maintenance stages of future construction projects within a route adoption alignment, management measures and best management practices would be implemented to minimize and address potential water quality impacts.

Build Alternatives

During the planning, design, construction, and operational and maintenance stages, management measures and best management practices are developed and implemented to minimize and address potential water quality impacts of either Alternative A or Alternative B. Highway runoff would be routed away from the highway via culverts and other water control devices approved in the Storm Water Management Plan.

Key management measures for roads, highways, and bridges include:

- Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss.
- Limit land disturbance such as clearing and grading and cut/fill to reduce erosion and sediment loss.
- Limit disturbance of natural drainage features and vegetation.
- Place bridge structures so that sensitive and valuable aquatic ecosystems are protected.
- Prepare and implement an approved Storm Water Pollution Prevention Plan.
- Ensure proper storage and disposal of toxic material.
- Incorporate pollution prevention into operation and maintenance procedures to reduce pollutant loadings to surface runoff.

- Develop and implement runoff pollution controls for existing road systems to reduce pollutant concentrations and volumes.
- Incorporate pollution prevention into operation and maintenance procedures to reduce pollutant loadings to surface runoff.
- Develop and implement runoff pollution controls for existing road systems to reduce pollutant concentrations and volumes.
- All applicable temporary construction site best management practices will be identified as bid items to be included in the bid package and Storm Water Pollution Prevention Plan for the project.

Storm water best management practices are selected for each project during the creation of the Storm Water Pollution Prevention Plan. The selection of best management practices depends on the specific circumstances and conditions in the project area. Best management practices are applied to meet the Maximum Extent Practicable and Best Conventional Technology/Best Available Technology requirements and to address compliance with water quality standards. In the project development phases, plans need to be developed to ensure that there will be no detrimental discharge into any body of water. In the construction phase, the contractor is responsible, as stated in Caltrans' Standard Specifications Section 7-1.01G, for taking the necessary steps to eliminate potential impacts. Standard Specifications Section 7-1.01G requires the construction contractor to implement pollution control practices related to construction projects via a Water Pollution Control Program or a Storm Water Pollution Prevention Plan.

The proposed project is expected to disturb more than 1 acre of soil, and the following would be required:

1. A Notification of Construction is to be submitted to the appropriate Central Coast Regional Water Quality Control Board at least 30 days prior to the start of construction. (The Notification of Construction is usually prepared by the project engineer and submitted by the Regional Storm Water Coordinator.) The Notification of Construction form requires a tentative start date and duration, location, description of project, estimate of affected area, name of resident engineer (or other construction contact) with telephone number, etc.
2. A Storm Water Pollution Prevention Plan is to be prepared and implemented during construction to the satisfaction of the resident engineer.
3. A Notice of Construction Completion is to be submitted to the Central Coast Regional Water Quality Control Board upon completion of the construction and stabilization of

the site. A project will be considered complete when the criteria for final stabilization in the State General Construction Permit are met.

3.2.3 Geology/Soils/Seismic/Topography

Regulatory Setting

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

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

Affected Environment

A Preliminary Geotechnical Report was completed for the project on January 31, 2003 and was updated by a memo on August 25, 2008. A Preliminary Mineral Resources Review was completed November 19, 2008.

The project area sits within the Coast Ranges Geomorphic Province. It lies in the Santa Clara Valley and is bounded to the southwest by the San Andreas Rift Zone and the Gabilan Range, and to the north and east by the Diablo Range. State Route 25 crosses the Pajaro River at the San Benito County-Santa Clara County line.

The surrounding mountains are oriented from northwest to southeast. The elevation of State Route 25 within the project area ranges from 150 feet to about 260 feet. The elevation range of the surrounding mountains is from less than 2,000 feet to about 5,000 feet. Landslides and streambank erosion are the main factors that shape landforms. The surface deposits within the project area are mostly Quaternary alluvial deposits consisting of silts, clays, sands, and gravels. These deposits generally absorb water readily. The surface deposits are underlain in most locations by Plio-Pleistocene continental deposits, which are similar to the overlying alluvium, but more consolidated and less able to transmit water.

Plio-Pleistocene continental deposits form small hills at the southeastern end of the project, extending from the vicinity of the State Routes 25/156 intersection southeastward almost to Wright Road. These gravel deposits have been named San Benito Gravels (or the San Benito Formation). The hills of sand and gravel are compression ridges created by the action of the San Andreas and Calaveras fault systems.

The Calaveras Fault is within the project area, and several earthquake faults lie near the project area. Table 3.17 shows the active and potentially active faults in the project vicinity, the intensity of the Maximum Credible Earthquake for each fault, the shortest distance to a fault from the project area, and the maximum credible bedrock acceleration for each fault.

Table 3.17 Active and Potentially Active Earthquake Faults

Earthquake Fault	Magnitude of Maximum Credible Earthquake (Richter Scale)	Shortest Distance to Fault from Project Area (in miles)	Peak Bedrock Acceleration (times the force of gravity)
Calaveras- Paicines-San Benito	7.50	In project area	0.71g
Sargent	6.75	1.4	0.56g
San Andreas	8.00	6.0	0.51g
Zayante-Vergales	7.25	6.0	0.40g

Source: Preliminary Geotechnical Report, January 2003

Loose soils that do not hold together that become saturated due to a high water table can liquefy during an earthquake. This event is known as liquefaction. Embankments based on these soils can be subject to slope instability and settlement during an earthquake. Retaining walls can settle or overturn should the soils beneath them liquefy. For liquefaction to occur, three factors are needed: loose granular soils, saturated soil conditions, and strong ground shaking.

According to geologic maps of the project area, soils at and near the surface are recent alluvium. Loose granular soils are a common component of alluvium.

Groundwater levels have receded significantly in the project area since 1913. A large portion of the area had artesian groundwater conditions in that year. By 1997, water levels in the same area were between 20 feet and 100 feet below the ground surface. In addition, historical groundwater overdraft has resulted in a reversal of the groundwater

flow direction in much of the project area. It is possible that there will be layers of saturated granular soils at some of the bridge sites.

Environmental Consequences

Route Adoption Alternatives

Mineral Resources

The San Benito Gravels, a geologic formation, is a source of aggregate that is considered by the State of California to be a mineral resource. The area on the east side of State Route 25, from north of State Route 156 to the Hollister Municipal Airport, is classified as a Mineral Resource Zone 2. The California Department of Conservation's California Geological Survey classifies mineral resources in compliance with the Surface Mining and Reclamation Act (SMARA) of 1975. Areas classified as Mineral Resource Zone 2 (MRZ-2) are areas where significant mineral deposits are present or where a high likelihood exists for their presence. The area, owned by the Don Chapin Company, is designated as the Don Chapin Company (SCL/Bolsa) sand and gravel mine by the California Department of Conservation.

Alternative 1 would pass through the hill northeast of existing State Route 25 and east of State Route 156 and proposes excavation for an undercrossing to the gravel quarry. This alternative would cut through the southern end and along the western edge of the Don Chapin Company SCL/Bolsa sand and gravel mine area, which would affect deposits of designated aggregate mineral resources.

In the future, the proposed State Route 25/State Route 156 interchange construction would need to excavate in this hill for the westbound off-ramp at State Route 156.

Alternative 2 would extend Briggs Road west, cutting through the hill by the Sheriffs' Training Center (shooting range), and would also require excavation along the main alignment. This alternative would affect the southernmost sand and gravel hill where Briggs Road would extend west from existing State Route 25 to the new alignment across the hill. Although this sand and gravel hill probably contains aggregate mineral resources similar to the Don Chapin Company SCL/Bolsa mine area, it has not been classified by the State Geologist as a mineral resource. A portion of this hill was excavated in the past.

Seismic

Branches of the Calaveras-Paicines-San Benito Fault cross State Route 25 at approximately post mile 53.1 and from approximately post mile 53.4 to post mile 54.1. Ground rupture hazard is high at these locations.

Due to the potential coincidence of loose granular soils saturated with water and strong ground shaking caused by an earthquake, subsurface information for all bridge sites would be necessary before it could be accurately determined whether liquefaction will be a concern. Please refer to Chapter 2 for the locations of the proposed future interchange at State Route 156 for Alternative 1 and Alternative 2, and also for the undercrossing to the gravel quarry that would be part of Alternative 1.

Build Alternatives

Mineral Resources

The San Benito Gravels, a geologic formation, is a source of aggregate that is considered by the State of California to be a mineral resource. The area on the east side of State Route 25, from north of State Route 156 to the Hollister Municipal Airport, is classified as a Mineral Resource Zone 2 (MRZ-2). The California Department of Conservation's California Geological Survey classifies mineral resources in compliance with the Surface Mining and Reclamation Act (SMARA) of 1975. Areas classified as MRZ-2 are areas where significant mineral deposits are present or where a high likelihood exists for their presence. The area, owned by the Don Chapin Company, is designated as the Don Chapin Company (SCL/Bolsa) sand and gravel mine by the California Department of Conservation.

Alternative A would pass through the hill northeast of existing State Route 25 and east of State Route 156, and proposes excavation for an undercrossing to the gravel quarry. This alternative would cut through the southern end and along the western edge of the Don Chapin Company SCL/Bolsa sand and gravel mine area, which would affect deposits of designated aggregate mineral resources.

Alternative B would extend Briggs Road west, cutting through the hill by the Sheriffs' Training Center (shooting range), and would also require excavation along the main alignment. This alternative would affect the southernmost sand and gravel hill where Briggs Road would extend west from existing State Route 25 to the new alignment across the hill. Although this sand and gravel hill probably contains aggregate mineral resources similar to the Don Chapin Company SCL/Bolsa mine area, it has not been classified by the State Geologist as a mineral resource. A portion of this hill was excavated in the past.

Seismic

Branches of the Calaveras-Paicines-San Benito Fault cross State Route 25 at approximately post mile 53.1 and from approximately post mile 53.4 to post mile 54.1. Ground rupture hazard is high at these locations.

Due to the potential coincidence of loose granular soils saturated with water and strong ground shaking caused by an earthquake, subsurface information for all bridge sites would be necessary before it could be accurately determined whether liquefaction will be a concern. Please refer to Chapter 2 for the location of the undercrossing to the gravel quarry in Alternative A.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

Mineral Resources

Potential impacts to mineral resources will be assessed and minimization or mitigation measures discussed in the final environmental document.

Seismic

The undercrossing planned for eventual construction near the Calaveras Fault where it crosses the highway would be sited and designed with consideration to potential ground displacement due to an earthquake.

Embankments built as bridge approaches would have to be evaluated for stability and settlement potential. Subsurface investigations would be necessary at the approach embankments to bridges to determine the strength of the foundation soils and the potential for settlement. If layers of soft compressible soils are found at those locations, it may be necessary to monitor water pressure in the soils during construction of embankments and to regulate the rate of construction to assure that the foundation soils gain adequate strength during construction.

Build Alternatives

Mineral Resources

Potential impacts to mineral resources will be assessed and minimization or mitigation measures discussed in the final environmental document.

Seismic

A Geotechnical Design Report will be prepared after a preferred alternative is selected and detailed design of an expressway has begun during the Plans, Specifications and Estimate Phase. The report would provide final design recommendations for the proposed build project based on a thorough site investigation.

3.2.4 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects. (e.g., Antiquities Act of 1906 [16 U.S. Code 431-433], Federal-Aid Highway Act of 1935 [23 U.S. Code 305]). Under California law, paleontological resources are protected by the California Environmental Quality Act and Public Resources Code Section 5097.5.

Affected Environment

A Paleontological Evaluation Report for the project was completed November 20, 2008.

The following geologic strata may include fossils in and near the project area:

- Miocene-Pliocene sedimentary rocks
- Plio-Pleistocene continental deposits
- Quaternary alluvium that includes Pleistocene older alluvium and Holocene alluvium

Sediments are materials deposited by water, wind, or glaciers. Sedimentary deposits are made up of layers of sediments. Alluvium is clay, silt, sand or gravel deposited by running water.

Miocene-Pliocene sedimentary rocks and Pleistocene older alluvium occur in the route adoption alternatives' area near the U.S. 101 interchange. The Plio-Pleistocene continental deposits occur in the area where the build alternatives pass between Hollister and State Route 156. Holocene alluvium covers the valley floor that is crossed by all of the proposed alternatives.

Sensitivity indicates the potential significance of fossils. Rock units that, based on previous studies, contain or are likely to contain important vertebrate, invertebrate, or plant fossils, are considered to be highly sensitive. Miocene-Pliocene sedimentary rocks contain fossils of mammals, fish, sharks and birds, and are highly sensitive.

Plio-Pleistocene continental deposits contain fossils of bison, camels, horses and mammoths. Mammoth fossils have been recovered from these continental deposits near the project area at two locations just north and south of Hollister. These fossils are also highly sensitive.

The Pleistocene older alluvium contains fossils of bison, peccaries (similar to a large pig) and mammoths. Although the uppermost few feet of Holocene alluvium are not very sensitive, deeper excavation may encounter scientifically important fossils. These fossils are considered highly sensitive.

Miocene-Pliocene mammal, fish, shark, and bird fossils, the upper Pliocene to lower Pleistocene camel and horse fossils, and the Pleistocene mammoth and peccary fossils are scientifically important for several reasons. Fossils found here could provide important data for the interpretation of the relationship between species and their evolution.

Environmental Consequences

Route Adoption Alternatives

In Santa Clara County, route adoption Alternatives 1 and 2 might extend far enough south along U.S. 101 to require excavation in Miocene-Pliocene sedimentary rocks. Future construction in the U.S. 101 and State Route 25 interchange area could require excavation in high-sensitivity Pleistocene older alluvium.

Near Hollister, Alternative 1 and Alternative 2 would affect the gravel hills between State Route 156 and the City of Hollister, which are composed of Plio-Pleistocene continental deposits (San Benito Gravels or San Benito Formation) and have the potential to contain vertebrate fossils.

Alternative 1 would pass through the hill northeast of existing State Route 25 and east of State Route 156. It would require excavation for an undercrossing to the gravel quarry. In the future, the proposed State Route 25/State Route 156 interchange construction would need to excavate in this hill for the westbound off-ramp at State Route 156.

Alternative 2 would extend Briggs Road west, cutting through the hill by the Sheriffs' Training Center (shooting range), and would also require excavation along the main alignment.

Most of the proposed route adoption area is covered by younger Holocene alluvium that covers the valley floor. Future construction projects could encounter lakebed deposits, depending on the depth of excavation and thickness of the younger alluvium.

Build Alternatives

Both Alternative A and Alternative B would affect the gravel hills between State Route 156 and the City of Hollister and have the potential to encounter vertebrate fossils. These hills are composed of Plio-Pleistocene continental deposits, the San Benito Gravels. The

extent and depth of excavation has not yet been determined; this would be decided during the final design phase of the project, after an alternative is selected for construction. However, the differences in impacts between these alternatives would be minimal.

Alternative A would pass through the hill northeast of existing State Route 25 and east of State Route 156. It would require excavation for an undercrossing to the gravel quarry.

Alternative B would extend Briggs Road west, cutting through the hill by the Sheriffs' Training Center (shooting range), and would also require excavation along the main alignment.

Both build alternatives would require clearing and grubbing excavation in the younger Holocene alluvium that covers the valley floor. Lakebed deposits could be encountered, depending on the depth of excavation and thickness of the younger alluvium.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

Specific mitigation measures for the impacts of future construction projects within the route adoption would be presented in Tier II environmental documents.

Build Alternatives

Impacts to paleontological resources could be avoided or minimized by selecting the No-Build Alternative or by implementing a well-designed paleontological resource mitigation plan. Proper paleontological mitigation and salvage could actually result in beneficial effects to paleontological resources through the discovery of fossils that would not have been exposed without construction and, therefore, would not have been available for study.

The implementation of the following mitigation measures would result in the project having a less than significant impact on paleontological resources. Items 1 through 5 state measures that are required to prepare for the possible discovery of fossils during construction, and items 6 through 10 specify procedures to be followed if and when fossils are found.

1. A nonstandard special provision for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage.

2. A qualified principal paleontologist would be retained to prepare a detailed Paleontological Mitigation Plan prior to the start of construction. All geologic work would be performed under the supervision of a California Professional Geologist.
3. The qualified principal paleontologist will be present at pre-grading meetings to consult with grading and excavation contractors.
4. Near the beginning of excavations, the principal paleontologist will conduct an employee environmental awareness training session all persons involved in earth moving for the project.
5. A paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
6. If fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.
7. Bulk sediment samples will be recovered from horizons and processed for microvertebrate remains as determined necessary by the principal paleontologist.
8. Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.
9. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.
10. A final report will be completed that outlines the results of the mitigation program and will be signed by the principal paleontologist and professional geologist.

Cumulative Impacts

Caltrans constructs highways in many locations throughout the Coast Ranges that require excavation in fossiliferous sediments similar to those found in the State Route 25 Widening and Route Adoption Hollister to Gilroy project area. While individually many of these construction projects involve smaller amounts of excavation resulting in a lower intensity of impact, the total extent of all excavation for these projects could result in the loss of a large number of important fossils. The loss of even a few scientifically significant fossil specimens would mean the inability to piece together important parts of the earth's history and the evolution of species.

Although construction excavation for this project would have a cumulative impact on paleontological resources, the impact would not be substantial with implementation of appropriate mitigation measures to salvage those resources during construction.

3.2.5 Hazardous Waste or Materials

Regulatory Setting

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

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

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

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

Hazardous waste in California is regulated mainly under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

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

Affected Environment

An Initial Site Assessment was completed for this project in December 2008. This Initial Site Assessment included examination or review of the following: consultant reports from previous Initial Site Assessments; aerial photographs; U.S. Geological Survey Topographical Quadrangle maps; Regional Water Quality Control Board's Leaking Underground Storage Tank Information System (GEOTRACKER) list; Environmental Protection Agency ECHO database, and the EnviroStor database systems; City of Hollister Fire Department records; and County of San Benito and County of Santa Clara Environmental Health Department records. In addition, thorough field surveys were conducted during August and September 2006, and February, September and October 2007.

In San Benito County within the route adoption area, there are currently three hazardous waste sites with active underground or above-ground storage tanks or high hazardous waste potential. Two hazardous waste sites have had a "no further action" letter, that is, the problem has been remedied to meet the minimum standard required by law. In addition, there are six hazardous waste sites with low to moderate potential to affect the project. In Santa Clara County, there are two hazardous waste sites with low to moderate potential to affect the project.

Aerially deposited lead studies were performed along State Route 25 for this project in 2002.

Environmental Consequences

Properties in the project area with the potential for hazardous waste impacts are listed in Table 3.18. These parcels were classified in terms of their potential to have hazardous waste issues that would affect this project, that is, a low, moderate, or high potential. This is not a measure of the toxicity, intensity or duration of any particular potential hazard.

Route Adoption Alternatives

Alternative 1 would have 11 potential hazardous waste sites in or near its alignment. Existing above ground storage tanks are present, as are the sites of former underground fuel tanks that have been removed, and a possible existing underground tank whose exact location is not known. Other types of sites in the area include an auto body and auto painting business, a machine shop, a cold storage facility, a food processing plant

complex, and old houses and farm outbuildings. The project has been designed to avoid the San Benito County Sheriff's Center, a shooting range. The potential for the sites to affect this alternative is minimal for one site, low for two sites, low to moderate for one site, moderate for five sites, and high for two sites. Please refer to Table 3.18 for additional information regarding these sites.

Alternative 2 would have five potential hazardous waste sites in or near its alignment. These sites include a former truck repair shop, a cold storage facility, a food processing plant complex, and old houses and farm outbuildings. The project has been designed to avoid the San Benito County Sheriff's Center, a shooting range. The potential for the sites to affect this alternative is minimal for one site, low to moderate for one site, moderate for two sites, and high for one site. Please refer to Table 3.18 for additional information regarding the sites.

The two sites in Santa Clara County are the same for both route adoption alternatives.

Selection of either Alternative 1 or 2 would require further invasive hazardous waste investigations to provide cleanup cost estimates. In the future, when a Tier II environmental document is prepared for a build project within the limits of the route adoption alternative selected, the appropriate hazardous waste site investigations would be conducted.

Build Alternatives

Properties in the project area with the potential for hazardous waste impacts are listed in Table 3.18. These parcels were classified in terms of their potential to have hazardous waste issues that would affect this project, that is, a low, moderate, or high potential. This is not a measure of the toxicity, intensity or duration of any particular potential hazard.

Alternative A has nine potential hazardous waste sites. Existing above ground storage tanks are present, as are the sites of former underground fuel tanks that have been removed, and a possible existing underground tank whose exact location is not known. Other types of sites in the area include an auto body and auto painting business, a machine shop, and old houses and farm outbuildings. The project has been designed to avoid the San Benito County Sheriff's Center, a shooting range. The potential for impacts to this build alternative from these sites are minimal for one site, low for two sites, low to moderate for one site, moderate for three sites, and high for two sites. Please refer to Table 3.18 for additional information regarding these sites.

Table 3.18 Hazardous Waste Sites with Potential to Affect Alternatives

Site Number	Description	Potential to Affect			
		Route Adoption Alternatives		Build Alternatives	
		1	2	A	B
San Benito County					
2	A parcel with an office and storage building that belongs to a church is the former site of a leaking underground fuel tank. The two underground fuel storage tanks for this property have been removed. Minor contamination exists from oil and grease and total petroleum hydrocarbons as diesel.	Moderate	n/a	Moderate	n/a
4	An auto body and paint business parcel has potential impacts because solvents and other paint-based materials could have been improperly handled at the site.	High	n/a	High	n/a
7	A farm contains older shop buildings, an old house, and other structures that would be demolished. Includes former truck repair shop. The structures could include lead-based paints and asbestos. Hazardous materials could have been spilled in the past, may still be present on the site, and equipment could have leaked onto the ground.	n/a	High	n/a	High
9	The San Benito County Sheriffs' Training Center is a shooting range. The proposed alternatives were designed to avoid this property, which is within the area of potential effects for hazardous waste.	Minimal	Minimal	Minimal	Minimal
12	Four businesses are on the Briggs Road side of this larger agricultural parcel. Six underground storage tanks have been removed from this area. An existing 50-gallon above-ground tank holds waste oil. Alternative A would slice off a corner of the parcel on Briggs Road where it approaches State Route 25, but would not include the area of former underground storage tanks or the existing above-ground storage tank. Therefore, this parcel is not expected to have hazardous waste impacts. Another small parcel surrounded by the larger parcel on three sides has a single-family residence, and possibly includes an underground storage tank. The house could contain lead-based paint and asbestos.	Low to Moderate	Low to Moderate	Low to Moderate	Low to Moderate

Chapter 3 • Affected Environment, Environmental Consequences,
and Avoidance, Minimization, and/or Mitigation Measures

Site Number	Description	Potential to Affect			
		Route Adoption Alternatives		Build Alternatives	
		1	2	A	B
13	Two 1,000-gallon above-ground tanks containing gasoline and diesel are located in a farm complex. Five underground fuel tanks were removed from the parcel about 30 years ago, according to the owner.	High	n/a	High	n/a
14	A machine shop on State Route 25 is located on a parcel that also includes a residence. Liquid hazardous waste could have been improperly disposed of into the septic tank system, possibly contaminating soil and/or groundwater.	Low	n/a	Low	n/a
15	A church (a former warehouse remodeled into a church building) adjacent to site #2.	Moderate	n/a	Moderate	n/a
16	A farm parcel on Briggs Road has two residences in the corner of a larger parcel. There is one above-ground storage tank. Approximately five 55-gallon barrels, contents unknown, are stored on the property. The old barn and old house could contain lead-based paint.	Moderate	n/a	Moderate	n/a
18	Private residence that was formerly a school. Property is outside the area of potential effects for hazardous waste.	Low	n/a	Low	n/a
Santa Clara County					
92	A cold storage facility on the north side of State Route 25 west of the Bolsa Road intersection.	Moderate	Moderate	n/a	n/a
94	An orchard adjacent to State Route 25, with a food processing plant complex located on the north on this large parcel.	Moderate	Moderate	n/a	n/a

Alternative B has three potential hazardous waste sites. These sites include a former truck repair shop, and old houses and farm outbuildings. The project has been designed to avoid the San Benito County Sheriff's Center, a shooting range. The potential for impacts to this build alternative from these sites are minimal for one site, low to moderate for one site, and high for one site. Please refer to Table 3.18 for additional information regarding these sites.

Aerially Deposited Lead

The report on aerially deposited lead conducted for this project found that lead concentrations in the soil sampled ranged from non-detectable to 400 milligrams per kilogram. The report stated that there is no significant contamination of aerially deposited lead in soil next to the highway. These soils may be handled without restrictions, and all extra soil left over after construction can be reused or disposed of.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans policy is to avoid potential hazardous waste sites during the design phase of project planning. After a preferred alternative is selected, a Site Investigation report will include mitigation and minimization measures to be incorporated into the final environmental document.

If Alternative A is selected as the preferred build alternative, sampling and testing would be conducted to characterize the potential volume and concentration of suspected hazardous material present and to estimate the additional cost to clean up the sites within the project area of Alternative A. If Alternative B is selected as the preferred build alternative, sampling and testing would also be done during right-of-way demolition to clean up the sites within the project area of Alternative B.

3.2.6 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the concentration of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide, nitrogen dioxide, ozone, particulate matter, lead, and sulfur dioxide.

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

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

Conformity at the project-level also requires “hot spot” analysis if an area is in “non-attainment” or “maintenance” for carbon monoxide and/or particulate matter. A region is a non-attainment area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas but have recently met the standard are called maintenance areas.

“Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act and California Environmental Quality Act purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in non-attainment areas, the project must not cause any increase in the number and severity

of violations. If a known carbon monoxide or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

Caltrans conducted an Air Quality Study for the project in September 2008, and the report was updated in April 2010.

The area studied lies in San Benito County, with a small portion in Santa Clara County. The area studied is at the southern end of the long, narrow Santa Clara Valley, flanked on each side by the Coast Ranges. Major surface waters of the area are the Pajaro River and Carnadero Creek. Northwest winds to the west of the Pacific coastline are drawn into the interior via the Carquinez Straits and into the Central Valley. These northwest winds are dominant during the summer.

San Benito County is within the North Central Coast Air Basin that is under the jurisdiction of the Monterey Bay Unified Air Pollution Control District. Santa Clara County is within the San Francisco Air Basin, under the jurisdiction of the Bay Area Air Quality Management District.

Although naturally occurring asbestos in the form of serpentine and ultramafic rock occurs in Santa Clara and San Benito counties, the known areas are not near within or adjacent to the proposed project locations.

Environmental Consequences

Route Adoption Alternatives

Regional Air Quality Conformity

The route adoption alternatives, Alternatives 1 and 2, lie in an area that is subject to air quality conformity.

Ozone is the only regional pollutant in the San Francisco Air Basin and is also the only regional pollutant in the North Central Coast Air Basin.

Carbon monoxide is considered a localized pollutant. Santa Clara County is currently listed as a federal attainment-maintenance area for carbon monoxide. San Benito County is currently listed as a federal attainment area for carbon monoxide.

The State Route 25 Widening project was listed as a constrained project in the Council of San Benito Governments 2005 Regional Transportation Plan (the most

recent plan issued to date). The Council of San Benito Governments intends to pursue funding for the remaining highway segment within the proposed route adoption, between Hudner Lane and the San Benito County/Santa Clara County line. That section of State Route 25 was included in the constrained project shown in the 2005 Regional Transportation Plan.

In San Benito County, this project was in the 2002 and 2006 San Benito County Regional Transportation Improvement Program (RTIP), however it was not included in the 2008 program.

For Santa Clara County, this project was in the Metropolitan Transportation Commission's 1998 Region Transportation Plan and the 1998 cost-constrained Regional Transportation Improvement Program. It was also in the Valley Transportation Plan 2030 (the most recent transportation plan), which was found to conform by the Metropolitan Transportation Commission on March 17, 2005 and was federally approved October 2, 2006.

Project-Level Conformity

The state and federal standards and attainment status for priority pollutants for the Monterey Bay Unified Air Pollution Control District and the Bay Area Air Quality Management District are shown in Table 3.19.

Ozone Analysis

The route adoption alternatives, Alternatives 1 and 2, are located within a federal and a state 8-hour ozone non-attainment area (Santa Clara County portion). However, the San Benito County portion of these alternatives is located within an 8-hour ozone federal attainment area, but is within a state non-attainment area.

In the future, when Tier II environmental documents are prepared, the areas may still be in state and/or federal non-attainment for ozone. If there is an approved method for project-level ozone analysis at that time, that analysis will be conducted.

Particulate Matter (PM₁₀) Analysis

A route adoption is exempt from a hot spot analysis for particulate matter.

Both San Benito and Santa Clara counties are located within federal attainment areas for PM₁₀. PM₁₀ is particulate matter that is 2.5 microns or less in diameter. As this area has historically been in federal attainment for particulate matter, it is anticipated that future conditions in land use and improvements of gasoline and diesel emissions

controls will not cause an exceedence over the federal standards. If the federal status deteriorates to non-attainment at the time any Tier II environmental document is written, a hot spot analysis would then be conducted based on applicable guidelines.

The state PM₁₀ standard is stricter than the federal standard. There has not been an exceedence of the state standard at the Gilroy monitor between 2005 and 2008.

Particulate Matter (PM_{2.5}) Analysis

A route adoption is exempt from a hot spot analysis for particulate matter.

Both San Benito and Santa Clara counties are located within federal attainment areas for PM_{2.5}. PM_{2.5} is particulate matter that is 2.5 microns or less in diameter. As this area has historically been in federal attainment for particulate matter, it is anticipated that future conditions in land use and improvements of gasoline and diesel emissions controls will not cause an exceedence over the federal standards. If the federal status deteriorates to non-attainment at the time any Tier II environmental document is written, a hot spot analysis would then be conducted based on applicable guidelines.

The state PM_{2.5} standard is slightly lower than the federal standard. Both the Gilroy and the Hollister air monitors have only been monitoring PM_{2.5} since 2007. No exceedences of the state or federal standards were recorded for those years. Exceedences were recorded by the San Jose area monitors, indicating that the particulate emissions are related to city traffic and stationary sources of pollutants.

Carbon Monoxide Analysis

San Benito County has always been in attainment for carbon monoxide. The Santa Clara County portion of the route adoption alternatives is located in a maintenance area for carbon monoxide. In the future, whenever a Tier II environmental document is written for a segment within Santa Clara County, a screening hot spot analysis will be required if the county is still a federal carbon monoxide maintenance area or if it becomes a non-attainment area. A project-level air quality study will be conducted for California Environmental Quality Act purposes as well.

Naturally Occurring Asbestos

The nearest sources of naturally occurring asbestos are three to six miles away from the route adoption alternatives.

Mobile Source Air Toxics (MSATs)

There are many uncertainties for modeling mobile source air toxics. The timing of future funding for Tier II projects within the route adoption alternatives is unknown. These two factors, added to the shortcomings in current techniques for exposure assessment and risk analysis, prevent us from reaching meaningful conclusions about the future route adoption. In the future, it is expected that both state and federal guidelines for using modeling tools will be in place. It is also expected that there may be project threshold limits for these pollutants. The California air toxics rules are expected to be similar to federal mobile source air toxics guidelines. At the time a Tier II environmental document is written, a project-level study will be conducted.

Build Alternatives

Regional Air Quality Conformity

The build alternatives, Alternatives A and B, are 3.8 miles long and are located in San Benito County, an area that is subject to air quality conformity because it is in non-attainment for the California 1-hour standard for ozone.

The State Route 25 Widening project (with 8.6 miles of expressway construction in San Benito County, which included the segments now called Alternative A and Alternative B) was listed as a constrained project in the Council of San Benito Governments 2005 Regional Transportation Plan (the most recent plan issued to date). In San Benito County, this project was in the 2002 and 2006 San Benito County Regional Transportation Improvement Program (RTIP). However it was not included in the 2008 program.

Project-Level Air Quality Conformity

The build alternatives are located within San Benito County. The state and federal standards and attainment status for priority pollutants for the Monterey Bay Unified Air Pollution Control District, which includes San Benito County, are shown in Table 3.19. The air pollutants of concern in the air basin are ozone, inhalable particles (PM₁₀), and carbon monoxide.

Project-level conformity hot spot analysis is not required for this project because the proposed build alternatives are located in an area that is in attainment with the federal standards for carbon monoxide, PM₁₀ and PM_{2.5}. However, an air quality analysis for these pollutants was performed that examined local impacts of the build alternatives.

- Ozone is composed of reactive organic gases and oxides of nitrogen that combine in the presence of sunlight. Ozone is the main constituent of smog. Reactive organic gas comes from the combustion of fossil fuels and from organic solvents. Major sources of fuel combustion are motor vehicles, the fuel industry, and power plants.
- Particulate matter (PM) is a complex mix of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. Particles 10 microns or less in diameter are defined as respirable (breathable) particulate matter or PM₁₀. Fine particles are 2.5 microns or less in diameter (PM_{2.5}) and can contribute to regional haze and reduction of visibility in California.

Ozone Analysis

San Benito County is in non-attainment of both the state 1-hour and 8-hour ozone standards. San Benito County is in attainment of the federal 8-hour ozone standard.

No hot spot analysis was conducted for ozone, however, because it is a regional pollutant and there currently is no approved guideline or air emissions model for qualitatively or quantitatively conducting a project-level hot spot analysis.

The Hollister-Fairview monitor, located at 1979 Fairview Road in Hollister, is about 2 miles from the State Route 25/San Felipe Road intersection. The Gilroy 9th Street monitor is located at 9th and Princevalle in Gilroy. Between 2005 and 2007, there was one day which exceeded the federal standard and eight days which exceeded the state standard at the both the Gilroy and Hollister monitors. Ozone readings at the Hollister and Gilroy monitors are highest during the summer when northwest winds are predominant.

Particulate Matter (PM₁₀) Analysis

The proposed build alternatives are in San Benito County, which is in attainment of the federal standard for PM₁₀ therefore, no hot spot conformity analysis is required for this pollutant.

For the project-level analysis, a review of data for PM₁₀ from nearby air monitoring stations was conducted.

The Hollister-Fairview monitor, located at 1979 Fairview Road in Hollister, is about 2 miles from the State Route 25/San Felipe Road intersection. Data collected at this

station indicate that the area has been below the federal annual standard and the state standard for PM₁₀ from 2003-2008.

The Gilroy 9th Street particulate matter monitor is located at 9th and Princevalle in Gilroy, about three miles north of the State Route 25/US101 interchange. The state PM₁₀ standard is stricter than the federal standard. There has not been an exceedence of the federal or state standard at the Gilroy monitor between 2005 and 2008.

The proposed project would improve the level of service. Less stop-and-go traffic and smoother traffic flow would contribute to lowered particulate matter levels. Paving road shoulders would help minimize re-entrained road dust. Based on the above factors, this project is not expected to worsen the particulate matter or cause a violation of existing state or federal PM₁₀.

Particulate Matter (PM_{2.5}) Analysis

The proposed build alternatives are in San Benito County, which is in attainment for PM_{2.5}, therefore no hot spot conformity analysis is required for this pollutant.

For the project-level analysis, a review of data for PM_{2.5} from the nearby air monitoring stations was conducted. The Hollister-Fairview particulate matter monitor is located at 1979 Fairview Road in Hollister, approximately 2 miles from the State Route 25/San Felipe Road intersection. The Gilroy 9th Street monitor is located at 9th

Table 3.19 Ambient Air Quality Standards and Attainment Status

Pollutant	Averaging Time	State Standard	Federal Standard	State Attainment Status San Benito County	Federal Attainment Status San Benito County	Health and Atmospheric Effects	Typical Sources
Ozone (O ₃) ^a	1 hour 8 hours	0.09 ppm 0.070 ppm	– ^b 0.075 ppm	Non-attainment Non-attainment	Attainment	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include a number of known toxic air contaminants.	Low-altitude ozone is almost entirely formed from reactive organic gases (ROG) and nitrogen oxides (NO _x) in the presence of sunlight and heat. Major sources include motor vehicles and other mobile sources, solvent evaporation, and industrial and other combustion processes. Biologically produced ROG may also contribute.
Carbon Monoxide (CO)	1 hour 8 hours	20 ppm 9.0 ppm ^c	35 ppm 9 ppm	Attainment/ Unclassified	Attainment/Unclassified	Asphyxiant. CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Respirable Particulate Matter (PM10) ^a	24 hours Annual	50 µg/m ³ 20 µg/m ³	150 µg/m ³ –	Non-Attainment	Attainment/ Unclassified	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many aerosol and solid compounds are part of PM10.	Dust- and fume-producing industrial and agricultural operations; combustion smoke; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources (wind-blown dust, ocean spray).
Fine Particulate Matter (PM2.5) ^a	24 hours Annual	– 12 µg/m ³	35 µg/m ³ 15 µg/m ³	Attainment/ Unclassified	Attainment/ Unclassified	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – considered a toxic air contaminant – is in the PM2.5 size range. Many aerosol and solid compounds are part of PM2.5.	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical (including photochemical) reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and ROG.
Nitrogen Dioxide (NO ₂)	1 hour Annual	0.25 ppm –	– 0.053 ppm	Attainment/ Unclassified	Attainment/Unclassified	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain.	Motor vehicles and other mobile sources; refineries; industrial operations.
Sulfur Dioxide (SO ₂)	1 hour 3 hours 24 hours Annual	0.25 ppm – 0.04 ppm –	– 0.5 ppm 0.14 ppm 0.030 ppm	Attainment/ Unclassified	Attainment/ Unclassified	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing.
Lead (Pb) ^d	Monthly Quarterly	1.5 µg/m ³ –	– 1.5 µg/m ³	Attainment n/a	n/a Attainment	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also considered a toxic air contaminant.	Primary: lead-based industrial process like battery production and smelters. Past: lead paint, leaded gasoline. Moderate to high levels of aerially deposited lead from gasoline may still be present in soils along major roads, and can be a problem if large amounts of soil are disturbed.

Sources: California Air Resources Board Ambient Air Quality Standards chart, 11-17-08 <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf> Sonoma-Marina Area Rail Transit Draft Air Pollutant Standards and Effects table, November 2005, page 3-52.
U.S. Environmental Protection Agency and California Air Resources Board air toxics websites

Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter

^a Annual PM10 NAAQS revoked October 2006; was 50 µg/m³. 24-hr. PM2.5 NAAQS tightened October 2006; was 65 µg/m³.

^b 12/22/2006 Federal court decision may affect applicability of Federal 1-hour ozone standard. Prior to 6/2005, the 1-hour standard was 0.12 ppm. Case is still in litigation.

^c Rounding to an integer value is not allowed for the State 8-hour CO standard. A violation occurs at or above 9.05 ppm.

^d The ARB has identified lead, vinyl chloride, and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM10 and, in larger proportion, PM2.5. Both the ARB and U.S. Environmental Protection Agency have identified various organic compounds that are precursors to ozone and PM2.5 as toxic air contaminants. There is no threshold level of exposure for adverse health effect determined for toxic air contaminants, and control measures may apply at ambient concentrations below any criteria levels specified for these pollutants or the general categories of pollutants to which they belong.



and Princeville in Gilroy. Both the Gilroy and the Hollister air monitors have only been monitoring PM_{2.5} since 2007. The 2007 and 2008 annual averages at the Gilroy monitor were well below the federal and state limits for PM₁₀. No exceedences of the state or federal standards were recorded by the Hollister air monitor for those years

The proposed project would improve the level of service. Less stop-and-go traffic and smoother traffic flow would contribute to lowered particulate matter levels. State and federal requirements to progressively decrease various air pollutants from diesel and gasoline fuels are expected to continue. This would promote decreased diesel particulate (PM_{2.5}) in the future. More stringent state and federal requirements and retrofit grant programs for heavy-duty diesel engines are also expected to decrease PM_{2.5} over time. Based on the above factors, this project is not expected to worsen the particulate matter or cause a violation of existing state or federal PM_{2.5}.

Carbon Monoxide Analysis

The build alternatives are in San Benito County, an area considered to be attainment/unclassified for federal and state standards for carbon monoxide; therefore, no hot spot analysis is needed.

San Benito County has never been in non-attainment for carbon monoxide. Carbon monoxide is primarily caused by motor vehicles idling or at start-up during the colder months of the year. If built, Alternatives A or B would improve the level of service. Considering the improvement in level of service and the historically low carbon monoxide levels, Caltrans considers that the proposed alternatives would promote smoother traffic flow and would help improve carbon monoxide levels in an area that is currently in attainment.

The closest carbon monoxide monitor is located in San Jose, about 28 miles from the U.S. 101/State Route 25 interchange. No exceedences of the state or federal standard were reported at this monitor between 2006 and 2008. Carbon monoxide is mainly caused by vehicle emissions, and the traffic between Gilroy and Hollister is considerably less than the traffic in the San Jose area. Gasoline and diesel vehicles continue to emit fewer pollutants due to design changes over the years.

This project would improve traffic flow and decrease idling time, which contributes to carbon monoxide emissions. Therefore, the build alternatives would be expected to improve carbon monoxide emissions in the project area.

Naturally Occurring Asbestos

The nearest source of naturally occurring asbestos is three miles away from the build alternatives.

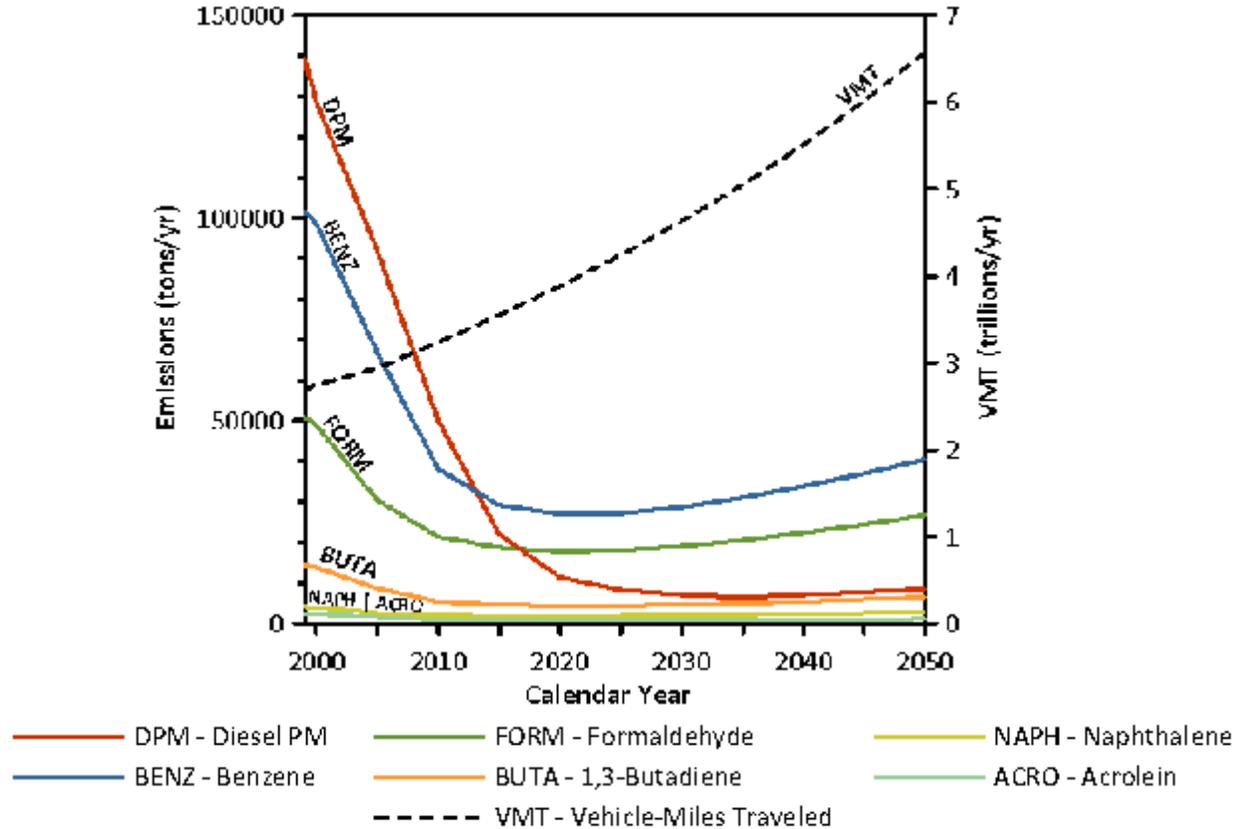
Mobile Source Air Toxics (MSATs)

In addition to the criteria pollutants discussed above, the U.S. Environmental Protection Agency also regulates air toxics, including particulate matter contained in diesel exhaust. Diesel engine exhaust contains a complex mix of gases and particulates that have raised concerns about their potential for adverse health effects. Human exposure to diesel engine exhaust comes from both highway and non-highway sources. Studies of the risks are inconclusive, however, and the Environmental Protection Agency has yet to establish air quality standards or guidelines for assessing the project level effects of mobile air toxics. Such limitations make the study of mobile air toxic concentrations, exposures, and health impacts difficult and uncertain, especially on a quantitative basis. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (for example, airplanes), area sources (for example, dry cleaners) and stationary sources (for example, factories and refineries).

Mobile source air toxics are a subset of the 188 air toxics defined by the Clean Air Act. They are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The priority mobile source air toxics as defined by the Environmental Protection Agency and the Federal Highway Administration are acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter.

According to an Federal Highway Administration analysis, even if vehicle use (measured in vehicle miles traveled) increases by 145% as projected, a combined reduction of 72% in the total annual emission rate for the priority mobile source air toxics is projected from 1999 to 2050, as shown in Table 3.20.



Note:

(1) Annual emissions of polycyclic organic matter are projected to be 561 tons/yr for 1999, decreasing to 373 tons/yr for 2050.

(2) Trends for specific locations may be different, depending on locally derived information representing vehicle-miles traveled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors

Source: U.S. Environmental Protection Agency. MOBILE6.2 Model run 20 August 2009.

Source: Air Quality Study Report, December 2009

Figure 3-3 National Mobile Source Air Toxics Emission Trends 1999-2050 for Vehicles Operating on Roadways

The Federal Highway Administration has issued interim guidance on how mobile source air toxics (MSAT) should be addressed in National Environmental Policy Act documents for highway projects. Depending on the specific project circumstances, the Federal Highway Administration has identified three levels of analysis:

1. No analysis for exempt projects with no potential for meaningful mobile source air toxics effects.
2. Qualitative analysis for projects with low potential mobile source air toxics effects.
3. Quantitative analysis to differentiate alternatives for projects with higher potential mobile source air toxics.

Research into the health impacts of mobile source air toxics is ongoing. For different emission types, there are a variety of studies that show some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses.

Some recent studies have reported that proximity to roadways is related to adverse health outcomes, particularly respiratory problems. Much of this research is not specific to mobile source air toxics, instead surveying the full spectrum of both criteria and other pollutants. The Environmental Protection Agency cannot evaluate the validity of these studies, but more importantly, the studies do not provide information that would be useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project.

Because of the uncertainties outlined above, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level. While available tools do allow us to reasonably predict relative emissions changes between alternatives for larger projects, the amount of mobile source air toxics' emissions from each of the project alternatives and mobile source air toxics concentrations or exposures created by each of the project alternatives cannot be predicted with enough accuracy to be useful in estimating health impacts. (As noted above, the current emissions model is not capable of serving as a meaningful emissions analysis tool for smaller projects.) Therefore, the relevance of the unavailable or incomplete information is that it is not possible to make a determination of whether any of the alternatives would have “significant adverse impacts on the human environment.”

Project-Level Analysis

Either of the proposed build alternatives would have a low potential for mobile source air toxics emissions. Although the build alternatives would add capacity, the annual average daily traffic numbers projected for the design year 2035 are less than 33,000. The traffic numbers were assumed to be the same for Alternative A, Alternative B, and for the No-Build Alternative.

No sensitive receptors were identified within 500 feet of the project limit. Sensitive land uses are defined by the Federal Highway Administration as schools, medical centers and similar health care facilities, child care facilities, parks, and playgrounds. The vicinity of the project is defined as 500 feet from the edge of the nearest traveled lane.

The CT-EMFAC 2007 air model tool was used to estimate current and future mobile source air toxics, and the results are displayed in Table 3.20.

Table 3.20 Projected Mobile Source Air Toxics (Tons per Year)

Year	Alternative	Annual Vehicle Miles Traveled	Diesel Particulate Matter (PM)	Formaldehyde	Butadiene	Benzene	Acrolein	Acetaldehyde
2006	Existing	64,440	0.0038	0.0087	0.0011	0.0054	0.0000	0.0036
2015	Alternative A or Alternative B	80,120	0.0158	0.0053	0.0006	0.0032	0.0001	0.0022
	No-Build	80,120	0.0024	0.0008	0.0001	0.0005	0.0000	0.0003
2035	Alternative A or Alternative B	96,820	0.0030	0.0014	0.0003	0.0012	0.0001	0.0005
	No-Build	96,820	0.0055	0.0026	0.0005	0.0022	0.0001	0.0010

Source: Air Quality Study Report, April 2009

The estimated vehicle miles traveled would be the same for the build alternatives and the No-Build Alternative in both 2015 and 2035. Although the EMFAC model predicts that the mobile source air toxics emissions would be slightly higher in 2015, the opening year for the project, by the design year 2035, pollutants would be lower for either of the build alternatives than for the No-Build Alternative. Regardless of the alternative chosen, emissions will likely be lower than present levels in 2035 because of the Environmental Protection Agency’s national control programs that are projected to reduce mobile source air toxics emissions by 57% to 87% between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, vehicle miles traveled, growth rates, and local control measures. However, the magnitude of the projected reductions is so great (even after accounting for increased vehicle miles traveled) that mobile source air toxics emissions in the study area are likely to be lower in the future in nearly all cases.

The magnitude and the duration of the potential increases in mobile source air toxics emissions compared to the No-Build Alternative cannot be accurately quantified due to the inherent deficiencies of current models. When a highway is widened and, as a result, moves closer to receptors, the localized level of mobile source air toxics emissions for the

Build Alternative could be higher than for the No-Build Alternative. The higher emissions would be made up for by an overall decrease in pollutants in the Hollister area due to increases in speeds and reduced congestion. When congestion is reduced and travel speeds increase, mobile source air toxics emissions are typically lower. On a regional basis, the Environmental Protection Agency's vehicle and fuel regulations, coupled with fleet turnover, will cause substantial reductions over time that, in almost all cases, will cause regional mobile source air toxics levels to be significantly lower than existing levels.

The Environmental Protection Agency's projections indicate a continuing downward trend of the six primary mobile source air toxics. As discussed above, the study of mobile source air toxics, dose-response effects and modeling tools are currently in a state where accurate information is incomplete or unavailable. This is relevant to making an accurate prediction of any reasonably foreseeable adverse effects on the human environment. There is currently no specific significance level for receptor exposure. Without a significance level for exposure, one cannot accurately and scientifically predict the effects on the human environment. Studies are currently being conducted to clarify some of these unknowns; however the information is not available now.

Because the emission effects of these projects are low, we expect there would be no appreciable difference in overall mobile source air toxics emissions between the two build alternatives. The estimated emissions of these pollutants in 2035 are lower than the 2006 estimated emissions. In addition, quantitative analysis of these types of projects will not yield credible results that are useful to project-level decision-making due to the limited capabilities of the transportation and emissions forecasting tools.

For the build alternatives, the amount of mobile source air toxics emitted would be proportional to the amount of vehicle miles traveled. The volume of miles traveled is estimated higher than that of the No-Build Alternative because the additional capacity increases the efficiency of the roadway, that is, more vehicles are expected to drive on a four-lane expressway than on a two-lane highway. This increase in volume of miles traveled would lead to higher mobile source air toxics emissions for whichever build alternative is selected. This increase in miles traveled would lead to higher mobile source air toxics emissions for whichever build alternative is selected. The emissions increase is offset somewhat by lower mobile source air toxics emission rates due to increased speeds. According to the Environmental Protection Agency's MOBILE 6 emissions model, emissions of all the priority mobile source air toxics except for diesel particulate matter decrease as speed increases. The extent to which these emissions decrease will

offset the increased amount of emissions caused by increased traffic volumes cannot be reliably projected due to the inherent deficiencies of technical models.

Emissions will likely be lower than present levels in the design year as a result of the Environmental Protection Agency's national control programs that are projected to reduce mobile source air toxics emissions by 57 percent to 87 percent from 2000 to 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, vehicle miles traveled, growth rates, and local control measures. However, the Environmental Protection Agency-projected reductions are so significant (even after accounting for vehicle miles traveled growth) that mobile source air toxics emissions in the study area are likely to be lower in the future as well.

Construction

During construction, there would be a temporary increase in air emission during the construction period. The 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 at some residences very close to the right-of-way could probably cause occasional annoyance and complaints.

Mobile source air toxics emissions would be expected from the diesel-powered construction equipment. However, it is anticipated that the pollutant levels emitted from this equipment would be less in 2015 than now, due to changes in diesel fuel and progressively more stringent air pollution limitation requirements on diesel engines.

Any potential impact from naturally occurring asbestos during project construction would be minimal to none. If structures that may contain asbestos are to be demolished, it is the responsibility of the contractor to comply with the rules and regulations of the Air Pollution Control District.

Climate Change

Climate change is analyzed in Chapter 4. Neither the Environmental Protection Agency nor the Federal Highway Administration has promulgated 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.

Because there have been more requirements set forth in California legislation and executive orders regarding climate change, the issue is addressed in the California Environmental Quality Act chapter of this environmental document and may be used to inform the National Environmental Policy Act decision. 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 reduction in the growth of vehicle hours traveled.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

Because a route adoption does not involve construction, no mitigation is proposed.

Build Alternatives

This project would incorporate 10-foot shoulders and paved inside shoulders that would reduce PM₁₀ emissions from dust on the roadway that billows up when vehicles drive by.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirement is a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1.01F “Air Pollution Control” and Section 10 “Dust Control,” require the contractor to comply with rules, ordinances, and regulations. Currently, there are no requirements for dust control plans from either the Monterey Bay Unified Air Pollution Control District or for the Bay Area Air Quality Management District.

According to Caltrans Standard Specification Provisions, idling time for lane closure during construction is restricted to 10 minutes in each direction.

3.2.7 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between the National Environmental Policy Act and the California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible. The rest of this section will focus on the National Environmental Policy Act-23 Code of Federal Regulations 772 noise analysis; please see Chapter 4 for further information on noise analysis under the California Environmental Quality Act.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the criterion for residences (67 decibels) is lower than the criterion for commercial areas (72 decibels).

Table 3.21 lists the noise abatement criteria for use in the National Environmental Policy Act and 23 Code of Federal Regulations 772 analysis. Table 3.22 shows the noise levels of typical activities.

Table 3.21 Activity Categories and Noise Abatement Criteria

Activity Category	Noise Abatement Criteria (A-weighted Noise Level in Average Decibels Over One Hour) and Location	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
D	--	Undeveloped lands
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: Caltrans Traffic Noise Analysis Manual, 1998

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

Table 3.22 Typical Noise Levels

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

Noise analysis is conducted by Caltrans in accordance with Caltrans' statewide *Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction and Retrofit Barrier Projects* (August 2006). According to the *Traffic Noise Analysis Protocol*, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12-decibel or more increase), or when the future noise level with the project approaches or exceeds the noise abatement criteria. Approaching the noise abatement criteria is defined as coming within 1 decibel of the noise abatement criteria (see Table 3.21 for the thresholds).

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies' input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Affected Environment

Caltrans completed a Noise Study Report in November 2008 and revised this report in August 2009. The purpose of the study was to evaluate potential noise impacts of the proposed build alternatives between San Felipe Road and Hudner Lane.

The noise analysis is required for all Type I projects. A Type I project is defined by Title 23 U.S. Code of Federal Regulations, Part 772 (23 CFR 772) as a proposed federal or federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway, which changes either the horizontal or the vertical alignment or increases the number of through lanes. This project is a Type I project because it proposes to change the horizontal alignment and increase the number of through lanes.

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Land uses in the project area were categorized by land use type, Activity Category as defined in Table 3.21, and the extent of frequent human use.

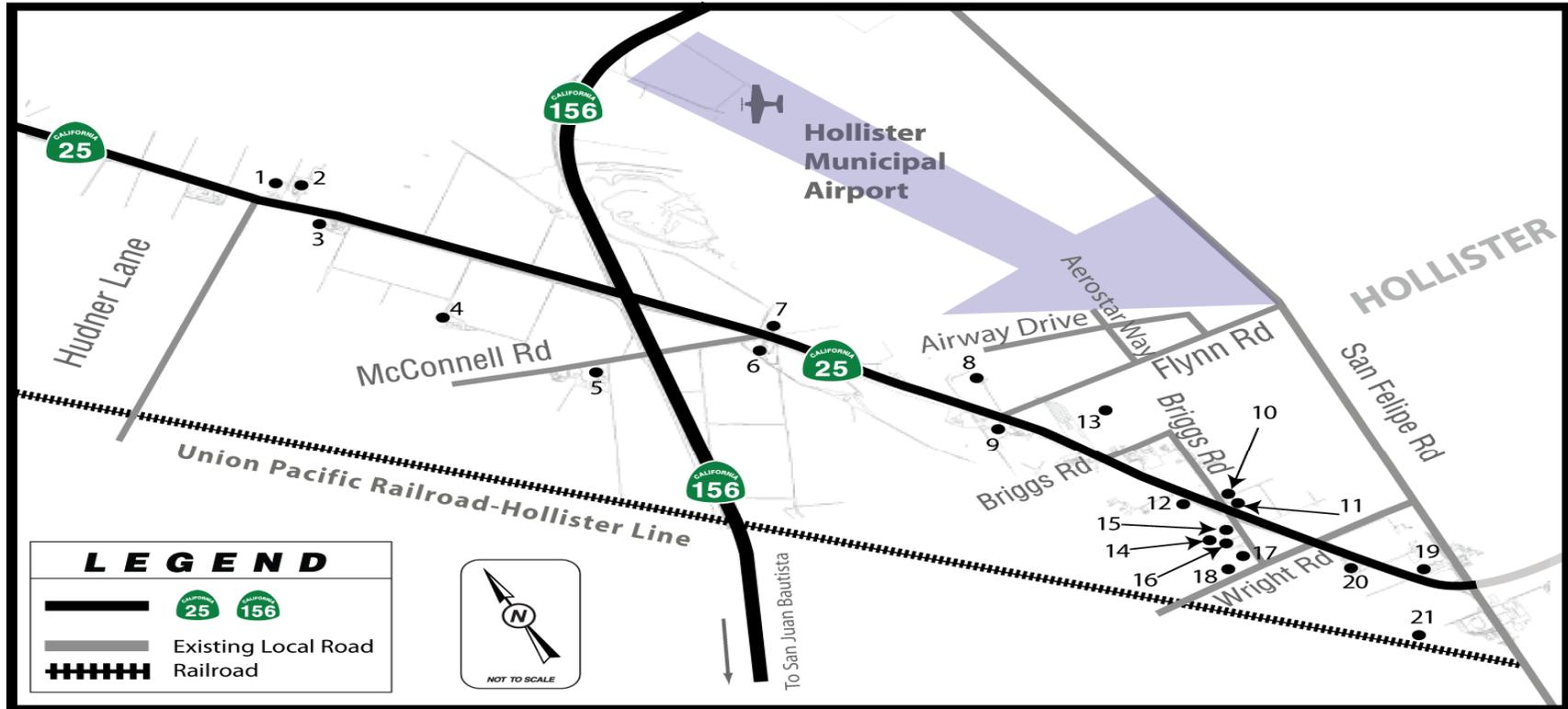
The project area for the route adoption alignments is located in the Hollister Valley, an area of relatively flat terrain. The Pajaro River and Carnadero Creek run through the northern portion of the project area, which is dominated by an agricultural landscape. Farms and rural residential houses are scattered along the length of the study area.

Residences, retail businesses and agriculture-related commercial operations are more concentrated at both ends of the route adoption study area, on the outskirts of Gilroy and Hollister.

Agricultural uses include row crops, fruit and nut orchards, and livestock grazing. Agribusiness operations include produce packing, storage and trucking facilities, seasonal fruit stands, a commercial composting operation, and an agricultural chemical supplier.

Retail businesses located within the vicinity of the build alternatives include an auto body shop, trailer sales, a mini-storage facility, a chocolate factory, and a day-care center. An aggregate quarry and batch plant operation is on the east side of State Route 25, south of State Route 156. Just east but outside the project area is the Hollister Municipal Airport. Other land uses within the proposed project area include the San Benito County Sheriffs' Training Center (shooting range) and a church.

Caltrans identified 21 noise receptors in the vicinity of Alternatives A and B. These receptors were selected because, in the professional judgment of the noise specialist, they are representative of the area. Two noise receptors are commercial (Category C), one noise receptor is a church (Category B), 17 noise receptors are residential (Category B), and one is a motel (Category B). Figure 3-4 shows the receptors and their locations. Tables 3.23 and 3.24 show the noise levels for the build alternatives at existing receptors in the project area.



NOISE RECEPTOR MAP

Receptor Number	Description of Receptors	Receptor Number	Description of Receptors	Receptor Number	Description of Receptors
1	Residence	9	Residence	17	Commercial
2	Residence	10	Residence	18	Residence
3	Residence	11	Residence	19	Motel
4	Residence	12	Residence	20	Church
5	Residence	13	Residence	21	Residence
6	Residence	14	Commercial		
7	Residence	15	Residence		
8	Residence	16	Residence		

Figure 3-4 Location of Noise Receptors

Table 3.23 Existing and Predicted Noise Levels Alternative A

Receptor Number	Location	Description	2006 Existing dBA Leq(h)	2035 No-build Predicted dBA Leq(h)	2035 Build Predicted dBA Leq(h)	Predicted Noise Level with Abatement (dBA) at this height (in feet)				Is Abatement:	
						6	9	12	18	Feasible	Reasonable
1	3616 Bolsa Road	Residence	46.3	48.0	47.3	n/a	n/a	n/a	n/a	n/a	n/a
2	4211 Bolsa Road	Residence	66.2	67.1	76.9	n/a	n/a	n/a	n/a	n/a	n/a
3	4020 Bolsa Road	Residence	67.4	68.3	59.4	n/a	n/a	n/a	n/a	n/a	n/a
4	3447 Bolsa Road	Residence	58.3	59.2	61.0	n/a	n/a	n/a	n/a	n/a	n/a
5	593 McConnell Road	Residence	46.3	47.7	47.5	n/a	n/a	n/a	n/a	n/a	n/a
6	2730 A Bolsa Road	Residence	66.0	66.9	54.4	n/a	n/a	n/a	n/a	n/a	n/a
7	2731 Bolsa Road	Residence	65.4	66.3	58.2	n/a	n/a	n/a	n/a	n/a	n/a
8	1980 Bolsa Road	Residence	67.1	68.0	61.1	n/a	n/a	n/a	n/a	n/a	n/a
9	2130, 2017, 2533 Bolsa Road	Residence	61.2	62.1	63.5	n/a	n/a	n/a	n/a	n/a	n/a
10	233 Briggs Road	Residence	64.2	65.1	72.1	n/a	n/a	n/a	n/a	n/a	n/a
11	231 Briggs Road	Residence	68.1	68.9	78.9	n/a	n/a	n/a	n/a	n/a	n/a
12	312 Briggs Road	Residence	66.6	67.4	77.1	n/a	n/a	n/a	n/a	n/a	n/a
13	640 Briggs Road	Residence	59.9	60.8	65.9	-	-	-	61.5	NO	n/a
14	160 B & C Briggs Road	Commercial	54.7	55.9	59.0	n/a	n/a	n/a	n/a	n/a	n/a
15	100 Briggs Road	Residence	59.2	60.3	60.3	n/a	n/a	n/a	n/a	n/a	n/a
16	132 Briggs Road	Residence	55.0	56.2	59.6	n/a	n/a	n/a	n/a	n/a	n/a
17	100 Briggs Road	Commercial	53.9	55.1	58.7	n/a	n/a	n/a	n/a	n/a	n/a
18	540 and 560 Wright Road	Residences	51.3	52.5	53.0	n/a	n/a	n/a	n/a	n/a	n/a
19	660 San Felipe	Motel	61.4	63.7	62.1	n/a	n/a	n/a	n/a	n/a	n/a
20	790 Bolsa Road	Church	66.3	68.6	67.2	n/a	n/a	n/a	n/a	n/a	n/a
21	Near Gateway Drive	Residence	45.7	47.2	45.1	n/a	n/a	n/a	n/a	n/a	n/a

Table 3.24 Existing and Predicted Noise Levels Alternative B

Receptor Number	Location	Description	2006 Existing dBA Leq(h)	2035 No-build Predicted dBA Leq(h)	2035 Build Predicted dBA Leq(h)	Predicted Noise Level with Abatement (dBA)at this height (in feet)				Is Abatement:	
						6	9	12	18	Feasible	Reasonable
1	3616 Bolsa Road	Residence	46.3	48.0	58.5	-	-	-	57.2	NO	n/a
2	4211 Bolsa Road	Residence	66.2	67.1	53.3	n/a	n/a	n/a	n/a	n/a	n/a
3	4020 Bolsa Road	Residence	67.4	68.3	55.3	n/a	n/a	n/a	n/a	n/a	n/a
4	3447 Bolsa Road	Residence	58.3	59.2	59.4	n/a	n/a	n/a	n/a	n/a	n/a
5	593 McConnell Road	Residence	46.3	47.7	54.0	n/a	n/a	n/a	n/a	n/a	n/a
6	2730 A Bolsa Road	Residence	66.0	66.9	51.7	n/a	n/a	n/a	n/a	n/a	n/a
7	2731 Bolsa Road	Residence	65.4	66.3	49.8	n/a	n/a	n/a	n/a	n/a	n/a
8	1980 Bolsa Road	Residence	67.1	68.0	50.0	n/a	n/a	n/a	n/a	n/a	n/a
9	2130, 2017, 2533 Bolsa Road	Residence	61.2	62.1	48.9	n/a	n/a	n/a	n/a	n/a	n/a
10	233 Briggs Road	Residence	64.2	65.1	49.2	n/a	n/a	n/a	n/a	n/a	n/a
11	231 Briggs Road	Residence	68.1	68.9	49.6	n/a	n/a	n/a	n/a	n/a	n/a
12	312 Briggs Road	Residence	66.6	67.4	49.3	n/a	n/a	n/a	n/a	n/a	n/a
13	640 Briggs Road	Residence	59.9	60.8	47.9	n/a	n/a	n/a	n/a	n/a	n/a
14	160 B & C Briggs Road	Commercial	54.7	55.9	54.1	n/a	n/a	n/a	n/a	n/a	n/a
15	100 Briggs Road	Residence	59.2	60.3	53.3	n/a	n/a	n/a	n/a	n/a	n/a
16	132 Briggs Road	Residence	55.0	56.2	53.8	n/a	n/a	n/a	n/a	n/a	n/a
17	100 Briggs Road	Commercial	53.9	55.1	54.6	n/a	n/a	n/a	n/a	n/a	n/a
18	540 and 560 Wright Road	Residences	51.3	52.5	62.2	n/a	n/a	n/a	n/a	n/a	n/a
19	660 San Felipe	Motel	61.4	63.7	59.4	n/a	n/a	n/a	n/a	n/a	n/a
20	790 Bolsa Road	Church	66.3	68.6	52.9	n/a	n/a	n/a	n/a	n/a	n/a
21	Near Gateway Drive	Residence	45.7	47.2	46.2	n/a	n/a	n/a	n/a	n/a	n/a

Environmental Consequences Under the National Environmental Policy Act

Route Adoption Alternatives

Analysis of specific noise impacts would be done for future Tier II environmental documents as portions of the selected alignment are funded for construction.

Build Alternatives

Tables 3.23 and 3.24 show predicted peak hour noise levels in 2035 for both alternatives, both with and without the project. The results of the analysis indicated that existing noise levels at 8 receptors either approach or exceed the noise abatement criteria of 67 decibels (numbers in bold type). These receptors (2, 3, 6, 7, 8, 11, 12, and 20) have noise levels ranging from 65.4 to 68.1 decibels.

The predicted future noise levels without the project in 2035 indicated that the same 8 receptors would have noise levels that approach or exceed the noise abatement criteria. These receptors (2, 3, 6, 7, 8, 11, 12, and 20) would have noise levels ranging from 66.3 to 68.6 decibels.

The predicted future noise levels with build Alternative A would result in an increase in noise levels that approach or exceed the noise abatement criteria at 6 receptors. The receptors (2, 10, 11, 12, 13, and 20) have noise levels ranging from 65.9 to 78.9 decibels. However, all these receptors except Receptor 13 would be acquired for right-of-way. The noise level at Receptor 13 is predicted to be 65.9 decibels.

The predicted future noise levels with build Alternative B would not result in an increase in noise levels that would approach or exceed the noise abatement criteria under the National Environmental Policy Act.

Construction Noise

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 7-1.011, Sound Control Requirements, which states that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications.

Table 3.25 shows noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to

generate noise levels ranging from 70 to 90 decibels at a distance of 50 feet; noise produced by construction equipment would be reduced over distance at a rate of about 6 decibels per doubling of distance.

Table 3.25 Construction Equipment Noise Ranges

Equipment Type	Average Noise Level (dBA) at 50 feet
Scraper	89
Bulldozer	85
Heavy Truck	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: Federal Transit Administration 1995

Construction noise would be short-term, intermittent, and overshadowed by local traffic noise. The temporary noise from construction would be minimized because construction would be conducted in accordance with Caltrans Standard Specifications Section 7-1.011 and applicable local noise standards.

Avoidance, Minimization, and/or Noise Abatement under the National Environmental Policy Act

Route Adoption Alternatives

Noise studies prepared for future Tier II environmental documents would include specific avoidance, minimization and noise abatement measures.

Build Alternatives

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasible means that when the barrier is constructed at the height and length recommended, the barrier would reduce local noise levels by 5 decibels or more.

Abatement is considered reasonable if a cost/benefit analysis indicates it to be a prudent expenditure of public funds. Whether or not the recommended sound abatement is a reasonable expenditure will be determined by comparing the reasonable costs to the engineer's estimate for each barrier. The total reasonable cost

allowance calculated in accordance with Caltrans' *Traffic Noise Analysis Protocol* is \$44,000 per residence benefited.

If a proposed sound barrier is determined to be a reasonable expenditure, affected residents have the opportunity to meet with the project development team to discuss the barrier. At least 51% of landowners must agree that they want a sound barrier to be constructed adjacent to their property. They may participate in designing proposed aesthetic treatments for the wall.

Build Alternative B would not result in an increase in noise levels that approach or exceed the noise abatement criteria (67 decibels); therefore, noise abatement would not be considered under the National Environmental Quality Policy Act. However, one receptor is discussed in Chapter 4, California Environmental Quality Act Evaluation, in Section 4.2.3.

Build Alternative A would result in an increase in noise levels that approach the noise abatement criteria for Receptor 13; therefore, noise abatement was considered for Alternative A. A barrier was considered to provide noise abatement to Receptor 13, which represents a home on Briggs Road, slightly east of State Route 25. The existing noise level at Receptor 13 is 59.9 decibels, and the future noise level for Alternative A is predicted to be 65.9 decibels. A sound wall 18 feet high and 102 feet long would achieve only a 4.4-decibel reduction in noise for the residence, less than the 5-decibel or greater reduction in noise that must be achieved for the wall to be considered feasible. Therefore the barrier is not feasible.

Construction Noise

Several methods are proposed in the Federal Highway Administration's *Highway Noise Manual* for dealing with construction noise. Methods that could be applicable to this project include the following:

- All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.
- As directed by Caltrans, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

For the route adoption alternatives, noise studies would be prepared for future Tier II environmental documents as portions of the selected alignment are funded for construction.

3.2.8 Energy

Regulatory Setting

The California Environmental Quality Act Guidelines, Appendix F, Energy Conservation, state that Environmental Impact Reports are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.

The National Environmental Policy Act (42 U.S. Code Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

Affected Environment

Energy resources for transportation include petroleum, natural gas, electricity, liquefied petroleum gas, hydrogen, and biofuels such as ethanol. Currently, California's gasoline and diesel markets are characterized by increasing demands, tight supplies, and volatile prices. California imports more than 50% of its crude oil and more than 15% of its refined petroleum products. The state's dependence on oil, which is increasingly expensive, continues to grow. Moreover, fossil fuel-based transportation of products and people is a major contributor of carbon dioxide, the principal cause of climate change. Changes in energy supply and demand are affected by factors such as global energy prices, economic growth, and advances in technologies, weather patterns, and public policy decisions.

Energy consumption in California, where 40% of all energy consumed in the state is used for transportation, continues to be dominated by growth in passenger vehicles. California is the third-largest consumer of transportation fuels in the world (behind only the U.S. as a whole and China); more than 16 billion gallons of gasoline and 4 billion gallons of diesel fuel are consumed each year. California's population is estimated to exceed 49 million by 2030, which would result in substantial increases in transportation fuel demand for the state.

Table 3.26 shows a projected 221 million barrel increase in annual transportation fuel demand between 2005 and 2030. The California Energy Commission’s 2007 Integrated Energy Policy Report concluded that California must address its petroleum infrastructure problems to secure transportation fuels to meet the needs of a growing population. This will require major policy and government decisions in the areas of transportation, land use, and alternative fuels.

Table 3.26 Transportation Fuel Demand in California

Year	Gasoline and Diesel Fuel (in Million Barrels per Year)
2005	553
2010	617
2020	702
2030	774

Source: California Energy Commission 2007

The British Thermal Unit (BTU) is used as the basis for comparing energy consumption associated with different resources. Table 3.27 shows energy sources and their energy unit (the unit of measure used for an energy source) compared with the equivalent British Thermal Units.

Table 3.27 Energy Source and Energy Units

Energy Source	Energy Unit	Equivalent BTU
Electricity	Kilowatt-Hour	3,412
Natural Gas	Cubic Foot	1,034
Crude Oil	Barrel (42 gallons)	5,800,000
Gasoline	Gallon	125,000

Transportation energy consumption reflects the types and numbers of vehicles, the extent of their use (measured in vehicle miles traveled), and their fuel economy (in miles per gallon). Urban growth patterns have caused California’s vehicle miles

traveled to increase at a rate of more than 3% per year between 1975 and 2004. The vehicle miles traveled in the state in 2005 by automobiles was 372 million miles, according to data obtained from the Southern California Association of Governments. The energy consumed by these automobiles was 2.14 trillion British Thermal Units (368,966 barrels of oil).

Environmental Consequences

Route Adoption Alternatives

The eventual energy requirements of the route adoption alternatives, leading to future expressway construction, would each be substantially greater than the No-Action/No-Build Alternative. Factors to consider in energy consumption include, but are not limited to: materials extraction; product manufacturing (e.g. asphalt, concrete), transporting materials to the site, construction worker vehicle miles traveled during construction, and fuel consumption by construction vehicles.

Travelers and commuters on a new four-lane expressway would not have to line up behind slower-moving vehicles. Motorists would be able to maintain a more consistent travel speed because direct access to the expressway would be limited.

Future long-term savings in operational energy requirements should offset the construction energy requirements.

Build Alternatives

The energy requirements of expressway construction would each be substantially greater than the No-Action/No-Build Alternative. Factors to consider in energy consumption include, but are not limited to: materials extraction; product manufacturing (e.g. asphalt, concrete), transporting materials to the site, construction worker vehicle miles traveled during construction, and fuel consumption by construction vehicles.

Travelers and commuters on the new four-lane expressway built for either Alternative A or Alternative B would not have to line up behind slower-moving vehicles. Traffic flow would be improved, and traffic delays reduced. Motorists would be able to maintain a more consistent travel speed because direct access to the expressway would be limited. See Section 3.1.7 Traffic and Transportation for a discussion of delay cost savings, including a reduction in wasted fuel, which would result if either Alternative A or Alternative B were built.

When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the project would not have substantial energy impacts. Long-term savings in operational energy requirements are expected to offset the construction energy requirements for Alternative A and Alternative B (see the California Energy Commission's 2007 Integrated Energy Policy Report).

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

During project design and construction, there are several measures that may assist in reducing energy demand for future projects. These include, but are not limited to, energy-efficient project features (such as lighting, type of pavement, and landscaping) and energy-efficient design (for example, decreasing out-of-direction travel).

Build Alternatives

Measures that increase energy efficiency have been included in the preliminary design for both Alternative A and Alternative B, and would be developed further during the final design phase. These measures include energy-efficient project features (lighting, type of pavement, and landscaping), and energy-efficient design (for example, decreasing out-of-direction travel). See Section 4.2.4 Climate Change under the California Environmental Quality Act for measures and “green practices” to be included in the project where feasible that would reduce the greenhouse gas emissions and potential climate change impacts from the project.

3.3 Biological Environment

In the future, permits required for specific construction projects within a route adoption alignment could include, but not be limited to:

- 1602 Streambed Alteration Agreement from the California Department of Fish and Game
- 2081 Incidental Take Permit from the California Department of Fish and Game
- 2080.1 Consistency Determination from the California Department of Fish and Game
- Section 404 permit for filling or dredging waters of the United States from the U.S. Army Corps of Engineers
- Section 401 certification from the Central Coast Regional Water Quality Control Board

- Biological Opinion from the U.S. Fish and Wildlife Service
- Biological Opinion from the National Marine Fisheries Service

3.3.1 Natural Communities

Regulatory Setting

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

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in the Threatened and Endangered Species section (Section 3.3.5). Wetlands and other waters are discussed in Section 3.3.2.

Affected Environment

A Natural Environment Study for this project was completed in December 2008, and an Addendum was completed in April 2010.

Route Adoption Alternatives

A biological study area was outlined for the route adoption alternatives, Alternative 1 and Alternative 2. A detailed look at biological resources and potential impacts would take place when a future environmental document is prepared for a portion or portions of the selected route adoption alignment funded for construction. See Appendix J for a list of special-status species that would need to be studied further in a Tier II document.

The natural communities represented in the biological study area for the route adoption alignments are agricultural fields, annual grasslands, riparian, and aquatic. Some parcels within the study area are grazing land and have retained their value to local wildlife and native plants as annual grassland with intermittent wetlands.

The Pajaro River and Carnadero Creek support narrow corridors of southern cottonwood-willow riparian forest. Riparian vegetation within these drainages includes the white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), California walnut (*Juglans californica*), sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), and

Arroyo willow (*Salix lasiolepis*). The understory is characterized by California wild grape (*Vitis californica*), stinging nettle (*Urtica holosericea*), poison oak (*Toxicodendron diversilobum*), and Himalayan blackberry (*Rubus discolor*).

These areas provide valuable biological habitat with breeding and nesting sites, pathways for species movement, plus potential foraging opportunities for wildlife.

Migration Corridors and Fish Passage

The Pajaro River and Carnadero Creek have a dense cover of streamside vegetation that offers wildlife a corridor for movement between the Santa Cruz Mountains and the Diablo Mountain Range. The river and creek offer the only areas for wildlife to safely migrate through open agricultural land that receives constant human disturbance.

Heavy traffic of bobcats (*Lynx rufus*), black-tailed deer (*Odocoileus hemionus*), feral cats (*Felis catus*), brush rabbits (*Sylvilagus bachmani*), cottontails (*Sylvilagus aubudonii*), coyotes (*Canis latrans*), and striped skunks (*Mephitis mephitis*) has recently been recorded along the Pajaro River by biologists conducting wildlife movement studies within the biological study area.

Fish passage involves the evaluation of stream crossings at roadways that frequently present barriers to the migration of the state's salmon and steelhead trout populations. The Pajaro River and Carnadero Creek offer a passageway for steelhead to migrate to and from spawning habitats within the upper watershed.

Build Alternatives

Caltrans defined a biological study area to evaluate the biological resources present and to determine the potential impacts that would occur if Alternative A or B were built.

Natural communities in the build alternatives' biological study area are agricultural fields, annual grasslands, and wetlands (vernal pools). No wildlife corridors were identified in the area. Some parcels within the biological study area are grazing land and have retained their value to local wildlife and native plants as annual grassland with intermittent wetlands.

Environmental Consequences

Route Adoption Alternatives

Impacts of the route adoption alternatives are potential impacts discussed for planning purposes, as the route adoption is not a build project.

Preliminary analysis of the biological habitat impacts found that the route adoption alternatives could affect approximately 553 acres of agricultural land under Alternative 1 and 617 acres under Alternative 2. Impacts to non-native grassland could be 142 acres under Alternative 1 and 65 acres under Alternative 2. For this analysis, aquatic and riparian habitats were combined with waters and wetlands for the calculation of impacts. The total acres affected could be approximately 4 acres under either route adoption alternative.

Table 3.28 shows expected impacts to the biological habitats discussed above. Habitats include non-native grassland, agricultural, developed, wetland, riparian, and aquatic. Existing roads and their associated shoulders offer little to no habitat value for wildlife, but make up the remaining acres within the alternative project impact areas.

Table 3.28 Summary of Potential Habitat Impacts for Route Adoption

Habitat Type	Impacts in Acres	
	Alternative 1	Alternative 2
Non-native grassland	142	65
Agricultural	553	617
Developed	24	8
Waters and wetlands	4	4
Roadways	59	35
Total	782	729

Santa Clara Valley Habitat Conservation Plan

Santa Clara County is currently developing the Santa Clara Valley Habitat Conservation Plan. The portion of the route adoption alignment that is in Santa Clara County would be within the Habitat Conservation Plan boundaries. Currently, this project, the State Route 25 Widening and Route Adoption Project, is not included in

the Habitat Conservation Plan, although it could be added with the approval of the plan partners (U.S. Fish and Wildlife Service, California Department of Fish and Game, and the National Marine Fisheries Service). The San Benito County portion of the project could possibly be covered by the Santa Clara Valley Habitat Conservation Plan as well. This would require approval of the above agencies, including San Benito County.

If the Habitat Conservation Plan is approved and this project is incorporated into it, the avoidance, minimization, and compensatory mitigation measures for this project and for future Tier II environmental documents would have to conform to the requirements of the Santa Clara Valley Habitat Conservation Plan. If this project is not included in the proposed Habitat Conservation Plan, avoidance, minimization, and compensatory mitigation measures for this project would be determined by Caltrans in consultation with the U.S. Fish and Wildlife Service, California Department of Fish and Game, and the National Marine Fisheries Service.

Build Alternatives

For the build alternatives, the biological habitat analysis determined that Alternative A could affect 142 acres of agricultural land and Alternative B could affect 188 acres; Alternative A could affect 67 acres of annual grasslands, and Alternative B could affect 6 acres. Potential temporary impact to a seasonal wetland from construction of Alternative A could be 0.02 acre. No impacts to riparian, wetlands, and aquatic habitat would occur from Alternative B.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

In the future, mitigation for riparian habitat would be required by the California Department of Fish and Game to receive a Streambed Alteration Agreement for work in and around the streambeds of the Pajaro River and Carnadero Creek.

When bridges are constructed in the future that would affect or change the Pajaro River or Carnadero Creek, the National Marine Fisheries Service would be consulted. Additional data collection for fish passage may be required before the design or change of bridge structures.

Build Alternatives

No avoidance, minimization, or mitigation measures for natural communities of special concern, wildlife migration routes, or critical habitat are proposed.

3.3.2 Wetlands and Other Waters

Regulatory Setting

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

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

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

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

California Department of Fish and Game 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 Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

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

Affected Environment

A Natural Environment Study was completed for this project in December 2008, and an Addendum was completed in April 2010.

Jurisdictional wetlands are areas that are inundated or saturated by surface or ground water often enough, and for long enough, to support vegetation typically adapted for life in saturated soil conditions as the dominant vegetation. Jurisdictional wetlands generally include swamps, marshes, bogs, natural drainage channels, and seasonal wetlands.

Jurisdictional waters of the U.S. are defined as those waters that are currently used, were used in the past, or could be used in the future for interstate or foreign commerce.

Route Adoption Alternatives

A wetland survey was conducted within the route adoption alignment biological study area between July 1, 2002 and June 30, 2003. The survey was performed following guidelines presented in the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual. Wetland boundaries were delineated (determined) using the criterion of the presence of wetland hydrology, hydric soils and a dominance of hydrophytic vegetation. Wetland data was collected on vernal pools, wetland swales, floodplain and riparian areas, pastures, intermittent streams, drainage ditches, and agricultural ditches. Vernal pools and wetland swales (which convey water across upland areas during and following storms) are seasonal because they are saturated or contain water for part of the year.

The current wetland verification from the Army Corps of Engineers, which was prepared for the State Route 25 Safety and Operations Enhancement project, would be expired and need renewal by the time a construction project within the route adoption alignment is funded. Therefore, wetlands would need to be re-delineated and additional data be collected to update the wetland and waters data for a Tier II project. Most of these wetlands are part of the floodplains and riparian corridors adjacent to the Pajaro River and Carnadero Creek. Other types of wetlands are formed by bermed pasture boundaries and agricultural drainage ditches, and alkaline vernal pools.

Build Alternatives

A seasonal wetland has been identified within and adjacent to Alternative A. Plant species growing there include salt grass (*Distichlis spicata*), alkali heath (*Frankenia grandiflora*), rabbitsfoot grass (*Polypogon monspeliensis*), and dwarf barley (*Hordeum depressum*). This seasonal pool is potential breeding habitat for the California tiger salamander and Pacific tree frog (*Hyla regilla*). It also provides habitat for vernal pool branchiopods such as the versatile fairy shrimp (*Branchinecta lindahli*) and alkali fairy shrimp (*Branchinecta mackini*) (a map of this area is in Appendix M).

Environmental Consequences

Route Adoption Alternatives

The total number of acres of jurisdictional wetlands and waters to be affected is estimated to be approximately 4 acres under both Alternative 1 and Alternative 2. Both route adoption alternatives, were designed to avoid wetlands where feasible.

Build Alternatives

No impacts are anticipated to wetlands or waters of the U.S. from proposed build activities. However, a seasonal wetland adjacent to Alternative A could be affected unless avoidance and minimization measures are taken. The potential impacts to the seasonal wetland could be 0.02 acre. Implementation of the avoidance and minimization measures listed below for Alternative A would offset unexpected impacts.

Alternative B would avoid all wetlands within the build alternatives' biological study area. No impacts to jurisdictional wetlands or waters would occur from Alternative B.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

The route adoption alternatives have been designed to include the smallest footprint practicable to minimize temporary and permanent impacts to wetlands and waters of the U.S. Wetlands and waters of the U.S. temporarily affected by project activities would be restored to original conditions. Caltrans would incorporate standard best management practices for erosion control and water quality.

To ensure no net loss, one or more of the following options would compensate for the permanent loss of wetlands and waters of the U.S.:

- Payment of the appropriate mitigation fee
- Dedication of mitigation lands
- Purchase of approved mitigation bank credits
- Development of an alternative mitigation plan

The mitigation ratio for permanent impacts to wetlands and waters of the U.S. would be determined by regulatory agencies during the permitting process.

Build Alternatives

If Alternative A is selected, before construction Caltrans would establish an environmental sensitive area with protective fencing within the Caltrans right-of-way to avoid accidental construction-related impacts to the seasonal wetland. In addition, the project would incorporate standard Caltrans best management practices to prevent impacts related to degradation of water quality.

No compensatory mitigation is proposed because the potential impacts to 0.02 acre would be temporary.

3.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and California Department of Fish and Game share regulatory responsibility for the protection of special-status plant species. Special-status species are selected for protection because they are rare and/or subject to population and habitat declines. “Special-status” is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed

or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see Threatened and Endangered Species, Section 3.3.5, in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including California Department of Fish and Game fully protected species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at U.S. Code 16, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act found at Fish and Game Code Sections 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

A Natural Environment Study for this project was completed in December 2008, and an Addendum was completed in April 2010.

Route Adoption Alternatives

Botanical surveys were conducted for sensitive plant species with potential habitat present within the study area. These species are included in Appendix K.

Build Alternatives

The only plant species of concern that was seen during surveys was the San Joaquin spearscale (*Atriplex joaquiniana*). This plant is a member of the goosefoot family and is native to California only. It is an inhabitant of alkaline soils within habitats such as chenopod scrub, meadows and seeps, playas, valley and foothill grasslands. The San Joaquin spearscale is an annual plant with gray-green inconspicuous flowers and triangular leaves; it blooms from April to October. It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.2 (1B means rare, threatened or endangered in California and .2 signifies that it is fairly endangered in California).

This species was found during botanical studies within the seasonal wetland adjacent to Alternative A.

Environmental Consequences

Route Adoption Alternatives

Specific potential impacts to sensitive plants by future construction projects within a selected alignment would be analyzed in Tier II environmental documents.

Build Alternatives

No impacts are anticipated to the San Joaquin spearscale as a result of proposed project activities. Implementation of the avoidance and minimization measures listed below would offset unexpected impacts.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

For future construction projects within an adopted route adoption alignment, avoidance, minimization, and mitigation measures for sensitive plant species would be stated in Tier II environmental documents.

Build Alternatives

If Alternative A is selected, before construction Caltrans would establish an environmental sensitive area fence within the Caltrans right-of-way to avoid accidental construction-related impacts to the San Joaquin spearscale habitat within the seasonal wetland.

If Alternative B is selected, the seasonal wetland would be avoided and no environmental sensitive area would be necessary.

3.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 3.3.5 below. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and U.S. Fish and Wildlife Service or National Marine Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- Marine Mammal Protection Act

State laws and regulations pertaining to wildlife include the following:

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

Affected Environment

A Natural Environment Study for this project was completed in December 2008, and an Addendum was completed in April 2010.

Route Adoption Alternatives

Biological surveys were conducted for sensitive animal species with potential habitat present within the study area. These species are included in Appendix K.

Build Alternatives

The two animal species of concern that were seen during the surveys are the northern harrier and the white-tailed kite.

Northern Harrier

The northern harrier (*Circus cyaneus*) is a state species of special concern that occurs in a variety of habitats including meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands. It is considered a medium-sized raptor that averages 18 inches long with a wingspan of 43 inches. Northern harriers are slender with long wings and a long white upper-tail. These birds are often seen flying low over marshes, farmland, and grasslands. Harriers are found from annual grasslands in the Central Valley to lodgepole pine and alpine meadow habitats up to 10,000 feet in the Sierra Nevada.

Northern harriers feed mainly on voles and other small mammals, but can also feed on a variety of prey including birds, frogs, small reptiles, crustaceans, insects, and occasionally fish. These raptors are ground nesters that typically build their nests in shrubby vegetation at the edge of marshes, but may also nest in grasslands, grain fields, or on sagebrush flats several miles from water. Breeding season ranges from

April to September, with the peak activity occurring in June and July. Harriers have one brood per season, laying 3 to 12 eggs. Breeding pairs and juveniles typically roost communally in late autumn and winter.

This species was found foraging within the proposed build alternatives' biological study area during bird surveys; suitable nesting habitat is present.

White-tailed Kite

The white-tailed kite (*Elanus leucurus*), a species fully protected by the state, is a year-long resident in coastal and valley lowlands and is rarely found away from agricultural areas. These raptors fly over grasslands and other open habitats in search of prey. They nest in isolated trees or small woodland patches, including riparian areas. The white-tailed kite is monogamous and breeds during spring and summer with a peak from May to August. Kite nests are usually built near the tops of small to large trees or large shrubs adjacent to open habitats such as fallow or cultivated fields, ruderal areas, grasslands, and oak woodlands.

This species is fairly common in the project area throughout the year as it uses the area as foraging grounds, and it was seen during the surveys. The California Natural Diversity Database indicates that this species was or is nesting 14 miles away from the project area west of Gilroy and north of State Route 152 where the Santa Cruz Mountains begin.

Migratory Birds and State-Protected Birds Act

Bird species protected by the Migratory Bird Treaty Act of 1918 and California Department of Fish and Game Code Section 3511 use the study area for roosting, nesting, and foraging year-round. Birds covered by the Migratory Bird Treaty Act are protected from hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any bird, or any part, nest or egg. State fully protected species (including their parts) may not be taken or possessed at any time. Birds within California have an approximate breeding and nesting season from February 15 to September 1.

Foraging and nesting habitat is present throughout the build alternatives for various migratory birds. Migratory birds not already mentioned that could nest within this biological study area include the western scrub jay (*Aphelocoma californica*), house finch (*Carpodacus mexicanus*), killdeer (*Charadrius vociferus*), American robin (*Turdus migratorius*), and loggerhead shrike (*Lanius ludovicianus*). Migratory birds not already discussed that could use the build alternatives' biological study area for

roosting and foraging include the red-tailed hawk (*Buteo jamaicensis*), western bluebird (*Sialia mexicana*), yellow-rumped warbler (*Dendroica coronata*), Brewer's blackbird (*Euphagus cyanocephalus*), and Bullock's oriole (*Ictuerus bullockii*).

Environmental Consequences

Route Adoption Alternatives

Specific potential impacts to sensitive animal species by future construction projects within a selected alignment would be analyzed in Tier II environmental documents.

Build Alternatives

Northern Harrier

With implementation of avoidance and minimization measures, impacts to the northern harrier are not expected.

White-tailed Kite

With implementation of avoidance and minimization measures, impacts to the white-tailed kite are not expected.

Migratory Birds and State-Protected Birds

With implementation of avoidance and minimization measures, impacts to migratory birds are not expected.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

For future construction projects within an adopted route adoption alignment, avoidance, minimization, and mitigation measures for sensitive animal species would be stated in Tier II environmental documents.

Build Alternatives

Northern Harrier

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest is detected, the California Department of Fish and Game would be consulted and an environmental sensitive area may be established around the nest site to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

No compensatory mitigation is proposed for potential impacts to the northern harrier, but compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit northern harrier (see Section 3.3.5 Threatened and Endangered Species for information on the California tiger salamander).

White-tailed Kite

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest is detected, the California Department of Fish and Game would be consulted and an environmental sensitive area may be established around the nest site to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

No compensatory mitigation is proposed for potential impacts to the white-tailed kite, but compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit white-tailed kite (see Section 3.3.5 Threatened and Endangered Species for information on the California tiger salamander).

Migratory Birds and State-Protected Birds

Trees, shrubs and other vegetation shall be removed before the nesting season of migratory birds. If removal of nests is necessary, the removal would occur during the time of year when the nests are not used (about September 2 to February 14).

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest is detected, the California Department of Fish and Game would be consulted and an environmental sensitive area may be established around the nest site to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

No compensatory mitigation is proposed for potential impacts to protected bird species, but compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit protected bird species (see Section 3.3.5 Threatened and Endangered Species for information on the California tiger salamander).

3.3.5 Threatened and Endangered Species

Regulatory Setting

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 U.S. Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, are required to consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species.

The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats.

The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the California Department of Fish and Game.

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

Affected Environment

A Natural Environment Study for this project was completed in December 2008, and an Addendum was completed in April 2010.

Route Adoption Alternatives

Biological surveys would be done for the sensitive species plants and animals listed in Appendix J in the future when Tier II environmental documents are prepared for portions of the route adoption alignment.

The Pajaro River and Carnadero Creek are federally designated critical habitat for the South-Central California steelhead evolutionary significant unit. They are under the jurisdiction of the National Marine Fisheries Service.

Build Alternatives

Contra Costa Goldfields

The Contra Costa goldfields (*Lasthenia conjugens*) is a member of the sunflower family and is native only to California. It inhabits cismontane woodland, alkaline playas, valley and foothill grasslands, and vernal pools. Contra Costa goldfields is an annual plant that blooms from March to June and has yellow flowers. It is federally listed as endangered and, although the species has not been officially listed by the State of California, the California Department of Fish and Game considers it to be very threatened. Contra Costa goldfields is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.1 (1B means rare, threatened or endangered in California and .1 signifies that it is seriously endangered in California).

The California Natural Diversity Database indicates that this species occurs 25 miles away from the project area within the Fort Ord Military Reservation east of Seaside. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

California Tiger Salamander

The California tiger salamander (*Ambystoma californiense*) is native to grasslands and oak savannah in the Sierra Nevada foothills, Central Valley, Bay Area, and the Coast Ranges in Central California. On August 5, 2004, the U.S. Fish and Wildlife Service listed the California tiger salamander (central population) as threatened throughout the species' range. On March 3, 2010, the California Fish and Game Commission designated the California tiger salamander as threatened under the California Endangered Species Act.

The California tiger salamander is a large terrestrial salamander measuring 3 to 5 inches long. It has black eyes, black irises, and a fairly flat head in profile. Its body is black with large pale yellow to white spots, although often there are no spots on the middle of the back. Its underside is predominately pale yellow or white.

This salamander is found in annual grassland habitat at elevations up to 3,200 feet. It can also occur in valley-foothill hardwood habitats and along streams in valley-foothill riparian habitats. For most of the year, this species hibernates in underground rodent burrows or human-made structures such as wet basements, underground pipes, and septic tank drains. During relatively warm winter and spring rains in November and February, the salamander emerges at night and can migrate over distances exceeding 1 mile to breeding sites in seasonal pools. Pools must hold water for a minimum of 10 weeks for this species to complete development through metamorphosis.

Main threats to the California tiger salamander include loss of habitat quality, the breaking up of habitat areas into small areas that are separated from each other, and loss of breeding habitat. Other concerns include the introduction of exotic and transplanted predatory fishes to pools, loss of refuge habitat next to breeding sites, and poisoning of burrowing mammals.

This species was found within the proposed build alternatives' biological study area during surveys for reptiles and amphibians. Five adult California tiger salamanders were found in ground squirrel burrows near the seasonal wetland discussed in Section 3.3.2. This wetland occurs within remnant grasslands that are bisected by the existing State Route 25 (see Appendix M).

In May 2007, a biologist reported to the California Natural Diversity Database a recent sighting of California tiger salamander along the western edge of the Hollister Municipal Airport on the east side of State Route 25, north of the seasonal wetland. Because no breeding pool for the salamander exists on the airport side of this remnant grassland, it appears that California tiger salamanders occur on both sides of State Route 25 and are using this seasonal pool to breed and sustain their population.

Conservancy Fairy Shrimp

The conservancy fairy shrimp (*Branchinecta conservatio*) is a federally endangered crustacean found in rather large, cool-water vernal pools with turbid (cloudy) water. Like all fairy shrimp, the species has elongated delicate bodies, large stalked compound eyes, and 11 pairs of swimming legs. The species is found within

grasslands of the northern two-thirds of the Central Valley at elevations of 16 feet to 475 feet. Within this limited range, its populations are even more restricted, occupying only a few distinct localities in Tehama, Glenn, Solano, Stanislaus, and Merced counties.

The California Natural Diversity Database indicates that this species occurs 38 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal pool branchiopod surveys of the study area. Suitable habitat was found within the seasonal wetland discussed in Section 3.3.2.

Longhorn Fairy Shrimp

The longhorn fairy shrimp (*Branchinecta longiantenna*) is a federally endangered crustacean found in small clear-water depression pools. Its distribution is quite restricted; the few known sites occur near the eastern edge of the Central Coast Range, with the northern end of its range in the foothill grasslands of Tracy. The species gets its name because its antennae are far longer than any other North American species. The longhorn fairy shrimp has appeared from late December to mid-May in basins filled by winter and spring rains and temperatures from 50 to 64 degrees Fahrenheit. However this shrimp species needs temperatures of 59 to 68 degrees Fahrenheit to attain maturity, which is typically reached in 43 days. It can live for up to 147 days if its pools remain for an extended period of time.

The California Natural Diversity Database indicates that this species occurs 38 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal pool branchiopod protocol surveys of the study area. Suitable habitat was found within the seasonal wetland discussed in Section 3.3.2.

Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally threatened crustacean found in vernal pools or vernal pool-like habitats. It is widely distributed in grassland habitats throughout California, but it is not abundant in any one location. Two major habitat types are characteristic for this species: small, clear, sandstone rock pools or swales surrounded by foothill grasslands, and basalt flow depressions.

The vernal pool fairy shrimp has been collected from early December to early May. It is differentiated from other fairy shrimp by the presence and size of several mounds on the male's second antennae, and by the female's short pear-shaped brood pouch.

The shrimp is capable of resisting desiccation, freezing, or the digestive system of animals, and can remain dormant for several years. The cysts are known to hatch in water of 50 degrees Fahrenheit or less and reach maturity in 41 days (in warmer pools, it can be as little as 18 days). This fairy shrimp has a short lifespan of about 139 days.

The California Natural Diversity Database indicates that this species occurs 33 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal pool branchiopod surveys of the study area. Suitable habitat was found within the seasonal wetland discussed in Section 3.3.2.

San Joaquin Kit Fox

The San Joaquin kit fox (*Vulpes macrotis mutica*) is state listed as threatened and federally listed as endangered. Development of suitable kit fox habitat for intensive agriculture, oil production, and urban land uses has contributed to the decline of this species.

The San Joaquin kit fox occurs mainly in the San Joaquin Valley, though some populations exist in the southern Salinas Valley and possibly the eastern Pajaro River Valley. The fox inhabits valley and foothill grasslands, sparsely vegetated shrubby habitats, and some agricultural and urban areas. Adult foxes are usually solitary during the late summer and fall. By September and October, adult females have begun to dig and enlarge their dens. Adult males join them in October or November, and mating probably occurs near the first of the year. Pups typically are born in late February or early March, begin foraging for themselves at about 4 to 5 months, and go out on their own soon after.

The San Joaquin kit fox uses complex dens for shelter and protection. Most kit fox dens are located in flat terrain or the lower slopes of hills, commonly in washes, drainages, and roadside berms. Kit foxes are reputed to be poor diggers and are usually found in areas with loose-textured, crumbly soils. Some studies have suggested that where hardpan layers predominate, kit foxes create dens by enlarging the burrows of the California ground squirrel (*Spermophilus beecheyi*) or American badger (*Taxidea taxus*). They also commonly den in human-made structures such as small-diameter culverts. A diet of small rodents, such as kangaroo rats (*Dipodomys species*) and California ground squirrels, is usual for kit fox.

Although the California Natural Diversity Database indicates this species occurs within 2.3 miles from the project area, west of Hollister adjacent to State Route 156, and suitable habitat is present, the species was not found during surveys.

Environmental Consequences

Route Adoption Alternatives

Specific potential impacts to sensitive plant and animal species by future construction projects within a selected alignment would be analyzed in Tier II environmental documents.

Build Alternatives

Contra Costa Goldfields

No impacts are expected to the Contra Costa goldfields as a result of proposed project activities. Implementation of the avoidance and minimization measures listed below would offset unexpected impacts.

California Tiger Salamander

Direct impacts to California tiger salamander aestivation (hibernation) habitat would occur as a result of construction of Alternative A. The total of direct impacts to upland habitat is estimated to be 21 acres. The total of indirect impacts to upland habitat is estimated to be 82 acres. No direct impacts to breeding habitat are expected to occur, but 3.7 acres of indirect impacts to breeding habitat are expected.

If Alternative B is constructed, no direct or indirect impacts to aestivation habitat or breeding habitat are expected to occur.

Conservancy Fairy Shrimp

No impacts are expected to the conservancy fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed below would offset unexpected impacts.

Longhorn Fairy Shrimp

No impacts are expected to the longhorn fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed below would offset unexpected impacts.

Vernal Pool Fairy Shrimp

No impacts are expected to the vernal pool fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed below would offset unexpected impacts.

San Joaquin Kit Fox

No impacts are expected to the San Joaquin kit fox as a result of proposed project activities. Implementation of the avoidance and minimization measures listed below would offset unexpected impacts.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

For future construction projects within an approved route adoption alignment, avoidance, minimization, and mitigation measures for threatened and endangered species would be stated in Tier II environmental documents. A Biological Opinion may be required from the U.S. Fish and Wildlife Service. A 2081 Incidental Take Permit or a 2080.1 Consistency Determination from the California Department Fish and Game may also be required.

Build Alternatives

Contra Costa Goldfields

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat located in the build alternatives' project impact area, preconstruction surveys would be conducted. The surveys would be conducted within appropriate habitat for the species during its blooming period. If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If at that time any of the rare plant species have become established relatively close to the project impact area, Caltrans would establish an environmental sensitive area to prevent potential disturbance.

No compensatory mitigation is proposed for the Contra Costa goldfields; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat could also benefit the Contra Costa goldfields.

California Tiger Salamander

Avoidance and minimization efforts for either build alternative would include:

- Special Provisions that spell out the avoidance and minimization efforts described below would be included in the solicitation for bid information.
- Implementation of best management practices during construction. Equipment maintenance, project access, supply logistics, and other project-related activities would occur at a designated staging area. Before starting construction activities, the contractor would determine construction vehicle parking sites and all access routes.
- The limits of the construction area would be flagged, if not already marked by right-of-way or other fencing, and all activity would be confined within the marked area.
- Before construction, fencing would be installed within Caltrans' right-of-way to avoid accidental construction-related impacts to California tiger salamander habitats. Such habitats would be designated as environmental sensitive areas.
- A worker educational training would be conducted, consisting of a brief presentation by persons knowledgeable in California tiger salamander biology, and legislative protection. Endangered species concerns would be explained to contractors and their employees and any other personnel involved in the project.
- To the extent possible, nighttime construction would be minimized within or near California tiger salamander habitats.
- Travel would be restricted to established roadbeds within the marked project site. Project employees would be directed to exercise caution when commuting within or next to the California tiger salamander habitats. A 20-mile-per-hour speed limit would be strongly encouraged on unpaved roads within listed species habitats.
- To prevent inadvertent entrapment of a California tiger salamander during construction, all excavated, steep-walled holes or trenches would be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions shall be used. If any spills occur, cleanup shall take place immediately.

Build Alternative A would require these additional measures:

- Special Provisions that spell out the avoidance and minimization efforts described above and below would be included in the solicitation for bid information.

- Construction would be timed to occur during the dry season (June to October) within 0.6 mile of the seasonal wetland used by the California tiger salamander as a breeding pool.
- A qualified U.S. Fish and Wildlife Service and California Department of Fish and Game-approved biologist would be onsite or on-call during all activities that could result in the take of listed species.
- A U.S. Fish and Wildlife Service and California Department of Fish and Game-approved biologist would conduct preconstruction surveys to identify potential California tiger salamander aestivation sites and breeding pools within designated construction areas that would not be subject to excavation or filling. Identified areas would be enclosed with environmental sensitive area fencing.

Upland Aestivation Habitats

If Alternative A were selected for construction, Caltrans would reduce impacts to upland habitat by either:

- purchasing of credits at an approved U.S. Fish and Wildlife Service and California Department of Fish and Game mitigation bank, or
- recording of a conservation easement preserving species habitat, or
- purchasing of property to preserve species habitat

A 3:1 ratio has been determined for direct impacts (21 acres x 3 = 63 acres). A 1:1.1 ratio has been determined for indirect impacts (82 acres x 1.1 = 90.2 acres). The total required mitigation is estimated to be 153.2 acres.

No compensatory mitigation for upland habitat is proposed for Alternative B.

Breeding Habitat

If Alternative A were selected for construction, Caltrans would reduce impacts to breeding habitat by either:

- purchasing of credits at an approved U.S. Fish and Wildlife Service and California Department of Fish and Game mitigation bank, or
- recording of a conservation easement preserving species habitat, or
- purchasing of property to preserve species habitat

A 1:1.1 ratio has been determined for indirect impacts (3.7 acres x 1.1 = 4.1 acres).

No compensatory mitigation for lost breeding habitat is proposed for Alternative B.

Conservancy Fairy Shrimp

Where construction work would occur in vernal pool branchiopod habitat (the seasonal wetland), the following measures would be followed:

- Implementation of best management practices during construction. Equipment maintenance, project access, supply logistics, and other project-related activities would occur at a designated staging area. Before starting construction activities, the contractor would determine construction vehicle parking sites and all access routes.
- Chemicals, lubricants, and petroleum products must be closely monitored, and precautions shall be used. If any spills occur, cleanup shall take place immediately.
- Any sensitive sites adjacent to the construction activities within Caltrans' right-of-way would be designated as environmental sensitive areas to prevent accidental and indirect construction-related impacts.

No compensatory mitigation is proposed for the conservancy fairy shrimp; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat could also benefit the conservancy fairy shrimp.

Longhorn Fairy Shrimp

Avoidance and minimization measures implemented for the conservancy fairy shrimp would also benefit the longhorn fairy shrimp.

Vernal Pool Fairy Shrimp

Avoidance and minimization measures implemented for the conservancy fairy shrimp would also benefit the vernal pool fairy shrimp.

No compensatory mitigation is proposed for the vernal pool fairy shrimp, but compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat could also benefit the vernal pool fairy shrimp.

San Joaquin Kit Fox

If Alternative A were selected for construction, the U.S. Fish and Wildlife Service Standard Measures for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (see Appendix N) would be implemented as follows:

- Preconstruction/pre-activity surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of ground disturbance and/or

construction activities or any project activity likely to impact the San Joaquin kit fox.

- The configuration of exclusion zones around the kit fox dens should have a 50-foot radius around potential dens and a 100-foot radius around known dens measured outward from the entrance or cluster of entrances.
- Disturbance to all San Joaquin kit fox dens would be avoided to the maximum extent possible.
- Permanent and temporary construction disturbances and other types of project-related disturbance would be minimized.
- A qualified biologist should be present on construction sites during all critical construction activities within endangered species habitat to monitor activities. Activities for which a biologist should be present include all ground-disturbing activities; den and burrow excavations, if necessary; and other activities as determined by the qualified biologist. To the extent possible, a biologist would be available on-call during all construction periods when not actually present on the construction site.
- A San Joaquin kit fox special provision would be included in the bid package to ensure protection of this species during construction.

No compensatory mitigation is proposed for the San Joaquin kit fox.

3.3.6 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.”

Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

A Natural Environment Study for this project was completed in December 2008, and an Addendum was completed in April 2010.

Route Adoption Alternatives

The biological study area for the route adoption alternatives was evaluated for the presence of invasive plant species based on the California Department of Food and Agriculture Noxious Weed List and the Federal Weed List.

Build Alternatives

The biological study area for the build alternatives was evaluated for the presence of invasive plant species based on the California Department of Food and Agriculture Noxious Weed List and the Federal Weed List.

Invasive plant species on the Noxious Weed List that were found within the existing right-of-way include the yellow starthistle (*Centaurea solstitialis*), white-top (*Cardaria pubescens*), Russian thistle (*Salsola tragus*), Bermuda grass (*Cynodon dactylon*), and puncture vine (*Tribulus terrestris*). The project site does not contain any plant species listed on the Federal Weed List.

Environmental Consequences

Route Adoption Alternatives

In the future, construction projects within a route adoption alignment will have a Tier II environmental document. The potential impacts of invasive species within the individual project will be reevaluated for each project.

Build Alternatives

The project would not include transportation of invasive plants and would not change the surrounding habitat to encourage immigration of invasive plants to the site. The proposed project is unlikely to aid the spread of invasive plant species because Caltrans would follow the preventative measures listed below.

Avoidance, Minimization, and/or Mitigation Measures

Route Adoption Alternatives

Future Tier II environmental documents for projects within a route adoption alignment would include avoidance, minimization, and mitigation measures specific to any invasive species found within that project area at that time.

Build Alternatives

In compliance with the Executive Order on Invasive Species, Executive Order 13112 and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur. Preventive measures include the following:

- All equipment and vehicles shall be properly maintained and cleaned before bringing them onsite to avoid transporting dirt and seed material to the project site.
- Erosion control free of noxious weed materials should be used.
- Any fill material brought onsite must be free of noxious weed materials.
- If there were a need for offsite disposal of excess fill at the end of construction, special considerations would be made to prevent the spread of noxious weeds.
- All equipment and vehicles shall be properly cleaned when leaving the project site to avoid spreading noxious weeds to other sites by transporting dirt and seed material.

3.4 Relationship Between Local Short-Term Uses of the Human Environment and the Maintenance and Enhancement of Long-Term Productivity

Implementation of either build alternative would result in attainment of short-term and long-term transportation and economic objectives at the expense of some long-term farmland, aesthetic, noise, biological, and other land use impacts.

Short-term losses include economic losses experienced by businesses affected by relocation and construction impacts such as noise, traffic delays and detours. Short-term benefits include increased jobs and revenue generated during construction.

Long-term losses include loss of farmland, visual impacts and loss of open space, loss of plant and wildlife resources, noise increases, and houses and commercial buildings removed from their location. Long-term gains include improvement of the regional transportation system as well as improved traffic flow and congestion relief in the project vicinity on State Route 25. Goods movement, particularly for agricultural

crops and related agri-businesses, would be improved. The project would also support approved and planned development in Hollister and San Benito County.

The No-Build Alternative would offer none of the benefits or have the losses listed above. The No-Build Alternative would do nothing to remedy increasing congestion on State Route 25 within the project area.

3.5 Irreversible and Irretrievable Commitments of Resources that Would be Involved in the Proposed Project

Construction of either of the build alternatives involves a commitment of a range of natural, physical, human, and fiscal resources. Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a highway. However, if a greater need arises for use of the land or if the highway is no longer needed, the land can be converted to another use. At this time, there is no reason to believe such a conversion would ever be necessary or desirable.

If land is designated for a route adoption, it is committed for future highway construction, but it is not irreversibly committed until construction actually takes place. Resources and human labor used for highway construction and maintenance would not be used by a route adoption.

Considerable amounts of fossil fuels, labor, and highway construction materials such as cement, aggregate, and asphalt are expended. Large amounts of labor and natural resources are used in the making of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use would not have an adverse effect upon continued availability of these resources.

Any construction would also require a substantial one-time expenditure of both state and federal funds, which are not retrievable; savings in energy, time, and a reduction in accidents would offset this. In addition to the costs of construction and right-of-way would be costs for roadway maintenance, including pavement, roadside signs and markers, electrical maintenance, and storm cleanup and repairs.

The commitment of these resources is based on the concept that residents in the immediate area, region, and state would benefit from the improved quality of the

transportation system. These benefits would include improved level of service, improved traffic flow and reduced delays, and enhanced transportation of goods.

Chapter 4 California Environmental Quality Act Evaluation

4.1 Determining Significance under the California Environmental Quality Act

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act and the National Environmental Policy Act. The Federal Highway Administration's responsibility for environmental review, consultation, and any other action required in accordance with the National Environmental Policy Act and other applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption or responsibility pursuant to 23 U.S.C. 327. Caltrans is the lead agency under the California Environmental Quality Act and the National Environmental Policy Act.

One of the primary differences between the National Environmental Policy Act and the California Environmental Quality Act is the way significance is determined. Under the National Environmental Policy Act, significance is used to determine whether an Environmental Impact Statement, or some lower level of documentation, will be required. The National Environmental Policy Act requires that an Environmental Impact Statement be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under the California Environmental Quality Act may not be of sufficient magnitude to be determined significant under the National Environmental Policy Act.

Some impacts determined to be significant under the California Environmental Quality Act may not be of sufficient magnitude to be determined significant under the National Environmental Policy Act. Under the National Environmental Policy Act, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. The National Environmental Policy Act

does not require that a determination of significant impacts be stated in the environmental documents.

The California Environmental Quality Act, on the other hand, does require Caltrans to identify each “significant effect on the environment” resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Each significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the California Environmental Quality Act guidelines list a number of “mandatory findings of significance”, which also require the preparation of an Environmental Impact Report. There are no types of actions under the National Environmental Policy Act that parallel the findings of mandatory significance under the California Environmental Quality Act.

This chapter discusses the effects of this project and California Environmental Quality Act significance.

4.2 Discussion of Significant Impacts

4.2.1 Less than Significant Effects of the Proposed Project

See Chapter 3 for a discussion of affected environments, potential impacts, and avoidance, minimization and/or mitigation measures. Chapter 4 discusses the impacts addressed in Chapter 3 that fall under the jurisdiction of the California Environmental Quality Act.

4.2.2 Significant Environmental Effects of the Proposed Project

Route Adoption Alternatives

In the future, construction within the route adoption alternatives could have significant impacts to visual resources, biological resources, waters and wetlands, paleontological resources, and hazardous waste. See Chapter 3 for a discussion of affected environments, potential impacts, and avoidance, minimization and/or mitigation measures

Build Alternatives

The build alternatives have the potential for significant environmental impacts to visual resources, biological resources (California tiger salamander habitat), paleontological resources, and hazardous waste. However, impacts would be reduced

to less than significant with mitigation. See Chapter 3 for a discussion of affected environments, potential impacts, and avoidance, minimization and/or mitigation measures.

4.2.3 Unavoidable Significant Environmental Effects

Caltrans has determined, according to California Environmental Quality Act guidelines, the project has the potential to have significant effects to farmland and noise.

Farmland

The Natural Resources Conservation Service Farmland Impact Rating indicates that both build alternatives, and both route adoption alternatives when fully built, would result in significant effects on adjacent farmland. Farmland conversion will be a consideration in determining which alternatives would warrant further consideration and which alternatives would be withdrawn. However, significant environmental effects to farmland are unavoidable because the existing State Route 25 is surrounded by farmland and any change or new alignment of the route would inevitably affect farmland. Widening on the alignment of the existing highway would lessen the farmland conversion, but would result in numerous residential and utility relocations, and would affect cultural resources and wetlands. The alternative considered and withdrawn (in addition to the No-Build Alternative) is discussed in Section 2.1.5.

Noise

When determining whether a noise impact is significant under the California Environmental Quality Act, comparison is made between the no-build noise level and the build noise level. The California Environmental Quality Act noise analysis is completely independent of the National Environmental Policy Act 23 Code of Federal Regulations 772 analysis discussed in Chapter 3, which is centered on noise abatement criteria. Under the California Environmental Quality Act, the assessment involves looking at the setting of the noise impact and then at how large or perceptible any noise increase would be in the given area. Key considerations include the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level.

A substantial increase in noise level is predicted at Receptor 1 for Alternative B. This receptor is a residence where the existing noise level is 46.3 dBA and the predicted

level for the year 2030 is 58.5 dBA. A barrier analysis was conducted to determine if a sound wall would be feasible.

Caltrans determined that a sound wall is not feasible at this location because a sound wall 18 feet high and 144 feet long could achieve only a 1.3-decibel reduction in noise, less than the 5-decibel or greater reduction in noise that must be achieved for the wall to be considered feasible.

4.3 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of greenhouse gases related to human activity that include carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1, 1, 1, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change at the state level. AB 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by the Environmental Protection Agency in December 2007 and efforts to overturn the decision have been unsuccessful. See *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that the Environmental Protection Agency will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5-miles-per-gallon fuel economy standard for automobiles and light duty trucks, which will take effect in 2012. On June 30, 2009, the Environmental Protection Agency granted California the waiver. California is

expected to enforce its standards for 2009 to 2011 and then look to the federal government to implement equivalent standards for 2012 to 2016. The granting of the waiver will also allow California to implement even stronger standards in the future. The state is expected to start developing new standards for the post-2016 model years later this year.

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

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

Climate change and greenhouse gas reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing greenhouse gas emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency to regulate greenhouse gas as a pollutant under the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.*, 549 U.S. 497 (2007)). The court ruled that greenhouse gases do fit within the Clean Air Act's definition of a pollutant, and that the Environmental Protection Agency does have the authority to regulate greenhouse gases. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions.

On December 7, 2009, the Environmental Protection Agency Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds 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 Administrator finds 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.

These findings do not impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the Environmental Protection Agency's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by the Environmental Protection Agency and the Department of Transportation's National Highway Safety Administration on September 15, 2009.¹

According to *Recommendations by the Association of Environmental Professionals on How to Analyze Greenhouse Gas Emissions and Global Climate change in CEQA Documents* (Hendrix and Wilson, March 2007), 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 participate in a potential impact through its incremental contribution combined with the contributions of all other sources of greenhouse gases. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(i)(1) and 15130. To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult if not impossible task.

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

¹ <http://www.epa.gov/climatechange/endangerment.html>

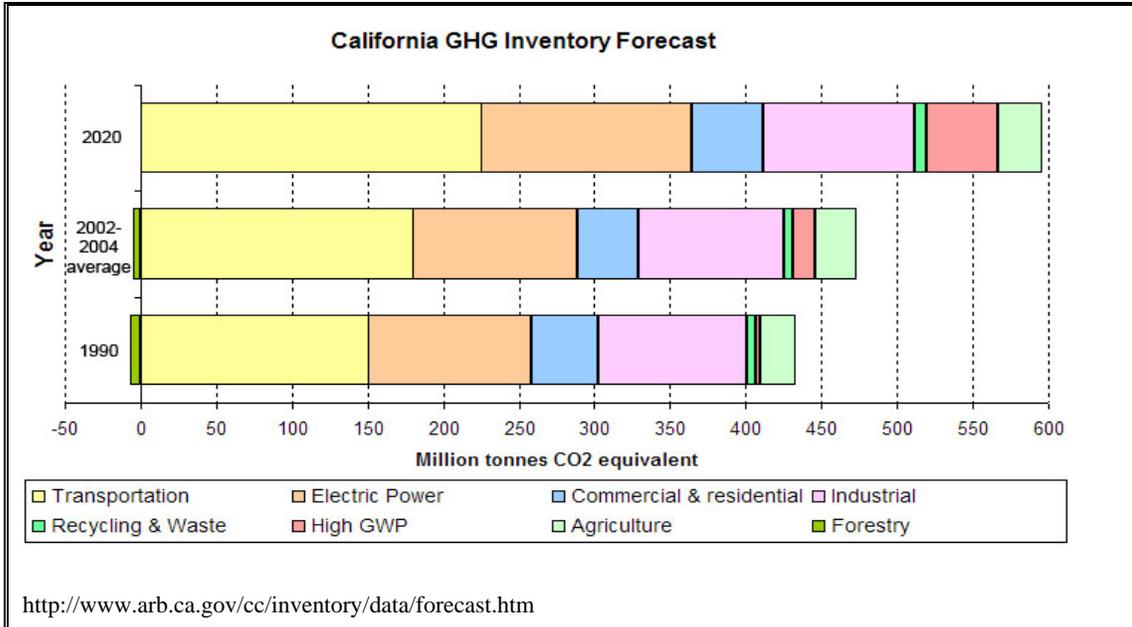


Figure 4-1 California Greenhouse Gas Inventory

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emission reduction and climate change. Recognizing that 98% of California’s greenhouse gas emissions are from the burning of fossil fuels and 40% of all human made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at: <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

Project Analysis

The majority of the route adoption alternatives lies in San Benito County and a minor portion in Santa Clara County. The build alternatives proposed are in San Benito County.

Economic growth in the neighboring county of Santa Clara has created pressure for residential growth in San Benito County where housing is more affordable. According to the 2000 U.S. Census Bureau, almost half of the workers that are 16 years and older in San Benito County commute outside San Benito County for employment. This growth trend has increased demands on the regional transportation system.

The U.S. Census Bureau indicates that the population of San Benito County has grown at a rapid rate. Between 1990 and 2000, the county experienced a 45.1%

population increase, over 90% of which occurred in the City of Hollister. However, in 2003, growth slowed considerably.

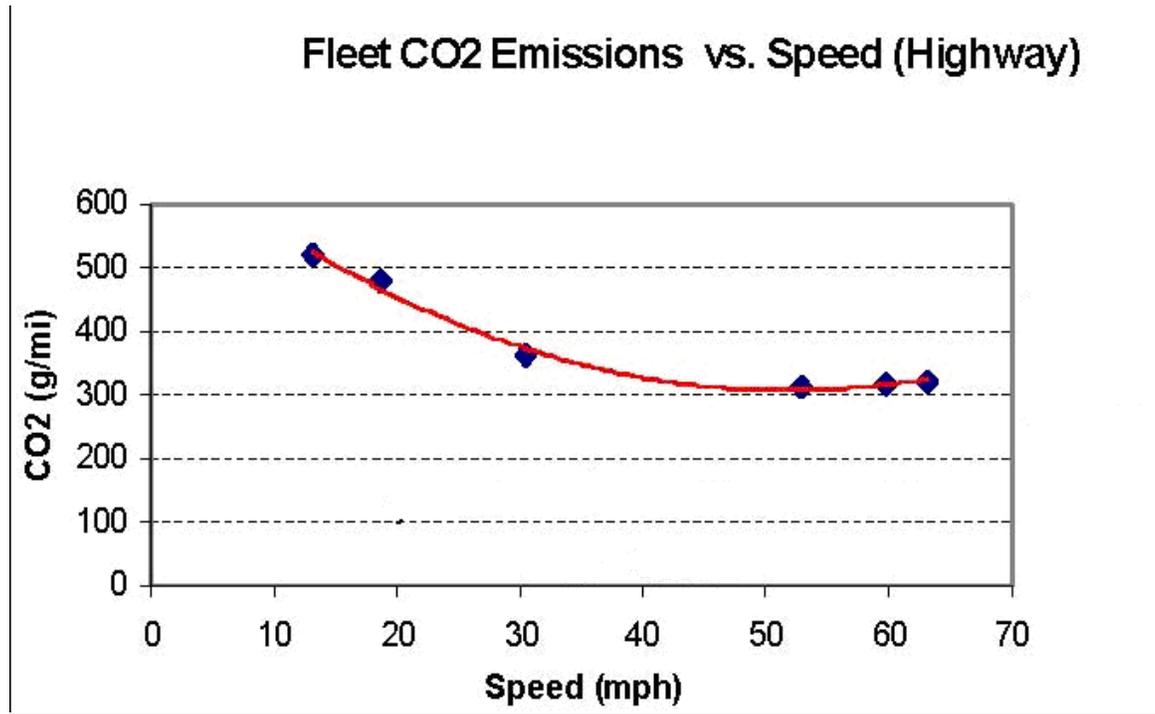
The City of Hollister was placed under a building moratorium by the Central Coast Regional Water Quality Board in 2002, after a major spill occurred at the wastewater treatment plant. That moratorium ended in December 2008, after the newly completed wastewater treatment plant was approved by the Regional Water Quality Board. However, a growth control initiative which passed in November of 2002 is still in effect until June 13, 2012 that limits new housing in Hollister to 244 units per year.

Despite growth in the Hollister area, San Benito County remains a low-density, rural, and agricultural area outside the two cities of Hollister and San Juan Bautista.

According to the U.S. Census Bureau 2006 estimates, Santa Clara County has an estimated population of 1.7 million people. It is the fifth most populous county in California and has 24% of the population of the San Francisco Bay area.

Santa Clara County has strict controls to keep growth within or adjacent to cities and to preserve the remaining farmland and rural areas in the county.

One of the main strategies in the Department's Climate Action Program to reduce greenhouse gas emissions is to make California's transportation system more efficient. Transportation's contribution to greenhouse gas emissions depends on 3 factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0 to 25 miles per hour). Optimum speeds are between 45 and 50 miles per hour, as shown in Figure 4.2 below. Looking at the state transportation system as a whole, enhancing operations and improving travel times in high congestion travel corridors greenhouse gas emissions, particularly carbon dioxide, may be reduced.



Source: Center for Clean Air Policy— 100Hhttp://www.ccap.org/Presentations/Winkelman%20TRB%202004%20(1-13-04).ndf

Figure 4-2 Relationship between Vehicle Speed and Carbon Dioxide (CO₂) Emissions

The build alternatives would relieve traffic congestion and improve traffic flow by providing additional travel lanes. Gasoline and diesel-powered vehicles operate less efficiently at low speeds. The existing conditions for the peak hour level of service within the entire project area on State Route 25 are at a peak hour level of service E.

For the build alternatives, Alternative A and Alternative B, existing average travel speeds are 44.9 miles per hour between San Felipe Road and State Route 156 during the morning peak hour and 45.0 miles per hour during the evening peak traffic hour. For the segment between State Route 156 and Hudner Lane, average travel speeds are currently 43.7 miles per hour during the morning peak hour and 42.4 miles per hour during the evening peak traffic hour.

If neither Alternative A nor Alternative B is constructed, average travel speeds on the existing highway would not decrease significantly by 2015 within the proposed build project limits. However, by 2035 speeds between San Felipe Road and State Route 156 are predicted to be reduced to 38.8 miles per hour during the morning peak traffic

hour and to 40.4 miles per hour during the evening peak. Between State Route 156 and Hudner Lane, average travel speeds during the morning peak hour would be 37.4 miles per hour, and 38.8 miles during the evening peak traffic hour.

A four-lane expressway between San Felipe Road and Hudner Lane would operate at level of service B or better during the peak traffic hours, except that, in Scenario 2 (a worst case scenario), the level of service for Alternative B would drop to level of service C by 2035 during the morning peak traffic (still an acceptable level of service). Although the vehicle density (passenger car per mile per lane) would increase, the average travel speed would remain constant at 59-60 miles per hour during the morning peak hour and about 59.5 miles per hour during the evening peak hour between 2015 and 2035.

Greenhouse gas emissions analysis and forecasting are a relatively new science using existing air modeling tools that were not originally designed for modeling greenhouse gases. Current modeling tools and guidelines are not available at this time to project any effect from this specific project on global warming.

Quantitative Analysis

Estimated annual carbon dioxide emissions were modeled using CT-EMFAC 2007. The assumptions used in the model are a non-peak hour (two hours per day) prevailing free-flow speed of 38-45 miles per hour and a non-peak hour prevailing free-flow speed of 55-60 miles per hour for the No-Build Alternative and both build alternatives. The total vehicle miles traveled were allotted 2 hours for peak and 22 hours for off-peak for all scenarios. Annual average daily traffic includes 10% truck traffic.

Table 4.1 displays carbon dioxide emissions in tons per year for the build alternatives and the No-Build Alternative based on projected annual average daily traffic data. There are other influences on the total effect that a project would have on greenhouse gasses.

Table 4.1 Estimated Carbon Dioxide Emissions for Build and No-Build Alternatives

Alternative	Segment on State Route 25	CO ₂ Emissions (Tons per year)		
		2006 (Existing)	2015	2035
No-Build Alternative	San Felipe Road to State Route 156 (2.5 miles)	20	27	30
	State Route 156 to Hudner Lane (1.3 miles)	10	16	18
Alternative A or Alternative B	San Felipe Road to State Route 156 (2.5 miles)	20	29	29
	State Route 156 to Hudner Lane (1.3 miles)	10	16	20

Source: Air Quality Report, April 2010

Only the build alternatives were studied at this time. The route adoption portion will undergo more detailed study in the future, and it is expected that modeling for greenhouse gasses will have improved by that time.

According to EMFAC modeling results, both the build and no-build alternatives for both the 2015 and 2035 scenario indicate an increase in carbon dioxide when compared to the existing condition. This is primarily because of EMFAC’S focus on predicted traffic volumes and speeds, which would increase with the additional two lanes the project adds to the highway.

Looking at the project alternatives solely in this manner creates an interesting situation. The highway segment is already operating at level of service E in the peak hour, which is considered failing, although it operates near the optimum speed of 45 miles per hour for lower carbon dioxide emissions. Based on the traffic study conducted for this project, the level of service for the No-Build Alternative will continue to deteriorate in the future years. As speeds sink further below 45 miles per hour, carbon dioxide emissions would show a corresponding increase. In both the no-build and build conditions in the future years, carbon dioxide emissions will increase. For the 2015 year, the State Route 156 to Hudner Lane segment shows that both the no-build and build alternatives will have similar carbon dioxide emissions; for the San Felipe Road to Sate Route 156 segment, the Build Alternative will have a slightly higher increase in emissions. For the 2035 year, the pattern is similar, except that for the San Felipe Road to State Route 156 segment, the No-Build Alternative would

have higher carbon dioxide emissions. The Build Alternative will improve mobility in the corridor.

While the project was in early development, the Council of San Benito County Governments was considering the possibility of extending the Santa Clara County commuter rail service from Gilroy to Hollister using the existing Union Pacific Railroad Hollister branch line. These tracks, now used only by freight trains, cross State Route 25 just southeast of the San Benito County/Santa Clara County line. The Council of Governments later dropped the commuter rail idea due to a lack of money to develop it. The commuter rail proposal was not proposed as an alternative as part of the State Route 25 Widening Project.

Limitations and Uncertainties with Modeling

EMFAC

Although EMFAC can calculate carbon dioxide emissions from mobile sources, the model does have limitations when it comes to accurately reflecting CO₂ emissions. According to the National Cooperative Highway Research Program report, *Development of a Comprehensive Modal Emission Model* (April 2008), studies have revealed that brief but rapid accelerations can contribute significantly to a vehicle's carbon monoxide and hydrocarbon emissions during a typical urban trip. Current emission-factor models are insensitive to the distribution of such modal events (i.e., cruise, acceleration, deceleration, and idle) in the operation of a vehicle and instead estimate emissions by average trip speed. This limitation creates an uncertainty in the model's results when compared to the estimated emissions of the various alternatives with baseline in an attempt to determine impacts. Although work by the Environmental Protection Agency and the California Air Resources Board is underway on modal-emission models, neither agency has yet approved a modal emissions model that can be used to conduct this more accurate modeling. In addition, EMFAC does not include speed corrections for most vehicle classes for carbon dioxide—for most vehicle classes emission factors are held constant, which means that EMFAC is not sensitive to the decreased emissions associated with improved traffic flows for most vehicle classes. Therefore, unless a project involves a large number of heavy-duty vehicles, the difference in modeled carbon dioxide emissions due to speed change will be slight.

It is interesting to note that the California Air Resources Board is currently not using EMFAC to create its inventory of greenhouse gas emissions. It is unclear why the California Air Resources Board has made this decision. Its website only states:

REVISION: Both the EMFAC and OFFROAD Models develop CO₂ and CH₄ [methane] emission estimates; however, they are not currently used as the basis for [the California Air Resources Board's] official [greenhouse gas] inventory which is based on fuel usage information...However, the Air Resources Board is working towards reconciling the emission estimates from the fuel usage approach and the models.

Other Variables

With the current science, project-level analysis of greenhouse gas emissions is limited. There are numerous key greenhouse gas variables that are likely to change dramatically during the design life of the proposed project and would thus dramatically change the projected carbon dioxide emissions.

First, vehicle fuel economy is increasing. The Environmental Protection Agency's annual report, *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 through 2008* (<http://www.epa.gov/oms/fetrends.htm>), which provides data on the fuel economy and technology characteristics of new light-duty vehicles including cars, minivans, sport utility vehicles, and pickup trucks, confirms that average fuel economy, has improved each year beginning in 2005, and is now the highest since 1993. Most of the increase since 2004 is due to higher fuel economy for light trucks, following a long-term trend of slightly declining overall fuel economy that peaked in 1987. These vehicles also have a slightly lower market share, peaking at 52% in 2004 with projections at 48% in 2008.

Table 4.2 Required Miles Per Gallon by Alternative

Model Year 2015 Required Miles Per Gallon by Alternative							
No Action		25% Below Optimized	Optimized (Preferred)	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Cars	27.5	33.9	35.7	37.5	39.5	43.3	52.6
Trucks	23.5	27.5	28.6	29.8	30.9	33.1	34.7

Table 4.2 shows the alternatives for vehicle fuel economy increases currently being studied by the National Highway Traffic Safety Administration in its Draft

Environmental Impact Statement for New Corporate Average Fuel Economy Standards (June 2008).

Second, near zero carbon vehicles will come into the market during the design life of this project. According to a March 2008 report released by University of California at Davis (UC Davis), Institute of Transportation Studies:

“Large advancements have occurred in fuel cell vehicle and hydrogen infrastructure technology over the past 15 years. Fuel cell technology has progressed substantially resulting in power density, efficiency, range, cost, and durability all improving each year. In another sign of progress, automotive developers are now demonstrating over 100 fuel cell vehicles (FCVs) in California – several in the hands of the general public – with configurations designed to be attractive to buyers. Cold-weather operation and vehicle range challenges are close to being solved, although vehicle cost and durability improvements are required before a commercial vehicle can be successful without incentives. The pace of development is on track to approach pre-commercialization within the next decade.

“A number of the U.S. Department of Energy 2010 milestones for fuel cell vehicles development and commercialization are expected to be met by 2010. Accounting for a five to six year production development cycle, the scenarios developed by the U.S. Department of Energy suggest that 10,000s of vehicles per year from 2015 to 2017 would be possible in a federal demonstration program, assuming large cost share grants by the government and industry are available to reduce the cost of production vehicles.”²

Third, driver behavior has been changing as the U.S. economy and oil prices have changed. In its January 2008 report, *Effects of Gasoline Prices on Driving Behavior and Vehicle Market*, <http://www.cbo.gov/ftpdocs/88xx/doc8893/01-14-GasolinePrices.pdf>, the Congressional Budget Office found the following results based on data collected from California: 1) freeway motorists have adjusted to higher gas prices by making fewer trips and driving more slowly; 2) the market share of sports utility vehicles is declining; and 3) the average prices for larger, less-fuel-efficient models have declined over the past five years as average prices for the most-

² Cunningham, Joshua, Sig Cronich, Michael A. Nicholas. March 2008. *Why Hydrogen and Fuel Cells are Needed to Support California Climate Policy*, UC Davis, Institute of Transportation Studies, pp. 9-10.

fuel-efficient automobiles have risen, showing an increase in demand for the more fuel-efficient vehicles.

Limitations and Uncertainties with Impact Assessment

Taken from pp. 3-48 and 3-49 of the National Highway Traffic Safety Administration Draft Environmental Impact Statement for New Corporate Average Fuel Economy Standards (June 2008), Figure 4-3, illustrates how the range of uncertainties in assessing greenhouse gas impacts grows with each step of the analysis “Cascade of uncertainties typical in impact assessments showing the “uncertainty explosion” as these ranges are multiplied to encompass a comprehensive range of future consequences, including physical, economic, social, and political impacts and policy responses.”

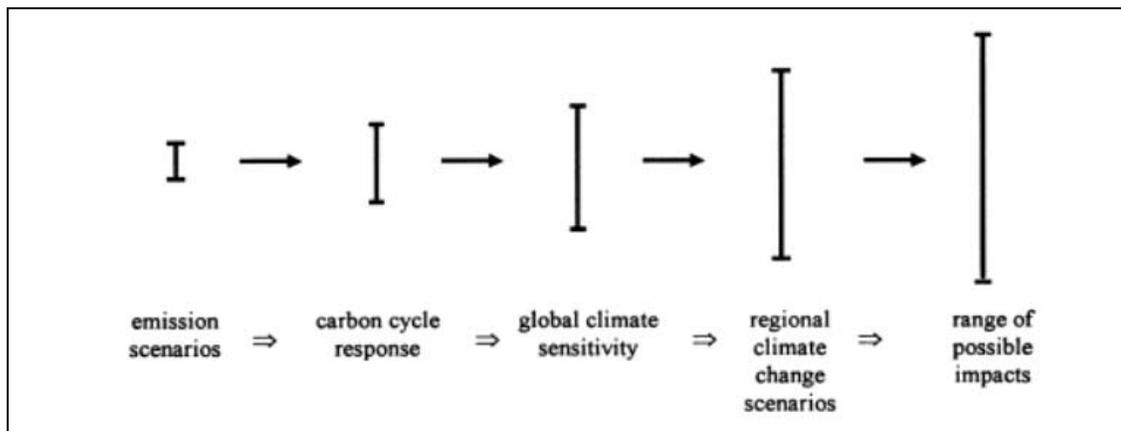


Figure 4-3 Cascade of Uncertainties

Much of the uncertainty in assessing an individual project’s impact on climate change surrounds the global nature of the climate change. Even assuming that the target of meeting the 1990 levels of emissions is met, there is no regulatory framework in place that would allow for a ready assessment of what the modeled 11.4- to 20.9-ton increase in carbon dioxide (CO₂) emissions would mean for climate change given the overall California greenhouse gas emissions inventory of approximately 430 million tons of carbon dioxide (CO₂) equivalent. This uncertainty only increases when viewed globally. The Intergovernmental Panel on Climate Change has created multiple scenarios to project potential future global greenhouse gas emissions as well as to evaluate potential changes in global temperature, other climate changes, and their effect on human and natural systems. These scenarios vary in terms of the type of economic development, the amount of overall growth, and the steps taken to

reduce greenhouse gas emissions. Non-mitigation Intergovernmental Panel on Climate Change scenarios project an increase in global greenhouse gas emissions by 9.7 up to 36.7 billion metric tons carbon dioxide from 2000 to 2030, which represents an increase of between 25% and 90%.³

The assessment is further complicated by the fact that changes in greenhouse gas emissions can be difficult to attribute to a particular project because the projects often cause shifts in the locale for some type of greenhouse gas emissions, rather than causing “new” greenhouse gas emissions. Although some of the emission increases might be new, a net global increase, reduction, or no change, is uncertain and there are no models approved by regulatory agencies that operate at the global or even statewide scale.

The complexities and uncertainties associated with project-level impact analysis are further borne out in the recently released Draft Environmental Impact Statement completed by the National Highway Traffic Safety Administration Corporate Average Fuel Economy standards, June 2008. As the text quoted below shows, even when dealing with greenhouse gas emission scenarios on a national scale for the entire passenger car and light truck fleet, the numerical differences among alternatives is very small and well within the error sensitivity of the model.

“In analyzing across the Corporate Average Fuel Economy 30 alternatives, the mean change in the global mean surface temperature, as a ratio of the increase in warming between the B1 (low) to A1B (medium) scenarios, ranges from 0.5% to 1.1%. The resulting change in sea level rise (compared to the No Action Alternative) ranges, across the alternatives, from 0.04 centimeter to 0.07 centimeter. In summary, the impacts of the Model Year 2011-2015 Corporate Average Fuel Economy alternatives on global mean surface temperature, sea level rise, and precipitation are relatively small in the context of the expected changes associated with the emission trajectories. This is due primarily to the global and multi-sectoral nature of the climate problem. Emissions of CO₂, the primary gas driving the climate effects, from the United States automobile and light truck fleet represented about 2.5% of total global emissions of all greenhouse gases in the year 2000 (EPA, 2008; CAIT, 2008). While a significant source, this is a still small percentage of global emissions, and the relative contribution of CO₂ emissions from the United States light

³ Intergovernmental Panel on Climate Change (IPCC). February 2007. Climate Change 2007: The Physical Science Basis: Summary for Policy Makers. <http://www.ipcc.ch/SPM2feb07.pdf>.

vehicle fleet is expected to decline in the future, due primarily to rapid growth of emissions from developing economies (which are due in part to growth in global transportation sector emissions).” [NHTSA Draft Environmental Impact Statement for New Corporate Average Fuel Economy Standards, June 2008, pp.3-77 to 3-78]

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 will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

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

CEQA Conclusion

Based on the above, 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 determination regarding the project’s direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Assembly Bill 32 Compliance

Caltrans continues to be actively involved on the Governor’s Climate Action Team as the California Air Resources Board works to implement the Governor’s executive orders and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Governor Arnold Schwarzenegger’s Strategic Growth Plan calls for a \$222 billion infrastructure improvement program to fortify

the state’s transportation system, education, housing, and waterways, including \$107 in transportation funding during the next decade.

As shown on Figure 4-4, the Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in greenhouse gas emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

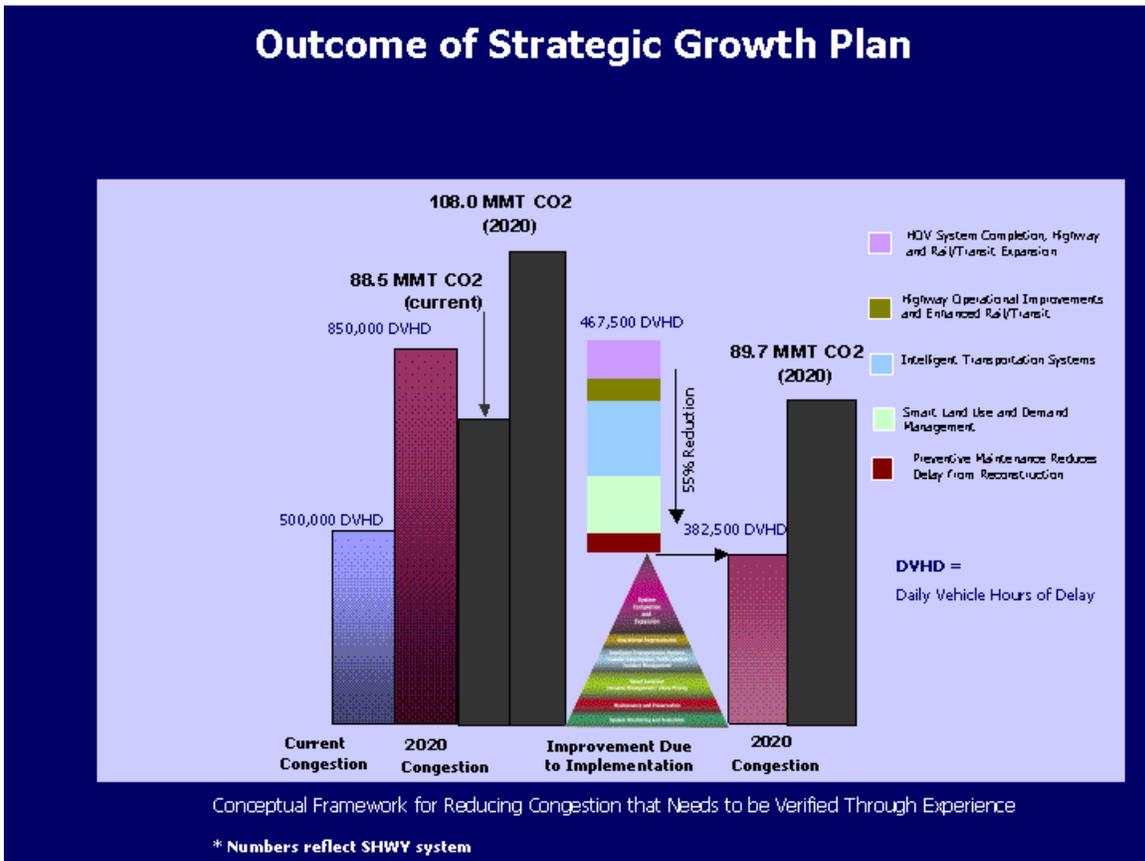


Figure 4-4 Outcome of Strategic Growth Plan

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

Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislation efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by the U.S. Environmental Protection Agency and California Air Resources Board.

Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California at Davis.

Table 4.3 summarizes the Department and statewide efforts that Caltrans is implementing to reduce greenhouse gas emissions. For more detailed information about each strategy, please see *Climate Action Program at Caltrans* (December 2006); it is available at <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

Table 4.3 Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO2 Savings (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	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 Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	0.007	2.17
Mainstream Energy & Greenhouse Gas 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, CARB, 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 0.45 .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 25% fly ash cement mix > 50% fly ash/slag mix	1.2 0.36	3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.67

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

1. Trees will be planted and native plants and grasses will be planted or seeded. Trees sequester atmospheric carbon to create beneficial greenhouse gas sinks. Tree canopy also creates a drop in paved surface temperatures through shade and the cooling effect of water as it evaporates into the air from leaves through transpiration. Vegetation, especially light-colored groundcovers such as grasses, generally increases albedo as compared to bare earth. Albedo is the extent to which an object diffusely reflects light from the sun. Plants also increase the amount of vapor in the air and rainwater retained in a location, thereby adding to the cooling effect as well as increasing groundwater recharge, decreasing the amount of rainwater that is runoff into storm drains and reducing the transport of pollutants into streams, and thus ultimately into the ocean.
2. Portland cement is lighter in color, which helps to reduce the albedo effect and cool the roadway surface. In addition, Caltrans has been a leader in the effort to add fly ash to Portland cement mixes, which can make the pavement stronger and reduces the greenhouse gas emissions associated with cement production.
3. The project would incorporate the use of energy-efficient lighting, such as LED traffic signals. LED bulbs—or balls, in the stoplight vernacular—cost \$60 to \$70 apiece but last five to six years, compared to the one-year average lifespan of the incandescent bulbs previously used. The LED balls themselves consume 10% of the electricity of traditional lights, which will also help reduce the project’s CO₂ emissions
4. According to Caltrans Standard Specification Provisions, idling time for lane closure during construction is restricted to 10 minutes in each direction.
5. In addition, the contractor must comply with Monterey Bay Unified Air Pollution Control District’s rules, ordinances, and regulations in regard to air quality restrictions.

The following “green” practices and materials would be used in the project as part of highway planting and erosion control work:

- PVC irrigation pipe with recycled content

- Non-chlorinated High Density Polyethylene (HDPE) irrigation crossover conduit
- Compost and soil amendments derived from sewage sludge and green waste materials
- Fiber produced from recycled pulp such as newspaper, chipboard, cardboard
- Wood mulch made from green waste and/or clean manufactured wood or natural wood
- Native and drought-tolerant seed and plants species
- Irrigation controllers, including water conservation features
- Restricted pesticide use and reduction goals
- Landscaping will use reclaimed water where feasible if it becomes available

The State of California maintains several websites which provide public information measures to improve renewable energy use, energy efficiency, water conservation and efficiency, land use and landscape maintenance, solid waste measures, and transportation alternatives.

Adaptation Strategies

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

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

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

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

This project is not mandated to consider sea level rise. A Notice of Preparation was filed with the State Clearinghouse for the State Route 25 Widening Project on July 23, 2007. The elevation of State Route 25 within the project area, a valley, ranges from 150 feet to about 260 feet. Mountains surround the valley and range from less than 2,000 feet to about 5,000 feet.

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

On August 3, 2009, the Natural Resources Agency in cooperation and partnership with multiple state agencies, released the 2009 California Climate Adaptation Strategy Discussion Draft, which summarizes the best known science on climate change impacts in seven specific sectors and provides recommendations on how to manage against those threats. The release of the draft document set in motion a 45-day public comment period. Led by the California Natural Resources Agency, numerous other state agencies were involved in the creation of the discussion draft, including Environmental Protection; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture.

The discussion draft focuses on sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry;

and Transportation and Energy Infrastructure. The strategy is in direct response to Governor Schwarzenegger's November 2008 Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings. A revised version of the report was posted on the Natural Resources Agency website on December 2, 2009; it can be viewed at: <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>.

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

Chapter 5 Comments and Coordination

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

Section 6002 Coordination

The following coordination occurred after the decision to prepare a Tier I Environmental Impact Statement was made:

- On April 1, 2008, the Notice of Intent to prepare an Environmental Impact Statement for this project was published in the Federal Register.
- Invitations to participating agencies were sent on March 15, 2008. Another invitation that included the published Notice of Intent was mailed on April 4, 2008.

Agencies were invited to become participating agencies because Caltrans believed that they might have some interest in the project due to potential environmental impacts to resources under their jurisdiction. Under SAFETEA-LU Section 6002, a "participating agency" is any federal or non-federal agency (federal, state, tribal, regional, and local government agency) that may have an interest in the project.

Federal agencies invited were the U.S. Army Corps of Engineers, the U.S.D.A. Natural Resources Conservation Service, and the U.S. Fish and Wildlife Service. Non-federal agencies included the Central Coast Regional Water Quality Control Board and the Pajaro River Watershed Flood Prevention Authority. None of these agencies accepted Caltrans' invitation to become participating agencies on this project. However, because none of the federal agencies sent notification that they were declining to be participating agencies, the U.S. Army Corps of Engineers, the U.S. Department of Agriculture Natural Resources Conservation Service, and the U.S. Fish and Wildlife Service became participating agencies by default, as required by federal law (SAFETEA-LU Section 2002).

Due to their non-response, the Central Coast Regional Water Quality Control Board and the Pajaro River Watershed Flood Prevention Authority are not considered to be participating agencies for this project.

Caltrans received a fax from the Environmental Protection Agency, Region IX, on May 2, 2008. Carolyn Mulvihill of the Environmental Review Office commented on the project and asked that the Environmental Protection Agency be a participating agency. Caltrans responded to the Environmental Protection Agency on May 16, acknowledging the comments and stating that the agency was added as a participating agency for this project.

Caltrans provided a purpose and need statement and maps and information about the five alternatives under consideration to the potential participating agencies in the invitation letters. These agencies were invited to the Public Scoping Meeting held in Hollister on April 3, 2008, but no representatives of the U.S. Army Corps of Engineers, the U.S.D.A. Natural Resources Conservation Service, the U.S. Fish and Wildlife Service, the Central Coast Regional Water Quality Control Board, or the Pajaro River Watershed Flood Prevention Authority attended the Public Scoping Meeting.

In July 2009, a project update was sent to the U.S. Army Corps of Engineers, the U.S.D.A. Natural Resources Conservation Service, the U.S. Fish and Wildlife Service, and the U.S. Environmental Protection Agency. In the same letter, these agencies were invited to become cooperating agencies. No response was received from any of these agencies.

The National Marine Fisheries Service, Protected Resources Division, was invited to become a cooperating and participating agency as well because the Pajaro River and Carnadero Creek have designated critical habitat for steelhead within the route adoption alignments. An email was received on July 24 from Dave Walsh of that division (Santa Rosa office) accepting Caltrans' invitation to participate.

In addition, the following state agencies were invited to become participating agencies in July 2009:

- Central Coast Regional Water Quality Control Board
- Central Valley Flood Protection Board
- Department of Conservation
- Department of Forestry and Fire Protection, San Benito-Monterey Unit

- Department of Forestry and Fire Protection, Santa Clara Unit
- Department of Toxic Substances Control
- Highway Patrol, Hollister-Gilroy office
- Public Utilities Commission
- State Lands Commission, Division of Environmental Planning and Management

None of the nine state agencies listed above responded to the invitation letter.

Local agencies and special districts were also invited to participate in the project in July 2009:

- Association of Monterey Bay Area Governments
- City of Gilroy Fire Department
- City of Gilroy Planning Department
- City of Gilroy Police Department
- City of Hollister City Engineer
- City of Hollister City Manager
- City of Hollister Fire Department
- City of Hollister Mayor and City Council
- City of Hollister Development Services
- City of Hollister Police Department
- Monterey Bay Unified Air Pollution Control District
- Pajaro River Watershed Flood Prevention Authority
- San Benito County Public Works
- San Benito County Agricultural Commissioner
- San Benito County Board of Supervisors
- San Benito County Integrated Waste Management
- San Benito County Emergency Services
- San Benito County Environmental Health
- San Benito County Fire Department
- San Benito County Office of Education, Superintendent of Schools
- San Benito County Sheriff-Coroner
- San Benito County Water District
- San Benito County Planning and Building Department
- Santa Clara County Board of Supervisors
- Santa Clara County Department of Planning and Development
- Santa Clara County Department of Environmental Health
- Santa Clara County Division of Agriculture
- Santa Clara County Office of Emergency Services

- Santa Clara County Sheriff
- Santa Clara Valley Water District

Three of the 30 agencies in the preceding list responded to Caltrans' invitation to become participating agencies on the project. The City of Hollister, Development Services, Planning Division (letter dated July 17, 2009) and the Santa Clara Valley Water District (letter dated July 24, 2009) accepted the invitation to be participating agencies. In a letter dated August 14, 2009, the City of Gilroy, Community Development Department, Planning Division, declined the invitation to participate.

Status of Permits and Approvals

A Biological Opinion would have to be obtained after this draft environmental document is circulated if Alternative A were selected as the preferred alternative. After a Biological Opinion is received, a 2080.1 Consistence Determination would be needed from the Department of Fish and Game.

Scoping Process

The State Route 25 Widening Project, which preceded this route adoption and build project combination, started in 2001. Initially, Caltrans expected that the environmental document would be a Draft Environmental Impact Report/Draft Tier I Environmental Statement. In 2002, after environmental studies were underway, the project development team decided that the environmental document type prepared for the project would be an Environmental Assessment/Initial Study because it seemed there would be fewer environmental impacts than previously assumed.

A Public Information Meeting was held in Hollister at R.O. Hardin Elementary School on September 3, 2003 to present the project as it was proposed at that time. Both a four-lane conventional highway and a four-lane expressway with partial access control were being studied by Caltrans. Public comments expressed at the meeting generally covered: access and length of frontage roads, potential relocations, and flooding near U.S. 101; support for the project and eagerness for it to be completed; and comments about the details of the alignments and interchange configurations proposed at that time.

After this meeting, a new alternative, now known as route adoption Alternative 1, was designed to incorporate some of the ideas expressed at the meeting.

In 2007, the document type was changed again, to an Environmental Assessment/Environmental Impact Report because of significant impacts to farmland that would

be caused by the project. A Notice of Preparation of a Draft Environmental Impact Report was issued by Caltrans on July 23, 2007.

In December 2007, Caltrans decided to change the expressway project to a route adoption for the length of the proposed expressway and, in addition, propose a shorter segment of expressway to be constructed in the near future. The change to include a route adoption as part of the project led to a decision to prepare a Tier I Environmental Impact Statement.

A Notice of Intent to prepare an Environmental Impact Statement for this project was published in the Federal Register on April 1, 2008.

A Public Scoping Meeting was held for this project at R.O. Hardin Elementary School at 881 Line Street in Hollister, California. The meeting was publicized through a direct mail announcement to property and business owners of the project area, public agencies and public officials, and other interested parties. Caltrans sent letters of invitation to federal, state, and local officials. A public notice for the meeting appeared in the *Hollister Pinnacle* on March 28, 2008, and the *Hollister Free Lance* on April 1, 2008.

Persons attending the meeting and those who wrote letters after the meeting preferred Alternative 2 and Alternative B. Many property owners noted improvements to their land, business or residence that could increase the right-of-way costs for Alternative 1 and Alternative A. Only one person at the meeting and one person who wrote a letter stated a preference for Alternative A.

Some meeting attendees proposed that Flynn Road be connected to the Alternative B expressway instead of Briggs Road to avoid impacts to farmland. Some attendees wondered why Caltrans did not simply widen the existing highway.

A new alternative segment was proposed by local residents at the meeting and in written comments and a letter. This change in the route adoption alternatives would swing the route north and east from the existing State Route 25 at the grant line (where the highway bends) to join with State Route 156 north of the airport. The route would continue east to San Felipe Road, then turn south on San Felipe Road to its intersection with the existing State Route 25.

A letter received after the public scoping meeting expressed concern that proposed frontage roads on the west side of State Route 25 between Bolsa Road and

Bloomfield Avenue would be congested with the large amount of agricultural trucking from the farms and packinghouses that now have direct access to the highway.

Consultation and Coordination with Public Agencies

Biology

Informal consultation for this project with the U.S. Fish and Wildlife Service took place in 2001 and 2002 regarding species lists and sensitive species surveys conducted by Caltrans for San Joaquin kit fox, California red-legged frog, California tiger salamander, and vernal pool brachiopods. Caltrans biologist David Hyatt also contacted the National Marine Fisheries Service regarding potential impacts to anadromous fish species.

Consultation with the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service for the State Route 25 Safety and Operational Enhancement project, whose limits are entirely within the proposed route adoption alternatives, took place in 2005 and 2006.

Caltrans biologist Reagen O'Leary accessed the database of the Sacramento office of the U.S. Fish and Wildlife Service on July 25, 2008 to obtain an official species list of endangered, threatened, and other special-status species that may occur within the Three Sisters, San Felipe, and Chittenden U.S. Geological Survey 7.5-minute Quadrangles in Santa Clara County.

Ms. O'Leary also sent a letter on July 25, 2008 to the Ventura office of the U.S. Fish and Wildlife Service requesting an official species list of endangered, threatened, and other special-status species that may occur within the Hollister, San Juan Bautista, and Tres Pinos U.S. Geological Survey 7.5-minute Quadrangles in San Benito County. A species list was sent by David Pereksta in response to this request on August 20, 2008.

Caltrans was contacted by Christopher Diel of the Ventura Office of the U.S. Fish and Wildlife Service inquiring about the letter sent by Caltrans to David Pereksta in March 2008 inviting their office to be a participating agency under SAFETEA-LU Section 6002. Ms. O'Leary called Mr. Diel to explain the contents of the letter. During this conversation sensitive species within the project area were briefly discussed.

Up to this time formal consultation has not occurred because a preferred alternative has not yet been selected for this project.

If Alternative A were chosen, formal consultation between Caltrans, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game would be initiated for potential impacts to the California tiger salamander.

When the area of the route adoption alignment that includes the Pajaro River and Carnadero Creek is proposed for construction and a Tier II environmental document is prepared, formal consultation with the National Marine Fisheries Service would be required for potential impacts to critical habitat for the South-Central California steelhead.

Cultural Resources

Caltrans completed a Historic Property Survey Report and supporting technical documents in December 2006 and submitted them to the State Office of Historic Preservation on December 6, 2006. On March 21, 2007, the State Office of Historic Preservation concurred with the eligibility determinations documented in the Historic Property Survey Report.

On December 4, 2003, a Caltrans archaeologist sent a letter to the Native American Heritage Commission requesting a search of the commission's files to determine if any sacred sites, plant-gathering locations, or traditional cultural properties were known to exist in the vicinity of the proposed project. The Native American Heritage Commission sent a letter to Caltrans on December 24, 2003 stating the commission's files failed to indicate the presence of Native American cultural resources in the immediate project area.

Consultation with interested Native American representatives included exchanging letters and telephone calls, sending progress reports and copies of cultural resources reports, and holding several meetings with representatives of the Amah Mutsun Band of Ohlone/Costanoan Indians, and Amah Mutsun Tribal Band.

Other Agency Meetings

Informal discussion took place in 2002 with the Land Trust for Santa Clara County, which was working with the Nature Conservancy and the Santa Clara County Open Space Authority on combined conservation efforts. Caltrans met with this agency to see what parcels that the Land Trust proposed protecting with conservation easements

were near the project area. Coordination continued by email and phone in 2003 through 2005.

Public Participation

A web page for the project was created on the Caltrans District 5 public website in 2007 and has been updated periodically.

Project Development Team Meetings

The project development team is an interdisciplinary team of Caltrans employees from various functional units, such as project management, design, environmental, and right-of-way, and representatives from the San Benito Council of Governments, San Benito County, City of Hollister, California Highway Patrol, the Santa Clara County Water District, and the San Benito County Farm Bureau, as well as other interested parties. Between 2001 and 2008 the project development team held many meetings.

Public Information Meeting

As noted above, a Public Information Meeting was held on September 3, 2003 in Hollister.

Chapter 6 List of Preparers

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

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Appendix A California Environmental Quality Act Checklist: Route Adoption

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 3 of this Draft Environmental Impact Report/ Draft Tier I Environmental Impact Statement. Documentation of “No Impact” determinations is provided at the beginning of Chapter 3. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 3. Noise and farmland impacts under the California Environmental Quality Act are also discussed in Chapter 4.

	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
II. 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
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"/>	X
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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	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"/>	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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 GHG 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?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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

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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>	X
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"/>	X
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"/>	X
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"/>	X
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"/>	X
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Appendix A • CEQA Checklist for Build Alternatives

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>	X	<input 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"/>	X
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"/>	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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"/>	X
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"/>	X

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"/>	X
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"/>	X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) 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"/>	X

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"/>	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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"/>	X	<input type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Appendix B California Environmental Quality Act Checklist: Build Alternatives

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 3 of this Environmental Impact Report/Environmental Assessment. Except for noise, discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 3. A noise impact under the California Environmental Quality Act is discussed in Chapter 4 only. Farmland is also discussed in Chapter 4.

	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix B • CEQA Checklist for Build Alternatives

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
II. 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
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"/>	X
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
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"/>	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Appendix B • CEQA Checklist for Build Alternatives

	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"/>	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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 GHG 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?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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

Appendix B • CEQA Checklist for Build Alternatives

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>	X
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"/>	X
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"/>	X
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"/>	X
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"/>	X
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

X. LAND USE AND PLANNING: Would the project:

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

Appendix B • CEQA Checklist for Build Alternatives

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>	X	<input 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"/>	X
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"/>	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
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"/>	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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"/>	X
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"/>	X

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"/>	X
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"/>	X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Appendix B • CEQA Checklist for Build Alternatives

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) 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"/>	X

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"/>	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

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"/>	X	<input type="checkbox"/>
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Appendix B • CEQA Checklist for Build Alternatives

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

Appendix C Historic Properties Evaluated Relative to the Requirements of Section 4(f)

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection either because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

Seven archaeological sites that are eligible for the National Register, or are assumed eligible for the purposes of this project, or have not been evaluated would be avoided during construction. Two sites were determined by Caltrans to be ineligible for the National Register.

Caltrans also determined that of the 72 built-environment resources, one resource was found eligible for the National Register of Historic Places before this investigation: CA-SCL-697/H, also known as the Bloomfield Ranch Headquarters. Of the remaining 71 built-environment resources, 18 were determined to be ineligible for the National Register of Historic Places in 1994, and 53 resources were determined ineligible during this project. The State Office of Historic Preservation concurred with the eligibility determinations documented in the 2006 Historic Property Survey Report (see Appendix I, which also has the 1994 concurrence letter).

Earlier in the life of this project, a new interchange was proposed at State Route 25 and U.S. 101. That design would have avoided any impacts to the Bloomfield Ranch Headquarters and the other archaeological and historic resources in the area that are eligible for the National Register of Historic Places. Now, this area is part of the route adoption proposed by this project, but is also part of a build project of Caltrans District 4, the U.S. 101 Widening Project State Route 129 to Monterey Road, which is redesigning the interchange. Caltrans has determined that the proposed project avoids all 4(f) properties identified within or next to the proposed project, does not permanently use or hinder the preservation of any 4(f) property, and does not have any proximity impacts that would result in constructive use. Therefore, the provisions of Section 4(f) are not triggered.



Appendix D Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086



*Flex your power!
Be energy efficient!*

August 25, 2009

TITLE VI POLICY STATEMENT

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

A handwritten signature in blue ink that reads "Randell H. Iwasaki".

RANDELL H. IWASAKI
Director

"Caltrans improves mobility across California"



Appendix E Summary of Relocation Benefits

California Dept. of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

The California Department of Transportation (Caltrans) would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Residential replacement dwellings would be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees would be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex, or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance would also include supplying information concerning federal- and state-assisted housing programs, and any other known services being offered by public and private agencies in the area.

Residential Relocation Payments Program

For more information or a brochure on the residential relocation program, please contact Wendy Kronman by e-mail at wendy_kronman@dot.ca.gov, by telephone at (559) 243-8280, or by mail at 2015 E. Shields Ave., Suite 100, Fresno, CA 93726.

The brochure on the residential relocation program is also available in English at http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf.

If you own or rent a mobile home that may be moved or acquired by Caltrans, a relocation brochure is available in English at http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf.

Business and Farm Relocation Assistance Program

For more information or a brochure on the relocation of a business or farm, please contact Wendy Kronman by e-mail at wendy_kronman@dot.ca.gov, by telephone at (559) 243-8280, or by mail at 2015 E. Shields Ave., Suite 100, Fresno, CA 93726.

The brochure on the business relocation program is also available in English at http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf.

Additional Information

No relocation payment received would be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project would not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments would not be required to move unless at least one comparable “decent, safe, and sanitary” replacement residence, open to all persons regardless of race, color, religion, sex, or national origin, is available or has been made available to them by the state.

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Caltrans’ Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available from Caltrans’ Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans’ laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans’ relocation programs.

Important Notice

To avoid loss of possible benefits, no individual, family, business, farm, or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California
Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, CA 93701



Appendix F Minimization and/or Mitigation Summary

The Hollister to Gilroy State Route 25 Widening and Route Adoption Project includes two proposed projects: a route adoption and a proposed build project within the limits of the route adoption. Minimization and mitigation measures listed for the route adoption alternatives are recommendations only. In the future, as portions of the selected alignment are funded and proposed for construction, Tier II environmental documents would be prepared for each project. The Tier II document would provide an analysis of the environmental impacts at that time, and specific minimization and/or mitigation measures would be presented.

Route Adoption

Farmland
Future Tier II environmental documents would include minimization measures for farmland impacts.

Relocation
In the future, Caltrans would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Visual/Aesthetics
An aesthetic theme compatible with the region's agricultural identity would be developed for the build project, and this theme would be used as a framework for the design of future projects, whose structures and other aesthetic features would preserve and enhance the rural character of the area. Contour grading would be used to blend future changes into the visual landscape. Native plants and grasses would be seeded on all disturbed areas. If existing trees cannot be avoided, they would be replaced, and additional trees would be planted. Detailed avoidance, minimization, and mitigation recommendations are located in Appendix G.

Route Adoption

Hydrology and Floodplain

In the future, an expressway would be placed on an embankment within the floodplain area, within the 100-year floodplain. A combination of drainage ditches, cross culverts, and new bridges at the Pajaro River and Carnadero Creek would allow flood waters to pass and flow in their historic patterns.

Water Quality and Storm Water Runoff

Highway runoff would be routed away from the highway via culverts. The type of water treatment and control devices will be determined and approved in a Storm Water Management Plan.

Measures recommended for future projects include:

- Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss
- Limit land disturbance such as clearing and grading and cut/fill to reduce erosion and sediment loss
- Limit disturbance of natural drainage features and vegetation
- Place bridge structures so that sensitive and valuable aquatic ecosystems are protected
- Prepare and implement an approved Storm Water Pollution Prevention Plan
- Ensure proper storage and disposal of toxic material
- Incorporate pollution prevention into operation and maintenance procedures to reduce pollutant loadings to surface runoff
- Develop and implement runoff pollution controls for existing road systems to reduce pollutant concentrations and volumes
- All applicable temporary construction site Best Management Practices would be identified as bid items to be included in the bid package and Storm Water Pollution Prevention Plan for a project
- During the rainy season, October 15 through April 15, disturbed soil areas would be limited to 5 acres or less
- Permanent storm water treatment Best Management Practices would be included to treat 100% of the net impervious surfaces in the Caltrans right-of-way

Hazardous Waste

Alternative 1 would have 11 potential hazardous waste sites in its alignment. Alternative 2 would have 5 potential hazardous waste sites. All of these sites are within proposed build Alternative A. In the future, when a Tier II environmental document is prepared for a build project within the limits of the route adoption alternative selected, the appropriate hazardous waste site investigations would be conducted.

Route Adoption

Geology/Soils/Seismic/Topography

In the future, bridges in the vicinity of the Calaveras Fault where it crosses the highway would be placed and designed with consideration to potential ground displacement due to an earthquake.

In the future, embankments built as bridge approaches would be evaluated for stability and settlement potential. Subsurface investigations would be necessary at the approach embankments to bridges to determine the strength of the foundation soils and the potential for settlement. If layers of soft compressible soils are found at those locations, it may be necessary to monitor water pressure in the soils during construction of embankments and to regulate the rate of construction to assure that the foundation soils gain adequate strength during construction.

Paleontology

Recommended mitigation measures for a Tier II project within the areas where there is high sensitivity for paleontological resources are:

- A nonstandard special provision for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage.
- A qualified principal paleontologist (M.S. or PhD in paleontology or geology familiar with paleontological procedures and techniques) would be retained to prepare a detailed Paleontological Mitigation Plan before the start of construction. All geologic work would be performed under the supervision of a California Professional Geologist.
- The qualified principal paleontologist will be present at pre-grading meetings to consult with grading and excavation contractors.
- Near the beginning of excavations, the principal paleontologist would conduct an employee environmental awareness training session for all persons involved in earth-moving for the project.
- A paleontological monitor, under the direction of the qualified principal paleontologist, would be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
- If fossils are discovered, the paleontologist (or paleontological monitor) would recover them. Construction work in these areas would be stopped or diverted to allow recovery of fossil remains in a timely manner.
- Bulk sediment samples will be recovered from fossiliferous horizons and processed for microvertebrate remains as determined necessary by the principal paleontologist.
- Fossil remains collected during the monitoring and salvage portion of the mitigation program would be cleaned, repaired, sorted, and cataloged.
- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would then be deposited in a scientific institution with paleontological collections.
- A final report would be completed outlining the results of the mitigation program and would be signed by the Principal Paleontologist and Professional Geologist.

Route Adoption

Air Quality

Future projects would require a full Air Quality analysis. As projects within a route adoption alignment become funded and go to construction, Caltrans Standard Specifications pertaining to dust control and dust palliative requirement would be required as part of all construction contracts. These measures should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1.01F "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with rules, ordinances, and regulations.

Noise

When a Tier II environmental document is prepared in the future for a funded construction project, a Noise Study Report will report on possible noise impacts at that time.

Caltrans' policy is to consider noise abatement (sound walls) if it determines that a noise impact would occur. Noise abatement measures that are determined to be reasonable and feasible at the time of final design would be incorporated into the project plans.

Biology

In the future, when each Tier II environmental document is prepared for a build project within the limits of the route adoption alternative selected, the appropriate biological studies would be prepared. When bridges are constructed that would affect or change the Pajaro River or Carnadero Creek, the National Marine Fisheries Service would be consulted because these waterways are critical habitat for the South-Central California steelhead evolutionary significant unit.

Additional data collection may be required for fish passage before the design or change of bridges.

Mitigation for riparian habitat would be required by the California Department of Fish and Game to receive a Streambed Alteration Agreement for work in and around the streambeds of the Pajaro River and Carnadero Creek.

Wetlands and waters of the U.S. temporarily affected by project activities would be restored to original conditions. Caltrans would incorporate standard best management practices for erosion control and water quality.

To ensure no net loss, one or more of the following options would compensate for the permanent loss of wetlands and waters of the U.S.:

- Payment of the appropriate mitigation fee
- Dedication of mitigation lands
- Purchase of approved mitigation bank credits
- Development of an alternative mitigation plan

The mitigation ratio for permanent impacts to wetlands and waters of the U.S. would be determined by regulatory agencies during the permitting process.

Minimization and mitigation measures for the Build Alternatives are listed in the following table.

Build Alternatives A and B

Farmland

Farmland impact would be a consideration in determining which alternatives would warrant further consideration and which alternatives would be withdrawn. As part of the right-of-way process for purchasing land, Caltrans tries to negotiate parcel exchanges with neighboring farmers to reconfigure split farmland parcels for resale so that the parcels would continue to be farmed and not contribute further to the segmentation and conversion of farmland. Generally, when Caltrans resells or reconfigures land in an area zoned for agriculture as buffers or conservation easements, deed restrictions limiting future use to agriculture would be included to keep land in agricultural use in perpetuity.

Caltrans would work with farmers to avoid or minimize disruption where irrigation pipes must be relocated.

Relocation

Caltrans would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Visual/Aesthetics

Contour grading would remove old road scars and blend in storm water basins, if any. Native plants and grasses would be seeded on all disturbed areas. If removal of existing trees cannot be avoided, they would be replaced and additional trees would be planted. New rural fencing would be wire with metal posts. New signage would be minimized and all lighting shielded. Landscaping would implement a rural aesthetic theme developed for this project. Distinctive planting near the San Felipe Road/State Route 25 intersection would strengthen the "gateway" into the city. Detailed avoidance, minimization, and mitigation measures are in Appendix G.

Air Quality

Caltrans Standard Specifications pertaining to dust control and dust palliative requirement is a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1.01F "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with rules, ordinances, and regulations.

Build Alternatives A and B

Noise

Construction noise is regulated by Caltrans Standard Specifications Section 7-1.011, Sound Control Requirements, which states that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications.

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

- All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.
- As directed by Caltrans, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

Water Quality and Storm Water Runoff

Highway runoff would be routed away from the highway via culverts and other water control devices approved in the Storm Water Management Plan.

Measures to be implemented include:

- Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss.
- Limit land disturbance such as clearing and grading and cut/fill to reduce erosion and sediment loss.
- Limit disturbance of natural drainage features and vegetation.
- Place bridge structures so that sensitive and valuable aquatic ecosystems are protected.
- Prepare and implement an approved Storm Water Pollution Prevention Plan.
- Ensure proper storage and disposal of toxic material.
- Incorporate pollution prevention into operation and maintenance procedures to reduce pollutant loadings to surface runoff.
- Develop and implement runoff pollution controls for existing road systems to reduce pollutant concentrations and volumes.

The following would be required:

- A Notification of Construction is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days before the start of construction. (The Notification of Construction is usually prepared by the Project Engineer and submitted by the Regional Storm Water Coordinator). The Notification of Construction form requires a tentative start date and duration, location, description of project, estimate of affected area resident engineer (or other construction contact) with telephone number, etc.
- A Storm Water Pollution Prevention Plan is to be prepared and implemented during construction to the satisfaction of the Resident Engineer.
- A Notice of Construction Completion is to be submitted to the Regional Water Quality Control Board upon completion of the construction and stabilization of the site. A project will be considered complete when the criteria for final stabilization in the State General Construction Permit are met.

Build Alternatives A and B

Geology/Soils/Seismic/Topography

When final design of an expressway has begun, a Geotechnical Design Report will be prepared. The report will provide final design recommendations for the proposed project based on a thorough site investigation.

After a preferred alternative is selected, in the final environmental document impacts to mineral resources will be assessed and minimization or mitigation measures discussed.

Hazardous Waste

Alternative A would have 9 potential hazardous waste sites in its alignment. Alternative B would have 3 potential hazardous waste sites.

After the preferred alternative is selected, sampling and testing would be done to determine the volume and concentration of hazardous material present and how much it will cost to clean up the sites within that area. A site investigation report would report the results and include mitigation and minimization measures that will be incorporated into the final environmental document.

Paleontology

The mitigation measures would be:

- A nonstandard special provision for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage.
- A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) would be retained to prepare a detailed Paleontological Mitigation Plan prior to the start of construction. All geologic work would be performed under the supervision of a California Professional Geologist.
- The qualified principal paleontologist will be present at pre-grading meetings to consult with grading and excavation contractors.
- Near the beginning of excavations, the principal paleontologist will conduct an employee environmental awareness training session for all persons involved in earth moving for the project.
- A paleontological monitor, under the direction of the qualified principal paleontologist, will be on site to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
- **If** fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be stopped or diverted to allow recovery of fossil remains in a timely manner.
- Bulk sediment samples will be recovered from fossiliferous horizons and processed for microvertebrate remains as determined necessary by the principal paleontologist.
- Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.
- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.

A final report would be completed that outlines the results of the mitigation program and will be signed by the principal paleontologist and professional geologist.

Build Alternatives A and B

Biology

Alternative B is not expected to have any impacts on species listed or wetlands. Alternative A has the potential to affect listed species and wetlands, but the effect would not be significant with the following minimization and/or mitigation measures:

Wetlands:

If Alternative A is selected, before construction Caltrans would establish an Environmental Sensitive Area within Caltrans right-of-way to avoid accidental construction related impacts to the seasonal wetland. In addition, the project would incorporate standard Caltrans Best Management Practices to prevent impacts related to degradation of water quality.

Plants:

Pre-construction surveys would be done for sensitive plant species.

If Alternative A is selected, before construction Caltrans would establish an Environmental Sensitive Area fence within Caltrans right-of-way to avoid accidental construction-related impacts to the San Joaquin spearscale habitat within the seasonal wetland.

Animals: A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest is detected, California Department of Fish and Game would be consulted and an Environmental Sensitive Area around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

Threatened and Endangered:

California Tiger Salamander

Avoidance and minimization efforts for either build alternative would include:

- Special Provisions that spell out the avoidance and minimization efforts described below would be included in the solicitation for bid information.
- Implementation of Best Management Practices during construction. Equipment maintenance, project access, supply logistics, and other project-related activities would occur at a designated staging area. Before starting construction activities, the contractor would determine construction vehicle parking sites and all access routes.
- The limits of the construction area would be flagged, if not already marked by right-of-way or other fencing, and all activity would be confined within the marked area.
- Before construction, fencing would be installed within Caltrans right-of-way to avoid accidental construction-related impacts to California tiger salamander habitats. Such habitats would be designated as Environmental Sensitive Areas.
- A worker educational training would be conducted, consisting of a brief presentation by persons knowledgeable in California tiger salamander biology, and legislative protection. Endangered species concerns would be explained to contractors and their employees, and any other personnel involved in the project.
- To the extent possible, nighttime construction would be minimized within or near California tiger salamander habitats.
- Travel would be restricted to established roadbeds within the marked project site. Project employees would be directed to exercise caution when commuting within or adjacent to the California tiger salamander habitats. A 20-mile per hour speed limit would be strongly encouraged on unpaved roads within listed species habitats.
- To prevent inadvertent entrapment of California tiger salamander during construction, all excavated, steep-walled holes or trenches would be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions shall be used. If any spills occur, cleanup shall take place immediately.

Build Alternatives A and B

Build Alternative A would require these additional measures:

- Special Provisions that spell out the avoidance and minimization efforts described above and below would be included in the solicitation for bid information.
- Construction would be timed to occur during the dry season (June to October) within 0.6 mile of the seasonal wetland used by California tiger salamander as a breeding pool.
- A qualified U.S. Fish and Wildlife Service-approved biologist would be onsite or on-call during all activities that could result in the take of listed species.
- A U.S. Fish and Wildlife Service-approved biologist would conduct pre-construction surveys to identify potential California tiger salamander aestivation sites and breeding pools within designated construction areas that would not be subject to excavation or filling. Identified areas would be enclosed with Environmental Sensitive Area fencing.

Upland Aestivation Habitat

If Alternative A is selected for construction, Caltrans proposes to reduce impacts to upland habitat by either

- purchasing of credits at an approved U.S. Fish and Wildlife Service and California Department of Fish and Game mitigation bank, or
- recording of a conservation easement preserving species habitat, or
- purchasing of property to preserve species habitat

A 3:1 ratio has been determined for direct impacts (21 acres x 3 = 63 acres). A 1:1.1 ratio has been determined for indirect impacts (82 acres x 1.1 = 90.2 acres). The total required mitigation is estimated to be 153.2 acres.

No compensatory mitigation for upland habitat is proposed for Alternative B.

Breeding Habitat

As compensatory mitigation for Alternative A impacts, Caltrans proposes to reduce impacts to breeding habitat by either

- purchasing of credits at an approved U.S. Fish and Wildlife Service and California Department of Fish and Game mitigation bank, or
- recording of a conservation easement preserving species habitat, or
- purchasing of property to preserve species habitat

A 1:1.1 ratio has been determined for indirect impacts (3.7 acres x 1.1 = 4.1 acres).

No compensatory mitigation for lost breeding habitat is proposed for Alternative B.

Conservancy Fairy Shrimp

Where construction work would occur in vernal pool branchiopod habitat (the seasonal wetland), the following measures would be followed:

- Implementation of best management practices during construction. Equipment maintenance, project access, supply logistics, and other project-related activities would occur at a designated staging area. Before starting construction activities, the contractor would determine construction vehicle parking sites and all access routes.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions shall be used. If any spills occur, cleanup shall take place immediately.
- Any sensitive sites adjacent to the construction activities within Caltrans right-of-way would be designated as Environmental Sensitive Areas to prevent accidental and indirect construction-related impacts.

Longhorn Fairy Shrimp

Avoidance and minimization measures implemented for the conservancy fairy shrimp would also benefit the longhorn fairy shrimp.

Vernal Pool Fairy Shrimp

Avoidance and minimization measures implemented for the conservancy fairy shrimp would also benefit the vernal pool fairy shrimp.

Build Alternatives A and B

San Joaquin Kit Fox

If Alternative A is selected for construction, the U.S. Fish and Wildlife Service Standard Measures for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (see Appendix N) would be implemented as follows:

- Preconstruction/reactivity surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of ground disturbance and/or construction activities or any project activity likely to affect the San Joaquin kit fox.
- The configuration of exclusion zones around the kit fox dens should have a 50-foot radius around potential dens and a 100-foot radius around known dens measured outward from the entrance or cluster of entrances.
- Disturbance to all San Joaquin kit fox dens would be avoided to the maximum extent possible.
- Permanent and temporary construction disturbances and other types of project-related disturbance would be minimized.
- A qualified biologist should be present on construction sites during all critical construction activities within endangered species habitat to monitor activities. Activities for which a biologist should be present include all ground-disturbing activities; den and burrow excavations, if necessary; and other activities as determined by the qualified biologist. To the extent possible, a biologist would be available on-call during all construction periods when not actually present on the construction site.
- A San Joaquin kit fox special provision would be included in the bid package to ensure protection of this species during construction.

Appendix G Visual Observer Viewpoints

Key observer viewpoints are specific locations from which the visual conditions of the proposed project can be assessed. The locations of the viewpoints are shown in Figure G-1 following this page. The viewpoints were selected to represent a range of viewer groups and a range of landscape features and compositions, which express the visual quality of the proposed project. All views analyzed are looking toward the east and are shown in the simulations following Figure G-1. The views are as follows:

1. Existing view from Bloomfield Avenue east toward Carnadero Creek
2. Existing view looking east from Bolsa Road
3. Existing eastbound view
4. Existing eastbound view near Hudner Lane
5. Existing eastbound view near State Route 156
6. Existing eastbound view near Wright Road
7. Another existing eastbound view near Wright Road

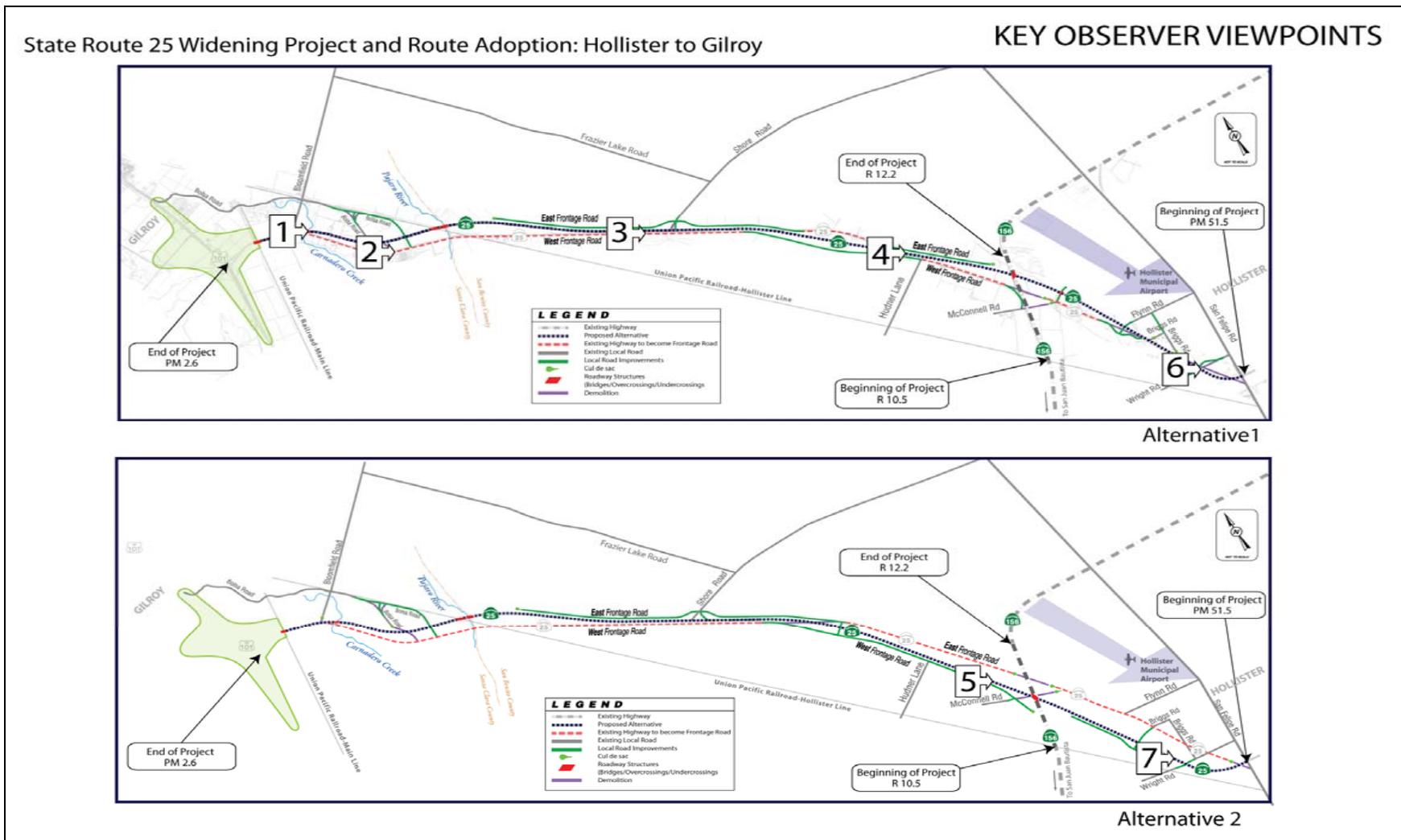


Figure G-1 Key Observer Viewpoint Location Map

Route Adoption Alignment ALTERNATIVES 1 & 2



Existing View from Bloomfield Road East Toward Carnadero Creek

This key view is located at the western end of the project, at a point where eastbound travelers have fully exited their Route 101 driving experience. Motorist's approach the threshold of riparian vegetation and enter into the visually pleasant spatial character typically found in the Hollister Valley. The scene is dominated by the rough texture of dense trees along the creek and the green carpet of low row crops. Distant mountain views are briefly screened. The roadway is unobtrusive and its straight alignment is compatible with the surrounding flat topography. The low number of man-made elements such as utility lines and signs contributes to the intact and unified appearance characteristic of this viewpoint. This existing view is rated high in all categories.



Proposed Eastbound View Alternatives 1 & 2

The new expressway alignment shifts north of the existing highway, and the existing pavement becomes a frontage road. There is a slight loss of vividness and unity in the scene due the structured effect of the expressway configuration, however it still remains distinctive. The line of the road is compatible with the terrain, wire fence lines subtly define right of way boundaries, and the new bridge structure is relatively unobtrusive. The decrease in intactness is due to the combined effect of the increased paved surface, the encroachment of man-made elements into the view, and the loss of some mature trees and the replacement of irrigated agricultural land use patterns with the dry rough mown grasses of a typical highway median and roadsides. The height of the remaining trees helps balance the scale of the new highway paving and some distant mountain views are revealed. The proposed view is rated moderately high.

Key Observer Viewpoint No.1

Route Adoption Alignment ALTERNATIVES 1 & 2



Existing View Looking East from Bolsa Road

This key view of existing farm fields is located approximately where existing Bolsa Road would be removed and cul de saced to the north. Motorist's on Route 25 and on local roads experience the typical rural character of the Hollister Valley. The scene is dominated by agricultural vegetation. Distant mountain views are evident. The roadway is compatible with the surrounding flat topography. A few man-made elements such as utility lines and residential driveways and structures are part of the scene. This existing view is rated moderate for vividness and intactness and slightly higher for unity of form and rural materials.



Proposed Eastbound View Alternatives 1 & 2

The new expressway alignment would continue north of the existing highway, and the existing pavement continues as the frontage road. A portion of Bolsa Road is removed and relocated further east to provide access between the new expressway and the frontage road. There is a loss of vividness, intactness, and unity in the scene due the structured effect of the expressway configuration. The alignment of the road is compatible with the terrain, and wire fence lines define right of way boundaries. The decrease in visual quality is due to the combined effect of the increased paved surface, the encroachment of man-made elements into the scene, and the loss of agricultural views. The distant mountain vistas and open space panoramas are still present but there is an overall loss of rural character. The proposed view is rated moderate.

Key Observer Viewpoint No.2

Route Adoption Alignment ALTERNATIVES 1 & 2



Existing Eastbound View

This key view of is typical of the landscape unit, especially of areas along the proposed alignment where land is either fallow or used for grazing rather than row crops. There is almost no intrusion of man made elements except the existing road itself and utility poles. Distant mountain vistas are seen in all directions and the visual experience of wide open spaces is expansive. This existing view is rated moderately high in all categories.



Proposed Eastbound View Alternatives 1 & 2

The new alignment shifts north of the existing highway, and the existing pavement becomes a frontage road. There is some loss of vividness and unity in the scene due the structured effect of the expressway configuration, however it still remains memorable. The line of the road is compatible with the terrain, wire fence lines subtly define right of way boundaries. The decrease in intactness is due to the combined effect of the increased paved surface and the encroachment of man-made elements into the view. The low key rough mown grasses of the proposed highway corridor are similar to the existing uncultivated land use pattern. The location of the utility poles is unchanged. The proposed view is rated moderately high.

Key Observer Viewpoint No.3

Route Adoption Alignment ALTERNATIVE 1



Existing Eastbound View Near Hudner Lane

This key view of existing Route 25 is located at the junction with Hudner Lane. This view is typical of areas along the corridor which have a greater number of existing man-made features, including rural homes, mature trees, irrigated or fallow farm fields, overhead utility lines, and roadside ditches and traffic signs. The overall character is still rural. The smooth pavement is contrasted by the soft pattern of farming furrows, which define the roadway edges. The valley view is surrounded by distant mountains and the tall trees add visual interest. The straight roadway alignment is compatible with the surrounding flat topography. This existing view is rated moderate to moderately high.



Proposed Eastbound View Alternative 1

The proposed alignment of Alternative 1 has the greater visual impacts in this area than does Alternative 2, which shifts further south and avoids the existing development. The pavement of the new Alt. 1 expressway overlaps the existing highway, and a new frontage road connecting to Hudner is created. There is a slight loss of vividness and unity in the scene due the structured effect of the expressway configuration and the loss of characteristic agricultural elements and structures and mature trees, however the scene still remains vivid and some previously screened mountain views are revealed. The line of the road is compatible with the terrain, wire fence lines subtly define right of way boundaries, and the utilities are relocated to the frontage road. The intactness changes very little as well since the trade off in man-made features encroaching into the view is similar. The proposed view is rated moderate to moderately high.

Key Observer Viewpoint No.4

Route Widening Alignment ALTERNATIVE B & Route Adoption Alignment ALTERNATIVE 2



Existing Eastbound View Near Route 156

This key view of agricultural row crops is located just southwest of the existing Route 25/156 intersection. The scene is dominated by expansive views of the rhythmic planting patterns typically found in the Hollister Valley. Distant mountain views define the horizon line. The low number of man-made elements such as farm buildings, utility lines and scattered trees all contribute to the intact and unified appearance characteristic of this rural viewpoint. This existing view is rated high in all categories.



Proposed Eastbound View Route Widening Alternative B

The new Route Widening alignment Alternative B is located south of the existing highway, and the existing pavement becomes a frontage road. There is a noticeable loss of vividness, intactness and unity in the scene due the structured effect of the expressway configuration and the loss of rural character. The line of the road is compatible with the terrain, and distant mountain views are still seen. The decrease in visual quality is due to the combined effect of the increased paved surface, the encroachment of man-made elements into the view, and the loss of agricultural land use patterns. The proposed view is rated moderately low.

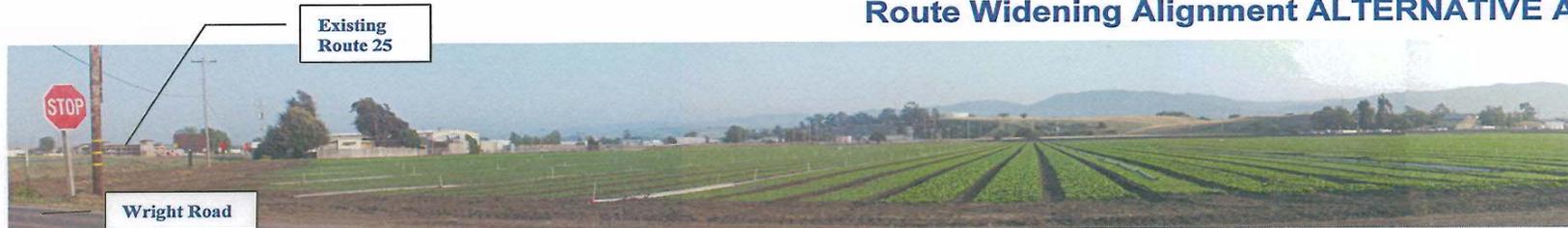


Proposed Eastbound View Route Adoption Alternative 2

The Route Adoption alignment proposes to replace the Route 25/156 at-grade intersection signals with an overhead structure and on/off ramps. This would result in a further loss of rural character and a decrease in the intactness of the corridor due to the addition of another large scale man-made element. The proposed view is rated moderately low.

KEY OBSERVER VIEWPOINT NO.5

Route Widening Alignment ALTERNATIVE A



Existing Eastbound View Near Wright Road

This key view at the eastern end of the project, is off existing Wright Road looking toward Hollister. The scene is a transitional mix of man-made elements, agricultural fields, rural and commercial structures, and the beckoning horizon of the distant mountains and wide open space. The roadway is unobtrusive and its flat profile and straight alignment seen in the distance are compatible with the surrounding topography. Windswept trees, utility poles and street signs, as well as the storage tanks on the knoll, all contribute to the mixed character of land use patterns. This existing view is rated moderate in all categories.



Proposed Eastbound View Near Wright Road Alternative A

The new expressway alignment of Alternative A generally overlaps the existing alignment of Route 25, the new pavement in this view is slightly to the south of the existing highway (until it begins to shift north around Flynn Road). There is a slight loss of vividness in the scene due the structured effect of the expressway configuration and the loss of skyline trees, however views of agriculture remain visible. The line of the road is compatible with the terrain, wire fence lines define right of way boundaries, and the views of commercial structures are lessened while rural ones remain in the background. The intactness of the scene is lessened slightly due to the combined effect of the increased paved surface, the continued presence of man-made elements in the view, and the reduced agricultural land use pattern. The proposed view is rated moderate.

KEY OBSERVER VIEWPOINT NO.6

Route Widening Alignment ALTERNATIVE B



Existing Eastbound View Near Wright Road

This key view of existing agricultural fields is located at the eastern end of the project, on Wright Road looking toward Hollister. Existing Route 25 is distant from the scene and the visually pleasant agricultural character typically found in the Hollister Valley dominates. The view is unified in form and function by iconic barns, the rhythmic pattern of plowed earth, and the beckoning horizon line of the distant mountains. The few scatter power poles are unobtrusive; and skyline trees and the movement of water from the irrigation system add visual interest. This existing view is rated moderate to moderately high.



Proposed Eastbound View Near Wright Road Alternative B

The new expressway alignment of Alternative B shifts well south of the existing highway, and the existing pavement becomes a frontage road. There is a loss of vividness and unity in the scene due the structured effect of the expanded paved area. The line of the road is compatible with the terrain, and tree silhouettes and distant mountain views are still present. The decrease in intactness is due to the combined impact of the increased paved surface and the increased encroachment of man-made elements into the diminished agricultural view.

Key Observer Viewpoint No.7



Appendix H Visual/Aesthetics

For the route adoption alternatives, the following avoidance, minimization and mitigation measures are recommended for consideration by preparers of future Tier II environmental documents.

Route Adoption Alternatives

Grading

- Refine the horizontal alignment of the selected alternative to minimize impacts to iconic rural structures and to avoid loss of mature trees.
- Minimize the height of the proposed lanes above existing grade as much as possible, while still meeting drainage requirements.
- Provide berms of various slopes and sizes to reduce the visual dominance of new structures.
- Use contour grading and slope rounding where appropriate.
- Remove old road signatures and grade to blend with surrounding terrain and drainage patterns.
- Preserve topsoil for re-use in areas to be seeded or landscaped.

Materials and Aesthetics Treatments

- Develop an aesthetic theme compatible with the region's agricultural identity. Use the theme as a framework for the design of future projects and aesthetic features to preserve and enhance the rural character of the area.
- Create design continuity between all structures and with other built features, repeat similar lines, forms, colors and textures of the established aesthetic theme.
- Design structures, such as bridges, bridge rails and sound walls, with suitable form and architectural elements, including appropriate historic inspirations and unique details.
- Use open abutments set back from the roadway edge to reduce constricted views.
- Use open style safety rails that complement the established bridge form and that minimize blocked views of open space and distant mountains.

- Mount signs on bridges within the silhouette of the bridge. If two or more signs are mounted side by side they should be of the same height to coordinate the appearance of the signage system.
- Use colors, surface treatments and material choices that blend with the surrounding natural palette and that minimize reflectivity and glare.
- Apply surface treatments to both community side views and roadway views. Minimize the risk and visibility of graffiti by avoiding long flat surfaces. Protect new structures with anti-graffiti coating, or other methods such as vine planting where appropriate.
- Place new fencing only as minimally required. New fencing should be rural in character—barbed wire or wire mesh on wood and/or metal posts. Chain link fencing should be avoided.
- Limit traffic signage to the greatest extent possible. Remove obsolete signs and flashing warnings applicable to the old alignment but no longer needed for safety.
- Limit new light sources and comply with or exceed San Benito County “dark sky” restrictions. Fully shield light fixtures. Retrofit existing light sources within the project limits as needed to comply with county ordinances.
- Limit the use of new signals, flashing warnings, and reflectors to the minimum required.

Erosion Control

- Seed or plant all disturbed areas with vegetation appropriate to site conditions with regard to soil type, plant community, availability of water and compatibility with adjacent farming operations. Include species for quick cover as well as long-lived and deep-rooted species for long-term stabilization and native wildflowers. Use the same seed mix in each subsequent new construction project to establish continuity along the route. Let erosion-control areas grow in a natural appearance to help disguise trash and debris collection.
- Limit seed mix choices in median areas to only a few varieties so that a weedy appearance in the median is avoided, and a more uniform, cultivated look, compatible with the adjacent row crops, is established.
- Seed or plant drainage channels with tall grasses and other filtering vegetation to optimize water quality benefits and to screen the visibility of the expressway pavement from the local frontage roads. Drainage channel vegetation should be mowed only where and when necessary for safety or function.

Landscaping and Right-of-Way

- Acquire adequate right-of-way to accommodate planting with regard to required clear recovery setbacks for trees and shrubs and to create landscape buffers between the expressway and residential areas.
- Acquire sufficient right-of-way for successful preservation of stream banks at proposed crossings of the Pajaro River and Carnadero Creek.
- Consider excess land and remnant parcels for use as mitigation areas, if additional area is needed for riparian habitat replacement due to biological impacts. Consider opportunities to create permanent agricultural and open space easements that preserve key vistas.
- Minimize impacts to vegetation, especially trees, when locating new utilities or relocating existing utilities. Overhead utility lines and poles should be relocated to locations that will not conflict with existing or future mature tree canopies, and so that trees will not be required to be pruned in an unnatural manner or where a bare, unplanted band marking the utility easement would result.
- Place new utilities underground wherever possible. If they cannot be placed underground, they should be placed where they are the least disruptive to the view. Place above-ground elements such as electrical cabinets in safe and visually unobtrusive locations.
- Irrigate landscaping to establish; use reclaimed water if available. Connect into existing irrigation systems when available. Develop well water sources if needed.
- Preserve existing trees and orchards to the greatest extent possible. If removal cannot be avoided, replace removed trees.
- Replace removed trees as close to the location of removal as possible when needed to mitigate site-specific visual losses, or to protect established drainage and sun or shade conditions. Adjust replacement locations depending on the availability of water and suitable space within the right-of-way.
- Replace riparian vegetation for visual as well as biological mitigation purposes, at new structures over Carnadero Creek and the Pajaro River.
- Focus landscape planting at crossroad nodes and in locations with existing development with long open vistas in between. Use the planting palette in each subsequent new construction project to establish landscape continuity along the route. Group plants in large masses to provide simplicity for highway speeds. Add

detailed planting for lower speed frontage road views of pedestrian-level experiences.

- Replace trees removed by the project at ratios that guarantee a high survival rate to fulfill future visual as well as habitat functions.
- Plant skyline trees reminiscent of agricultural windrows where appropriate to distract from the visibility and dominance of paved expanses and as needed to unify the region’s visual identity. Screen undesirable views for drivers and residential viewers.
- Plant the State Route 156 and U.S. Route 101 interchanges with tall trees to de-emphasize the height of new structures within their surroundings and to frame scenic views. Plant screen shrubs to blend abutments and soften the appearance of graded slopes.
- Select plant species to reinforce the rural and historic elements that characterize the region. Emphasize drought-tolerant and/or native plants with low maintenance, and low water requirements once established. Include ornamental plants tolerant of smog and urban heat in more developed areas such as San Felipe Road and U.S. 101.
- Include various plant species, textures, foliage colors and seasonal accents layered to create interest, provide rhythm, and avoid monotony. Planting patterns should emulate the simplicity and geometric patchwork of row crops in certain locations and should be more natural and rough in others.
- Plant a mix of medium, large, and box-size containers to increase the density of cover, to screen more quickly, and to lend a more mature blended appearance.
- Plant a signature landscape at “entry” nodes at San Felipe Road and at U.S. 101 to emphasize the sense of arrival and departure from the community. Tall trees that form a welcoming “gateway” should be planted to frame the view and create a visually appealing scene.
- Colorful accent plant groupings that have seasonal interest should be included in commercial areas. Layer planting with tree canopies of varied heights and textures, mixed with appropriate understory shrubs and ground covers for visual variety. Planting should create a green buffer between commercial buildings and the highway without blocking business visibility or perceived accessibility.
- Pursue Caltrans “landscaped freeway” status to protect the viewshed from future encroachment by billboards.

Following are the avoidance, minimization, and mitigation measures for Alternative A and Alternative B.

Build Alternatives

Grading

- Refine the horizontal alignment of the selected alternative to minimize impacts to iconic rural structures and to avoid loss of mature trees.
- Minimize the height of the proposed lanes above existing grade as much as possible, while still meeting drainage requirements.
- Remove old road signatures and grade to blend with surrounding terrain and drainage patterns.
- Preserve topsoil for re-use in areas to be seeded or landscaped.

Materials and Aesthetics Treatments

- Create design continuity between built features, repeat similar lines, forms, colors and textures.
- Place new fencing only as minimally required. New fencing should be barbed wire or wire mesh on metal posts. Chain link fencing should be avoided.
- Limit traffic signage to the greatest extent possible. Remove obsolete signs and flashing warnings applicable to the old alignment but no longer needed for safety.
- Limit new light sources and comply with or exceed San Benito County “dark sky” restrictions. Fully shield light fixtures. Retrofit existing light sources within the project limits as needed to comply with county ordinances.

Erosion Control

- Seed or plant all disturbed areas with vegetation appropriate to site conditions with regard to soil type, plant community, availability of water and compatibility with adjacent farming operations. Include species for quick cover as well as long-lived and deep-rooted species for long-term stabilization and native wildflowers.
- Limit seed mix choices in median areas to only a few varieties so that a weedy appearance in the median is avoided, and a more uniform, cultivated look, compatible with the adjacent row crops, is established.

- Seed or plant drainage channels with tall grasses and other filtering vegetation to optimize water quality benefits and to screen the visibility of the expressway pavement from the local frontage roads.

Landscaping and Right-of-Way

- Acquire adequate right-of-way to accommodate planting with regard to required clear recovery setbacks for trees and shrubs and to create landscape buffers between the expressway and residential areas.
- Consider use of excess land and remnant parcels to create permanent agricultural and open space easements that preserve key vistas.
- Minimize impacts to vegetation, especially trees, when locating new utilities or relocating existing utilities. Overhead utility lines and poles should be relocated to locations that will not conflict with existing or future mature tree canopies, and so that trees will not be required to be pruned in an unnatural manner or where a bare, unplanted band marking the utility easement would result.
- Place new utilities underground wherever possible. If they cannot be placed underground, they should be placed where they are the least disruptive to the view. Place above-ground elements such as electrical cabinets in safe and visually unobtrusive locations.
- Use an automatic irrigation system to establish landscaping; include water saving features. Develop a well water source if needed. Use a remote irrigation control system if feasible.
- Use reclaimed water for landscape irrigation purposes if available.
- Preserve existing trees and orchards to the greatest extent possible. If removal cannot be avoided, replace removed trees.
- Replace removed trees as close to the location of removal as possible when needed to mitigate site-specific visual losses, or to protect established drainage and sun or shade conditions. Adjust replacement locations depending on the availability of water and suitable space within the right-of-way.
- Focus landscape planting at the State Route 156 intersection and at local crossroad nodes and in locations with existing development with long open vistas in between. Use a consistent planting palette to establish landscape continuity along the route. Group plants in large masses to provide simplicity for highway speeds. Add detailed planting for lower speed frontage road views or pedestrian level experiences.

- Include various plant species, textures, foliage colors and seasonal accents layered to create interest, provide rhythm, and avoid monotony. Planting patterns should emulate the simplicity and geometric patchwork of row crops in certain locations and should be more natural and rough in others.
- Replace trees removed by the project at ratios that guarantee a high survival rate.
- Plant skyline trees reminiscent of agricultural windrows where appropriate to distract from the visibility and dominance of paved expanses and as needed to unify the region's visual identity. Screen undesirable views for drivers and residential viewers.
- Select plant species to reinforce the rural and historic elements that characterize the region. Emphasize drought-tolerant and/or native plants with low maintenance, and low water requirements once established. Include ornamental plants tolerant of smog and urban heat near San Felipe Road.
- Plant a signature landscape at “entry” nodes at San Felipe Road to emphasize the sense of arrival and departure from the community of Hollister. Include tall palm trees as prescribed in the Hollister General Plan to form a welcoming “gateway” to frame the view, and to create a visually appealing scene.
- Colorful accent plant groupings that have seasonal interest should be included in commercial areas. Layer planting with tree canopies of varied heights and textures, mixed with appropriate understory shrubs and ground covers for visual variety. Planting should create a green buffer between commercial buildings and the highway without blocking business visibility or perceived accessibility.
- Pursue Caltrans' “landscaped freeway” status to protect the viewshed from future encroachment by billboards.

Construction and Maintenance

- Maximize protection of existing vegetation when locating temporary haul roads, detours, and staging areas.
- Contour grade, cultivate, seed and/or plant all temporary detours, stockpile storage areas, and contractor's staging and equipment yards. Establish as necessary to blend with the finished landscape.
- Screen temporary construction trailers and stockpiles in residential and business areas if requested. Avoid razor wire in staging and materials storage areas.

- Provide a comprehensive, coordinated and attractive temporary signing solution for local businesses during construction.
- Follow San Benito County “dark sky” restrictions on temporary lighting during construction.
- Repair or replace existing facilities such as fences, lighting fixtures and road signs to match new aesthetic themes and standards. Establish new vegetation with appropriate planting, seeding, watering and mulching practices. Protect new plants with root and foliage protectors to prevent pest damage.
- Design planting to be weaned off of supplemental irrigation once established. Create a maintenance program to assure the establishment of landscaping to maturity.
- Let erosion control areas grow in a natural appearance to help disguise trash and debris collection. Mow drainage channel vegetation only when necessary for safety or function.
- Minimize fire hazards through use of proper mowing techniques and appropriate plants to decrease fuel volumes near commercial or residential development.

Appendix I State Office of Historic Preservation Concurrence Letters

STATE OF CALIFORNIA — THE RESOURCES AGENCY

PETE WILSON, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942868
SACRAMENTO 94228-0001
916) 653-0624
*AX: (916) 653-8924



January 28, 1994

REPLY TO: FHWA931021A

Roger Borg, Division Administrator
Federal Highway Administration
980 9th Street, Suite 400
SACRAMENTO CA 95814-2724

80152
5.4/22.1
EA 152000

Project: State Route 152, 04-SCL-152-5.4/22.1, Santa Clara and
San Benito Counties

Dear Mr. Borg:

The Office of Historic Preservation (OHP) has reviewed and provides the following comments on the documentation you submitted in support of the cited project.

Your report indicates that reasonable measures were taken to identify historic properties within the project's Area of Potential Effect (APE). While it is seldom possible to guarantee that all cultural resources have been discovered during a survey, your inventory methods are consistent with the Secretary of the Interior's Standards for Identification and satisfy us that you have fulfilled the requirements of 36 CFR 800.4(a and b).

Our review of the submitted Historic Architecture Survey Report (HASR) for this project leads us to concur with your determination that the following resources are eligible for inclusion on the National Register of Historic Places at the level of local significance under the appropriate criteria established by 36 CFR 60.4:

- o The Barnheisel/Sharp Ranch, Gilroy (Criterion C)
- o The Bloomfield Farm/Miller's Station, Gilroy (Criterion A, B, & C)
- o The Rohnert House, Hollister. (Criterion B & C)
- o The Ousley Farm, Gilroy, (Criterion A)
- o The Jarvis Farm, Hollister, (Criterion A & C)

Roger Borg
January 28, 1994
Page 2

o Pacheco Hall, Hollister, (Criterion A)

All of the aforementioned resources, with the possible exception of the Pacheco Hall, represent some of the best examples of their architectural types and have retained much of the integrity of design and setting associated with their historical periods of significance. They all share, to some degree, associations with significant historical patterns that shaped the development of San Benito County and nearby surrounding areas. The Bloomfield Farm/Miller's Station and the Rohnert House are also associated with persons who have made significant contributions to the development of San Benito County.

Our analysis of the other pre-1945 properties evaluated in the HASR leads us to concur with your determination that none of these properties, as described, are eligible for inclusion on the NRHP under any of the criteria established by 36 CFR 60.4. This determination extends also to all 26 bridge structures surveyed for this report (seven bridges located in the project APE and surveyed by John Snyder, Senior Environmental Planner, CALTRANS, September - December 1990) and by the CALTRANS Bridge Inventory. None of these structures or sites have any strong associations with significant historic events or persons, nor are they outstanding examples of their architectural types. All have been given the historical significance rating of 5 in the CALTRANS Bridge Inventory.

The testing revealed that site CA-SCL-639/H retains a high degree of integrity. Cattle grazing, corral construction and rodent burrowing are the only activities that have affected the property. Several features were located during the testing operation and chronologic information is abundant. The report indicates that CA-SCL-639/H contains information values that would contribute to the understanding of central California prehistory. In addition, two pieces of high fire ceramics that had been shaped by flaking were found in the deposit. Although no direct connection has been made, it is suggested that these may represent contact period artifacts that would provide information on contact period lifeways and the extent of trade routes. As such, you have determined that CA-SCL-639/H is eligible for the National Register of Historic Places (NRHP) under criterion D.

The information presented clearly substantiates the information values of the prehistoric component of CA-SCL-639/H. However, there was not sufficient information provided to substantiate the conclusion that the high fire ceramics are representatives of the contact period. I concur with your determination that the prehistoric component of CA-SCL-639/H is eligible for the NRHP under criterion D. Additional information is necessary in order for me to concur that the historic component contributes to the eligibility of the property.

Roger Borg
January 28, 1994
Page 3

The report indicates that CA-SCL-308/H contains intact features and chronologic information is abundant. The site appears to contain deposits dating to the Middle to Middle/Late transition Period with some evidence of occupation into later periods. The site retains good integrity, having been disturbed by rodent activity, fenceposts, and waterlines and surface disturbance by other historic activities. The historic component contains artifacts from the period 1800 to 1860. However, the site has not yet been clearly linked to a particular individual or group of individuals. You indicate that CA-SCL-308/H is eligible for the NRHP under criterion D.

The information presented clearly substantiates the information values of the prehistoric component of CA-SCL-308/H. However, there was not sufficient information provided to substantiate the conclusion that the historic component of the property contributes to the eligibility of the property. The report indicated that additional research will be needed to determine the eligibility of the historic component. I concur with your determination that the prehistoric component of CA-SCL-308/H is eligible for the NRHP under criterion D. Additional information is necessary in order for me to concur that the historic component contributes to the eligibility of the property.

The report indicates that CA-SCL-577/H has been disturbed on the surface. However, the subsurface deposits do retain integrity. A shell lens within the prehistoric deposit of the site provided a radiocarbon date of 3840 ± 100 B.P. In addition, obsidian hydration and obsidian sourcing has provided information concerning trade and chronology. Historic trade beads, ceramics and nails were also found on the site. However, the occupants and time of residency has not been clearly established. The report indicates that additional historic research and site testing is needed to make a determination of eligibility for the historic component. The site was determined to be eligible for the NRHP under criterion D.

The information presented clearly substantiates the information values of the prehistoric component of CA-SCL-577/H. However, there was not sufficient information provided to substantiate the conclusion that the historic component of the property contributes to the eligibility of the property. The report indicated that additional research will be needed to determine the eligibility of the historic component. I concur with your determination that the prehistoric component of CA-SCL-577/H is eligible for the NRHP under criterion D. Additional information is necessary in order for me to concur that the historic component contributes to the eligibility of the property.

Roger Borg
January 28, 1994
Page 4

The report indicates that CA-SCL-698 has been damaged by road construction, installation of underground cable, and agricultural activity. Intact subsurface features were located within the deposit. Numerous chronologic indicators were found in the deposit. At least four prehistoric components were located at the site. The site contains information values that will contribute to the understanding of central California prehistory. You have determined that CA-SCL-698 is eligible for the NRHP under criterion D. I concur with your determination that CA-SCL-698 is eligible for the NRHP under criterion D for the information the site will contribute to answer current research questions about central California prehistory.

The report indicates that CA-SCL-578/H is a highly disturbed deposit with little diagnostic material. Shell material was small and sparse, preventing shell from being used for radio carbon dates. Historic period artifacts are sparse and mostly 20th century. Only one historic structure remains, a small auxiliary outbuilding. You have determined that CA-SCL-578/H is not eligible for the NRHP. I concur with your determination that CA-SCL-578/H is not eligible for the NRHP.

Your report indicates that CA-SCL-697/H is a diffuse scatter of debris within an agricultural staging area. The site boundary was recorded as 60 by 120 meters and is reflected as that on map A18. The site has been impacted by agricultural activities, underground gas tank installation, septic systems and residential and agricultural structures. Seven test trenches were mechanically excavated. Only two of the trenches revealed cultural features. The STUs and CUs revealed only two pieces of debitage and a few historic period artifacts.

Map A17 notes a provisional site boundary that is 13 by 75 meters. It appears that the two features are the determinants of the provisional site boundary. Both of these were within the provisional site boundary. It appears that the information from the testing was used to define the provisional site boundary. It is reasonable to redefine the site boundaries with the current information. This however, leaves a situation where only two test trenches have been excavated within the provisional site boundary. One feature within this area was highly disturbed, and the other still intact. Without additional information concerning the contents and integrity of the deposit within the provisional site boundary, I can not comment on the eligibility of the prehistoric component of CA-SCL-697/H. I have to note that the existence of burials in an archeological context does not necessarily make a site eligible for the NRHP, especially under criterion D. It does establish the existence of other values that need to be considered for the purposes of the undertaking.

The report notes that the field strategy for the testing was not designed to identify the historic archeological deposits.

Roger Borg
January 28, 1994
Page 5

Until the site is tested with a design that will assess the historic archeological deposits, I am unable to comment on the eligibility of the historic component of CA-SCL-697/H.

The report indicates that CA-SCL-696 consists of seven bedrock mortar outcrops. Testing did not reveal any subsurface deposits. You indicate that all of the information values were recovered when the site was recorded. Consequently, the site is no longer eligible for the NRRP.

The site record included with the report was the 1989 record. The attributes (length, width and depth) of the mortar holes were recorded on the site form. However, no updated record was provided and there was no way to determine if the attributes of the additional mortar holes were recorded. Could you provide me with an updated site record with the attributes of all of the mortar holes recorded?

The report indicates that CA-SBN-181/H has undergone soil displacement during land leveling operations as well as disturbance from cultivation. Materials with chronologic information are limited. The site contents are sparse. The testing did not provide sufficient amounts of materials to demonstrate information values that would make the prehistoric component of the site eligible for the NRRP. The report indicates that the site is eligible for the NRRP because of the values associated with the human remains. I have to note that the existence of burials in an archeological context does not necessarily make a site eligible for the NRRP, especially under criterion D. It does establish the existence of other values that need to be considered for the purposes of the undertaking.

The report indicates that CA-SCL-83 was reported as an extensive habitation site. The information for the site record was not primary information. The current program included testing on both sides of the existing highway. No cultural materials were found in the present investigation. You indicate that CA-SCL-83 is not eligible for the NRRP. I concur with your statement that this does not represent an archeological deposit.

The report indicates that CA-SCL-92/H was a thin scatter of debitage and historic materials and modern garbage. The current investigation tested in areas that would have been highly likely areas for site components. No artifacts or features were located during the testing that would substantiate the existence of the prehistoric or historic component of the site. The report suggests that the deposits were destroyed during the construction of Highway 101. I concur with your determination that this area no longer contains attributes that would qualify it for consideration as a historic property. As such it does not meet the requirements to be considered for eligibility for the NRRP.

Roger Borg
January 28, 1994
Page 6

The report indicates that CA-SCL-203 is a very sparse scatter of materials in an agricultural field. Excavations have not verified any buried deposits. The testing was limited to existing roadways focusing on the APE because of a drip irrigation system (access limited by owner). The site has been determined as not eligible for the NRHP.

The site record provided with the report indicated that the testing conducted in 1975 located subsurface deposits (50 to 80 centimeters below surface). The main loci is noted as being along Carnadero Creek. Since the current testing was concentrated in the APE for the project, it is difficult to know if the area described by Winter as the main locus of the site has been examined by the current investigation.

The current testing investigation is concentrated along Highway 25 and a portion of the APE to the south east of the site. Most of this appears to have been outside of the site boundaries. The southern portion of the site (from site record) appears to be within the APE and was not tested. Since no subsurface materials were found within the APE along the northern boundary of the site, it is reasonable to redraw the site boundary to reflect this information. This does not resolve the absence of testing in the southern portion of the site. I can not concur in a determination of eligibility until additional information is provided.

The report indicates that CA-SCL-699/H consists of a pestle, lithic debitage and a small amount of clam shell and numerous mostly 20th century historic artifacts (highway refuse). The density and types of prehistoric artifacts provides little information concerning the prehistory of the area. No chronologic indicators were found. The historic period artifacts appear to represent roadside disposal and does not provide information important to the history of the area. You have determined that CA-SCL-699/H is not eligible for the NRHP. I concur with your finding that CA-SCL-699/H is not eligible for the NRHP.

The report indicates that CA-SCL-95 is a sparse scatter of flakes. Additional surface and subsurface investigation in the area believed to be the site location did not reveal any archeological materials. There is some confusion because the features noted on the site map and the area under current investigation are not consistent. The site was determined to not be eligible for the NRHP.

Because some confusion exists over the site location, it may not be wise to make a determination on the eligibility of the property at this time. I am willing to agree with you that CA-SCL-95 is not within the APE for your undertaking.

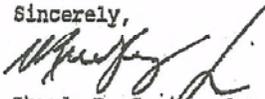
An addendum was provided for an evaluation of CA-SCL-119/SBn-24/H. The site has five loci of prehistoric

Roger Borg
January 28, 1994
Page 7

deposits that retain good integrity. The loci represent different time periods and some variety of activities. Chronologic materials are abundant in the deposit. The historic component is limited to the southwest portion of the site. The report indicates that further work is needed to make an evaluation for the historic archeological deposits. This includes an inventory by a historic archeologist, additional historic research, and a focused testing program. The report indicates that CA-SCI-119/SBn-24/H is eligible for the NRHP under criterion D. I concur that prehistoric component of the site is eligible for the NRHP under criterion D. However, additional work needs to be done in order to determine if the historic component contributes to the eligibility of the site.

Your consideration of historic properties in the project planning process is appreciated. If you have any questions regarding our review of this undertaking, please call Gary Reinohl of our staff at (916) 653-5099.

Sincerely,



Steade R. Craig, AIA, Acting
State Historic Preservation Officer

STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION



P.O. BOX 942898
SACRAMENTO, CA 94298-0001
(916) 653-6624 Fax (916) 653-9824
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

March 21, 2007

Reply To: FHWA051211A

Valerie Levulett, Heritage Resources Coordinator
Department of Transportation, San Luis Obispo
50 Higuera Street
San Luis Obispo, CA 93401-5415

Re: Determinations of Eligibility for the Proposed State Route 25/US Route 101
Hollister-to-Gilroy Widening, San Benito and Santa Clara Counties, CA

Dear Ms. Levulett:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*.

The California Department of Transportation (Caltrans) has re-evaluated the built-environment component of CA-SCL-697/H, the former Bloomfield Ranch Headquarters. The Headquarters was originally found eligible for the National Register of Historic Places (NRHP) in 1994 under Criteria A, B, and C at the local level of significance. Through the reevaluation process, Caltrans has determined the following:

- The former Bloomfield Ranch Headquarters consists of five significant built-environment features: 1) Miller's office; 2) Miller's Railroad Station; 3) Miller's reservoir; 4) a masonry bridge/culvert; and 5) the engineering office
- The boundaries of the historic property are SR 25 on the north, US 101 on the west, the railroad tracks on the east, and the old rancho boundary line of Rancho Las Animas on the south. Additionally on the west side of US 101, the reservoir and a 30-foot wide area surrounding it form a discontinuous portion of the historic property.
- The property is significant under criterion A at the state level for its association with the Miller & Lux Company, the dominant cattle ranching empire that extended over several western states, and for its key role within that empire as the business center from which Henry Miller guided day-to-day cattle operations. Under criterion B the property is significant at the state level for its association with Henry Miller and his accomplishments. Under criterion C the property is significant at the local level of significance because the buildings on the property embody the distinctive characteristics of their architectural type.

Ms. Levulett
March 21, 2007
Page 2

FHWA051211A

Based on my review of the submitted documentation, I concur that the Bloomfield Ranch Headquarters is eligible under A, B and C for the reasons listed above. I also concur with the contributors and boundaries for the district that are listed above.

In addition Caltrans has determined that CA-SCL-841H and the 53 built-environment properties listed on page 3 and 4 of your letter of December 6, 2006, are not eligible for the NRHP. **I concur.**

Thank you for taking historic properties into account as part of your project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer



Appendix J Route Adoption Alternatives Special-Status Species

Species Requiring Further Study for Tier II Environmental Documents

Common Name	Scientific Name
Plants:	
Alkali milk-vetch	<i>Astragalus tener</i> var. <i>tener</i>
San Joaquin spearscale (found during surveys)	<i>Atriplex joaquiniana</i>
Hoover's button-celery	<i>Eryngium aristulatum</i> var. <i>hooveri</i>
Vernal barley	<i>Hordeum intercedens</i>
Contra Costa goldfields	<i>Lasthenia conjugens</i>
Legenere	<i>Legenere limosa</i>
Prostrate vernal pool navarretia	<i>Navarretia prostrata</i>
Hairless popcorn-flower	<i>Plagiobothrys glaber</i>
Saline clover	<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>
Invertebrates:	
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>
California fairy shrimp	<i>Linderiella occidentalis</i>
Fishes:	
Pacific lamprey	<i>Lampetra tridentata</i>
South-Central California steelhead	<i>Oncorhynchus mykiss</i>
Amphibians:	
California tiger salamander (found during surveys)	<i>Ambystoma californiense</i>
California red-legged frog	<i>Rana aurora draytonii</i>
Foothill yellow-legged frog	<i>Rana boylei</i>
Western spadefoot	<i>Spea (=Scaphiopus) hammondi</i>
Coast range newt	<i>Taricha torosa torosa</i>
Reptiles:	
Western pond turtle (found during surveys)	<i>Clemmys marmorata</i>
San Joaquin coachwhip	<i>Masticophis flagellum ruddocki</i>
Coast (California) horned lizard	<i>Phrynosoma coronatum frontale</i>
Birds:	
Tricolored blackbird	<i>Agelaius tricolor</i>
Golden eagle	<i>Aquila chrysaetos</i>
Long-eared owl	<i>Asio otus</i>
Burrowing owl	<i>Athene cunicularia</i>
Northern Harrier	<i>Circus cyaneus</i>
Western yellow-billed cuckoo	<i>Coccyzus americanus</i>
Yellow warbler (found during surveys)	<i>Dendroica petechia</i>
White-tailed kite (found during surveys)	<i>Elanus leucurus</i>
California horned lark	<i>Eremophila alpestris actia</i>
Prairie falcon	<i>Falco mexicanus</i>
American peregrine falcon	<i>Falco peregrinus anatum</i>
Yellow-breasted chat	<i>Icteria virens</i>
Bank swallow	<i>Riparia riparia</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Bank swallow	<i>Riparia riparia</i>
Least Bell's vireo	<i>Vireo bellii pusillus</i>
Continued on next page	

Appendix J • Route Adoption Alternatives Special-Status Species

Common Name	Scientific Name
Mammals:	
Pallid bat	<i>Antrozous pallidus</i>
Ring-tailed cat	<i>Bassariscus astutus</i>
Pale Townsend's big-eared bat	<i>Corynorhinus townsendii pallescens</i>
Pacific Western big-eared bat	<i>Corynorhinus townsendii townsendii</i>
Hoary bat	<i>Lasiurus cinereus</i>
Western red bat	<i>Lasiurus blossevillii</i>
Yuma myotis	<i>Myotis yumanensis</i>
San Francisco dusky-footed woodrat	<i>Neotoma fuscipes</i>
American badger	<i>Taxidea taxus</i>
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>

Appendix K Federal and State Species Lists

USFWS Sacramento Office On-line Official Species List

Sacramento Fish & Wildlife Office, Customized Species List Letter

* Page 1 of 2



United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825



July 25, 2008

Document Number: 080725101804

Reagen O'Leary
Caltrans
2015 E. Shields, Suite 100
Fresno, CA 93726-5428

Subject: Species List for State Route 25 Widening

Dear: Interested party

We are sending this official species list in response to your July 25, 2008 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 23, 2008.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division

http://www.fws.gov/sacramento/es/spp_lists/auto_letter.cfm

7/25/2008

*page 2 of 2 was blank when down-loaded from the website

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 080725101804

Database Last Updated: January 31, 2008

Quad Lists

Listed Species

Invertebrates

Euphydryas editha bayensis
bay checkerspot butterfly (T)

Fish

Oncorhynchus mykiss
South Central California steelhead (T) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana aurora draytonii
California red-legged frog (T)

Birds

Brachyramphus marmoratus
marbled murrelet (T)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Vireo bellii pusillus
Least Bell's vireo (E)

Mammals

Vulpes macrotis mutica
San Joaquin kit fox (E)

Quads Containing Listed, Proposed or Candidate Species:

THREE SISTERS (385A)
SAN FELIPE (385B)
CHITTENDEN (386A)

County Lists

Santa Clara County

Listed Species

Invertebrates

Branchinecta lynchi
vernal pool fairy shrimp (T)

Euphydryas editha bayensis
bay checkerspot butterfly (T)
Critical habitat, bay checkerspot butterfly (X)

Fish

Eucyclogobius newberryi
tidewater goby (E)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
South Central California steelhead (T) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana aurora draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

Thamnophis sirtalis tetrataenia
San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
marbled murrelet (T)

Charadrius alexandrinus nivosus

western snowy plover (T)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rall (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Vireo bellii pusillus
Least Bell's vireo (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Castilleja affinis ssp. *neglecta*
Tiburon paintbrush (E)

Ceanothus ferrisiae
Coyote ceanothus (E)

Dudleya setchellii
Santa Clara Valley dudleya (E)

Streptanthus albidus ssp. *albidus*
Metcalf Canyon jewelflower (E)

Proposed Species

Fish

Oncorhynchus mykiss
Critical habitat, South Central California steelhead (PX) (NMFS)

Key:

(E) *Endangered* - Listed as being in danger of extinction

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** proje within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by t list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist o botanist, familiar with the habitat requirements of the species on your list, should determi whether they or habitats suitable for them may be affected by your project. We recomme that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environment documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or

injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that will result in take, then that agency must engage in a formal consultation with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our critical habitat page for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 23, 2008.

USFWS Ventura Office Official Species List



IN REPLY REFER TO:
2008-SL-0513

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003



August 20, 2008

Reagan O'Leary
Associate Environmental Planner / Natural Science
California Department of Transportation, District 6
2015 East Shields Avenue, Suite A-100
Fresno, California 93726-8290

Subject: Species List for State Route 25 Widening, San Benito County, California

Dear Ms. O'Leary:

This letter is in response to your request, dated July 25, 2008, and received in our office on July 28, 2008, for a list of endangered, threatened, and other special status species that may occur in the Hollister, San Juan Bautista, and Tres Pinos U.S. Geological Survey 7.5-minute Quadrangles, San Benito County, California. California Department of Transportation (Caltrans) is requesting this list of sensitive species as part of their State Route 25 Widening Project.

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any federally listed endangered or threatened species. Section 3(18) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. If the subject project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. Once you have determined if the proposed project will have a lead Federal agency, we can provide you with more detailed information regarding the section 7 or 10(a)(1)(B) permitting process.

Reagan O'Leary

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We recommend that you review information in the California Department of Fish and Game's Natural Diversity Data Base. You can contact the California Department of Fish and Game at (916) 324-3812 for information on other sensitive species that may occur in this area.

If you have any questions, please call Christopher Diel of my staff at (805) 644-1766, extension 305.

Sincerely,



David M. Pereksta
Assistant Field Supervisor

Enclosure

LISTED SPECIES AND CRITICAL HABITAT
 THAT MAY OCCUR IN THE
 HOLLISTER, SAN JUAN BAUTISTA, AND TRES PINOS
 U.S.G.S. 7.5 – MINUTE QUADRANGLES,
 SAN BENITO COUNTY, CALIFORNIA

Mammals

San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	E
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Amphibians

California red-legged frog	<i>Rana aurora draytonii</i>	T, CH
California tiger salamander	<i>Ambystoma californiense</i>	T, CH

Invertebrates

Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	E
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	E, CH
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T, CH
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E

Key:

E – Endangered	T - Threatened	CH - Critical habitat
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California Natural Diversity Database

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Portrait
 State Route 25 Widening Project- 24K Quad search for Chittenden, San Felipe, Hollister, San Juan Bautista, Tres Pinos and Three Sisters

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 <i>Actinemys marmorata</i> western pond turtle	ARAAD02030			G3G4	S3	SC
2 <i>Actinemys marmorata marmorata</i> northwestern pond turtle	ARAAD02031			G3G4T3	S3	SC
3 <i>Actinemys marmorata pallida</i> southwestern pond turtle	ARAAD02032			G3G4T2T3 Q	S2	SC
4 <i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020			G2G3	S2	SC
5 <i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened		G2G3	S2S3	SC
6 <i>Antrozous pallidus</i> pallid bat	AMACC10010			G5	S3	SC
7 <i>Arctostaphylos pajaroensis</i> Pajaro manzanilla	PDERI04100			G2	S2 1	1B 1
8 <i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	PDFAB0F8R1			G1T1	S1 1	1B 2
9 <i>Athene cunicularia</i> burrowing owl	ABNSB10010			G4	S2	SC
10 <i>Atriplex joaquiniana</i> San Joaquin spearscale	PDCHE041F3			G2	S2 1	1B 2
11 <i>California macrophylla</i> round-leaved filaree	PDGER01070			G3	S3 1	1B 1
12 <i>Castilleja rubicundula</i> ssp. <i>rubicundula</i> pink creamsacs	PDSCR0D482			G5T2	S2 2	1B 2
13 <i>Eremophila alpestris actia</i> California horned lark	ABPAT02011			G5T3Q	S3	
14 <i>Eriogonum nortonii</i> Pinnacles buckwheat	PDPGN08470			G2	S2 3	1B 3
15 <i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	PDAPI0Z043			G5T2	S2 1	1B 1
16 <i>Eumops perotis californicus</i> western mastiff bat	AMACD02011			G5T4	S3?	SC
17 <i>Falco mexicanus</i> prairie falcon	ABNKD06090			G5	S3	
18 <i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0			G2	S2 2	1B 2
19 <i>Helminthoglypta sequoicola consors</i> redwood shoulderband	IMGASC2421			G1G2T1	S1	
20 <i>Hoita strobilina</i> Loma Prieta hoila	PDFAB5Z030			G2	S2 1	1B 1
21 <i>Lasiurus blossevillii</i> western red bat	AMACC05060			G5	S3?	SC
22 <i>Lasiurus cinereus</i> hoary bat	AMACC05030			G5	S4?	
23 <i>Lindriella occidentalis</i> California lindriella	ICBRA06010			G3	S2S3	

Appendix K • Federal and State Species Lists

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Portrait
 State Route 25 Widening Project- 24K Quad search for Chittenden, San Felipe, Hollister, San Juan Bautista, Tres Pinos and Three Sisters

Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 <i>Malacothamnus aboriginum</i> Indian Valley bush-mallow	PDMAL0Q020			G3	S3 2	1B 2
25 <i>Masticophis flagellum ruddocki</i> San Joaquin whipsnake	ARADB21021			G5T2T3	S2?	SC
25 <i>North Central Coast Drainage Sacramento Sucker/Roach River</i>	CARA2823CA			G?	SNR	
27 <i>Oncorhynchus mykiss irideus</i> steelhead - south/central California coast ESU	AFCHA0209H	Threatened		G5T2Q	S2	SC
28 <i>Optioservus canus</i> Pinnacles optioservus rifle beetle	IICOL5E020			G1	S1	
29 <i>Plagiobothrys glaber</i> hairless popcorn-flower	PDBOR0V0B0			GH	SH	1A
30 <i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
31 <i>Riparia riparia</i> bank swallow	ABPAU08010		Threatened	G5	S2S3	
32 <i>Spea hammondi</i> western spadefoot	AAABF02020			G3	S3	SC
33 <i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewel-flower	PDBRA2G012			G2T2	S2 2	1B 2
34 <i>Sycamore Alluvial Woodland</i>	CTT62100CA			G1	S1 1	
35 <i>Taricha torosa torosa</i> Coast Range newt	AAAAF02032			G5T4	S4	SC
36 <i>Taxidea taxus</i> American badger	AMAJF04010			G5	S4	SC
37 <i>Trifolium amoenum</i> two-fork clover	PDFAB40040	Endangered		G1	S1 1	1B 1
38 <i>Trifolium depauperatum var. hydrophilum</i> saline clover	PDFAB400R5			G5T2?	S2 2?	1B 2
39 <i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
40 <i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2T3	S2S3	

Appendix L Regional Species Not Seen in the Build Alternatives Biological Study Area

Common Name	Scientific Name	Status*	General Habitat Description	Habitat P/A**	Comments
Plants					
Alkali milk-vetch	<i>Astragalus tener</i> var. <i>tener</i>	1B.2	Playas, valley and foothill grasslands with adobe clay, vernal pools/alkaline Blooming Period: March-June	P	Although vernal pool grasslands are present in the BSA, the species was not observed during protocol-level surveys
Hoover's button-celery	<i>Eryngium aristulatum</i> var. <i>hooveri</i>	1B.1	Vernal pools, almost always occurs under natural conditions in wetlands Blooming Period: July	P	Although vernal pools are present in the BSA, the species was not observed during protocol-level surveys
Vernal barley	<i>Hordeum intercedens</i>	3.2	Coastal dunes, coastal scrub, valley and foothill grasslands with saline flats and depressions, vernal pools Blooming Period: March-June	P	Although habitat is present in the BSA, the species was not observed during surveys
Contra Costa goldfields	<i>Lasthenia conjugens</i>	FE, 1B.1	Cismontane woodland, alkaline playas, valley and foothill grasslands, vernal pools Blooming Period: March-June	P	Although habitat is present in the BSA, the species was not observed during surveys
Legenere	<i>Legenere limosa</i>	1B.1	Vernal pools, vernal marshes, artificial ponds, and floodplains of intermittent streams Blooming Period: April-June	P	Although vernal pools are present in the BSA, the species was not observed during surveys
Prostrate vernal pool navarretia	<i>Navarretia prostrata</i>	1B.1	Coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, vernal pools/mesic Blooming Period: April-July	P	Although habitat is present in the BSA, the species was not observed during surveys
Hairless popcorn-flower	<i>Plagiobothrys glaber</i>	1A	Alkaline meadows and seeps, marshes and swamps with coastal salts Blooming Period: March-May	P	Habitat is present although species is not likely to occur; was not observed during surveys

Appendix L • Federal and State Species Lists

Common Name	Scientific Name	Status*	General Habitat Description	Habitat P/A**	Comments
Most beautiful jewel-flower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	1B.2, HCP	Chaparral, cismontane woodland, valley and foothill grassland/serpentinite Blooming Period: April-September	A	Serpentinite grasslands not present in the BSA, species was not observed during surveys
Saline clover	<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>	1B.2	Marshes and swamps, valley and foothill grassland/mesic, alkaline, vernal pools Blooming Period: June-April	P	Habitat is present although species is not likely to occur; was not observed during surveys
Invertebrates					
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE	Vernal pools or other seasonally wet areas	P	Seasonally wet areas are present in the BSA
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	FE	Vernal pools or other seasonally wet areas	P	Seasonally wet areas are present in the BSA
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Vernal pools or other seasonally wet areas	P	Seasonally wet areas are present in the BSA
California fairy shrimp	<i>Linderiella occidentalis</i>	R	Most landforms, geologic formations and soil types that support vernal pools of any size	P	Seasonally wet areas are present in the BSA
Amphibians					
Western spadefoot	<i>Spea (=Scaphiopus) hammondi</i>	SSC	Lowland washes, floodplains, alluvial fans, playas, and alkali flats; breeds in quiet streams or seasonal pools	P	Not observed during surveys, however suitable habitat is present within the BSA
Reptiles					
San Joaquin coachwhip	<i>Masticophis flagellum ruddocki</i>	SSC	Open, dry, vegetative associations with little or no tree cover and mammal burrows for refuge	P	The grassland areas within the BSA could provide suitable habitat
Coast (California) horned lizard	<i>Phrynosoma coronatum frontale</i>	SSC	Clearings or exposed areas within riparian, chaparral, shrubby, or grassland habitats	P	The grassland areas within the BSA could provide suitable habitat

Common Name	Scientific Name	Status*	General Habitat Description	Habitat P/A**	Comments
Birds					
Golden eagle	Aquila chrysaetos	FP, HCP**	Nests in tall trees or on cliffs, forages in grasslands and other open habitats**	P	Suitable foraging habitat exists
Burrowing owl	Athene cunicularia	SSC, HCP	Nests and winters in grassland and shrubland; uses abandoned burrows for shelter and nest site	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA
White-tailed kite	Elanus leucurus	FP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats	P	Observed during surveys, suitable foraging habitat exists
California horned lark	Eremophila alpestris actia	SSC	Variety of open habitats, usually where large trees and shrubs are absent	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA
American peregrine falcon	Falco peregrinus anatum	SE, FD, FP	Nests on cliffs and occasionally on buildings or bridges. Forages for birds over many habitats	P	Suitable foraging habitat is present in the BSA
Mammals					
American badger	Taxidea taxus	SSC	Resident throughout most the state, most abundant in drier open stages of shrub, forest and grassland habitats with friable soils	P	Suitable habitat is present within isolated grasslands, potential burrow found during surveys

Key to Status*

California Native Plant Society, Inventory of Rare and Endangered Plants:
 (1A) Presumed extinct in California
 (1B) Rare, threatened, or endangered in California and elsewhere
 (2) Rare, threatened, or endangered in California but common elsewhere
 (3) More information is needed
 .1 - Seriously endangered in California
 .2 - Fairly endangered in California
 .3 - Not very endangered in California

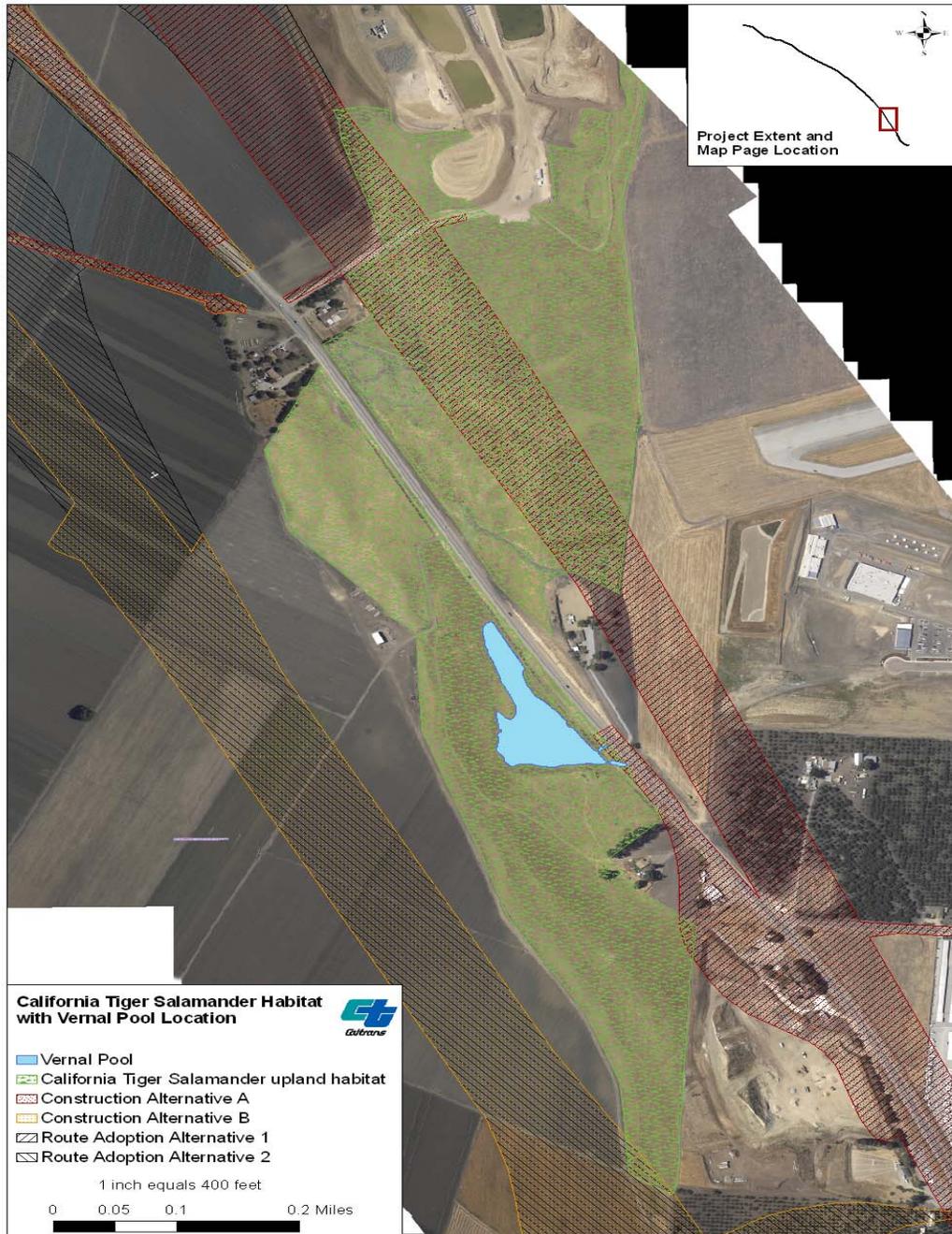
United States Fish and Wildlife Service:
 Federal Endangered (FE)
 Federal Threatened (FT)
 Federal Proposed (FPE, FPT)
 Federal Candidate (FC)
 Federal Delisted (FD)
 Federal Proposed for Delisting (PD)
California Department of Fish and Game:
 State Endangered (SE)
 State Threatened (ST)
 State Candidate (SC)
 State Fully Protected (FP)
 State Species of Special Concern (SSC).
 CNDDB Rare (R)

Santa Clara Valley Habitat Conservation Plan:
 Habitat Conservation Plan (HCP): species proposed for coverage under the Santa Clara Valley HCP currently in development.

****Habitat P/A**
 Present [P] - habitat is present. Absent [A] - no habitat present and no further work needed. Critical Habitat [CH]



Appendix M Vernal Pool with California Tiger Salamander Habitat





Appendix N San Joaquin Kit Fox Standard Recommendations

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846

IN REPLY REFER TO:
1-1-99-TA-1534

February 15, 2001

Memorandum

To: Distribution

From: Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Dissemination of Standard Recommendations for the Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance

The U.S. Fish and Wildlife Service (Service) provides the attached standard recommendations for the protection of the San Joaquin kit fox (*Vulpes macrotis mutica*) prior to or during ground disturbing activities. The attached standard recommendations are subject to revision by the Service at any time. Successful implementation of the standard recommendations will require ongoing contact with the Service before and during the ground disturbance. Questions regarding this guidance may be addressed to Sheila Larsen or Susan Jones of the Sacramento Fish and Wildlife Office at (916) 414-6600.

Wayne S White

Attachment

**U.S. FISH AND WILDLIFE SERVICE
STANDARDIZED RECOMMENDATIONS
FOR PROTECTION OF THE SAN JOAQUIN KIT FOX
PRIOR TO OR DURING GROUND DISTURBANCE**

Prepared by the Sacramento Fish and Wildlife Office
June 1999

INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U. S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act). Project applicants should contact the Service in Sacramento to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document. Formal authorization for the project may be required under either section 7 or section 10 of the Act. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). Such protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

All surveys, den destructions, and monitoring described in this document must be conducted by a qualified biologist. A qualified biologist (biologist) means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox. In addition, biologist(s) must be able to identify coyote, red fox, gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints such as an individual in-fill oil well, communication tower, or bridge repair. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a

STANDARD RECOMMENDATIONS

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future urban development). The Service recommends that on these small projects, the biologist survey the proposed project boundary and a 200-foot area outside of the project footprint to identify habitat features, and make recommendations on situating the project to minimize or avoid impacts. If habitat features cannot be completely avoided, then preconstruction surveys should be conducted.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Surveys should identify kit fox habitat features on the project site and evaluate use by kit fox and, if possible, and assess the potential impacts to the kit fox by the proposed activity. The status of all dens should be determined and mapped (see Survey Protocol).

Written results of preconstruction/preactivity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If a natal/pupping den is discovered within the project area or within 200-feet of the project boundary, the Service shall be immediately notified. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the Service immediately to obtain the necessary take authorization/permit.

If take authorization/permit has already been issued, then the biologist may proceed with den destruction within the project boundary, except natal/pupping dens (active or inactive). Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated, see den destruction section)

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take authorization/permit from the Service. This determination would be made by the Service during the early evaluation process (see Survey Protocol). These other projects would include, but are not limited to: linear projects; projects with large footprints such as urban development; and projects which in themselves may be small but have far reaching impacts (i.e., water storage or conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection measures presented in this document. The take authorization/permit may include measures specific to the needs of the project, and those requirements supersede any requirements found in this document.

STANDARD RECOMMENDATIONS

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EXCLUSION ZONES

The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances. The following radii are minimums, and if they cannot be followed the Service must be contacted:

Potential den	50 feet
Known den	100 feet
Natal/pupping den (occupied and unoccupied)	Service must be contacted
Atypical den	50 feet

Known den: To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

Potential and Atypical dens: Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Construction and other project activities should be prohibited or greatly restricted within these exclusion zones. Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited within the exclusion zones.

DESTRUCTION OF DENS

Disturbance to all San Joaquin kit fox dens should be avoided to the maximum extent possible. Protection provided by kit fox dens for use as shelter, escape, cover, and reproduction is vital to the survival of the species. Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection. Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the Service.

STANDARD RECOMMENDATIONS

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Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use. If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities. The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgement of the biologist, the animal has escaped from the partially destroyed den.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then destruction shall cease and the Service shall be notified immediately.

CONSTRUCTION AND OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of project-related disturbance should be minimized. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting project goals to be achieved. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, and other designated areas. These areas should also be

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included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, night-time construction should be minimized. Off-road traffic outside of designated project areas should be prohibited.
2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under number 13 of this section must be followed.
3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least once a week from a construction or project site.
5. No firearms shall be allowed on the project site.
6. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets should be permitted on project sites.
7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control

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must be conducted, zinc phosphide should be used because of proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped individual. The representative will be identified during the employee education program. The representative's name and telephone number shall be provided to the Service
9. An employee education program should be conducted for any project that has expected impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and agency personnel involved in the project. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the above-mentioned people and anyone else who may enter the project site
10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but that after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts
11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for advice
12. Any contractor, employee, or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist
13. The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during

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project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers given below. The CDFG contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, California 95814, (916) 654-4262.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620

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"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means "... to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Pupping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.



Appendix O Farmland Conversion Impact Rating Forms

U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service		FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS		NRCS-CPA-106 (Rev. 1-91)	
PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request	3/3/08	4. Sheet 1 of <u>1</u>	
1. Name of Project State Route 25 Hollister to Gilroy		5. Federal Agency Involved CA Dept of Transportation/FHWA			
2. Type of Project Transportation		6. County and State San Benito, CA			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS	2. Person Completing Form		
		3/3/08	L. Replogle		
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
				86,937	892 acres
5. Major Crop(s) small veg/trow crops, orchards		6. Farmable Land in Government Jurisdiction Acres: 86,937 % 3		7. Amount of Farmland As Defined in FPPA Acres: 86,937 % 3	
8. Name Of Land Evaluation System Used Storrie Index		9. Name of Local Site Assessment System Soil Survey of San Benito County		10. Date Land Evaluation Returned by NRCS 3/19/08	
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment			
		Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly		523	526		
B. Total Acres To Be Converted Indirectly, Or To Receive Services		2	2		
C. Total Acres In Corridor		525	528	0	0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		323	326		
B. Total Acres Statewide And Local Important Farmland		200	200		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		100	100		
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)		100	100		
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	15		
2. Perimeter in Nonurban Use		10	10		
3. Percent Of Corridor Being Farmed		20	20		
4. Protection Provided By State And Local Government		20	20		
5. Size of Present Farm Unit Compared To Average		10	0		
6. Creation Of Nonfarmable Farmland		25	15		
7. Availability Of Farm Support Services		5	1		
8. On-Farm Investments		20	17		
9. Effects Of Conversion On Farm Support Services		25	0		
10. Compatibility With Existing Agricultural Use		10	0		
TOTAL CORRIDOR ASSESSMENT POINTS		160	98	98	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	100	100	
Total Corridor Assessment (From Part VI above or a local site assessment)		160	98	98	0
TOTAL POINTS (Total of above 2 lines)		260	198	198	0
1. Corridor Selected: N/A	2. Total Acres of Farmlands to be Converted by Project: 523-526 acres	3. Date Of Selection: 9/16/08	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
5. Reason For Selection: A preferred alternative selection will take place after the draft environmental document is circulated					
Signature of Person Completing this Part: <i>Wendy Kronman</i>				DATE 9/16/08	
NOTE: Complete a form for each segment with more than one Alternate Corridor					

FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request	9/3/08	4. Sheet 1 of 1
1. Name of Project		5. Federal Agency Involved		
State Route 25 Hollister to Gilroy		CA Dept of Transportation/FHWA		
2. Type of Project		6. County and State		
Transportation		Santa Clara, CA		
PART II (To be completed by NRCS)		1. Date Request Received by NRCS	2. Person Completing Form	
		9/3/08	L. Replegle	
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
			38,779	331.0 acres
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction		7. Amount of Farmland As Defined in FPPA	
Orchards & Small Vegetables	Acres: 38,779 acres % 0		Acres: 38,779 % 0	
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System		10. Date Land Evaluation Returned by NRCS	
Storrie Index	Soil Survey of Santa Clara County		9/8/08	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	132	132		
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	132	132	0	0

PART IV (To be completed by NRCS) Land Evaluation Information	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres Prime And Unique Farmland	85	85		
B. Total Acres Statewide And Local Important Farmland	47	47		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0	0		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	95	95		

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)	Corridor A	Corridor B	Corridor C	Corridor D
	95	95		

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor D
1. Area in Nonurban Use	15	13	13		
2. Perimeter in Nonurban Use	10	0	0		
3. Percent Of Corridor Being Farmed	20	20	20		
4. Protection Provided By State And Local Government	20	20	20		
5. Size of Present Farm Unit Compared To Average	10	10	10		
6. Creation Of Nonfarmable Farmland	25	10	10		
7. Availability Of Farm Support Services	5	2	2		
8. On-Farm Investments	20	14	14		
9. Effects Of Conversion On Farm Support Services	25	0	0		
10. Compatibility With Existing Agricultural Use	10	0	0		
TOTAL CORRIDOR ASSESSMENT POINTS	160	89	89	0	0

PART VII (To be completed by Federal Agency)	Corridor A	Corridor B	Corridor C	Corridor D
Relative Value Of Farmland (From Part V)	100	95	95	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	89	89	0
TOTAL POINTS (Total of above 2 lines)	260	184	184	0

1. Corridor Selected: N/A	2. Total Acres of Farmlands to be Converted by Project: 131.5 (132)	3. Date Of Selection: 9/16/08	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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5. Reason For Selection:
Corridor A (Alternative 1) and B (Alternative 2) are on the same alignment; therefore, no selection of a preferred corridor is necessary.

Signature of Person Completing this Part: Wendy Monahan DATE: 9/16/08

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

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request	3/3/08
Name Of Project	State Route 25 Hollister to Gilroy	Federal Agency Involved	CA Dept of Transportation/FHWA
Proposed Land Use	Transportation	County And State	San Benito, CA

PART II (To be completed by NRCS)		Date Request Received By NRCS	
Does the site contain prime, unique, statewide or local important farmland? <i>(If no, the FPPA does not apply -- do not complete additional parts of this form).</i>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Major Crop(s)		Acres Irrigated	Average Farm Size
Irrigated small vegts/row crops		86,937	892
Farmable Land In Govt. Jurisdiction		Amount Of Farmland As Defined in FPPA	
Acres: 86,937 % 3		Acres: 86,937 % 3	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	
Storrie Index	Soil Survey of San Benito County	3/19/08	

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	179.9	188.8		
B. Total Acres To Be Converted Indirectly	0.5	0.0		
C. Total Acres In Site	180.4	188.8	0.0	0.0

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	180.0	188.0		
B. Total Acres Statewide And Local Important Farmland	0.0	0.0		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.5	0.5		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	100.0	97.0		

PART V (To be completed by NRCS) Land Evaluation Criterion				
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	92	93	0	0

PART VI (To be completed by Federal Agency)				
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points			
1. Area In Nonurban Use	15	13	13	
2. Perimeter In Nonurban Use	10	10	10	
3. Percent Of Site Being Farmed	20	20	20	
4. Protection Provided By State And Local Government	20	20	20	
5. Distance From Urban Builtup Area	15	5	5	
6. Distance To Urban Support Services	15	10	10	
7. Size Of Present Farm Unit Compared To Average	10	0	0	
8. Creation Of Nonfarmable Farmland	10	0	0	
9. Availability Of Farm Support Services	5	1	1	
10. On-Farm Investments	20	15	17	
11. Effects Of Conversion On Farm Support Services	10	0	0	
12. Compatibility With Existing Agricultural Use	10	0	0	
TOTAL SITE ASSESSMENT POINTS	160	94	96	0

PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V)	100	92	93	0
Total Site Assessment (From Part VI above or a local site assessment)	160	94	96	0
TOTAL POINTS (Total of above 2 lines)	260	186	189	0

Site Selected: N/A	Date Of Selection 9/16/08	Was A Local Site Assessment Used?
		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Reason For Selection:

Preferred alternative selection will take place after DED circulation.

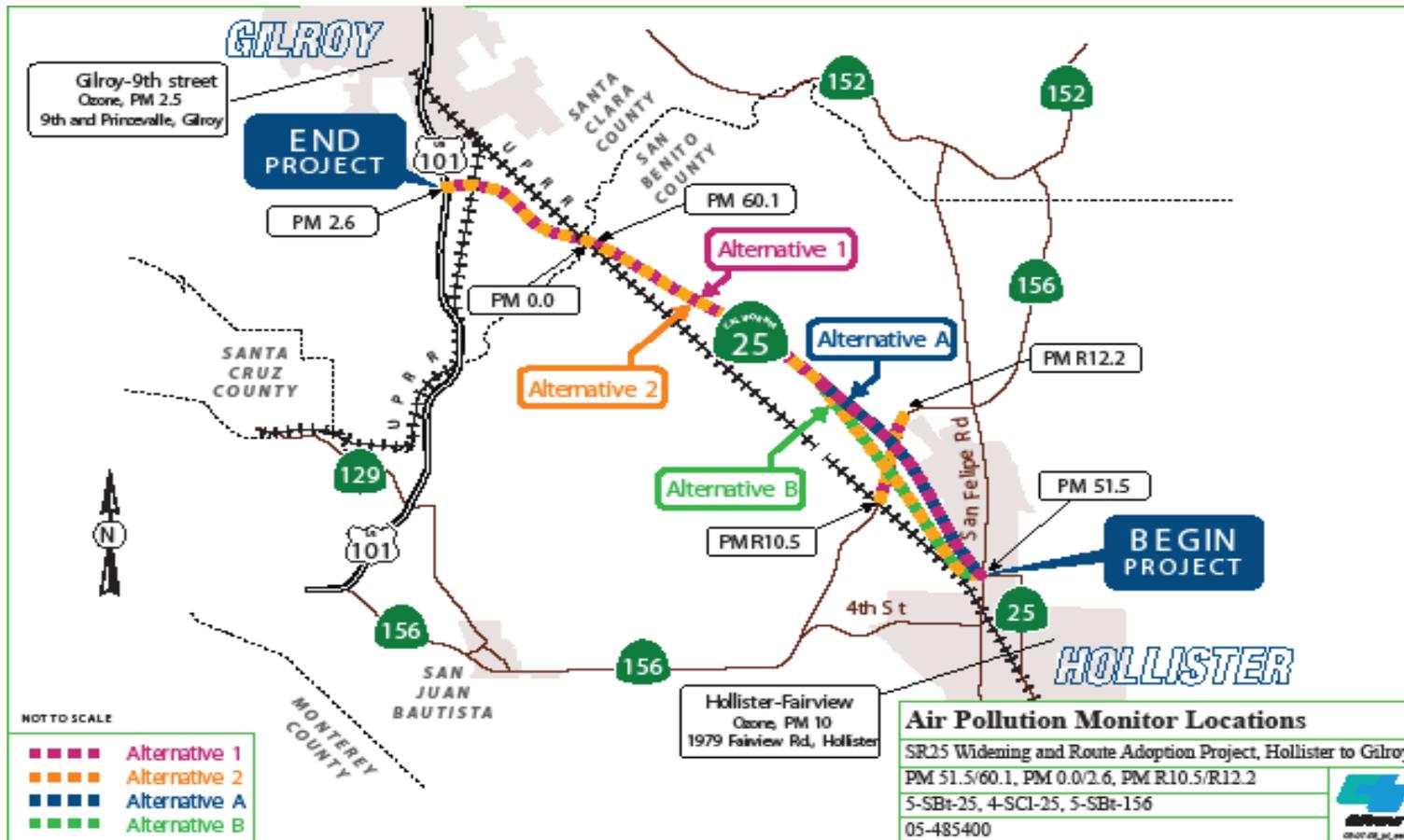
(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)

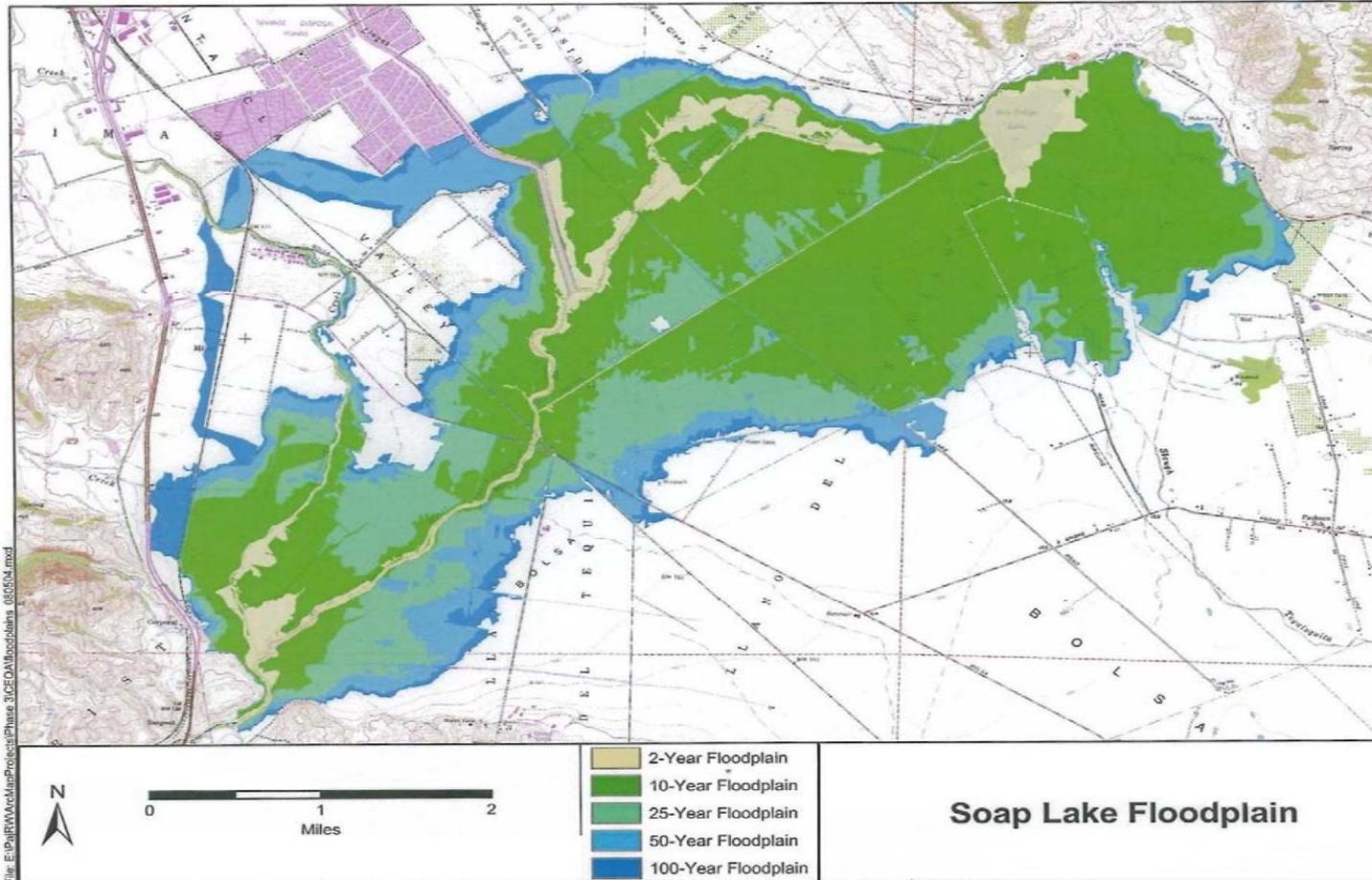


Appendix P Air Quality Monitor Map





Appendix Q Soap Lake Floodplain of the Pajaro River



Source: PRWS 2004



Appendix R List of Technical Studies that are Bound Separately

Community Impact Assessment
Draft Relocation Impact Report
Traffic Operations Analysis Report
Visual Impact Assessment
Historic Property Survey Report
 Archaeological Survey Report
 Historic Resources Evaluation
 and other reports
Location Hydraulic Study
Water Quality Report
Preliminary Geotechnical Report
Preliminary Mineral Resources Review
Paleontological Evaluation Report
Initial Site Assessment (Hazardous Waste)
Air Quality Study
Noise Study Report
Natural Environment Study

