San Juan Road Interchange

U.S. Route 101 at the Monterey/San Benito County Line
05-MON-101-PM 100.0/101.3
05-SBt-101-PM 0.0/1.6
05-315800

SCH# 2006021071

Initial Study/Mitigated Negative Declaration
Environmental Assessment/Finding of No Significant Impact

Prepared by the
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 Department under its assumption of responsibility pursuant to 23 U.S. Code 327.

December 2009

General Information About This Document

What's in this document?

This document contains a Negative Declaration and Finding of No Significant Impact, which examine the environmental effects of a proposed project on US Route 101 in Monterey and San Benito Counties.

The Initial Study/Environmental Assessment and Proposed Negative Declaration was circulated to the public for review from January 15 to February 15, 2009. Comments made on the circulated document and the corresponding responses are shown in the Comments and Responses section of this document, Appendix I, which has been added since the circulated version. Elsewhere throughout this document, a vertical line in the margin indicates content changes made since the release of the earlier document.

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, 2015 East Shields Avenue, Suite 100 Fresno, CA 93726; (559) 243-8302 Voice, or use the California Relay Service TTY number (559) 488-4066.

SCH# 2006021071
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Construct an interchange and frontage roads on U.S. Route 101
near the Monterey/San Benito County Line between San Juan Road and Cole Road.

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
ENVIRONMENTAL ASSESSMENT

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

12/7/09
Date of Approval

Richard Krumholz
District Director
California Department of Transportation

❖

California Department of Transportation
Finding of No Significant Impact

The San Juan Road Interchange Project

The California Department of Transportation (Caltrans) has determined that Build Alternative 10D will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment, which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment and incorporated technical reports.

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 Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

12/7/09
Date

Richard Krumholz
District Director
California Department of Transportation

❖

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans), in cooperation with the Transportation Agency of Monterey County, and the Council of San Benito County Governments propose to make safety and operational improvements along U.S. Route 101 at the Monterey/San Benito county line. The project would construct an interchange with frontage roads on U.S. Route 101 and a median barrier to close existing gaps. The project limits are 0.4 mile south of Dunbarton Road in Monterey County (post mile 100.0) to 1 mile north of Cole Road in San Benito County (post mile 1.6).

Determination

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

- The project would have no effect on archeological or historic architectural resources, educational facilities, public services, housing, publicly owned parks, wildlife refuges, recreational areas, employment or the economy.
- The project would not have a significant impact on noise.
- The project would have no significant effect on residences, businesses, or farmland.
- The project would have no significant effect on local geology, soils, mineral resources, paleontological resources, transportation and traffic, public services or utility and service systems.

The project would have no significant effect on water quality, visual resources, endangered species, wetlands, riparian areas, air quality or climate change because the following mitigation measures would reduce potential effects to insignificance:

- Potential effects to water quality from storm water runoff would be minimized through pollution prevention storm water beat management practices and construction impact provisions. Potential effects to water quality from storm water runoff would be mitigated by erosion control measures in conjunction with Caltrans landscape architecture provisions and riparian and wetland minimization/mitigation measures in conjunction with Caltrans biology provisions.
- Effects to visual resources would be minimized/mitigated through materials and aesthetic treatments, landscaping and erosion control, grading practices and structural provisions.
- Effects to wetlands, riparian areas, endangered or threatened animal or plant species would be minimized/mitigated by implementation of the measures specified in the Biological Opinion rendered by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Any mitigation that would not be feasible onsite would be undertaken as part of the Elkhorn Slough Early Mitigation Plan.
- Dust resulting from construction activities would be controlled by compliance with local air district regulations and soil exceeding aerial deposited lead concentrations would be removed before construction.
- The project would comply with Assembly Bill 32 on climate change in that it would reduce greenhouse gases by reducing traffic idling at congested intersections, reduce vehicle miles traveled and increase carbon sequestration with a re-vegetation program that includes native and drought-tolerant vegetation.

Jennifer H Taylor
Office Chief, Central Region
Environmental South

11/3/09
Date

Summary

The California Department of Transportation (Caltrans), in cooperation with the Transportation Agency of Monterey County, and the Council of San Benito County Governments propose to make safety and operational improvements along U.S. Route 101 at the Monterey/San Benito county line. The project would construct an interchange with frontage roads on U.S. Route 101 and a median barrier to close existing gaps. The project limits are 0.4 mile south of Dunbarton Road in Monterey County (post mile 100.0) to 1 mile north of Cole Road in San Benito County (post mile 1.6).

Two build alternatives (Alternatives 10B and 10D) and a No-Build Alternative were considered. Caltrans identified Build Alternative 10D as the preferred alternative (see section 1.3.4 for additional information).

The build alternatives had several design features in common including:

- Construct an overcrossing at a right angle with U.S. Route 101 northeast of the Monterey/San Benito county line. The southbound on-ramp and southbound off-ramp would have a compact diamond interchange configuration, while the northbound off-ramp and northbound on-ramp would have a one-quadrant cloverleaf interchange configuration.
- Close access to U.S. Route 101 at Dunbarton Road on the west side of the highway with construction of a cul-de-sac. The cul-de-sac would sit at the intersection of Dunbarton Road and Oak Ridge Road. Dunbarton Road on the east side of U.S. Route 101 would remain as-is, allowing continued access to U.S. Route 101.
- Allow only a right-in/right-out traffic movement at Dunbarton Road east of U.S. Route 101.
- Provide access east and west of U.S. Route 101 with an overcrossing and associated local road realignment.
- Close gaps in the median barrier, including the median crossover at Cole Road.
- Provide full access control from 0.4 mile north of Dunbarton Road in Monterey County to 0.2 mile north of Cole Road in San Benito County. The existing four-lane expressway would be reclassified as a freeway.
- Relocate utilities where necessary.

Unique features of Alternative 10B are:

- Realign San Juan Road and Cole Road to meet the overcrossing road at a T-shaped intersection on the west side of U.S. Route 101.
- Connect the overcrossing road on the east side of U.S. Route 101 to a public frontage road that follows the eastern edge of the Red Barn parking area, ending at Marylin Lane with a cul-de-sac. Connect Ballantree Lane to the frontage road.

Unique features of Alternative 10D are as follows:

- End the San Juan Road overcrossing at a right-angle intersection with a public frontage road on the east side of U.S. Route 101.
- Connect the overcrossing road east of U.S. Route 101 to a frontage road that follows the western edge of the Red Barn parking area, ending at Marylin Lane with a cul-de-sac. Connect Ballantree Lane to the frontage road.
- Retaining walls will be constructed near the San Juan Road/Cole Road intersection and near the San Juan Road/Red Barn frontage road intersection and along the southbound on-ramp and off-ramp. See Section 1.3.1 for details.

The No-Build Alternative would keep U.S. Route 101 and local area intersecting roads as they are. The No-Build Alternative does not rule out future routine maintenance or operational and/or safety improvement projects. Any future projects would require a separate design process and environmental studies. The No-Build Alternative would not meet the purpose and need of the proposed project because it would not reduce congestion, increase safety or improve access on U.S. Route 101 and local area intersecting roads.

Project Impacts

There may be project-related growth and temporary construction impacts to the natural and built environment if this project were approved. In addition, there is a potential for permanent impacts to the following resources:

- Biological resources
- Businesses and residences
- Geology/soils/topography
- Hydrology/floodplain
- Utilities
- Visual resources
- Water quality

Avoidance, minimization and/or mitigation measures would be in place for all potential impacts. Table S-1 summarizes the potential impacts.

Table S.1 Summary Table of Potential Impacts

Potential Impacts		Alternatives 10B and 10D	No-Build Alternative
Land Use	**Consistency with the County General Plan**	Both build alternatives are consistent with the Monterey County General Plan because they do not provide access to undeveloped land or increase development demand. The proposed project is consistent with the San Benito County General Plan.	The No-Build Alternative would not meet the goals outlined in the Transportation Sections of the Monterey or San Benito County General Plan. The Monterey County General Plan Circulation Section stipulates that county roadway shall not fall below a level of service of "C" in rural or agricultural lands. The San Benito County General Plan Transportation Section stipulates that county roadway shall not fall below a level of service of "C" for intersections or roadways.
	Consistency with the Regional Transportation Plan	The project is included in the current 2006 Federal Transportation Improvement Program (4-Year Cycle) within Monterey County. This program is administered by the Association of Monterey Bay Area Governments, which represents the counties of Monterey, San Benito and Santa Cruz. The project is listed on the Monterey County Regional Transportation Plan, but not the San Benito County Regional Transportation Plan.	The No-Build Alternative would not meet the Regional Transportation Plan's minimum level of service requirements.
Growth		The proposed project could influence business and residential growth. Any growth depends on revisions to the Monterey and San Benito County's General Plans.	The No-Build Alternative would have no effect on business or regional growth patterns.
Farmland		The project would convert approximately 24 acres of grazing land currently under the Williamson Act.	There would be no impacts to Farmland/Timberlands with the No-Build Alternative.
Emergency Services		Completion of the proposed project should improve response times by emergency services in those areas currently experiencing congestion. A Traffic Management Plan would be developed to minimize emergency service delays during the construction phase.	Delays in emergency service would continue to increase with the No-Build Alternative.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Other than out-of-direction travel for some residents to access U.S. Route 101, there are no negative impacts to traffic and transportation facilities. Positive impacts include less congestion and improved safety for drivers on U.S. Route 101, San Juan Road, Dunbarton Road and Cole Road. These improvements may negate any delay caused by out-of-direction travel. A bike route plan through the proposed project area is currently being developed.	If the No-Build Alternative is selected, congestion and traffic accidents in the proposed project area would increase over time.

Table S.1 Summary Table of Potential Impacts

Potential Impacts		Alternatives 10B and 10D	No-Build Alternative
Relocation	**Business**	There is one potential business relocation in Monterey County.	No businesses would be relocated with the No-Build Alternative.
	Residential	Build Alternative 10B would affect 49 parcels Build Alternative 10D would affect 48 parcels	There would be no impacts to residences with the No-Build Alternative.
	Utilities	Some utilities, including joint overhead lines would have to be relocated. Other utilities including underground water and gas lines would require changes.	No utility services would be relocated with the No-Build Alternative.
Visual Resources		The following impacts would occur with either build alternative: • Alteration of the view resulting from additional built features on the landscape • Alteration of scenic resources resulting from grading of hillsides and loss of mature trees • Alteration of the rural visual character • A potential increase in light and glare in previously unlit areas	There would be no impacts to Visual Resources with the No-Build Alternative.
Water Quality and Storm Water Runoff		Storm water pollution prevention best management practices would be incorporated. The required Storm Water Pollution Prevention Plan would address all the temporary construction site best management practices. The project would incorporate permanent storm water design best management practices and design features that preserve the existing hydrology if feasible. Opportunities to temporarily store and/or infiltrate and filter storm water within the right-of way will be incorporated, if feasible. In the vicinity of creeks and significant slopes, storm water would be routed through vegetated areas to minimize direct connections between the highway and the waterways, if feasible. Highway maintenance activities would be performed in a manner that minimizes impacts to water quality.	There would be no impacts to water quality or changes to storm water runoff with the No-Build Alternative.
Hydrology and Floodplain		Both build alternatives are within a floodplain.	There would be no impacts to local hydrology or the floodplain with the No-Build Alternative.

Table S.1 Summary Table of Potential Impacts

Potential Impacts	Alternatives 10B and 10D	No-Build Alternative
Hazardous Waste/Materials	The Initial Site Assessment found soil/groundwater contamination at the Valero Gas Station and potential soil contamination at Barros Trucking and Backhoe. Aerial-deposited lead in the soil adjacent to U.S. Route 101 has been identified in concentrations that would require removal before construction.	There would be no risk of contact with hazardous waste or acquisition of property contaminated with hazardous waste with the No-Build Alternative, but soil with lead would not be removed.
Air Quality	The proposed project would not result in permanent air quality impacts, but temporary impacts from construction activities would require minimization provisions.	Queuing (traffic waiting to cross) at intersections would increase with the No-Build Alternative, resulting in increased idling time and emissions.
Noise and Vibration	There would be no substantial permanent noise impacts under NEPA or CEQA. Temporary construction noise impacts are anticipated.	Noise is anticipated to increase as a result of increased traffic volume.
Threatened and Endangered Species	**California tiger salamander and California red-legged frog**: Potential permanent impacts to habitat include the permanent loss of aquatic and upland habitat. These impacts would occur during the initial grading of the new route. Also, death could occur if individuals are present during construction at these locations. Potential temporary impacts range between 12.9 and 14 acres. **Southwestern pond turtle**: Potential temporary impacts include displacement of individuals during construction and potential temporary loss of the use of aquatic and riparian habitat in areas immediately adjacent to the construction area. Permanent impacts are not anticipated.	There would be no impacts to threatened or endangered species with the No-Build Alternative.
Invasive Species	The proposed project is not likely to introduce or promote the spread of any invasive species outside the highway corridor; however, measures to avoid introducing invasive species within the corridor are recommended.	There would be no changes in invasive species with the No-Build Alternative.
Natural Communities	**Oak Woodland:** Alternative 10B would permanently affect 0.60 acre of coast live oak. Impacts would include oaks of heritage size (greater than 24 inches in diameter), but mostly those between heritage size and 5 inches in diameter. **Riparian**: Impacts to riparian zones depend on the final design. If all of the bridge structures are adopted, then temporary impacts would be increased but permanent riparian impacts would be reduced.	There would be no impacts to natural communities with the No-Build Alternative.

Table S.1 Summary Table of Potential Impacts

Potential Impacts	Alternatives 10B and 10D	No-Build Alternative
Wetlands and other Waters	There would be 0.03 acre of potential temporary impacts for both build alternatives. The total potential permanent impacts are 0.48 acre for Alternative 10B and 0.45 acre for Alternative 10D.	There would be no impacts to wetlands or other waters with the No-Build Alternative.
Plant Species	Several Monterey pines may be removed as part of the proposed project. Potential temporary impacts to Congdon's tarplant would be 0.04 acre for each build alternative. Potential permanent impacts to the tarplant resulting from work at Dunbarton Road would be estimated at 0.22 acre.	There would be no impacts to plant species with the No-Build Alternative.

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to construct an interchange and frontage roads on U.S. Route 101 in the vicinity of the Monterey/San Benito county line between San Juan Road and Cole Road. See Figure 1.1 for location. The interchange would include on-ramps and off-ramps for northbound and southbound traffic, an overpass and changes to local roads to provide controlled access to the highway. This section of U.S. Route 101 is currently a 4-lane conventional highway, defined as a highway with minimal or no access control.

The proposed project is included in the current 2006 Federal Transportation Improvement Program (4-Year Cycle) within Monterey County. This program is administered by the Association of Monterey Bay Area Governments, which represents the counties of Monterey, San Benito and Santa Cruz. The project is also listed in the 20-Year Regional Transportation Plan that is generated by the Transportation Agency for Monterey County. The project is not on the Regional Transportation Plan generated by San Benito County.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to reduce congestion, improve safety at the intersections of San Juan Road, Dunbarton Road and Cole Road with U.S. Route 101, and to provide controlled access to and from the highway.

1.2.2 Need

The project area has congestion, higher than average accident rates and access problems. Conflicting traffic turning movements at the Dunbarton Road, San Juan Road, and Cole Road intersections with U.S. Route 101, coupled with uncontrolled highway access at Marilyn Lane, Ballantree Lane and the Red Barn, contribute to congestion, safety and access problems. This section discusses these problems in detail.

1.2.2.1 Congestion

Caltrans determines the traffic capacity needed on proposed projects by using a “design year” traffic analysis, which generally refers to the twentieth year after project completion (2035 in this case). The analysis projected that the average daily traffic count would increase by over 30,000 vehicles, resulting in a substantial

increase in congestion. Table 1.1 shows the current-year and design-year average daily traffic volume and peak hour traffic volume from that analysis.

Table 1.1 U.S. Route 101 Traffic Forecast

Year	Monterey U.S. 101 post mile 100.0 to San Benito U.S. 101 post mile 0.2		San Benito U.S. 101 post mile 0.2 to San Benito U.S. 101 post mile 1.0	
	Average Daily Traffic	Peak Period Volume	Average Daily Traffic	Peak Period Volume
2008 (Current)	63,309	7,472	70,573	6,538
2035 (Design)	94,474	11,151	105,315	9,757

Source: Draft Project Report, October 2008

During the peak traffic hours on U.S. Route 101 within the proposed project area, the proportion of trucks as part of total traffic ranges between 16.5 and 18.4 percent.

Caltrans also determines the traffic capacity needed on proposed projects by analyzing the current-year and design-year level of service. The analysis found that the intersections of San Juan Road, Dunbarton Road and Cole Road with U.S. Route 101 operate at a level of service "F" during peak traffic periods. The Highway Capacity Manual states that this level is considered unacceptable to most drivers due to delays.

Table 1.2 shows existing and projected intersection level of service. Table 1.3 shows existing and projected highway level of service. See Appendix H for illustration showing intersection level of service.

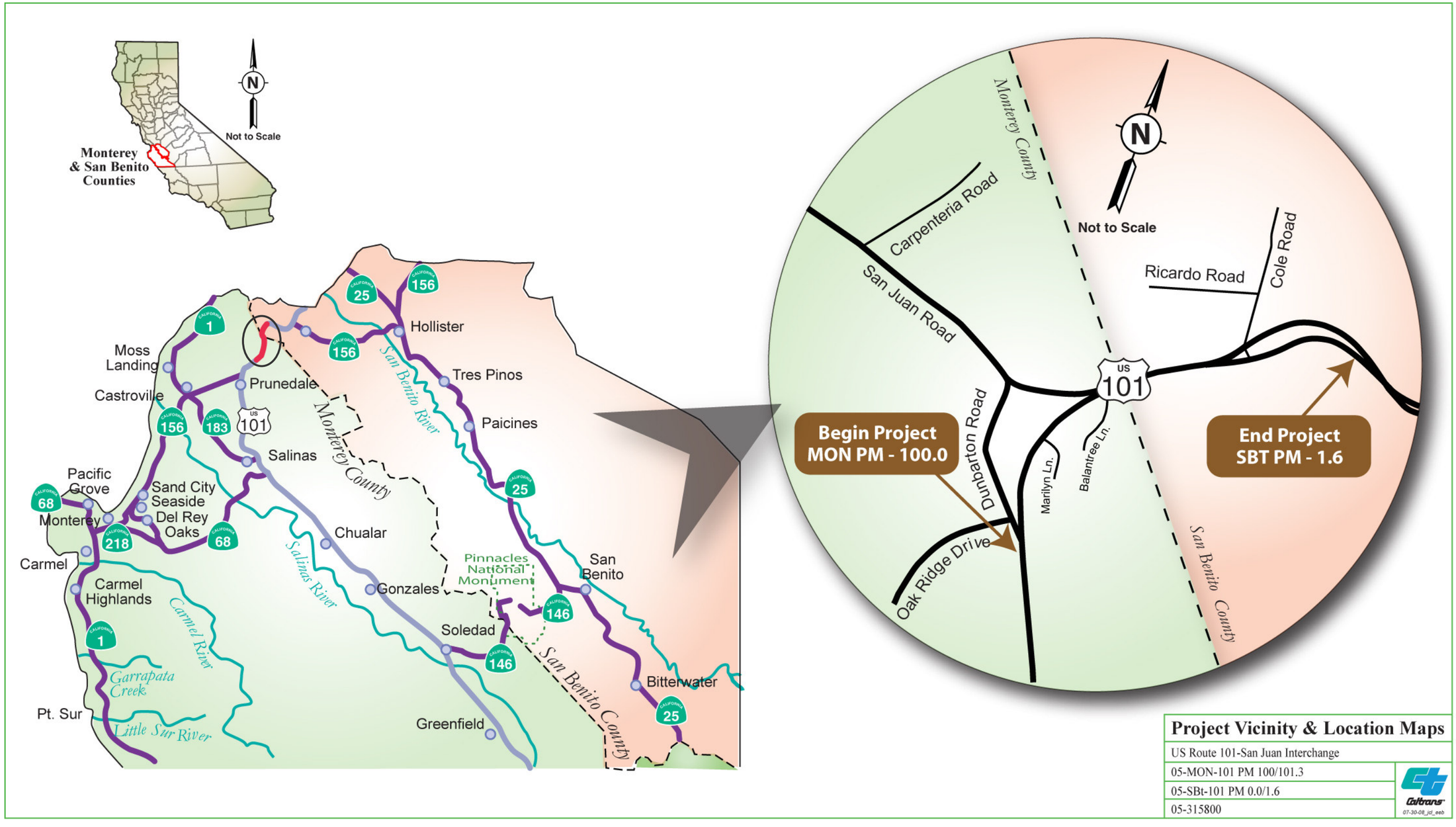

Figure 1.1 Project Vicinity/Location

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Table 1.2 Intersection Levels of Service

Existing Intersection Level of Service				2035 Intersection Level of Service Without Project			
Intersection	**Lane**	**Morning Peak**	**Evening Peak**	**Intersection**	**Lane**	**Morning Peak**	**Evening Peak**
San Juan Road U.S. Route 101	Northbound Southbound Eastbound	A A F	A A F	San Juan Road U.S. Route 101	Northbound Southbound Eastbound	A A F	A A F
Dunbarton Road U.S. Route 101	Northbound Southbound Westbound Eastbound	F B C F	F D D F	Dunbarton Road U.S. Route 101	Northbound Southbound Westbound Eastbound	F D F F	F F F F
U.S. Route 101 (Northbound) Cole Road	Southbound Eastbound	C A	C A	U.S. Route 101 (Northbound) Cole Road	Southbound Eastbound	F A	F A
U.S. Route 101 (Southbound) Cole Road	Northbound Southbound Westbound	F F A	F F A	U.S. Route 101 (Southbound) Cole Road	Northbound Southbound Westbound	F F A	F F A
San Juan Road Dunbarton Road	Northbound Westbound Eastbound	C C A	C C A	San Juan Road Dunbarton Road	Northbound Westbound Eastbound	F A A	F A A

Table 1.3 U.S. Route 101 Levels of Service

Existing Expressway Level of Service			2035 Expressway Level of Service Without Project		
Direction	**Peak Hour**	**Level of Service**	**Direction**	**Peak Hour**	**Level of Service**
Northbound	**Morning**	C	**Northbound**	**Morning**	F
	Evening	D		**Evening**	F
Southbound	**Morning**	D	**Southbound**	**Morning**	F
	Evening	D		**Evening**	F

1.2.2.2 Safety

During a three-year study period (September 1, 2004 to August 31, 2007) most highway segments and intersections in the proposed project area had a higher average accident rate than similar intersections statewide. Increased traffic volume hinders vehicles trying to enter the highway from local roads. This is especially true for traffic entering the northbound lanes of the highway from San Juan Road; accident rates at this intersection are four times the state average. As Table 1.4 shows, all intersections except that of Cole Road and U.S. Route 101 have higher than state average accident rates.

Table 1.4 Accident Rates (Intersections)

County/Route Local Road	Post Mile	ACTUAL*			AVERAGE*		
		Fatality	Fatality & Injury	Total	Fatality	Fatality & Injury	Total
Monterey 101 Dunbarton Rd (N)	100.36	0.015	0.11	0.32	0.004	0.10	0.22
Monterey 101 San Juan Rd	101.12	0	0.26	0.83	0.004	0.10	0.22
San Benito 101 Cole Rd (NB)	0.47	0	0	0.20	0.004	0.10	0.22
San Benito 101 Cole Rd (SB)	0.51	0	0.14	0.50	0.004	0.10	0.22

Source: Draft Project Report, October 2008
**Expressed in number of accidents per million vehicles*

Motorists cannot turn left onto San Juan Road from northbound U.S. Route 101, so motorists make U-turns at Cole Road. Southbound 101 traffic approaching Cole Road and San Juan Road on the 6 percent downgrade tends to exceed posted speed limits, which increases stopping distance and leads to accidents. Table 1.5 shows accident rates for U.S. Route 101 in the proposed project area as compared to the accident rates for a similar highway segment.

Table 1.5 Accident Rates (Highway Segments)

County/Route	Post Mile to Post Mile	ACTUAL*			AVERAGE*		
		Fatality	Fatality & Injury	Total	Fatality	Fatality & Injury	Total
Monterey 101	100.0-101.3	0.010	0.43	1.35	0.023	0.41	0.90
San Benito 101	0.00-0.311	0	0.24	0.78	0.024	0.42	0.92
San Benito 101 (NB)	0.312-0.469	0	0.18	1.08	0.019	0.33	0.72
San Benito 101 (SB)	0.312-0.509	0	0.72	2.59	0.019	0.33	0.72

Source: Draft Project Report, October 2008
**Expressed in number of accidents per million vehicle miles*

The proposed project would reduce accident rates and severity for the following reasons:

- Gaps in the median barrier would be closed, preventing vehicles from crossing against oncoming traffic and causing collisions.
- Traffic signals would be installed at some intersections, minimizing conflicts at those locations.
- On-/off-ramps would replace at-grade intersections.
- The Dunbarton Road intersection with U.S. Route 101 would be closed, preventing accidents at that location.

- A CHP enforcement area would be located at each on-ramp, with additional locations possible as recommended by the CHP.

Projections indicate continued traffic increases and the potential for increased accident rates with the No-Build Alternative (see Table 1.1).

1.2.2.3 Access

Access to and from the intersections with U.S. Route 101 is hindered by the existing at-grade, uncontrolled intersection design. Access to points east or west of U.S. Route 101 that does not require conflict with traffic on the highway is also needed.

1.3 Alternatives

Caltrans evaluated reasonable alternatives that would feasibly attain the objectives of the project but would avoid or substantially lessen any significant environmental effects from the project. Evaluation criteria included project cost, environmental impacts, level of service and other traffic data.

This section describes in detail the proposed build alternatives that were developed by an inter-disciplinary Project Development Team.

1.3.1 Build Alternatives

All references to the San Benito County portion of the proposed project indicate limits of post miles 0.0 to 1.6. It should be noted that the actual project construction limits are post miles 0.0 to 0.6. The additional mile is included to place an off-ramp sign outside the actual construction area.

Two build alternatives are under consideration, and they have several design features in common. Both build alternatives would do the following:

- Construct an overcrossing at a right angle with U.S. Route 101 northeast of the Monterey/San Benito county line. The southbound on-ramp and southbound off-ramp would be a compact diamond interchange configuration, while the northbound off-ramp and northbound on-ramp would be one-quadrant cloverleaf interchange configuration.
- Close access to U.S. Route 101 at Dunbarton Road on the west side of the highway with construction of a cul-de-sac. The cul-de-sac would be located at Dunbarton Road and Oak Ridge Road. Dunbarton Road on the east side of U.S. Route 101 would remain as-is, with continued access to U.S. Route 101.
- Allow only a right-in/right-out traffic at Dunbarton Road east of U.S. Route 101.

- Provide access east and west of U.S. Route 101 with an overcrossing and associated local road realignment.
- Close gaps in the median barrier.
- Remove the existing median crossover at Cole Road.
- Provide full access control from 0.4 mile north of Dunbarton Road in Monterey County to 0.2 mile north of Cole Road in San Benito County. The existing four-lane expressway would be converted to a freeway.
- Relocate utilities where necessary.

Unique features of Alternative 10B are as follows:

- San Juan Road and Cole Road would be realigned to meet the overcrossing road at a T-shaped intersection on the west side of U.S. Route 101.
- The overcrossing road east side of U.S. Route 101 would connect to a frontage road that follows the eastern edge of the Red Barn parking area, ending at Marylin Lane with a cul-de-sac. Ballantree Lane would connect to the frontage road.

Unique features of Alternative 10D are as follows:

- The overcrossing at San Juan Road would end at a right-angle intersection, with a public frontage road on the east side of U.S. Route 101.
- The overcrossing road on the east side of U.S. Route 101 would connect to a frontage road that follows the western edge of the Red Barn parking area, ending at Marylin Lane with a cul-de-sac. Ballantree Lane would connect to the frontage road.
- Retaining walls will be constructed near the San Juan Road/Cole Road intersection and near the San Juan Road/Red Barn frontage road intersection and along the southbound on-ramp and off-ramp. The retaining wall near the San Juan Road/Cole Road intersection will be about 1,200-feet long and 32-feet high. The retaining wall near the San Juan Road/Red Barn frontage road intersection will be about 510-feet long and 32-feet high. The retaining wall near the southbound on-ramp and off-ramp will be about 500-feet long and 36-feet high.

See Figures 1.2 through 1.5 for Build Alternative 10B mapping. See Figures 1.6 through 1.9 for Build Alternative 10D mapping.

Figure 1.2 Build Alternative 10B-Sheet A

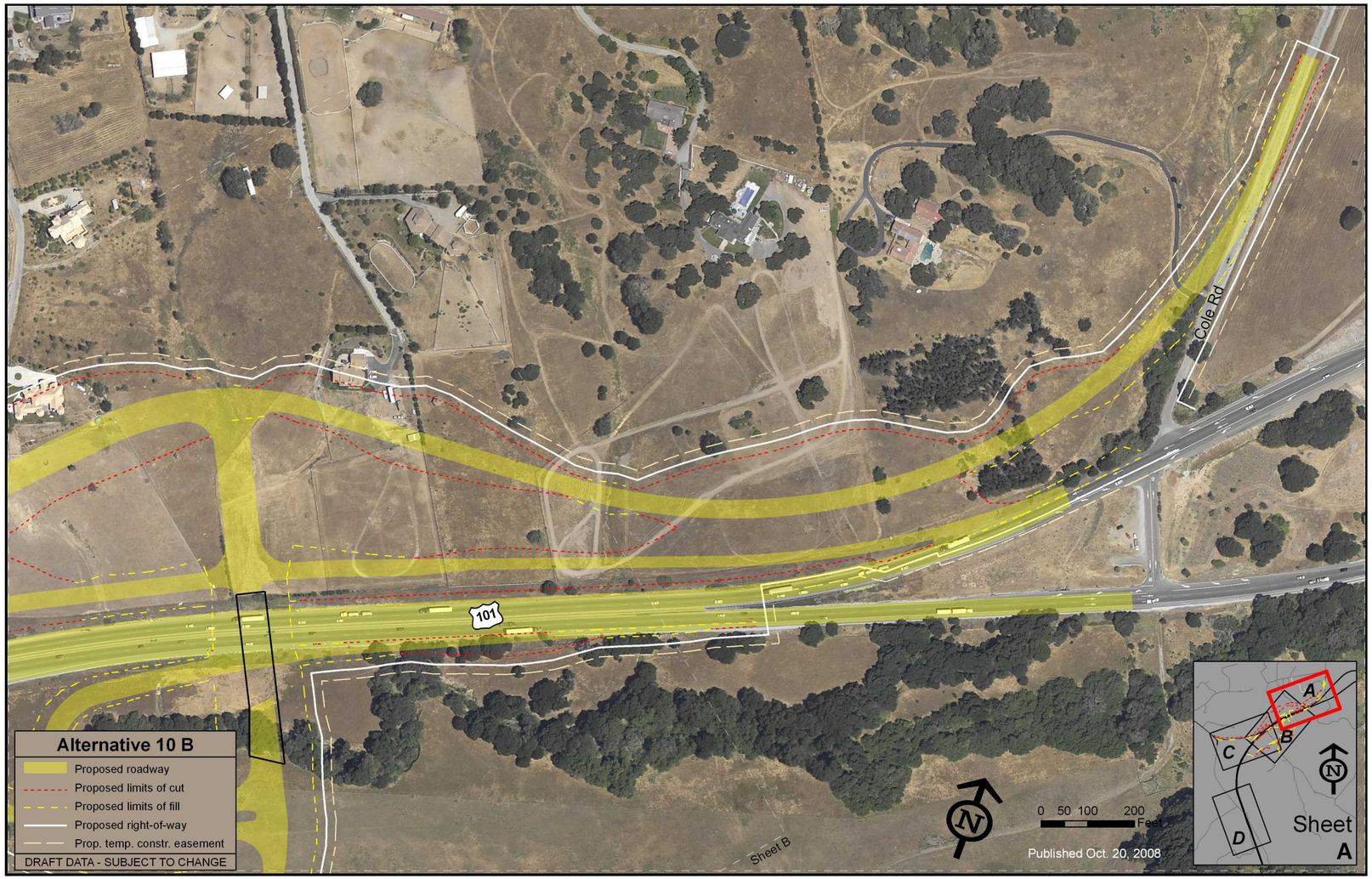

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Figure 1.3 Build Alternative 10B-Sheet B

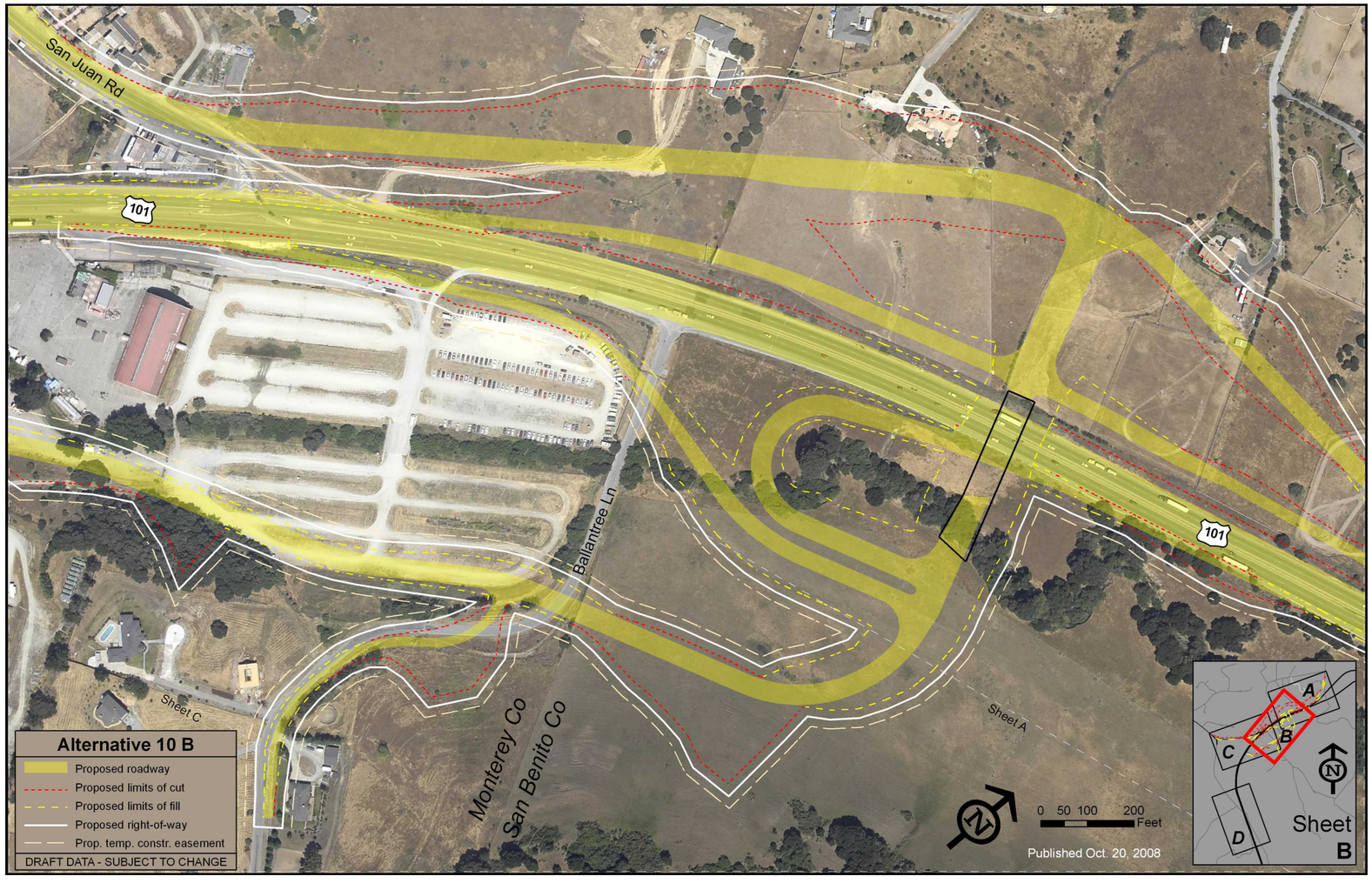

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Figure 1.4 Build Alternative 10B-Sheet C

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Figure 1.5 Build Alternative 10B-Sheet D

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Figure 1.6 Build Alternative 10D-Sheet A

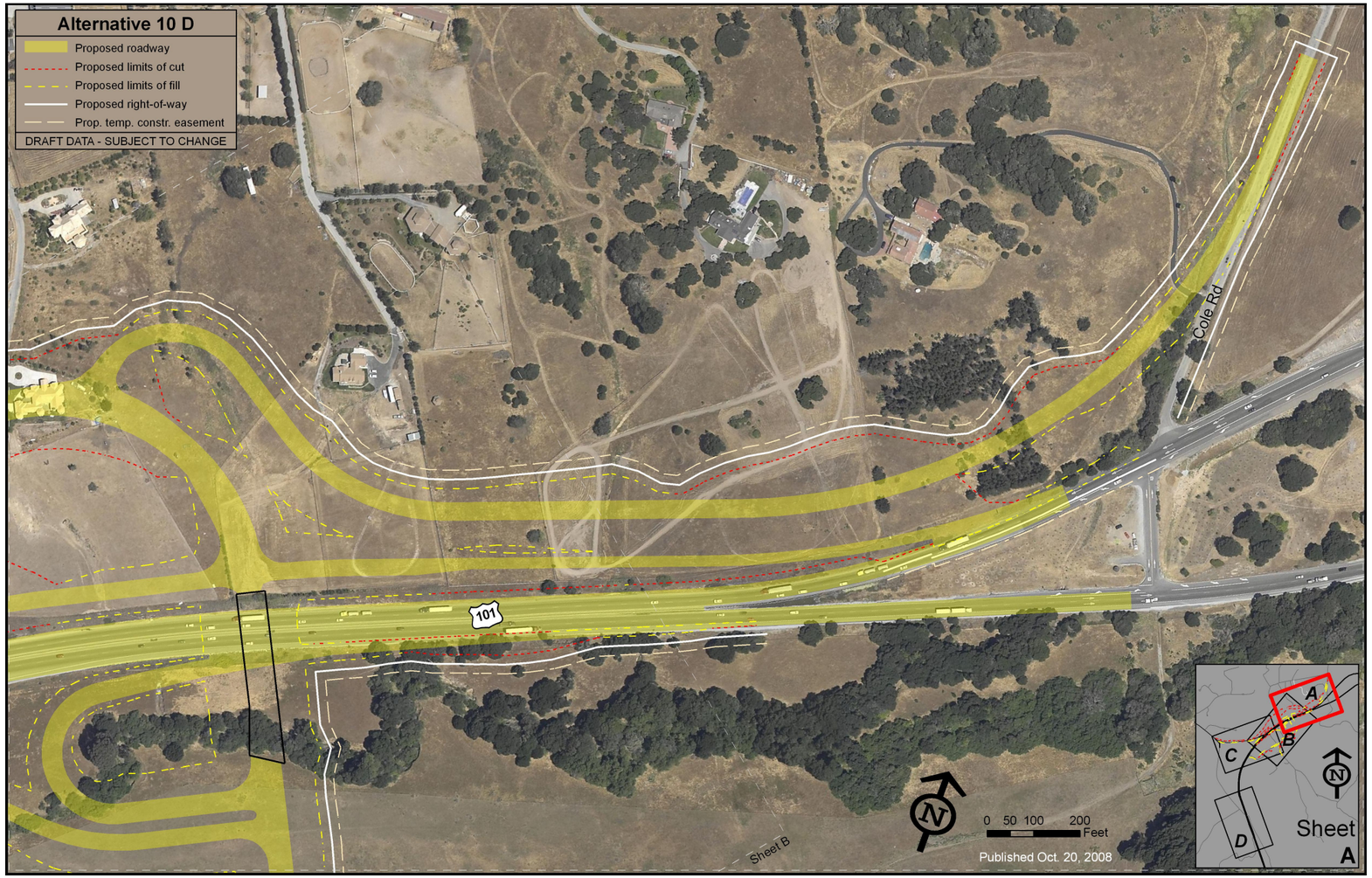

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Figure 1.7 Build Alternative 10D-Sheet B

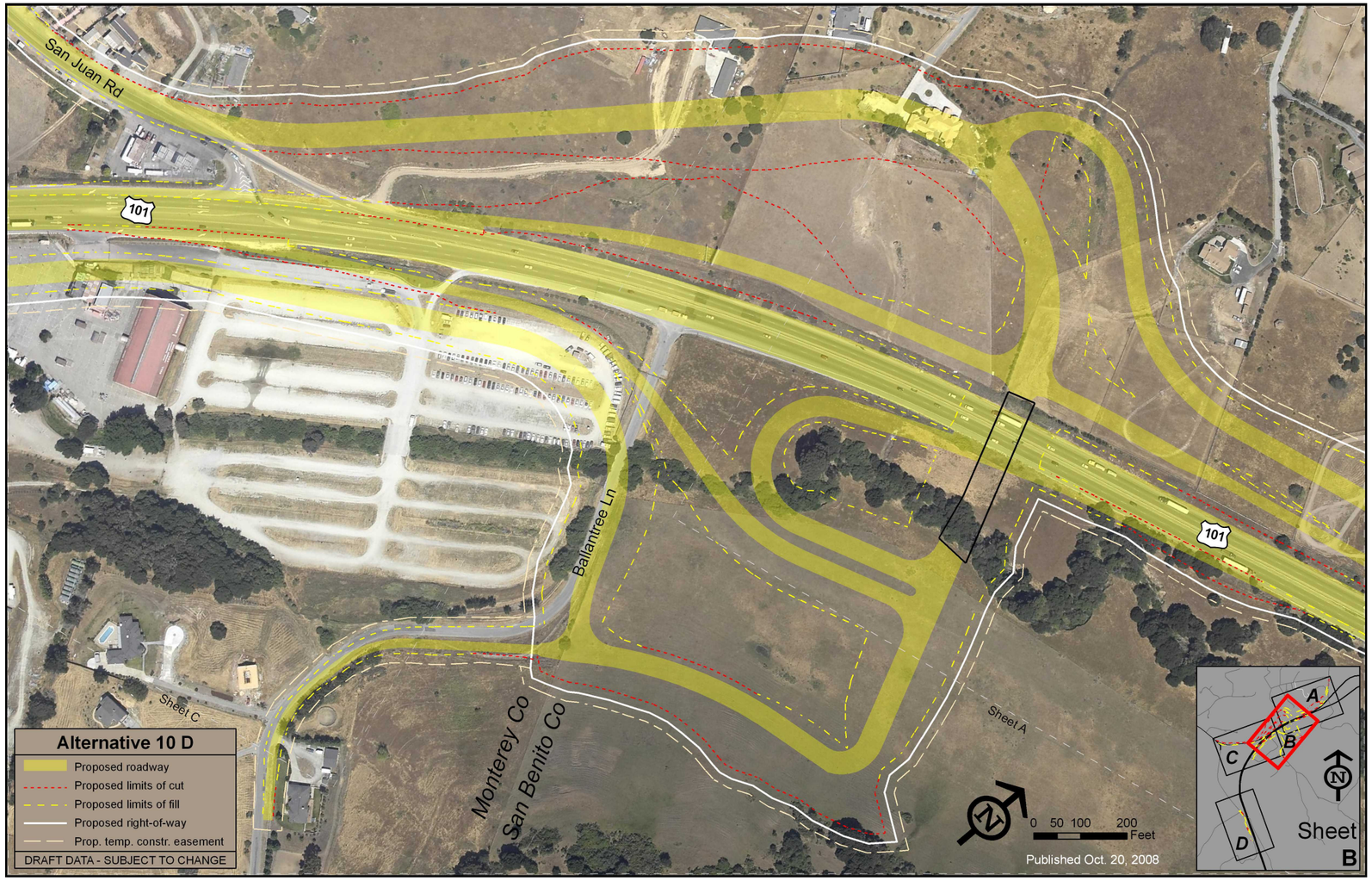

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Figure 1.8 Build Alternative 10D-Sheet C

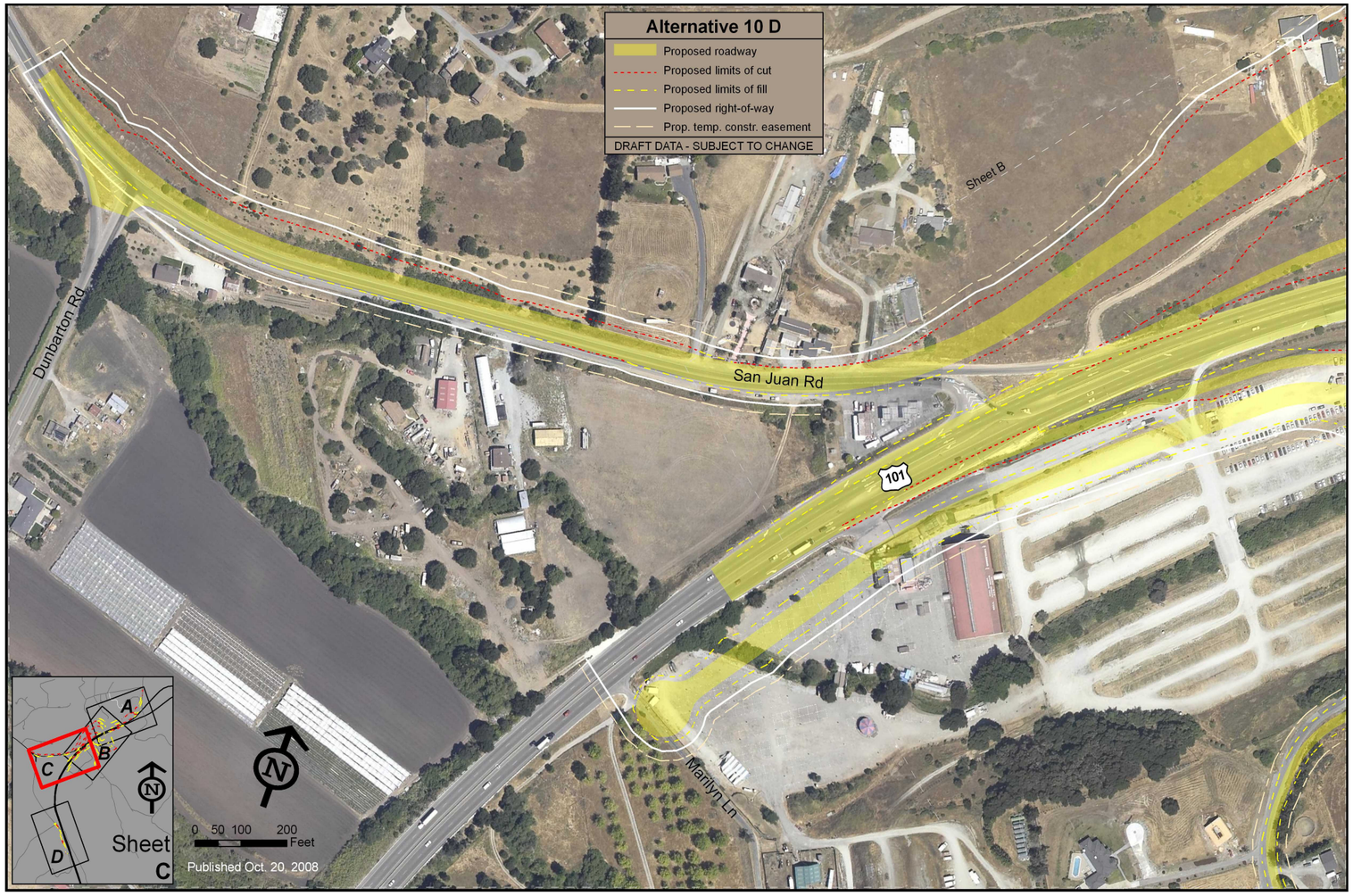

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Figure 1.9 Build Alternative 10D-Sheet D

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1.3.2 No-Build Alternative

The No-Build Alternative would keep U.S. Route 101 and local area intersecting roads as they are. Since traffic projections indicate a substantial increase in average daily traffic by 2035, congestion and safety problems would likely increase as well. The No-Build Alternative does not rule out routine maintenance or future operational and safety projects.

1.3.3 Comparison of Alternatives

Table 1.6 shows a comparison of the alternatives. For in-depth analysis of the items in this table, please review this document in its entirety as well as the technical documents that are also available during the circulation period at the locations listed on the inside cover.

Table 1.6 Comparison of Alternatives

Criteria	Build Alternatives 10B and 10D	No-Build Alternative
Reduce congestion	On/offramp level of service would range between "A" and "C" with both build alternatives. (San Juan/Cole Road provided traffic signals).	Each of the proposed project intersections would experience Levels-of-Service of "F" by the 2035 Design Year.
Improve safety	Traffic conflicts at intersections with U.S. Route 101 would no longer occur due to the use of on-/off-ramps with both build alternatives.	Traffic conflicts at intersections with U.S. Route 101 would increase as traffic increases with the No-Build Alternative.
Improve access	Both build alternatives would provide on-/off-ramp access.	Access would remain unchanged with the No-Build Alternative.
Estimated total cost of the Build Alternative (includes Roadway, Structures, and Right-of-Way acquisition)	Build Alternative 10B: $71,047,677 Build Alternative 10D: $65,140,969	No funding would be required for the No-Build Alternative.
Total disturbed area	Build Alternative 10B: 77 acres Build Alternative 10D: 84 acres	No acreage would be required for the No-Build Alternative.
Are there environmental impacts that may result from this alternative?	Impacts to water quality, wetlands, riparian areas, endangered species, and the view would be minimized or mitigated with both build alternatives.	Increased delays at intersections may contribute to air quality impacts, but no additional environmental impacts would occur with the No-Build Alternative.
Does this alternative conflict with the Regional Transportation Plans or General Plans in force for Monterey or San Benito County?	Build Alternative 10B: No Build Alternative 10D: No	The No-Build Alternative would not meet the transportation goals outlined in the Regional Transportation Plan.

1.3.4 Identification of a Preferred Alternative

A public hearing was held February 5, 2009 as part of the 30-day draft environmental document circulation period. All comments received during the circulation period have been incorporated into Appendix I along with responses.

Build Alternative 10D has been identified as the preferred alternative by Caltrans. This alternative best meets the project purpose and need while minimizing environmental impacts:

- Traffic volume data indicate far more traffic on San Juan Road than on Cole Road therefore the Alternative 10D alignment was designed to allow uninterrupted traffic flow towards the State Route 101 overcrossing bridge. This design supports improved levels of service for the majority of drivers with a lower cost.
- The frontage road alignment on the west side of the Red Barn complex results in less impact to businesses and local residents.
- The Cole Road alignment requires acquiring less land.
- The No Build-Alternative would not meet either the present or the projected need.

1.3.5 Alternatives Considered but Eliminated from Further Discussion

Caltrans rejected 16 build alternatives during the project development phase. The Project Development Team considered several questions in the decision to keep or eliminate a build alternative. The questions included: Does the build alternative meet the purpose and need? Does the cost justify the benefits? Can all environmental impacts be avoided, minimized or mitigated?

Table 1.7 describes the build alternatives that were eliminated.

Table 1.7 Alternatives Considered but Eliminated from Further Discussion

Alternative	Description	Meets Project Purpose and Need	Safety and Operations	Environmental Impacts	Justification for Removal
1A	Spread Diamond Interchange: This interchange would sit about midway between Dunbarton Road and San Juan Road. A frontage road would be constructed east of and roughly parallel to U.S. Route 101. This frontage road would connect to the interchange on-ramps and off-ramps as well as Dunbarton Road via an east/west road with an overpass. Dunbarton Road would be realigned and a cul-de-sac would be constructed where Dunbarton intersects U.S. Route 101. A cul-de-sac would also be constructed where San Juan Road meets U.S. Route 101.	Yes	This alternative has the potential to create traffic conflicts.	1. Extensive cut-and-fill 2. On-/off-ramp proximity to receptors 3. Potential hazardous waste 4. Wetland impacts 5. Residential relocations 6. Farmland impacts 7. Visual impacts	Reasons for removal include extensive earthwork (including 31-meter cut), steep ramp grade for accelerating traffic and floodplain problems.
1B	Compact Diamond Interchange: This interchange would sit about midway between Dunbarton Road and San Juan Road. This alternative would be similar to Alternative 1A except that the interchange and frontage road east of U.S. Route 101 would be closer to the highway's alignment.	Yes	This alternative has the potential to create traffic conflicts.	1. On-/off-ramp proximity to receptors 2. Extensive cut-and-fill 3. Potential hazardous waste 4. Residential relocations 5. Farmland (orchard) impacts 6. Wetland impacts 7. Visual impacts	Reasons for removal include a larger than necessary footprint.
2	Compact Diamond Interchange: This interchange would be located near the San Juan Road/U.S. Route 101 intersection. A frontage road would be constructed east of and roughly parallel to U.S. Route 101. This frontage road would connect to the interchange on- and off-ramps as well as San Juan Road via an east/west road with an overpass. The east end of San Juan Road would be realigned with a cul-de-sac constructed where San Juan Road meets U.S. Route 101. A cul-de-sac would also be constructed at Dunbarton Road where at it meets U.S. Route 101 on the west side.	Yes	This alternative has the potential to create traffic conflicts.	1. Wetland impacts 2. Cut-and-fill 3. Potential hazardous waste 4. Business (parking) impacts	Reasons for removal include a larger than necessary footprint.
3	Compact Diamond Interchange: This interchange would sit near the San Juan Road/U.S. Route 101 intersection.	No		1. Wetland impacts 2. Cut-and-fill 3. Potential hazardous waste 4. Business (parking) impacts 5. Farmland (orchard) impacts 6. Visual impacts	Disregarded previously due to excessive out-of-direction travel.
4	Identical to Alternative 2 west of U.S. Route 101: The frontage road extends about 1,200 feet beyond the interchange, becoming the northbound ramps.			1. Wetland impacts 2. Cut-and-fill 3. Potential hazardous waste 4. Business (parking) impacts 5. Farmland (orchard) impacts. 6. Visual impacts	Reasons for removal include a larger than necessary footprint.

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Table 1.7 Alternatives Considered but Eliminated from Further Discussion

Alternative	Description	Meets Project Purpose and Need	Safety and Operations	Environmental Impacts	Justification for Removal
5	Compact half diamond interchange (west side/southbound off-ramps). Half two-quadrant cloverleaf (east side/northbound ramps). This interchange would sit near the U.S. Route 101/San Juan Road intersection.	Yes	This alternative has potential traffic conflicts.	1. Wetland impacts 2. On-/Off-ramp proximity to receptors 3. Extensive cut and fill 4. Potential hazardous waste 5. Residential relocations 6. Farmland impacts (orchard)	Reasons for removal include a larger than necessary footprint that can be modified into Alternative 12.
6	This alternative would connect San Juan Road (west of U.S. Route 101) to Ballantree Lane (east of U.S. Route 101) by constructing an overpass and extending Ballantree Lane through the existing Red Barn parking lot	Yes		Visual impacts would result with this alternative. Depending on final design and mitigation measures, there may be business, residential, noise, utility, floodplain, wetland and hazardous waste impacts.	Remove Alternative 6 from further study due to concerns about loop off-ramps in both the southbound and northbound directions.
7	Two-quadrant cloverleaf on-ramps with an overpass connected to a re-aligned San Juan Road.	Yes	This configuration was determined to be unneeded due to excessive capacity.		Reason for removal is that ramp configuration did not serve the project purpose and need efficiently.
8	Minimum Alternative: Frontage road east of alignment with overpass to connect to Dunbarton Road. Does not meet purpose and need of the project.	No			Does not meet project purpose and need.
9A	Compact Half Diamond Interchange (west side/southbound ramps), One-Quadrant Cloverleaf (east side/northbound ramps). A frontage road would be constructed east of U.S. Route 101. This frontage road would connect to the interchange on-ramps and off-ramps as well as Dunbarton Road via an east/west road with an overpass. A cul-de-sac would be constructed at Dunbarton Road at its western intersect with U.S. Route 101 and at the intersection of San Juan Road and U.S. Route 101.	Yes		1. On-/off-ramp proximity to receptors 2. Cut-and-fill 3. Potential hazardous waste 4. Wetland impacts 5. Residential relocations 6. Visual impacts	Determined to be inferior to Alternative 9C.
9B	Compact Half Diamond Interchange (west side/southbound ramps), One-Quadrant Cloverleaf (east side/northbound ramps): This alternative design is similar to Alternative 9A except shifted north and has a different alignment of the frontage road east of U.S. Route 101.	Yes		1. Wetland impacts 2. Potential hazardous waste 3. Cut-and-fill 4. Residential and business relocations 5. Visual impacts	Determined to be inferior to Alternative 9C.

Table 1.7 Alternatives Considered but Eliminated from Further Discussion

Alternative	Description	Meets Project Purpose and Need	Safety and Operations	Environmental Impacts	Justification for Removal
9C	Removes massive frontage road feature and uses iteration from newer Alternative 12.	Yes			Reasons for removal include extensive earthwork, steep ramp grade for accelerating traffic and floodplain problems.
10A	This alternative would construct an overcrossing at a right angle with U.S. Route 101 northeast of the Monterey/San Benito county line. The southbound off-ramp, southbound on-ramp and northbound off-ramp would be a diamond configuration, while the northbound on-ramp would be a loop-configuration. The San Juan Road/Cole Road connection to the overcrossing road would be a T-intersection located a standard distance (about 600 feet) west of U.S. Route 101.	Yes		This alternative would have excessive impacts compared to Alternatives 10B and 10C based on the footprint. Visual impacts would result with this alternative. Depending on final design and mitigation measures, there may be business, residential, noise, utility, floodplain, and wetland impacts.	Extensive earthwork (including a 31-meter cut), steep ramp grade for accelerating traffic and floodplain problems.
10C	This alternative would construct an overcrossing at a right angle with U.S. Route 101 northeast of the Monterey/San Benito county line. The southbound off-ramp, southbound on-ramp and northbound off-ramp would be a diamond configuration, while the northbound on-ramp would be a loop-configuration. The San Juan Road/Cole Road connection to the overcrossing road would be a roundabout intersection about half the standard distance (about 300 feet) west of U.S. Route 101.	Yes	This alternative has potential traffic conflicts	Visual impacts would result with this alternative. Depending on final design and mitigation measures, there may be business, residential, noise, utility, floodplain, and wetland impacts.	Dropped from further study due to ineffectiveness of providing a full leg to the roundabout for Cole Road when it has 1/10th the volume of San Juan Road.
11	This alternative would construct two overcrossings, both at a skewed angle to U.S. Route 101. The first overcrossing would extend San Juan Road on a new alignment across U.S. Route 101 northeast of the Monterey/San Benito county line. The southbound off-ramp, southbound on-ramp, and northbound off-ramp would be a diamond configuration, while the northbound on-ramp would be a loop-configuration. The second overcrossing would be farther north and would bring realigned Cole Road to the east of U.S. Route 101 to meet realigned San Juan Road at the northbound ramps intersection. From this intersection, San Juan Road would continue to the east as a frontage road turning to the south and ending at Marilyn Lane.	Yes		Visual impacts including two overpasses would result with this alternative. Depending on final design and mitigation measures, there may be business, residential, noise, utility, floodplain and wetland impacts.	Dropped from further study due to 2 bridge structures, which cannot be justified considering recent traffic data on Cole Road.
12	This alternative would construct an overcrossing at a right angle with U.S. Route 101 south of the Monterey/San Benito county line. This alternative would not include Cole Road.	Yes		Visual impacts would result with this alternative. Depending on final design and mitigation measures, there may be business, residential, noise, utility, floodplain, wetland and hazardous waste impacts.	This alternative would not include Cole Road. This alternative was eliminated from consideration based on floodplain encroachment, business and farmland impacts.

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1.4 Permits and Approvals Needed

The following permits, reviews and approvals would be required for project construction:

Table 1.8 Permit/Approval Information

Agency	Permit/Approval	Status
Regional Water Quality Control Board	401 Certification	To be completed in 2010
Regional Water Quality Control Board	National Pollutant Discharge Elimination System Storm Water Permit	National Pollutant Discharge Elimination System permit in force
U.S. Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Biological Assessment completed June 15 and sent to the U.S. Fish and Wildlife Service.
U.S. Army Corps of Engineers	404 Permit	Wetland delineation to be completed by February 1, 2010. Permit to be completed in 2010.
California Department of Fish and Game	Section 1602 Streambed Alteration Agreement	To be completed in 2010
California Department of Fish and Game	Section 2081 Incidental Take Permit	Permit requirement to be determined

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

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

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

- Archeological or historic architectural resources. The proposed project would not affect cultural resources. Please see Appendix G for State Historic Preservation Office concurrence.
- Paleontological resources. The proposed project would not affect paleontological resources.
- Energy. Energy use during construction would not substantially affect energy delivery or supply.

2.1 Human Environment

2.1.1 Land Use

This section describes the current and planned land use within the proposed project area. Land use planning within the project limits is mainly a function of the Monterey and San Benito County Planning Departments, which act in accordance with their county's General Plan. Land Use is one of seven elements required by state law to be addressed in the General Plan. The remaining elements are circulation, housing, natural resources, noise, open space and public safety.

Within the Monterey County General Plan, a more specific plan titled the "North County Area Plan (January 2007)," focuses on the county's policy and development goals in the area surrounding the proposed project. This section places emphasis on the North County Area Plan in discussing the Monterey County portion of the proposed project.

This section also references the January 2007 Monterey County General Plan, 2005 Monterey County Regional Transportation Plan, and the 1985 San Benito General Plan, which has undergone periodic updates for specific sections.

Existing and Future Land Use

Affected Environment

Within the immediate project area, development is mostly rural/residential in character, with small businesses located intermittently along the highway. The most obvious developed feature is the Red Barn, a large structure used for retail sales with a parking area used as a flea market on weekends. The remaining land in the project area consists of large expanses of grazing land, mostly east of U.S. Route 101.

Land use plans and zoning are the main methods of managing local land use. These mechanisms govern the type and density of development in accordance with the county's General Plan.

The Monterey County General Plan provides for future land uses that are generally consistent with the type and intensity of established development and land use patterns. Table 2.1 shows the Monterey County zoning in the project area.

Table 2.1 Current Project Area Zoning (Monterey County)

Classification	Classification Description
Residential-Rural Density (West of U.S. Route 101)	This classification specifies 5-40 acres per housing unit, which can be described as a low-density residential development.
Agricultural	This classification includes (Rural and Permanent) grazing land in less accessible and steeply sloping terrain east of U.S. Route 101 from San Juan Road south to the Crazy Horse Canyon Road intersection.
Commercial (between the intersection of San Juan Road and U.S. Route 101 east to the county line)	This classification is designated for downtown Aromas and the intersection of San Juan Road and U.S. Route 101. The General Plan "provides for expansion of the Aromas commercial area to serve future residential growth in surrounding areas."

Residences in the project area are not supported by local retail outlets, services and employers to the extent found in many urban and suburban areas. This increases traffic on U.S. Route 101 as local residents must travel to Salinas, Prunedale and other communities to reach these providers.

The San Benito County General Plan calls for the majority of urban development to occur within the incorporated cities of San Juan Bautista and Hollister with limited residential development in the unincorporated areas of the county. The General Plan allows for commercial development within unincorporated communities and adjacent to highways to meet demand.

The project area within San Benito County is currently low-density residential and agricultural and does not have commercial zoning or significant development. Table 2.2 shows the San Benito County zoning in the project area.

Table 2.2 Current Project Area Zoning (San Benito County)

Classification	Classification Description
Residential (west of U.S. Route 101)	This classification applies to areas where residential densities up to eight dwelling units per acre may occur and where the use of the land is mainly for residential purposes. The uses allowed within this category include residential, agricultural, and open space.
Agriculturally Productive (east of U.S. Route 101)	This classification is applied especially to those lands that are identified as being prime agricultural lands, but also includes agriculturally productive lands of any type, including grazing lands. The minimum lot size in this area is 5 acres.
Agricultural Rangeland (southeast of U.S. Route 101)	This classification is assigned to the remote hillside areas, watershed and rangeland. These areas are typified by a lack of transportation access, high to very high fire hazard and by the lack of utility services to allow for more dense types of development. (40-acre minimum lot size)

Environmental Consequences

Both proposed build alternatives would require the acquisition of property outside the existing state right-of-way. Depending on the build alternative selected, any of the land use categories of agricultural, rangeland, residential and commercial land use could be affected. The acquisition would include land for the interchange, frontage roads, and any associated features such as retaining walls and drainage. Land use outside of the project area is controlled by local zoning and would not change without local approval.

Consistency with State, Regional, and Local Plans

Affected Environment

The project is included in the current 2006 Federal Transportation Improvement Program (4-Year Cycle) within Monterey County. This program is administered by the Association of Monterey Bay Area Governments, which represents the counties of Monterey, San Benito and Santa Cruz. The project is also in the 20-Year Regional Transportation Plan that is generated by the Transportation Agency for Monterey County.

The proposed project is included in the Transportation Agency of Monterey County 2005 Final Regional Transportation Plan and Association of Monterey Bay Area Governments Monterey Bay Metropolitan Transportation Improvement Program Fiscal Year 2006/07 to 2008/09. The proposed project is not in the San Benito County Regional Transportation Plan.

To further determine consistency with the land use goals adopted by Monterey and San Benito counties, this document references information from the Monterey County General Plan, Monterey North County Area Plan, Monterey County Regional Transportation Plan and San Benito General Plan. The Land Use, Transportation/Circulation, Noise and Public Safety Elements were the main references considered in the General Plans. Consistency with State Plans refers to the State Implementation Plan, which is discussed in the Air Quality Section.

The following information from these documents was considered supportive in determining consistency with regional and local plans as well as the project's purpose and need.

Monterey North County Area Plan

Although the proposed project is not specifically discussed, the plan states that "Deteriorating traffic conditions on many of the North County's roads and highways - and limited funding for their construction and improvement - is one of the major limitations facing additional development in North County. It is also considered one of the major constraints considered in the development of the land use plan."

San Benito County 2005 Regional Transportation Plan

San Benito County population increases have outpaced the state average, causing stress on the existing transportation network. Economic growth in Santa Clara County has increased regional development and regional commuting, adding stress on the existing transportation network.

Under this plan, a level of service "C" (minimal delays) shall be used for the accepted minimum standard of operation for intersections and roadways.

Environmental Consequences

The proposed project is consistent with state, regional and local plans based on the inclusion of the programs previously listed, information from the county plans previously listed and consistency with the State Implementation Plan. The project is not listed in the 2008 San Benito County Regional Transportation Improvement Program.

2.1.2 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 of 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

Both local and regional population growth trends were considered because U.S. Route 101 extends through the region, connecting various cities and communities. Local growth as defined here includes the proposed project area as well as the communities of Aromas, Prunedale, Salinas and San Juan Bautista. Between 2005 and 2006, local growth was minimal, and Salinas experienced a slight population loss during this period.

Population Growth

Regional growth as defined here refers to growth in Monterey, Santa Cruz and San Benito counties. The Association of Monterey Bay Area Governments "2007 State of Our Region Report" discusses important population trends and other information about these counties. The report stated that the region had a 0.5 percent population growth compared to 1.2 percent growth for the entire state of California in 2006, a trend that has remained consistent for the past several years. San Benito and Santa Cruz counties experienced slight population growth mainly in unincorporated areas of those counties. Monterey County experienced a slight increase in total population in spite of decreases in some of its cities and unincorporated areas. The report stated that only Gonzales, Greenfield, and Soledad saw their populations grow in the last year. All three cities are located in the central Salinas Valley along U.S. Route 101.

Table 2.3 shows the regional population change between 2000 and 2006. The report states that the change from year to year is a result of the region's natural increase (births minus deaths) and the region's net documented migration (in- versus out-migration). The region has experienced a decline in net migration for the last five years. The natural increase factor has accounted for overall population increases during those years.

Table 2.3 Regional Population Change

Year	Population	Percent Change	Numeric Change
2000	714,232	1.90	14,201
2001	723,469	1.29	9,189
2002	730,047	0.91	6,578
2003	736,586	0.90	6,539
2004	739,970	0.46	3,384
2005	741,710	0.24	1,740
2006	744,820	0.36	2,687

Source: Association of Monterey Bay Area Governments 2007 State of Our Region Report

In 2004, the Board of Directors of the Association of Monterey Bay Area Governments adopted a population forecast for the Monterey, Santa Cruz and San Benito counties region: an estimated regional population of 894,823 in 2020 and 991,611 in 2030.

Residential Density

Rural density residential use is planned in the vicinity of the intersections of U.S. Route 101 with San Juan Road/Dunbarton Road to the Monterey/San Benito county line. The density varies between 1 acre and 5 acres per residence, which falls into the Rural Density category. According to the Monterey North County Area Plan, much of the proposed project area has a density of 2.5 acres per residence.

Monterey County's General Plan (Land Use) states that: "General retail and service businesses shall be discouraged in the Rural Residential Lands except on small commercial-designated sites located at key crossroads." The North County Area Plan provides for existing commercial centers to be the foundation for expanded commercial development.

The area within the proposed project area adjacent and west of U.S. Route 101 is zoned residential. The type of development allowed within the residential areas includes residential, agricultural, and open space. Trails, parks, and public facilities, including schools and churches may be allowed subject to use permits.

The area within the proposed project area adjacent and east of U.S. Route 101 is zoned agricultural productive. The type of uses allowed within the agriculturally designated areas is related to the suitability of the soil resources, climate and water supply. The type of uses allowed on most agriculturally designated areas within the county includes agriculture, agricultural processing, grazing, land in its natural state, wildlife refuges, and low-intensity residential.

Environmental Consequences

The current Land Use Plan allows for limited development within the commercially zoned area at U.S. Route 101 and San Juan Road. Several potential impacts from development should be considered with the proposed project (cumulative impacts are discussed in Section 2.5):

- The availability of infrastructure and public services to serve any development related to the proposed project
- The increase in impervious surfaces from project-related development affecting nearby Elkhorn Slough headwaters
- Visual impacts from commercial properties, including signage
- An adequate water supply

Growth has remained fairly low in the immediate project vicinity compared to other areas in the region, due in part to current zoning and housing costs and more recently to the downturn in the housing market.

It is not possible to determine with a high degree of certainty if a transportation project will influence growth. The standard used here is whether project-influenced growth is "reasonably foreseeable" as opposed to remote or speculative. There are, however, several methods of estimating a project's development potential. The method chosen for this project is the Growth Inducement Checklist found in the Caltrans Environmental Handbook under Community Impact Assessment. The Growth Inducement Checklist indicates that the proposed project could hasten business and residential growth (see Appendix F).

Table 2.4 shows potential growth and its impacts (cumulative impacts are discussed in Section 2.5).

Table 2.4 Potential Project-Induced Growth

Subject	Build Alternatives	No-Build Alternative
Potential for project related growth	Project-related growth is possible with the current build alternatives.	Growth rates and patterns would remain unchanged.
Potential growth area	The only reasonably foreseeable project-related growth is east of U.S. Route 101 on the San Benito County side of the county line.	Planned and proposed development would remain unchanged.
Resources of concern	A separate environmental analysis would be required for any other development, but resources of concern may include: • Water quality • Riparian areas • Wetlands • Views	Impacts to resources of concern would be limited to planned and proposed development.
Reducing impacts to resources of concern	San Benito County Planning would require the developer to complete an environmental analysis for any development. Reducing impacts to resources of concern would be discussed in the environmental document resulting from that analysis.	Currently protected from development by the Williamson Act.

The proposed project could hasten growth based on the stated intentions of a landowner in San Benito County. There is a potential for project-related growth because a landowner has contacted San Benito County requesting a San Benito

County General Plan revision that would allow residential, commercial and retail use of this property, which is currently zoned for grazing. This conclusion is based on the fact that the landowner of a large parcel indicated to Caltrans' environmental that he thought an interchange at this location provided an opportunity to develop part of the parcel for multi-use development. The landowner requested build alternative mapping to assist in development planning.

Preliminary plans show about 180,000 square feet of commercial space and up to 150 mixed-use residential units.

Should this development be built, grazing land currently under the Williamson Act (defined in Section 2.1.3 "Regulatory") would be rezoned. This parcel is in non-renewal status with Williamson Act cancellation scheduled for February 2010. Other resources may be affected, including but not limited to water quality, riparian areas, wetlands and views in the area. Analysis and documentation of these impacts would be the responsibility of the developer with oversight and approval by San Benito County.

Table 2.5 shows currently planned and proposed development within a 12-mile radius of the proposed project.

Table 2.5 Planned or Proposed Development

Development	Description	Acres
Heritage Oaks	Approved for 32 residential units	80
Carlson Estates	Approved for 38 residential units	96
San Juan Oaks Golf Club	Approved for 186 units	2000
El Rancho San Benito	Proposed for up to 6,800 units including residential, commercial and light industrial	5792
Santana Ranch	Proposed for up to 1,092 units	300
Butterfly Village	Proposed for 1,147 homes, parks, an elementary school, community health center and assisted living	671

Avoidance, Minimization, and/or Mitigation Measures

Caltrans policies adhere to the idea that local governments must determine the extent of growth they want for their own communities. Caltrans facilitates planned growth by designing the proposed project to meet a specified level of service for 20 years beyond construction as specified in the most recent system planning route concept report. Because rezoning and development results from the actions of local agencies and developers, Caltrans is not required to mitigate impacts beyond its control.

2.1.3 Farmlands/Timberlands

Regulatory Setting

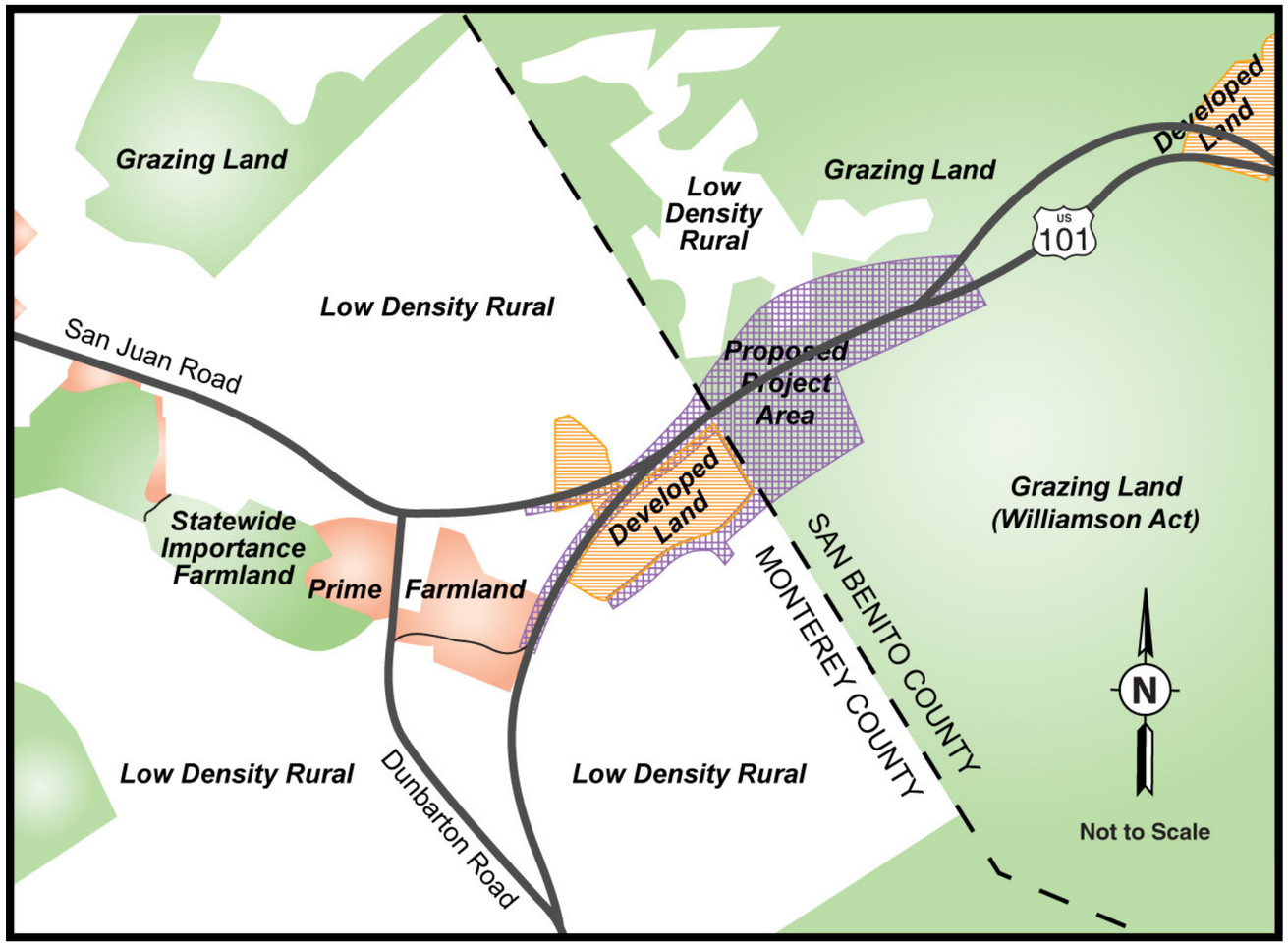
The National Environmental Policy Act and the Farmland Protection Policy Act (United States Code 4201-4209; and its regulations, 7 Code of Federal Regulations Ch. VI Part 658) require federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, to coordinate with the Natural 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

The Monterey County Agricultural Commissioner reported a total agricultural production value of nearly $3.5 billion in 2006, an increase of more than 4 percent over 2005. For the same period, the San Benito County Agricultural Commissioner reported a total production value of more than $270 million, a 1 percent increase from the previous year. These figures include vegetable crops, fruits and nuts, nursery crops, livestock and field crops. The Association of Monterey Bay Area Governments reported an overall decrease in farmland in Monterey, Santa Cruz and San Benito counties since 1984, though loss of farmland has slowed some since 2000.

Figure 2.1 shows land use zoning and farmland classifications.



Prime Farmland: Irrigated land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops.

Statewide Importance Farmland: Similar to Prime Farmland but with minor shortcomings such as greater slope or less capacity to store moisture.

Grazing Land: Land on which the existing vegetation is suited to the grazing of livestock.

Williamson Act Land: The California Land Conservation Act of 1965 commonly referred to as the Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments, which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

Farmland Map
Not to Scale

San Juan Interchange
Mon-101-PM 100.0/101.3 SBt-101-PM 0.0/1.6
05-315800

Figure 2.1 Farmland

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Environmental Consequences

Both Alternatives 10B, and 10D would affect a parcel currently under the Williamson Act that is being used for grazing (see Figure 2.1). State law dictates that Williamson Act property is to be avoided unless there is no reasonable alternative.

During circulation of the draft environment document, representatives for the property under the Williamson Act notified Caltrans during the circulation phase that the property is in the process of non-renewal. As of February 2010, the affected parcel will no longer be under the Williamson Act.

As required, a Natural Resource Conservation Service Farmland Conversion Impact Rating was completed for the proposed project (see Appendix E). The Natural Resource Conservation Service considers only Prime/Unique and Statewide/Local Importance classified land on the Farmland Conversion Impact Rating form. These classifications are located solely in Monterey County. The Farmland Conversion Impact Rating 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. If the Farmland Conversion Impact Rating exceeds 160 points, Caltrans considers measures that would minimize or mitigate farmland impacts.

The Natural Resource Conservation Service determined that the proposed project would not convert Prime/Unique and Statewide/Local Importance classified land, so no points were assigned in Parts IV and V of the form. Caltrans assigned 50 points under Part VI Site Assessment Criteria for both build alternatives. Table 2.6 displays farmland conversion information for each build alternative.

Table 2.6 Farmland Conversion by Alternative

Build Alternative	Land Converted (acres)	Prime/Unique Statewide /Local Importance (acres)	Williamson Act Applicable	Williamson Act (acres)	Farmland Conversion Impact Rating
10B	77.00	0.0	Williamson Act	24.0	50
10D	74.00	0.0	Williamson Act	24.0	50

Source: Natural Resource Conservation Service Form AD 1006

Avoidance, Minimization, and/or Mitigation Measures

No further avoidance, minimization or mitigation measures are planned.

2.1.4 Community Impacts

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. See Appendix C 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 United States Code 2000d, et seq.). See Appendix B for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

A Draft Relocation Impact Report was completed for the proposed project in November 2008. This section summarizes those findings.

The proposed project area is in an incorporated rural area that is sparsely to moderately populated, with a mix of land uses and values. Local amenities include a Valero gas station and mini-mart, real estate office, antiques store, and flea market, plus multi-family and single-family housing on a mix of lot sizes.

Major retail, employment and services all exist within 20-30 miles of the proposed project, and most residents commute to work. There are proposed subdivisions in Monterey and San Benito counties within commuting distance of the proposed project.

Environmental Consequences

Both build alternatives would require the acquisition of private property. Most of these acquisitions would not require the property owner to relocate because they involve an unimproved parcel or unimproved portion of a parcel with a residence.

Table 2.7 shows the potential relocations, some of which may be avoidable during the final design stage.

Table 2.7 Relocations

Build Alternative	Relocations	
	Total	Type
10B	1	Business
	5	Residential
10D	1	Business
	7	Residential

Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization were part of the preliminary design phase. The Draft Relocation Impact Statement indicates that there are ample residential replacement opportunities for residences that would be affected.

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. See Appendix C for additional information.

Caltrans Right of Way does not expect to build new residences because there are available replacement homes in the immediate vicinity.

Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* signed by President Bill Clinton on February 11, 1994. This order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based

on the Department of Health and Human Services poverty guidelines. For 2008, this was $21,200 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

Affected Environment

Caltrans reviewed U.S. Census data for Aromas, Prunedale and San Juan Bautista. The data indicated that income levels are above average in Aromas and Prunedale and about average in San Juan Bautista. The residences that would be directly affected by the proposed project are of relatively high value as is the case with the overall area. Five census blocks were analyzed to determine racial characteristics within and adjacent to the proposed project area. The census data indicated that in 2000 there were 559 residents living in the analyzed census blocks. Of the 559 residents, 384 reported that they were White, 129 reported that they were Hispanic or Latino, 9 reported that they were Black or African-American and 37 reported that they were Other.

Environmental Consequences

The project would not have a disproportionately high and adverse effect on the health or environment of minority and low-income populations. This determination is based on the relatively small number of residential acquisitions, the estimated home values of those acquisitions, the fact that the residences are few and scattered, and the lack of health or environmental impacts associated with the project.

Avoidance, Minimization, and/or Mitigation Measures

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

2.1.5 Utilities/Emergency Services

Affected Environment

This section discusses information obtained from a Utility Data Sheet completed September 27, 2006. Several utilities are located within each build alternative project area. These utilities include overhead lines as well as underground water and gas

lines. These utilities are owned and/or operated by Pacific Gas and Electric, American Telephone and Telegraph, Charter Communications, and the Aromas Water District.

Table 2.8 shows information from the Utility Data Sheet completed for the proposed project. The information in the table is preliminary and subject to change during the final design phase.

Table 2.8 Utility Relocation

Utility Company	Type of Utility Impacted
PG&E (AT&T, Charter Communications are joint occupants)	33# 21kV joint poles
PG&E	12-inch high-pressure gas line crossing the highway at Dunbarton Road and continuing west along the shoulder of Dunbarton Road. This utility may not be affected dependent on final design specifications.
Aromas Water District	500-foot Water District water line crossing the highway.
Private Water Utility	Caltrans was made aware of a private water line and fire hydrant serving residents on Marilyn Lane during one of the public meetings.

Source: Utility Data Sheet, September 2006

First responders to emergency incidents may include California Highway Patrol, Cal Fire, the Monterey and/or San Benito County Sheriff's Department, and private emergency medical transportation.

Environmental Consequences

While specific impacts depend on the final design, it appears at this time that all aboveground utilities within highway right-of-way would have to be relocated outside of the proposed project right-of-way. Transverse utility crossings may remain with necessary changes. The Aromas Water District would need to extend the encasement of its water line crossing the highway for the two build alternatives.

Avoidance, Minimization, and/or Mitigation Measures

Any utility relocations outside of the boundaries of the environmental studies completed for the proposed project would require separate environmental studies.

A Transportation Management Plan would be in place to ensure timely access for first responders. Current delays in response time would be improved on completion of the proposed project.

2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

Caltrans determines the traffic capacity and design configuration needed on proposed projects by using the design-year traffic forecast, which generally refers to the twentieth year after project completion. Assuming completion of the proposed project in 2015, the design year for this project would be 2035. This section discusses how the alternatives would affect regional and local traffic over the 20-year design period as well as short-term construction impacts.

Affected Environment

Caltrans completed a Traffic Study in June 2008 for the proposed project. The study included current and projected traffic volumes and level of service for both U.S. 101 and project intersections. Level of service ranges from “A” to “F,” with “A” signifying short delays and free traffic flow and “F” signifying long delays and congested traffic flow. See Appendix H for level of service illustrations.

Table 2.9 shows existing level of service and the 2035 projected level of service for the intersections and on-/off-ramps with and without the project. Table 2.10 shows the existing and future level of service on U.S. Route 101 with and without the project.

Table 2.9 Intersection Levels of Service

Existing Intersection Level of Service				2035 Intersection Level of Service Without Project				2035 On-ramp/Off-ramp Level of Service With Project		
Intersection	**Lane**	**Morning Peak**	**Evening Peak**	**Intersection**	**Lane**	**Morning Peak**	**Evening Peak**	**On-ramp/Off-ramp**	**Morning Peak**	**Evening Peak**
San Juan Road and U.S. Route 101	Northbound Southbound Eastbound	A A F	A A F	San Juan Road and U.S. Route 101	Northbound Southbound Eastbound	A A F	A A F	NB On-ramp/Off-ramp	A A B	A A A
Dunbarton Road and U.S. Route 101	Northbound Southbound Westbound Eastbound	F B C F	F D D F	Dunbarton Road and U.S. Route 101	Northbound Southbound Westbound Eastbound	F D F F	F F F F	SB On-ramp/Off-ramp	B A C	A A C
U.S. Route 101 (Northbound) and Cole Road	Southbound Eastbound	C A	C A	U.S. Route 101 (Northbound) and Cole Road	Southbound Eastbound	F A	F A	San Juan Road/Cole Road Overcrossing (with signal)	A B C	A A C
U.S. Route 101 (Southbound) and Cole Road	Northbound Southbound Westbound	F F A	F F A	U.S. Route 101 (Southbound) and Cole Road	Northbound Southbound Westbound	F F A	F F A	San Juan Road/ Dunbarton Road	C A B	C C A
San Juan Road and Dunbarton Road	Northbound Westbound Eastbound	C C A	C C A	San Juan Road and Dunbarton Road	Northbound Westbound Eastbound	F A A	F A A			

Table 2.10 U.S. Route 101 Levels of Service

Existing highway Level of Service			2035 highway Level of Service Without Project			2035 Freeway Level of Service With Project		
Direction	**Peak Hour**	**Level of Service**	**Direction**	**Peak Hour**	**Level of Service**	**Direction**	**Peak Hour**	**Level of Service**
Northbound	**Morning**	C	**Northbound**	**Morning**	F	**Northbound**	**Morning**	D
	Evening	D		**Evening**	F		**Evening**	E
Southbound	**Morning**	D	**Southbound**	**Morning**	F	**Southbound**	**Morning**	E
	Evening	D		**Evening**	F		**Evening**	E

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Within the proposed project area, U.S. Route 101 has no High Occupancy Vehicle Lanes and none is planned. At the present time, non-motorized traffic (pedestrians and bicyclists) is allowed on the highway. With either build alternative, the highway would be re-classified as freeway, which could result in the prohibition of non-motorized traffic. Caltrans policy dictates consideration of alternate routes when conventional highways are re-classified as freeway.

Both build alternatives include eight-foot shoulders on San Juan Road. The overcrossing would also have eight-foot shoulders and include a sidewalk on the north side. The Cole Road realignment and the new frontage road east would have 4-foot shoulders. Alternate routes for pedestrians and bicyclists are in the preliminary planning stages, with potential alternative routing through the project area identified for both northbound and southbound bicyclists.

The northbound route would involve leaving U.S. Route 101 south of the Red Barn and following the new frontage road to its connection with the San Juan Road realignment. The exact alignment of the alternate route from that point back to U.S. Route 101 would be finalized following a decision on proposed development.

Southbound bicyclists would exit U.S. Route 101 via a connection to the Cole Road realignment where they would continue along the San Juan Road realignment to the Dunbarton Road cul-de-sac where there would be a connection to southbound U.S. Route 101.

The current Friday and Sunday peak hour level of service is “E,” which equates to vehicles being closely spaced with little room to maneuver. Drivers may experience substantial delays at this level. Several intersections experience peak hour level of service “F,” which equates to very congested traffic with traffic jams especially in areas where vehicles must merge. Drivers may experience substantial delays (up to 50 seconds) at this level.

The Monterey County General Plan Update Circulation Section Policy C-1.5 states that: “Level of Service shall not fall below ‘C’ on County roadway segments in the Rural Centers, Rural Lands, Agricultural Lands and Public Lands Major Land Groups.” The San Benito General Plan Transportation Element states that: “A Level of Service of ‘C’ shall be used for the accepted minimum standard of operation for intersections and roadways.”

The Transportation Agency for Monterey County states on its website: "The San Juan Road area is a choke point for interregional travel along US 101 for goods movement, commuters and visitors. US 101 in this area has a high crash history and very high traffic volumes of over 53,000 a day."

Drivers turning on to southbound U.S. Route 101 from Cole Road, San Juan Road and Dunbarton Road must look back over their shoulders for oncoming traffic. This skewed angle is a safety concern, especially when coupled with the higher downhill speeds of southbound-101 traffic. San Juan Road and Cole Road traffic turning onto northbound U.S. Route 101 must cross the southbound lanes of highway traffic. Northbound traffic wanting to turn onto San Juan Road must make a U-turn at the crossing adjacent to Cole Road. These movements also cause safety concerns.

An accident study taken over a three-year period (September 1, 2004 to August 31, 2007) indicates accident rates within the proposed project area are above the state average for most highway segments and intersections.

Tables 2.11 and 2.12 show the accident study findings.

Table 2.11 Accident Rates (Highway Segments)

County/Route	Post Mile to Post Mile	Actual*			Average*		
		Fatality	Fatality & Injury	Total	Fatality	Fatality & Injury	Total
Monterey 101	100.0-101.3	0.010	0.43	1.35	0.023	0.41	0.90
San Benito 101	0.00-0.311	0	0.24	0.78	0.024	0.42	0.92
San Benito 101 (Northbound)	0.312-0.469	0	0.18	1.08	0.019	0.33	0.72
San Benito 101 (Southbound)	0.312-0.509	0	0.72	2.59	0.019	0.33	0.72

Source: Draft Project Report, October 2008
**Expressed in number of accidents per million vehicle miles*

Table 2.12 Accident Rates (Intersections)

County/Route Local Road	Post Mile	Actual*			Average*		
		Fatality	Fatality & Injury	Total	Fatality	Fatality & Injury	Total
Monterey 101 Dunbarton Road (North)	100.36	0.015	0.11	0.32	0.004	0.10	0.22
Monterey 101 San Juan Road	101.12	0	0.26	0.83	0.004	0.10	0.22
San Benito 101 Cole Road (Northbound)	0.47	0	0	0.20	0.004	0.10	0.22
San Benito 101 Cole Road (Southbound)	0.51	0	0.14	0.50	0.004	0.10	0.22

Source: Draft Project Report, October 2008
**Expressed in number of accidents per million vehicles*

No intersection in the proposed project area has traffic signals; each intersection has stop signs. The preliminary design for Alternative 10B proposes a traffic signal at the San Juan Road/Cole Road intersection. Final design may include additional or modified signal control.

Environmental Consequences

Direct at-grade access to U.S. Route 101 from Cole Road, San Juan Road and Dunbarton Road would be removed and replaced with on-/off-ramp access. This would result in unavoidable out-of-direction travel for residents near the Dunbarton and Cole Road intersections with U.S. Route 101. Any delay from out-of-direction travel may be negated by time saved waiting to cross at-grade intersections.

There would be temporary traffic detours from construction activity. And there would likely be an increase in local road traffic resulting from improved freeway access.

Level of service would improve with the build alternatives, ranging from “A” to “C” depending on the location and time of day. Positive impacts also include improved safety and access for drivers on U.S. Route 101, San Juan Road, Dunbarton Road and Cole Road. Additionally, it is probable that completion of the proposed project would reduce the frequency and severity of traffic accidents. Without the proposed project, accident frequency may increase as a result of traffic volume increases.

Non-motorized traffic (pedestrians and bicyclists) currently allowed on the highway shoulder would be provided a safer alternative route with construction of either build alternative.

Avoidance, Minimization, and/or Mitigation Measures

No measures would be taken to address out-of-direction travel since the additional travel distance/travel time would be minimal and the safety of that access improved. Temporary detours would occur during construction of the project. A Traffic Management Plan would be in place to minimize delay and inconvenience to motorists. Caltrans has agreed to provide for the reconstruction of the Ballantree Estates gate. This is considered an element of the project and will most likely be under capital funds.

2.1.7 Visual/Aesthetics

A Visual Impact Assessment completed in September 2008 analyzed and documented potential visual impacts from the proposed project, based on guidelines established in the *Visual Impact Assessment for Highway Projects* (Department of Transportation, Federal Highway Administration, Office of Environmental Policy, 1983).

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government will use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically 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.

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)]. Aesthetics, as addressed in California Environmental Quality Act, refers to visual considerations.

Affected Environment

The proposed project sits within a segment of highway that is designated “eligible” for inclusion in the California State Scenic Highway System. The County of

Monterey has designated this segment of U.S. Route 101 as a Scenic Roadway. The County of San Benito has designated the entire length of U.S. Route 101 within the county as a Scenic Highway. San Benito County ordinance states that projects involving grading should be screened to minimize visual impacts seen from any scenic highway and that vegetative cover is required to hide grading scars and to blend with the natural landscape.

The region's natural environment is characterized by its topography and vegetation. Open agricultural valleys and gradually undulating oak wooded canyons rise into rolling grassy coastal hills with distant views of steeper foothills and low mountains to form a picturesque setting. U.S. Route 101 and local roads gently curve through this series of rounded hills. The San Juan Road intersection sits in a flat riparian plain within these hills, adjacent to a low-lying agricultural field.

Several seasonal streams flow through the area. Although water itself is not always readily visible, its presence in the landscape is seen as meandering corridors of brighter green riparian vegetation contrasted by the muted hues of the dry grass-covered hills and oak woodland or by barren road shoulders and parking areas. The climate supports a classic native coastal botanical environment as well as non-native grasses, ornamental trees and extensive agriculture. Undisturbed vegetation generally provides slope stability and wildlife habitat, but erosion from agricultural practices or other development has caused deep scars in some areas.

Roadways are a major component of the existing view. The segment of U.S. Route 101 in the project limits is a conventional, four-lane highway, partially divided by a concrete median barrier and with metal beam guardrails in certain spots along the outside shoulder. San Juan Road, Dunbarton Road, Cole Road, Marilyn Lane and Ballantree Lane all intersect U.S. Route 101 with at-grade intersections, and there are numerous paved and unpaved driveways in the area.

The commercial use (business) at the San Juan Road intersection breaks the long expanse of undeveloped roadside on U.S. Route 101. The large scale and bright color of the Red Barn at this location makes it a visually dominant feature commonly identified with the project location. Residential development scattered across the surrounding hills is contrasted by open space used for agriculture and grazing. The many homes visible in the area sit on large lots with scattered sheds and barns.

Four groups compromise the list of potential viewers of the proposed project:

- Local residents and regular travelers using the highway for local trips or commuting
- Intermittent regional users and recreational travelers
- Commercial truck drivers
- Local residents viewing changes from non-highway locations such as their residence or business

The existing visual quality of the project area is rated moderately high for vividness (visual power or memorability), moderately low for intactness (integrity or freedom from non-typical elements), and moderate for unity (coherence or harmony). The appealing visual quality of the corridor is due mainly to the undulating landforms and the relatively undeveloped and vegetated hillsides of the view. Many built features in the area detract from the generally rural character of the area.

The large cut slopes proposed would result in a substantial change in the natural terrain of the area and a loss of mature trees and vegetation. The loss of vegetation and the addition of human-made structures, signs and utilities into an area with low to moderate built features would result in an overall loss of rural character, especially at the north end of the project.

The proposed bridge structures would be placed in the context of an existing highway facility, but the change would be substantial from the existing more low-key condition. While their contrast with the existing conditions would be high, bridge structures, ramps and frontage roads are a common sight along U.S. Route 101 and, once established, would not be unduly noted by most drivers. Figures 2.2 and 2.3 show the existing and future (with the project) northbound and southbound views.

The change to local road configurations would have a higher degree of visual impact. Drivers would experience brief expanded panoramic views of the surrounding landscape from these raised vantage points. Conversely, the quality of the view would decrease for some neighborhood viewers of the highway due to new roadway elements and utilities encroaching on the horizon, though key views of the hills would remain. The proposed median barrier is an extension of an existing barrier. It would not block views of the surrounding visual resources. Increased lighting from street lamps, traffic signals and headlights would be seen at nighttime.

Once changes were in place, only viewers familiar with U.S. Route 101 would perceive that the highway had been changed. Bridge structures and concrete median

barriers have become common highway elements in the visual landscape and as such have become less noticeable for the average traveler. Viewing time through the project area is short, and the surrounding scene would still dominate the highway driver's experience. The new interchange would be visible from many local residences that already see the highway corridor. The change would be noticeable, but few of them have direct views and most are far from the interchange.

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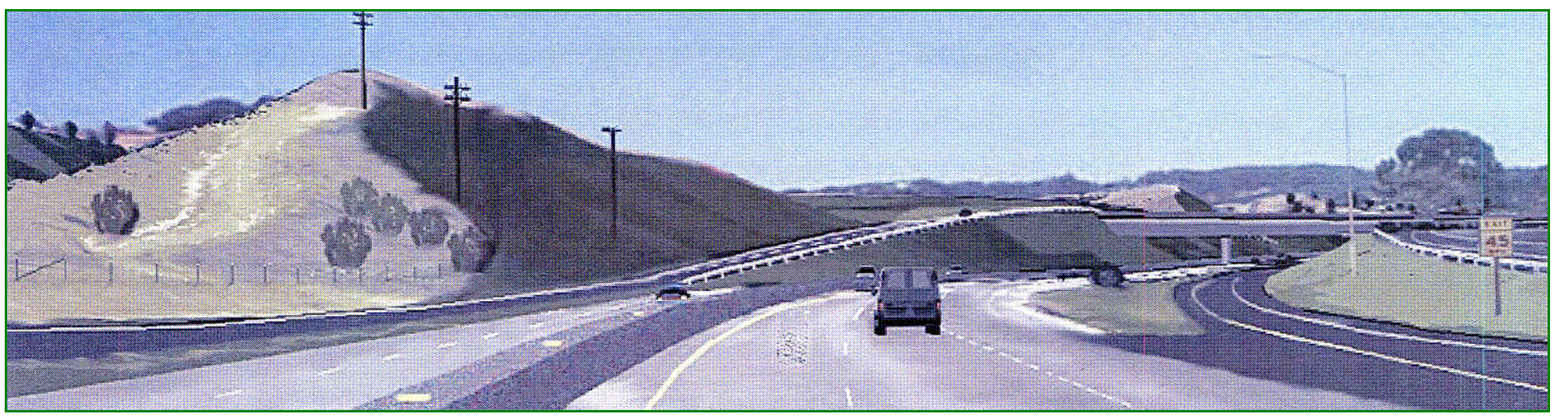
The upper frame displays the existing northbound drivers view from just north of the Red Barn. The visual quality of the natural landscape is compromised at some locations by structures, utilities, billboards and other built features.



The lower frame displays the northbound drivers view from just north of the Red Barn with the project completed but prior to proposed mitigation planting.

Visual Resources
Not to Scale

San Juan Interchange

Mon-101-PM 100.0/101.3
SBt-101-PM 0.0/1.6

05-315800

Figure 2.2 Northbound driver views

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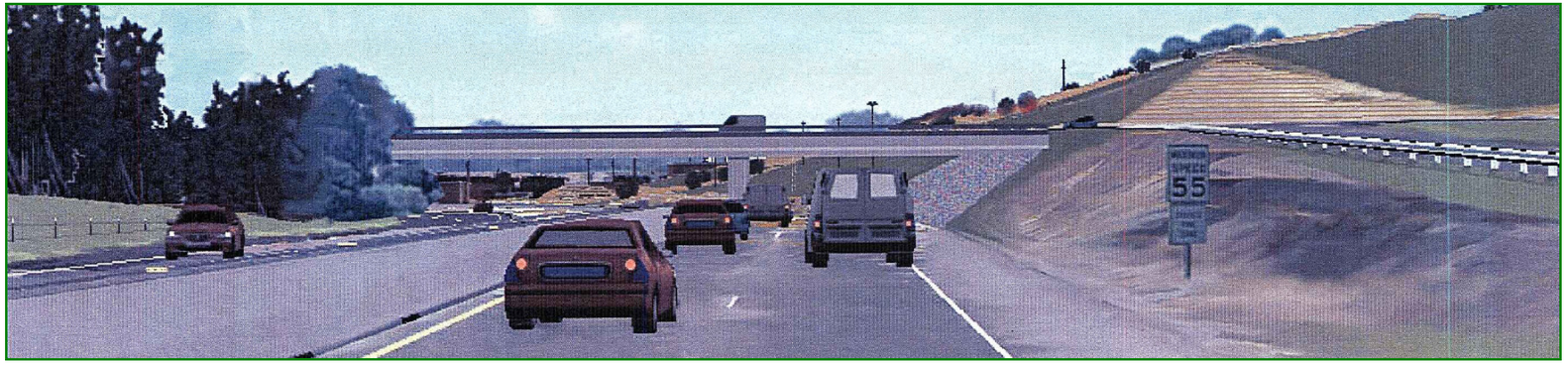
The upper frame displays the existing southbound drivers view from north of the Red Barn. The visual quality of the natural landscape is compromised at some locations by structures, utilities, billboards and other built features.



The lower frame displays the southbound drivers view from north of the Red Barn with the project completed but prior to proposed mitigation planting.

Visual Resources
Not to Scale

San Juan Interchange

Mon-101-PM 100.0/101.3
SBt-101-PM 0.0/1.6

05-315800

Figure 2.3 Southbound driver views

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Environmental Consequences

Visually, the build alternatives differ little, as both involve substantial grade changes and increases in the scale of the paved area. Both build alternatives include two variations in the bridge structure over U.S. Route 101. While both would nestle fairly well into the hilly terrain, the shorter two-span bridge would be more limiting visually and would result in removal of more mature trees. The longer, more open three- to four-span bridge would save more of the character of the views and preserve more riparian vegetation. Similarly, some slope cuts may be lessened with retaining walls or soil nail walls, resulting in less grading but additional human-made features in the landscape. In either bridge variation and in both build alternatives, the new structure and the overall reconfiguration of the local roads would be quite visible from multiple locations, angles and distances.

Both alternatives would result in permanent changes, including:

- Alteration of the existing view and scenic resources, resulting from the extensive grading of hillsides and the loss of mature trees
- Alteration of the rural visual character in general
- A potential increase in light and glare in previously unlit areas
- Possible use of multiple large (10- to 14-foot span by 9- to 12-foot high) open-bottom box culverts rather than closed pipe culverts through fill slopes to preserve a greater length of existing creek channel and riparian vegetation

Visual impacts unique to each build alternative:

- Build Alternative 10B was rated lower than the existing visual condition for vividness, intactness and unity. It has a slightly wider spread footprint than Build Alternative 10D for the new alignment of Cole and San Juan Roads. This alternative would place Cole Road higher up on the hill, but would allow slightly more room for screen planting between the frontage road and the highway. The location of the east frontage road behind the barn would lessen the experience of multiple paved lanes for U.S. Route 101 drivers as compared to the more closely aligned frontage roads of Alternative 10D. Frontage roads for Build Alternative 10B would have a more boxy, traditional diamond shaped configuration than the more organic alignments of Build Alternative 10D.
- Build Alternative 10D was rated lower than the existing visual condition for vividness, intactness and unity, but somewhat higher than Build Alternative 10B.

It has a somewhat tighter footprint than Build Alternative 10B for the new alignment of Cole Road and San Juan Road. The private access road for Ballantree Estates would be shortened and connected to the frontage road east at the hillside. This alternative would place Cole Road lower on the hill and would more closely align with the highway and the curve of the hill, while San Juan Road would flare out slightly more. This configuration would allow slightly less room for screen planting between the Cole Road and the highway than would Build Alternative 10B and about the same distance between San Juan Road and the highway. The location of the east frontage road in front of the barn would increase the experience of multiple paved lanes for U.S. Route 101 drivers compared to the more widely spread frontage roads of Build Alternative 10B. The frontage roads of Build Alternative 10D would have a more curvy alignment, more closely fitting the natural terrain than would Build Alternative 10B.

Local viewers of the project area are generally expected to have moderate to moderately high expectations regarding scenic quality in the project area, especially if they are local residents. Average regional motorists will likely have lower expectations of the scenic quality, especially if they are unfamiliar with the area or are involved in routine commuting.

Avoidance, Minimization, and/or Mitigation Measures

Adverse visual impacts from the project would be compensated for and conformance with local planning goals would be met if the following measures were applied:

Grading and Structures

- Grading shall be minimized to preserve existing vegetation, especially mature trees, and to reduce areas exposed to potential erosion. Landmark oak trees or trees that are visually or historically significant or exemplary of their species shall not be removed.
- Landform grading techniques shall be used to more closely mimic the natural contours and to avoid harsh contrasts.
- A combination of slopes and retaining walls shall be used (at locations where they are determined to be geologically feasible) to reduce vegetation loss and impacts from large cut slopes. Wall ends shall transition gracefully into the landscape.
- Slope transitions shall be rounded to blend and hasten the recovery of visual scars.

- Grading that exposes bedrock or outcroppings shall be sculpted for a natural appearance (rather than planed at a constant slope). Large boulders removed as part of grading shall be incorporated into new landscape planting areas.
- Woodland edges adjacent to new clearing shall be selectively thinned to emulate natural vegetation patterns and to visually soften transition edges.
- Temporary detours shall be re-graded to blend with surrounding terrain.
- The profile of the overcrossing shall be minimized, and narrow supports as well as see-through bridge rails shall be considered.
- Berming at abutment wing walls shall be used to shorten the perceived height of the grade separation structure and to soften geometric forms and hard edges. Where feasible, excess soil shall be used to create raised mounded earthforms in planting areas between ramps and frontage roads to increase screening and to decrease perception of the extensive new paving. Berms shall be rounded to mimic surrounding landforms, and the slopes and sizes of berms shall be varied.
- Slope paving under structures shall be included to prevent erosion problems.

Materials and Aesthetics Treatments

- The bridge structure and retaining walls shall be textured with a rural rock-masonry pattern to match the established aesthetic of other existing walls and bridges in the area. No-climb fencing on the structure shall also match to minimize visual presence.
- Bridges and walls shall not be colored, but shall be composed of similar aggregate and concrete mixes so that they match the existing tone of other walls and median barriers in the area, and to reduce the visibility of any future maintenance repairs.
- Slope paving under structures shall have exposed aggregate or other rough natural texturing and color.
- Median barrier end treatments shall be metal beam type, where possible, to tie the concrete barrier visually to other guardrails in the area.
- All surfaces shall be protected with anti-graffiti coating.
- New metal beam guardrail should be acid-etched if possible to reduce glare. Additionally, other new innovative aesthetic styles of approved rails such as those used in national parks should be considered during design since the amount of rail

in the project is extensive. Median barrier end treatment shall be metal beam type, where possible, to tie the concrete barrier visually to other guardrail in the area.

- Right-of-way fencing shall have a rural character and chain-link fencing shall be avoided.
- Traffic signs shall be limited to the greatest extent possible, and obsolete signs shall be removed.
- New light sources shall be limited to the greatest extent possible. Lights shall have cut-off shades to help preserve dark night sky views.

Landscaping and Erosion Control

- Landscape planting shall separate and screen the highway and frontage roads from each other and from the neighborhood. Planting shall include a variety of sizes. Trees especially shall be planted in medium and large containers and in box sizes at some locations. See Figure 2.4 for proposed project with mature planting.
- Tall tree species that balance the large scale of the new structure and paved area and that form a welcoming "gateway" shall be planted.
- Other trees and shrubs shall be massed on slopes so that changes are softened and absorbed into the larger rural context of the corridor.
- Additional skyline trees shall be added as needed to unify the region's identity.
- Various plant species, textures, colors and seasonal accents shall be layered to create interest, provide rhythm, and avoid monotony.
- Landscaping shall emphasize drought-tolerant and native plants with low maintenance, and low or no supplemental water requirements once established. A water well would be used for new planting for the first several years and then gradually phased out as vegetation becomes established and matures.
- Plants shall be grouped to provide simplicity for highway viewing speeds and shall emulate natural landscape patterns.
- Retaining walls shall be planted with vines to soften their appearance and to prevent graffiti.

The upper frame displays the northbound drivers view from just north of the Red Barn with a completed project and mitigation planting at maturity.

The lower frame displays the southbound drivers view from north of the Red Barn with a completed project and mitigation planting at maturity.

Visual Resources
Not to Scale

San Juan Interchange

Mon-101-PM 100.0/101.3
SBt-101-PM 0.0/1.6

05-315800

Figure 2.4 Northbound and Southbound driver views

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- All slopes shall be treated with appropriate erosion control best management practices and shall be seeded with native grasses and wildflowers.
- Temporary detours, stockpile areas and contractors' yards shall be cultivated and seeded and planted as necessary to blend them with the surrounding environment.
- Maintenance vehicle pullouts and access gates shall be included as needed to facilitate landscape and road maintenance.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

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

To comply, the following must be analyzed:

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

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

Affected Environment

This section discusses the findings in the Location Hydraulic Study and Floodplain Evaluation completed in October 2008. Floodways are defined as the channel of a stream, plus any adjacent floodplain area, that must be kept free of encroachment so that 100-year floods can be carried without substantial floodwater elevations.

The headwaters of Elkhorn Slough include two forks that cross the project area: one coming from the northeast along the east side of U.S. Route 101 and one from the southeast. The low-flow channels of the two forks pass under U.S. Route 101 through separate culverts and join just east of Dunbarton Road. During high flows, however, the backwaters of the two culverts under U.S. Route 101 get high enough for the two flows to join on the east side of U.S. Route 101. Flood conditions for the following locations follow:

- Ballantree Lane area. The floodplain for the northeast fork stays close to the low-flow channel until it reaches the backwater of the culvert under Ballantree Lane. The backwater is high enough to overtop Ballantree Lane at the intersection with U.S. Route 101 during the 100-year flow. The area flooded by the backwater, upstream of Ballantree Lane, is undeveloped. On the downstream side of Ballantree Lane, a human-made berm diverts the overtopping flow to the northbound lanes of U.S. Route 101 where it is trapped between the berm and the center divider. At the end of the berm, the flow returns to the creek. The area between Ballantree Lane and the Red Barn is mostly gravel parking lot with a small bridge in the middle, crossing the low-flow channel. This bridge can pass the 100-year flow, with a small amount of backwater flooding part of the parking lot upstream.
- Marilyn Road area. The area downstream of the Red Barn, between U.S. Route 101 and Marilyn Road, is paved, except for the creek channel. This area is completely within the 100-year floodplain, including the Red Barn and a few small associated buildings, due to the backwater from the culverts under U.S. Route 101. The area between Marilyn Road and the channel for the southeast fork is undeveloped except for part of an orchard. This area is also within the 100-year floodplain.
- U.S. Route 101 area. The backwater from the 100-year flow for the two culverts under U.S. Route 101 floods the area on the east side of U.S. Route 101 from the Red Barn to the channel for the southeast fork. The floodwater overtops U.S. Route 101 and flows across the highway between the south end of the Valero gas station and the north end of the concrete barrier near the culvert for the northeast fork.
- The area between U.S. Route 101 and Dunbarton Road. This area is mostly agricultural with three houses and six farm buildings on Dunbarton Road within the floodplain. Because of the combination of flows from the northeast and

southeast forks and backwater from the culvert under Dunbarton Road, the floodplain covers all of the area between the two channels and much of the area outside the channels.

Environmental Consequences

The existing features that could be affected by the build alternatives are U.S. Route 101, the Red Barn and its associated buildings, and two farm buildings next to the channel of the southeast fork. The existing overtopping of U.S. Route 101 would be eliminated by constructing additional culverts under U.S. Route 101 near the existing ones and replacing the culvert under Ballantree Lane with an adequate culvert or bridge.

A Floodplain Evaluation Report Summary determined the following:

- The proposed project is not a longitudinal encroachment of the base floodplain.
- There are no significant risks associated with the proposed project.
- The proposed project would not support probable incompatible floodplain development.
- There are no significant impacts to natural and beneficial floodplain values.
- There are no special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values.
- The proposed project does not constitute a significant floodplain encroachment as defined in 23CFR, Section 650.105(q).
- The Location Hydraulic Study is on file.

Based on preliminary design, incompatible use and development of the floodplain would be avoided. The floodplain downstream from U.S. Route 101 will not be affected or changed.

Avoidance, Minimization, and/or Mitigation Measures

Floodplain impacts to developed areas upstream of the Red Barn would be avoided by including adequate culverts or bridges that can convey the 100-year flow, therefore avoidance, minimization and mitigation measures are not required.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board when the project requires a Clean Water Act Section 404 permit to dredge or fill within a waters of the United States.

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

The State Water Resources Control Board has developed and issued a statewide National Pollutant Discharge Elimination System permit to regulate storm water discharges from all Caltrans activities on its highways and facilities. All construction projects over 1 acre require a Storm Water Pollution Prevention Plan or Water Pollution Control Program (for projects with less than 1 acre of disturbed soil) to be prepared and implemented during construction.

Affected Environment

A Water Quality Assessment was completed in October 2008, and a Storm Water Data Report was completed in May 2008.

The project sits entirely within the 70-square mile Elkhorn Slough Watershed. The slough supports more than 100 species of fish, 245 types of birds, and 500 species of marine invertebrates. The project lies specifically in the upper watershed of Los Carneros Creek, a tributary of the Elkhorn Slough. Although the Los Carneros Creek is not considered impaired under the Clean Water Act, the Elk Horn Slough is on the act's 303(d) list of Impaired Waterways for pathogens, sedimentation/siltation, and nutrients. The project is located in the Los Carneros Creek sub-watershed, which is a tributary of Elk Horn Slough. Neither of these watersheds is currently under an adopted Total Maximum Daily Load order.

The project also sits in the northern portion of the Pajaro groundwater basin. Almost all of the water used to support the agricultural industry within the watershed comes from underlying groundwater aquifers. Land development has added to the demand for groundwater. Current groundwater use exceeds groundwater recharge, so the groundwater basin is in overdraft. In addition, there is widespread contamination of the upper aquifers by nitrates likely due to excessive application of fertilizers to farmland and wastewater disposal.

The upper watershed area where the project is located supports sensitive wildlife as well. Tiger salamanders and a wide range of other wildlife are known to use the Carneros Creek riparian area. The riparian area surveyed for this report contained numerous wildlife trails and evidence of recent wildlife activity. Red-legged frogs, known to exist downstream of the project site, are also sensitive to water quality degradation.

Groundwater in the vicinity of the Valero Service Station at San Juan Road and U.S. Route 101 is about 20-feet below ground with flow to the west and is contaminated with petroleum constituents from the Valero Station. Remediation of the plume is being performed under regulatory oversight of the Regional Water Quality Control Board. The project would avoid acquisition of land in the area of groundwater contamination.

The Caltrans Storm Water Research and Monitoring Program has determined that the typical California highway includes heavy metals, sediment, and litter.

Environmental Consequences

Temporary Impacts

- Erosion: Rains, concentrated storm water discharges, and dust generation can have a temporary effect on surface water quality during construction. A Storm Water Pollution Prevention Plan would be prepared for the project to address concerns with erosion and other storm water pollutants.
- Chemical Releases: Potential sources of temporary surface water impacts include construction materials, contaminants in the existing roadway, vehicle leaks, traffic accidents, and illegal dumping. Temporary construction site storm water best management practices would be implemented to minimize or eliminate chemical releases to ground and surface waters. A sampling and analysis plan for non-

visible pollutants would be included in the Storm Water Pollution Prevention Plan for the project.

Permanent Impacts

Permanent impacts to water quality could occur following construction of the project if appropriate storm water best management practices are not incorporated. Storm water runoff from the project may be a source of sedimentation/siltation, but not a source of other 303(d) listed constituents.

One or more culverts are proposed north of the Red Barn as part of the proposed highway interchange. The size, alignment and placement of culverts can influence Los Carneros Creek's geomorphology. Specifically, culverts prevent the creek from moving (meandering); the slope of the culvert may accelerate the water; and the length of the channel may be decreased by culvert installation.

The project would require the development of a water well as a source of water for irrigation of erosion control, mitigation planting, and landscaping. The well would be located in the vicinity of the interchange; the exact location and depth of the well would be determined by geotechnical investigation. Well water would be used on new planting for the first several years and then gradually phased out as vegetation becomes established and matures.

A highway can permanently affect water quality if not designed to minimize and mitigate for the potential impacts. Potential impacts for this project include:

- Pollutants: Potential water quality impacts include increased, or changed, concentrations of the types of pollutants commonly found in highway runoff such as total suspended solids, nutrients (nitrogen/phosphorous), pesticides, metals, pathogens, litter, biochemical oxygen demand, and total dissolved solids.
- Erosion/Sediment: Wherever concentrated flow from the highway surface cannot be adequately controlled, erosion may occur. Erosion from concentrated flow can cause gullies, change creek geomorphology, change the hydrology of wetlands, and discharge sediment above background levels to waterways.
- Hydrology/Impervious Surface: The project adds about 6-acres of impervious surface to the project area.

The project would be designed and constructed to be as hydraulically disconnected from the watershed as feasible. As traffic increases, the amount of pollutants originating from cars and trucks (i.e., tire and brake lining wear, litter, and spills during vehicle accidents) is also expected to increase. Because the project would

incorporate permanent design best management practices to minimize the direct discharge of highway storm water to adjacent waterways, the amount of pollutant discharged to surface waters would be lower than that of the existing highway.

Avoidance, Minimization, and/or Mitigation Measures

- Staging Areas: Staging areas for construction equipment, stockpiles, etc., should be located in upland locations at least 100-feet from all waterways, wetlands and riparian areas.
- Hydrology: Storm water runoff rates and volumes would be minimized by encouraging sheet flow, preserving vegetation, minimizing impervious surfaces, and encouraging the temporary storage and infiltration of storm water within the right-of-way, if feasible. Several existing residential water wells and septic systems would be removed from use as part of right-of-way acquisition.
- Highway Pollutants**:** Litter on the highway should be removed periodically. Additional litter would be contained by the use of sheet flow and vegetated swales and removed as deemed necessary by the Maintenance Department. Safety improvements of the proposed project should minimize the discharge of brake lining residual, tire residual and accidental spills.
- Permanent and temporary best management practices would be designed to minimize sediment transport from the Caltrans right-of-way. In addition, the proposed project would seek to limit all sources of pollutants to surface water.

Storm water pollution prevention best management practices will be incorporated. The required Storm Water Pollution Prevention Plan will address all the temporary construction site best management practices. The project will incorporate permanent storm water design best management practices and design features that preserve the existing hydrology if feasible. Opportunities to temporarily store and/or infiltrate and filter storm water within the right-of way will be incorporated, if feasible. In the vicinity of creeks and significant slopes, storm water will be routed through vegetated areas to minimize direct connections between the highway and the waterways, if feasible. Highway maintenance activities will be performed in a manner that minimizes impacts to water quality.

2.2.3 Geology/Soils/Seismic/Topography

Regulatory Setting

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

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

Affected Environment

The project area sits in the central portion of the Coast Ranges Geomorphic Province, at the northern portion of the Salinas River Valley within the Gabilan Range. The project is bounded by the San Andreas Fault to the east, Monterey Bay and the Santa Lucia Range to the west, Santa Cruz Mountains to the north and the Salinas Valley to the south.

The formations in the project area that underlie the highway are alluvial deposits, terrace deposits, colluvium and fluvial deposits. The Soil Survey of Monterey County published by the U.S. Department of Agriculture shows that in the project area, the soils consist mostly of Salinas series, Santa Ynez series and the Plancentia series.

In 2001, ground water was seen in an open observation well 10.7 feet below the surface at the intersection of U.S. Route 101 and Dunbarton Road. It is anticipated that ground water is relatively close to the surface east of U.S. Route 101 due to the existing topography and the proximity to the unnamed tributary of the Elkhorn Slough.

The project area sits in a seismically active region of California. As determined by Caltrans, the following active and potentially active faults have the greatest earthquake potentials (the distance to the site is measured from the location of the project):

Table 2.13 Project Area Seismicity

Fault	Magnitude	Distance	Acceleration
Zayante/Vergales	7.25	0.9 mile	0.66g (gravity)
San Andreas	8.0	2.5 miles	0.65g (gravity)

Magnitude: Maximum credible earthquake (Richter Scale)

The seismic fault with the greatest potential to influence the project site is the Zayante/ Vergales fault, less than a mile from the project limits. The north branch of the San Andreas Fault (a strike slip fault) is about 2.5 miles northeast of the project area. The fault traces do not intersect the project area, so the potential for ground rupture hazard is low.

Liquefaction is the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from seismic ground shaking; in effect, the soil turns to jelly. Liquefaction potential depends on soil type and relative density of the soil, depth to ground water, and degree of seismic shaking. Embankments founded on liquefiable soils may be subject to slope instability and settlement during an earthquake. Similarly, earth-retaining structures may settle or overturn should the soils beneath them liquefy.

Based on previous studies in the project limits, the potential to encounter liquefiable soils is moderate.

Environmental Consequences

Ground water in the project area is considered high and may be encountered during construction.

Seismic activity could affect construction of the project and the completed project.

Avoidance, Minimization, and/or Mitigation Measures

Cut slopes and embankments shall have slope angles of 2:1 or flatter. Where embankment slopes steeper than 2:1 are desired, geosynthetic reinforcement may be used. Cut slopes shall have benches to minimize surface erosion.

An aggressive re-vegetation program, including irrigation, would be required on both cut and fill slopes. The final bridge structures, retaining walls, cut slopes, and embankment slope designs would be analyzed individually for seismic susceptibility and the proximity to the respective faults. At the proposed bridge locations, a

comprehensive liquefaction study for each structure would be completed and bridges would be designed to meet seismic standards.

2.2.4 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 & 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

This section discusses information provided by the Initial Site Assessment completed December 26, 2007. The report summarizes the findings relative to the potential for hazardous substances/petroleum hydrocarbon and aerial-deposited lead impacts at the project site.

Three potential hazardous waste sites/areas were identified in the Initial Site Assessment:

- Valero Gas Station (2961 San Juan Road). Determination of past leakage from underground storage tanks based on regulatory case files and observance of ground water monitoring wells/ground water remediation equipment.
- Barros Trucking and Backhoe (2960 San Juan Road). An approximate 200-gallon above ground storage tank was found at this location. No regulatory case files were available for this facility, but the potential exists for petroleum hydrocarbon soil impacts resulting from heavy equipment operations.

Additionally, aerial-deposited lead from the leaded gasoline era is present adjacent to U.S. Route 101. Aerial-deposited lead does not travel far and remains in the top few feet of soil adjacent to the highways. Lead-containing material is a California hazardous waste if it contains over 1,000 milligrams/kilogram total lead and/or 5 milligrams/liter soluble lead using the California Waste Extraction Test.

Within the proposed project limits, 145 soil samples were taken from 20 soil borings. Sample results for total lead ranged from 1.7 to 690 milligrams per kilogram. Of the 145 samples, 47 samples were further tested because they exceeded 50 milligrams per kilogram. Of these samples, 29 contained lead concentrations in excess of the California Hazardous Waste Threshold. Additional testing using different protocol determined that the samples were below the Resource Conservation and Recovery Act Hazardous Waste threshold.

Environmental Consequences

- Valero Gas Station (2961 San Juan Road). Long-term testing indicates that the hydrocarbon plume has not affected land that may be acquired for the proposed project.
- Barros Trucking and Backhoe (2960 San Juan Road). There was no conclusive evidence of soil/ground water contamination. No land would be acquired from this location for the proposed project.
- Aerial-deposited lead (Southbound). An Aerial-Deposited Lead Site Investigation determined that soil generated from excavations to 1-foot would be classified as a California hazardous waste.
- Aerial-deposited lead (Northbound). An Aerial-Deposited Lead Site Investigation determined that soil generated from excavations to 2-feet would be classified as a California hazardous waste.

Avoidance, Minimization, and/or Mitigation Measures

- Per Caltrans requirements, the contractor(s) will prepare a project-specific Lead Compliance Plan to minimize worker exposure to lead-impacted soil. The plan shall include protocols for environmental and personnel monitoring, requirements for personal protective equipment and other health and safety protocols and procedures for the handling of lead-impacted soil.
- Soil classified as California Hazardous Waste due to the exceedence of aerial-deposited lead concentrations will be stockpiled and disposed of at the appropriate solid waste facility.

2.2.5 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the concentration of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

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 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(s), such as the Transportation Agency for Monterey County and the San Benito Council of Governments 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 “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter. A region is a “nonattainment” 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 “nonattainment” areas, the project must not cause any increase in the number and severity of violations. If a known carbon monoxide or particulate matter violation is

located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

An Air Quality Report was completed for the project in December 2007.

The project sits along the Monterey/San Benito county line about 9.5 miles inland from Monterey Bay. The area is surrounded by low hills with elevations up to 300 feet. The project is in the North Central Coast Air Basin that is currently in attainment or unclassified for all national ambient air quality standards. For this reason, federal conformity does not apply to projects in the North Central Coast Air Basin.

The design and scope of the project are consistent with the description of the project in the 2005 Metropolitan Transportation Plan, the 2008-2009 Metropolitan Transportation Improvement Program and the assumptions in Association of Monterey Bay Area Government's regional emissions analysis. This project is exempt from regional (40 Code Federal Regulations 93.127-128) conformity requirements. A separate listing of the project in the Regional Transportation Plan and Transportation Improvement Program, and their regional conformity analyses, is not necessary. The project would not interfere with timely implementation of Transportation Control Measures identified in the applicable State Implementation Plan and regional conformity analysis.

Table 2.14 displays pollutants, state and federal standards, state and federal attainment status, effects and sources.

Environmental Consequences

The project would not result in any substantial changes in traffic volumes, vehicle mix, location of the existing highway facility, or any other factor that would cause an increase in emissions impacts relative to the No-Build Alternative. Therefore, the project would generate minimal air quality impacts for Clean Air Act criteria pollutants.

The North Central Coast Air Basin is a carbon dioxide attainment area. The carbon dioxide protocol is applicable for projects that create new intersections and thus may cause an increase in local carbon dioxide levels due to increased idling (carbon dioxide levels decrease with increased speeds). The proposed project would actually combine three intersections into one intersection, thus reducing carbon dioxide emissions in the vicinity of the existing San Juan Road intersection.

Mobile Source Air Toxics

Unavailable Information for Project-Specific MSAT Impact Analysis

This document includes a basic analysis of the likely Mobile Source Air Toxic emission impacts of the project. However, available technical tools do not enable Caltrans to predict the project-specific health impacts of the emission changes associated with the alternatives in this document. Due to these limitations, the following discussion is included in accordance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information:

Evaluating the environmental and health impacts from Mobile Source Air Toxics on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the Mobile Source Air Toxics health impacts of this project.

The Environmental Protection Agency tools to estimate Mobile Source Air Toxics emissions from motor vehicles are not sensitive to key variables determining emissions of Mobile Source Air Toxics in the context of highway projects. While MOBILE 6.2 is used to predict emissions at a regional level, it has limited applicability at the project level. MOBILE 6.2 is a trip-based model—emission factors are projected based on a typical trip of 7.5 miles and on average speeds for this typical trip. This means that MOBILE 6.2 does not have the ability to predict emission factors for a specific vehicle operating condition at a specific location at a specific time.

Table 2.14 Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard	Federal Standard	State Attainment Status	Federal Attainment Status	Health and Atmospheric Effects	Typical Sources
Ozone (O_3)[a]	1 hour 8 hours	0.09 ppm 0.070 ppm	0.075 ppm	Moderate non-attainment Non-attainment	Maintanence	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] 6 ppm	35 ppm 9 ppm –	Attainment	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	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	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	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	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	NA	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also considered a toxic air contaminant.	Primary: lead-based industrial process like batter 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, 05/17/2006 (http://www.arb.ca.gov/aqs/aaqs2.pdf)
Sonoma-Marin Area Rail Transit Draft Air Pollutant Standards and Effects table, November 2005, page 3-52.
U.S. EPA and California Air Resources Board air toxics websites, 05/17/2006

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter

[a] Annual PM10 NAAQS revoked October 2006; was 50 µg/m^3. 24-hr. PM2.5 NAAQS tightened October 2006; was 65 µg/m^3.
[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. EPA 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.

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Because of this limitation, MOBILE 6.2 can only approximate the operating speeds and levels of congestion likely to be present on the largest-scale projects, and cannot adequately capture emissions effects of smaller projects. For particulate matter, the model results are not sensitive to average trip speed, although the other Mobile Source Air Toxics emission rates do change with changes in trip speed. Also, the emissions rates used in MOBILE 6.2 for both particulate matter and Mobile Source Air Toxics are based on a limited number of tests of mostly older-technology vehicles. Lastly, in its discussions of particulate matter under the conformity rule, the Environmental Protection Agency has identified problems with MOBILE 6.2 as an obstacle to quantitative analysis.

These deficiencies compromise the capability of MOBILE 6.2 to estimate Mobile Source Air Toxics emissions. MOBILE 6.2 is an adequate tool for projecting emissions trends, and performing relative analyses between alternatives for very large projects, but it is not sensitive enough to capture the effects of travel changes tied to smaller projects or to predict emissions near specific roadside locations.

The tools to predict how Mobile Source Air Toxics disperse are also limited. The Environmental Protection Agency's current regulatory models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of carbon monoxide to determine compliance with the National Ambient Air Quality Standards. The performance of dispersion models is more accurate for predicting maximum concentrations that can occur at some time at some location within a geographic area. This limitation makes it difficult to predict accurate exposure patterns at specific times at specific highway project locations across an urban area to assess potential health risk. The National Cooperative Highway Research Program is conducting research on best practices in applying models and other technical methods in the analysis of Mobile Source Air Toxics. This work also will focus on identifying appropriate methods of documenting and communicating Mobile Source Air Toxics impacts in the National Environmental Protection Agency process and to the general public. Along with these general limitations of dispersion models, the Federal Highway Administration is also faced with a lack of monitoring data in most areas for use in establishing project-specific Mobile Source Air Toxics background concentrations.

Finally, even if emission levels and concentrations of Mobile Source Air Toxics could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude us from reaching meaningful conclusions about

project-specific health impacts. Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of Mobile Source Air Toxics near roadways, and to determine the portion of a year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over a 70-year period.

There are also considerable uncertainties associated with the existing estimates of toxicity of the various Mobile Source Air Toxics because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. Because of these shortcomings, any calculated difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with calculating the impacts.

Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against other project impacts that are better suited for quantitative analysis.

Summary of Existing Credible Scientific Evidence Relevant to Evaluating the Impacts of 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 that 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.

The Federal Highway Administration has issued interim guidance on how mobile source air toxics should be addressed in National Environmental Policy Act documents for highway projects. The Federal Highway Administration has developed a tier approach for analyzing Mobile Source Air Toxics in National Environmental Policy Act documents. 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

For both project alternatives, the amount of Mobile Source Air Toxics emitted would be proportional to the vehicle miles traveled assuming that other variables such as fleet mix are the same for each alternative. The vehicle miles traveled estimated for each build alternatives is slightly higher than that for the No-Build Alternative because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in vehicle miles traveled would lead to higher Mobile Source Air Toxics emissions for the action alternatives along the highway corridor, along with a corresponding decrease in Mobile Source Air Toxics emissions along the parallel routes. The emissions increase is offset somewhat by lower Mobile Source Air Toxics emission rates due to increased speeds; according to Environmental Protection Agency MOBILE6 emissions model, emissions of all of the priority Mobile Source Air Toxics except for diesel particulate matter decrease as speed increases. The extent to which these speed-related emissions decreases will offset vehicle miles traveled -related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Because the estimated vehicle miles traveled under each build alternative are nearly the same, it is expected there would be no appreciable difference in overall Mobile Source Air Toxics emissions between the two build alternatives.

Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of Environmental Protection Agency national control programs that are projected to reduce Mobile Source Air Toxics emissions by 57 to 87 percent 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 Environmental Protection Agency-projected reductions is so great (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 in nearly all cases. In addition, both build alternatives move at least half of the traffic farther away from the most sensitive receptors.

Temporary Construction Impacts

Construction activities would generate temporary air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. The largest percentage of pollutants would

be windblown dust generated during excavation, grading, hauling, and various other construction activities. The impacts of these activities would vary each day as construction progresses. Dust and odors could affect residences close to construction activities.

The Monterey Bay Unified Air Pollution Control District includes the emissions of ozone precursors in its annual emissions budget that is part of its Air Quality Attainment Plan. The district requests an estimate of daily PM_{10} from construction activities. Emissions of greater than 82 pounds per day of PM_{10} are considered a substantial effect. Projects that grade and excavate more than two acres per day, or grade more than eight acres per day, have the potential to exceed this threshold. Based on preliminary project plans, the approximate disturbed area with each build alternative is shown in Table 2.15.

Table 2.15 Estimate of Disturbed Area by Build Alternative

Build Alternative	Area (Acres)
10B	77.0
10D	74.0

According to the Air Quality Report, if the proposed project would disturb 77 acres, then it is estimated that the average daily PM_{10} generated by grading is approximately 9.1 pounds per day. This is well under the 82 pound per day threshold for PM_{10} maintained by the Monterey Bay Unified Air Pollution Control District. Emissions would be further reduced by approximately 50 percent because daily watering of all disturbed soil areas is required by Caltrans Standard Specifications. In addition, over half the area between San Juan Road and Cole Road is underlain by the Aromas sand, a type that contains little fine particulate.

Avoidance, Minimization, and/or Mitigation Measures

Special provisions would be added to the contract to prohibit grading of greater than 6 acres per day, and to insist on strict adherence to Caltrans Standard Specifications requiring dust control. Use of these measures can reduce PM_{10} emissions by up to 50 percent. Caltrans Standard Specifications pertaining to dust control and dust palliatives are a required part of all construction contracts and should effectively reduce and control air pollutant emission impacts during construction.

Caltrans Standard Specifications, Section 7-1.01F (Air Pollution Control) requires the contractor to comply with all local, state and federal rules, ordinances, and regulations regarding air quality. Standard Specifications Sections 17 (Watering) and Section 18 (Dust Palliatives) and Section 10 (Dust Control) provide further requirements for the construction contractor to minimize fugitive dust. The California Health and Safety Code requires the contractor to prevent visible dust from leaving the construction site. This is normally accomplished by daily watering of all areas disturbed by construction activity.

A comprehensive list of measures from Monterey Bay Unified Air Pollution Control District CEQA Air Quality Guidelines to further reduce PM_{10} emissions would be included in the resident engineer's instructions. Use of applicable measures from this list can further reduce emissions of particulate matter.

2.2.6 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 no-build 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.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration involvement, and Caltrans, as assigned, 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 2.16 lists the noise abatement criteria for use in the National Environmental Policy Act and 23 Code of Federal Regulations 772.

Table 2.16 Activity Categories and Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, A-weighted Noise Level, Leq(h)	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 Protocol, August 2006.

A-weighted decibels are adjusted to approximate the way humans perceive sound. Leq(h) is the steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual time-varying levels over 1 hour.

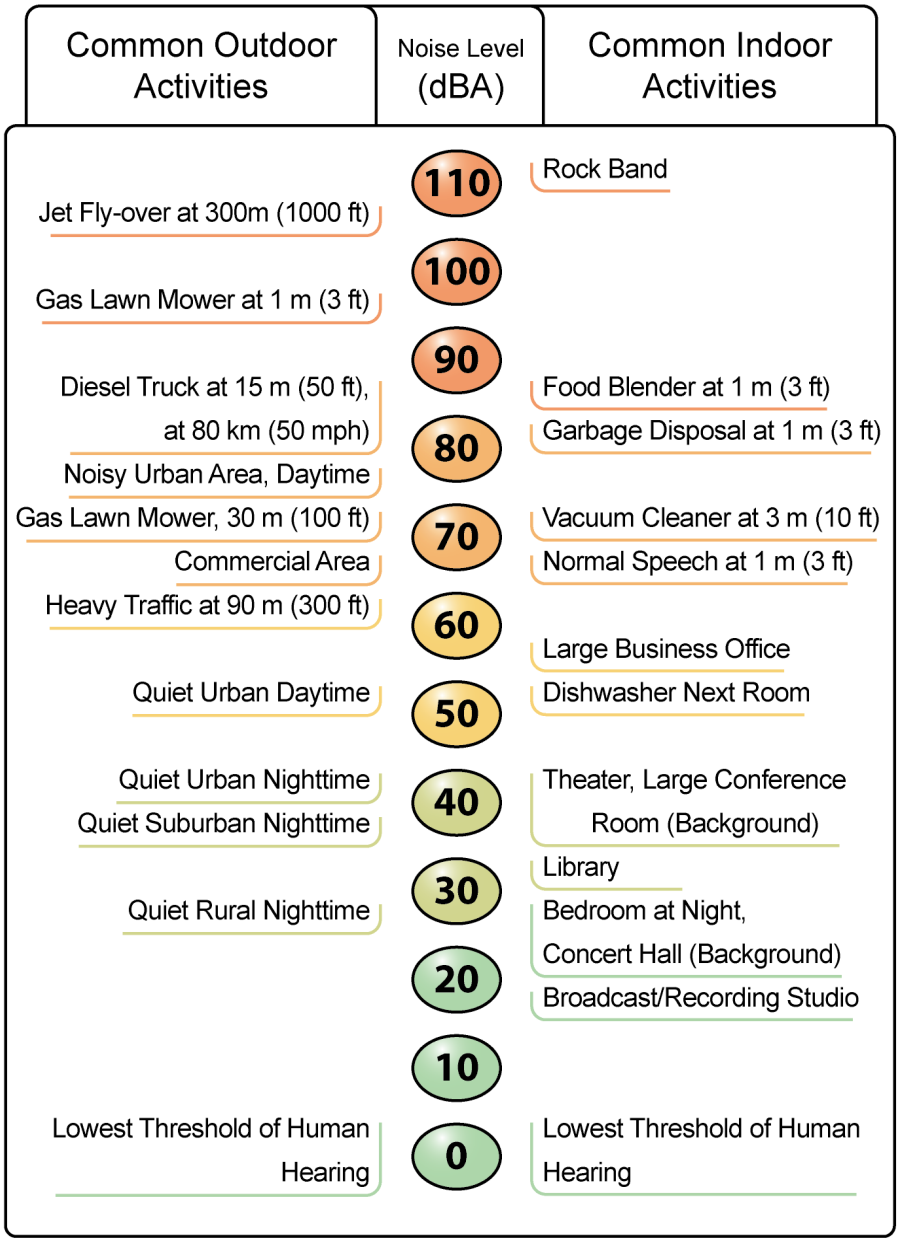


Figure 2.5 Typical Noise Levels

Per Caltrans *Traffic Noise Analysis Protocol, August 2006*, 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 criteria.

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.

The Caltrans *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is 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.

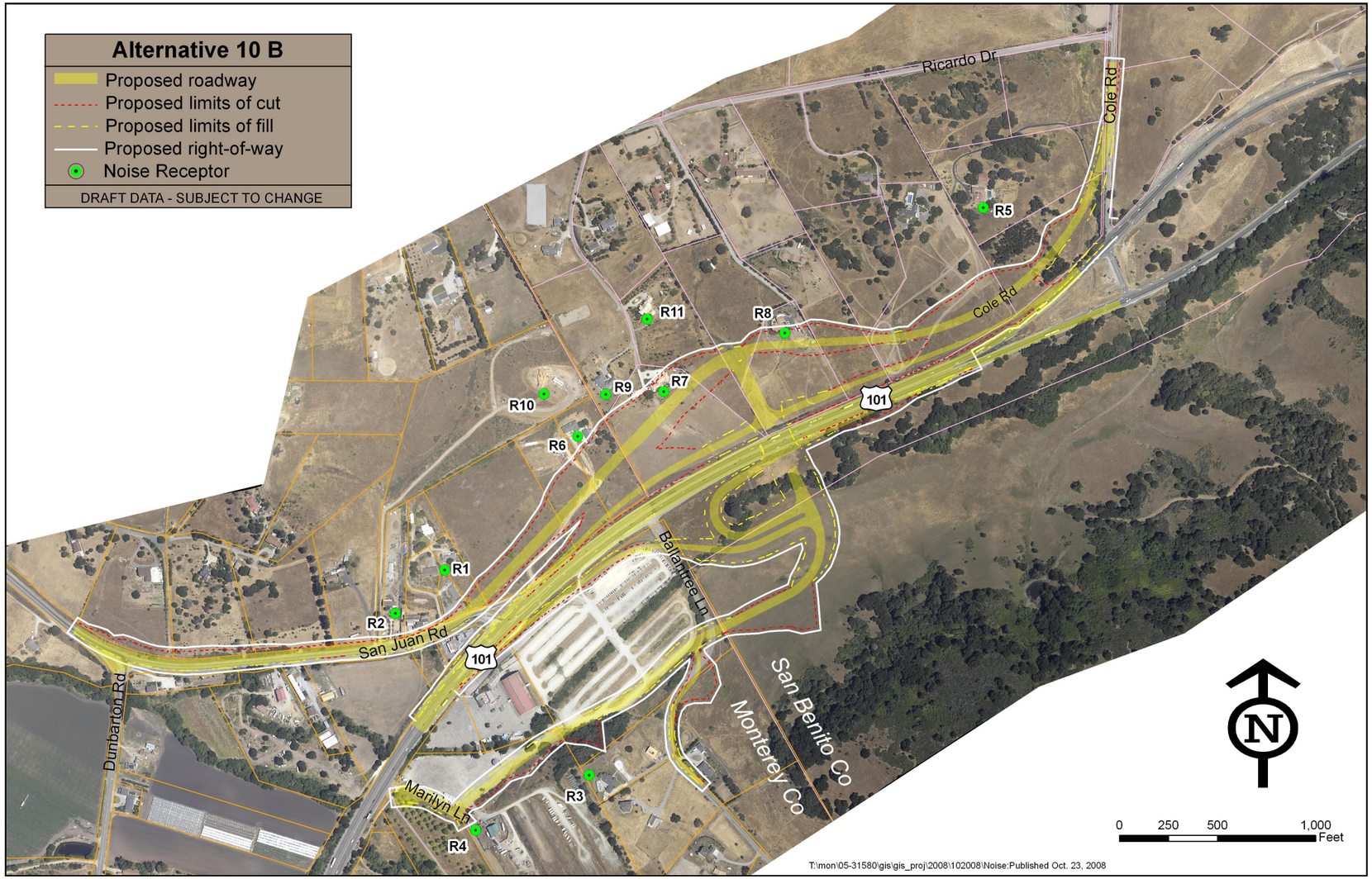
Affected Environment

A Noise Report was completed in October 2008 for the project.

Residences and businesses in the project area are widely spaced and on relatively large parcels (two acres and larger). Sensitive receptors are mostly single-family residences. There are no known churches, schools, or hospitals in the immediate vicinity of the proposed improvements.

Noise level readings and simultaneous traffic counts were taken within the proposed construction limits. Noise level reading locations were chosen to represent sensitive receptors that could be affected by permanent traffic noise and temporary construction noise. Traffic modeling was performed to compare the measured noise levels to predicted noise levels.

Figure 2.6 shows receptor locations for Build Alternative 10B. Figure 2.7 shows receptor locations for Build Alternative 10D.



2035 Noise Levels with Build Alternative 10B

R: Receptor (location of noise measurement)

Receiver Number	Noise Level Leq(h), dBA
R1	55
R2	66
R3	62
R4	62
R5	53
R6	70
R7	69[1]
R8	66[2]
R9	58[3]
R10	43
R11	54

1 Residence would be removed with either Alternate 10 B or 10 D
2 Residence would be removed with Alternate 10 B
3 Residence would be removed with Alternate 10 D

Noise Receptor Reading Locations

San Juan Interchange

05-MON-101 PM 100.0-101.3
05-SBt-101 PM 0.0-1.6

05-315800

Caltrans

Figure 2.6 Noise Receptor Reading Locations

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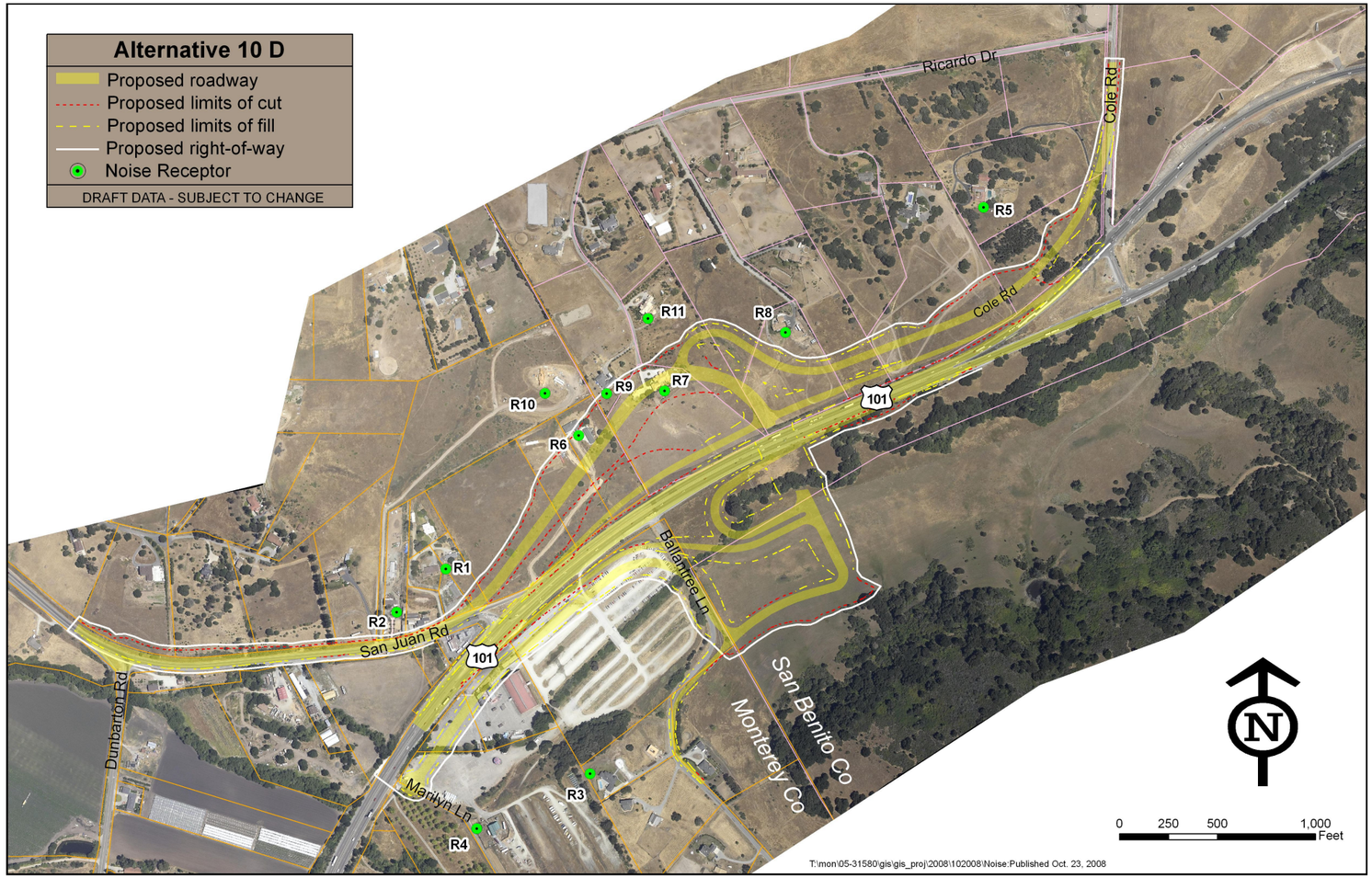

2035 Noise Levels with Build Alternative 10D

R: Receptor (location of noise measurement)

Receiver Number	Noise Level Leq(h), dBA
R1	61
R2	64
R3	57
R4	61
R5	52
R6	72[1]
R7	73[1]
R8	58[2]
R9	57[3]
R10	43
R11	53

1 Residence would be removed with either Alternate 10 B or 10 D
2 Residence would be removed with Alternate 10 B
3 Residence would be removed with Alternate 10 D

Noise Receptor Reading Locations

San Juan Interchange

05-MON-101 PM 100.0-101.3
05-SBt-101 PM 0.0-1.6

05-315800

Caltrans

Figure 2.7 Noise Receptor Reading Locations

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Environmental Consequences under the National Environmental Policy Act

U.S. Route 101 is the main source of noise in the project area. Findings for specific receptors include:

- Receptor 1: A decrease in noise levels would occur at this receptor under both build alternatives because San Juan Road would be partially shielded from traffic noise by large cuts and because the interchange would be located farther north.
- Receptor 2: Noise levels at this receptor exceed the noise abatement criteria level with Build Alternative 10B. Noise abatement in the form of a soundwall would not be feasible, however, because of the existing driveway opening onto San Juan Road. Additionally, this receptor experiences noise from both San Juan Road and U.S. Route 101, a soundwall on the receptor side of San Juan Road would be required to adequately attenuate noise for this receptor. This barrier would not be feasible because driveways that open onto San Juan Road would greatly reduce its effectiveness.
- Receptors 6 and 7: Noise levels at these receptors would exceed the noise abatement criteria under both build alternatives, but both residences would be removed with either build alternative.
- Receptor 8: Noise levels at this receptor would exceed the noise abatement criteria under Build Alternative 10B, but this residence would be removed with that alternative.

Noise levels at all other sensitive receptors would be below the residential noise abatement criteria level of 67 decibels, and the project would not cause noise levels to increase at any noise receptor by 12 decibels or higher. Therefore, there would be no noise impacts under National Environmental Policy Act at any remaining receptor.

Table 2.17 shows the current noise levels and the projected noise levels with and without the proposed project.

Table 2.17 Noise Impact Analysis

Receptor	Location	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Noise Level with Project (Alt10B/10D) (dBA)	Noise Impact Requiring Abatement Consideration (Alt10B/10D)	Predicted Noise Level with Abatement (dBA)			Reasonable and Feasible
						6-foot Wall	9-foot Wall	12-foot Wall	
1.	2965 San Juan Road	62	63	55/61	None	N/A	N/A	N/A	N/A
2.	2929 San Juan Road	63	64	66/64	A/E, None	N/A	N/A	N/A	Not feasible
3.	3820 Ballantree Lane	57	57	62/57	None	N/A	N/A	N/A	N/A
4.	1000 Hwy. 101	63	63	62/61	None	N/A	N/A	N/A	N/A
5.	56 Cole Road	53	53	53/52	None	N/A	N/A	N/A	N/A
6.	2602 San Juan Road	64	65	70/72[1]	A/E	N/A	N/A	N/A	N/A
7.	73 Ricardo Court	62	62	69/73[1]	A/E	N/A	N/A	N/A	N/A
8.	347 Ricardo Drive	63	63	66/58[2]	A/E, None	N/A	N/A	N/A	Not feasible
9.	72 Ricardo Court	55	55	58/57[3]	None	N/A	N/A	N/A	N/A
10.	2925 San Juan Road	41	41	43/43	None	N/A	N/A	N/A	N/A
11.	71 Ricardo Court	54	54	54/53	None	N/A	N/A	N/A	N/A

Source: Noise Study Report, June 2008

* Impact Type:
S = Substantial Increase (12 dBA or more)
A/E = Approach or Exceed NAC
CR = Class Room Noise (Sec 216 of Streets & Hwys Code)
1 Residence would be removed with either Alternate 10B or 10D
2 Residence would be removed with Alternate 10B
3 Residence would be removed with Alternate 10D

Both build alternatives propose to close southbound U.S. Route 101 access at Dunbarton Road west of U.S. Route 101 by constructing a cul-de-sac where Dunbarton Road intersects with Oak Ridge Drive. This would result in reductions in the noise levels currently experienced by Dunbarton Road (west) residents.

Environmental Consequences under the California Environmental Quality Act

Under the California Environmental Quality Act, noise impact assessment entails looking at the setting of the proposed project and then how large or perceptible any noise increase would be. Key considerations include the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level. For work on state highways a 12-decibel increase is used as the significance threshold. Because the proposed work would not cause a 12-decibel increase, the project has no significant noise impacts under the California Environmental Quality Act.

Construction Noise

Noise levels in the vicinity of the construction project would increase while construction activities are occurring. The amount of the increased noise would vary with the types and models of equipment used. Table 2.18 shows the noise levels of various types of construction equipment.

Table 2.18 Highway Construction Equipment Noise Levels

Equipment type	Noise Level Range in decibels (dBA) at 50-Feet
Bulldozers	77-95
Compressors	70-95
Cranes	70-94
Front Loaders	75-96
Graders	72-92
Scrapers	70-95
Backhoes	74-92

Source: Federal Highway Administration Highway Noise Manual: Highway Construction Noise: Measurement, Prediction and Mitigation

Noise decreases by 6 to 7.5 decibels with each doubling of the distance away from the noise source. Average noise from normal construction activities can be as much as 86 decibels at 50 feet from the source. Residences as much as 300 feet from the construction activity could experience temporary noise levels greater than the noise abatement criteria level (67 decibels for residences). In addition, nighttime construction is possible with this project. Construction is expected to last for two and a half years.

Vibration and noise impacts may result from blasting and pile driving. Pile driving would occur during construction of the abutments for the proposed overcrossing and for the potential retaining walls west of U.S. Route 101. The soil nail method of construction, which requires horizontal drilling, would eliminate the need for pile driving. Determination of the construction method would depend on results from the Caltrans Geotechnical report slated for completion in late 2009. But both construction activities have the potential to produce enough noise and vibration to disturb residents, or to cause structural or architectural damage to residences.

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

Permanent noise abatement measures in the form of soundwalls are not recommended for this project. Several methods are proposed in the Federal Highway Administration *Highway Noise Manual* for dealing with construction noise. Methods that could be applicable to this project include the following:

- Publish notice in local news media of the dates and duration of proposed construction activity. Include a telephone number so local residents can get answers to their questions about construction.
- When possible, schedule noisier construction activities closest to residences during the earlier parts of the evening or afternoon.
- If complaints are received, provide temporary noise barriers where construction activities are conducted near residential receptors. These consist of plywood sheets on portable concrete barriers.

The following general recommendations are made if either blasting or pile driving become necessary on this project:

- Notify residents within 300 feet of any blasting or pile driving activities of the date, time, and duration of activity. Residents would be advised to secure fragile items that could fall off shelves because of vibration.
- Offer residents within 100 feet of blasting or pile driving activities the opportunity to be housed in a motel when the activities occur at night (9:00 p.m. to 7:00 a.m.).
- Perform a photographic or video inspection at the beginning of construction of all sensitive receptors within 60 feet of blasting or pile driving. Retain the information for a year after completion of construction.

Avoidance, Minimization, and/or Noise Abatement under the California Environmental Quality Act

No permanent noise abatement is recommended because there are no significant noise impacts. Temporary construction noise impact minimization methods are the same as those listed under the National Environmental Policy Act.

2.3 Biological Environment

A Natural Environment Study was completed in September 2008 for the proposed project. The study was limited in that 37 of the 54 owners of parcels marked for study denied permission to enter their property to conduct botanical and wetland surveys. The parcels that were not surveyed have been assessed using geographic information system data, satellite photos, and review of past studies that overlap this project. Wetland surveys and additional biological surveys would be conducted if these parcels were purchased as part of right-of-way acquisition. Any additional mitigation measures required would be instituted in accordance with applicable laws.

2.3.1 Natural Communities

Regulatory Setting

The focus of this section is on biological communities, not individual plant or animal species. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Threatened and Endangered Species (Section 2.3.4).

Affected Environment

Natural communities in the proposed project area include coastal oak woodlands, non-native grassland, wetlands, other waters of the U.S., and riparian areas. Wetlands, other waters of the U.S., and riparian areas are discussed under separate heading (Section 2.3.2).

Coastal Oak Woodlands

Coastal oak woodlands support many wildlife species, including at least 60 species of mammals and more than 100 species of birds. Throughout their life stages from seedlings to mature trees, and even in death as standing “snags” and fallen woody debris, oaks provide food, cover, perching and nesting habitat.

Mammals that rely on these woodlands for food and cover include gray fox, gray squirrel, black-tail jackrabbit, and mule deer. Common birds found in oak woodlands include the California quail, scrub jay, oak titmouse, spotted towhee, Bewick’s wren, bushtit, and acorn woodpecker.

The oak woodlands in the proposed project area are dominated by coast live oaks, which grow in closed-canopied, densely populated patches mostly within riparian habitat and high up along the ridgeline.

Non-native Grassland

The project area includes a substantial amount of non-native annual grassland, part of which is grazed pasture. Dominant plant species seen in this habitat include wild oats, Mediterranean barley, foxtail barley, perennial rye grass, and Italian rye grass. California tiger salamanders depend on upland grasslands for aestivation habitat (summer dormancy) during the non-breeding season (95 percent of their life cycle).

Developed Habitats

Agriculture, mainly cattle grazing, dominates the developed landscape in the project area. Some wildlife species have adapted to these altered environmental conditions. Wildlife commonly associated with grazing lands includes rodents, rabbits, and birds, including pheasants, doves, raptors, shorebirds, wading birds, gulls and waterfowl.

Environmental Consequences

Coastal Oak Woodland

Build Alternative 10B would permanently affect 0.60 acre of coast live oak, with 0.20 acre of these impacts along the northbound shoulder of U.S. Route 101 near the county line due to on-ramp construction. The other 0.40 acre of impact would be along the new Marilyn Road extension to Ballantree Lane. Build Alternative 10D would permanently affect 0.20 acre of coast live oak woodland as part of the on-ramp construction.

Impacts would include some oaks of heritage size (greater than 24 inches in diameter), but most of the affected oak trees would be between 5 inches in diameter and heritage size.

Non-native Grassland

Environmental consequences to non-native grassland are not considered per se; aestivation habitat is considered under Environmental Consequences for the California tiger salamander.

Avoidance, Minimization, and/or Mitigation Measures

Coastal Oak Woodland

Avoidance and minimization measures include the construction of retaining walls (where feasible) to reduce the project footprint, pre-construction surveys, and onsite biological monitoring during construction. Caltrans proposes the following replanting ratios pending final design:

- 1:1 for all trees less than 6 inches in diameter
- 2:2 for non-native trees greater than 6 inches in diameter
- 3:1 for native trees greater than 6 inches in diameter
- 1 tree for each 1 inch in diameter for trees greater than 24 inches in diameter

Preliminary estimates indicate about 24 acres of plantable area, though part may not be suitable for planting.

Compensatory mitigation for potential permanent impacts to coast live oak woodland associated with the project include planting oak seedlings in temporarily disturbed areas within the Caltrans highway right-of-way. If additional areas were required to meet mitigation obligations, the mitigation bank currently being developed for advanced mitigation for transportation projects within the Elkhorn Slough watershed would be used to mitigate for loss of oak woodlands for this project.

Non-native Grassland

Avoidance, minimization and/or mitigation for non-native grassland are not considered per se; aestivation habitat (summer dormancy) is considered under Avoidance, Minimization, and/or Mitigation Measures for the California tiger salamander.

2.3.2 Wetlands and Other Waters of the U.S.

Regulatory Setting

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

Section 404 of the Clean Water Act establishes a program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative

exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. 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 primarily by the California Department of Fish and Game and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The California Department of Fish and Game's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the 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. See the Water Quality section for additional details.

Affected Environment

Wetlands

Wetlands (marshes, swamps, bogs and seeps) are intermediate zones between wet aquatic and dry upland areas. In the project area, wetlands occur as seasonal shallow ponds (vernal pools), seasonal wetland marshes, and perennial seeps.

Two seasonal wetlands associated with riparian habitat sit along one of the intermittent streams in the project area. Both of these wetlands are jurisdictional wetlands regulated by the U.S. Army Corps of Engineers. A small seasonal pond and one seep wetland east of the Red Barn parking lot lie just inside the limits of San Benito County. The U.S. Army Corps of Engineers does not regulate these wetland features because they are isolated from the intermittent stream at this location. Impacts to the wetland near Cole Road are discussed in the Avoidance, Minimization, and/or Mitigation Measures Section. Table 2.19 describes the wetlands in the project vicinity (Area column refers to the entire wetland area not the wetland impact area).

Table 2.19 Wetlands

Wetland Location	Area	Botanical	Assessment
Dunbarton Road/U.S. Route 101 Area	0.61 acre	Spreading rush, curly dock and non-native upland grasses	Fed from the adjacent riparian zone during high-flow rains
San Juan Road/ U.S. Route 101 Area	0.77 acre	Spreading rush, curly dock and non-native upland grasses	Wetland outside of impact area
East of the Red Barn parking lot	0.014 acre	None	Isolated seasonal pond
	0.041 acre	Spreading rush, curly dock, and some upland species	Consistently wet seep
Cole Road Area	0.94 acre	Non-native upland grasses, sweet fennel, curly dock, and sheep sorrel	Does not appear to hold water except during high flow of adjacent narrow channel

Source: Caltrans Natural Environment Study, October 2008.

Other Waters of the U.S.

Nine locations were identified as potential other waters of the U.S. Five of the locations are associated with intermittent stream channels with dense riparian (waterside) habitat. Three locations along the south-facing slope north of U.S. Route 101 are vegetated with non-native grasses, and the stream channels are dry, except during storms in the rainy season. The last location is a roadside drainage ditch that

runs along the north side of San Juan Road and then connects to an intermittent stream channel on the south side of the road. This channel is very narrow and sparsely vegetated. Water flows off San Juan Road into this ditch during heavy rains.

Riparian

Riparian zones (stream banks and adjacent area) are ecosystems that act as a transition zone between aquatic and upland ecosystems. Riparian vegetation can tolerate seasonal fluctuations in water level and soil saturation. Riparian zones provide habitat for plants, fish and wildlife, stabilize the stream channel, and maintain surface water quality by capturing potential pollutants before they enter the stream. Riparian habitats also serve as wildlife migration routes.

Riparian zones in the project area exist along two unnamed intermittent streams. Riparian plants associated with the stream channels include coast live oak, black cottonwood, arroyo willow, white alder, silver wattle acacia, California blackberry, and western water hemlock.

Mammals associated with the riparian corridors include the raccoon, bobcat, and striped skunk. Birds in these corridors include the red-winged blackbird, warbling vireo, song sparrow, and scrub jay. Reptiles there include the southwestern pond turtle and coast garter snake.

Four riparian habitat locations in the project area are made up mostly of willows with coast live oaks mixed as a secondary species. There are also Monterey pines, acacia, and eucalyptus within these riparian habitats.

Table 2.20 Riparian Habitat

Riparian Location	Botanical	Hydrology	Assessment
Dunbarton Road/ U.S. Route 101 Area	Mostly willows, some ornamental cypress	Water present most/all year	Water channel flows under U.S. Route 101
San Juan Road/ U.S. Route 101 Area	Mostly willows, some coast live oaks	Water present most/all year	Habitat outside of impact area
Rocks Ranch Area	Mostly coast live oaks, willows, and cottonwoods with some eucalyptus and acacia	Intermittent stream channel	Habitat quality is very high
Cole Road Area (west side of Cole Road adjacent to the U.S. Route 101 southbound lanes)	Live oaks and willows	Intermittent stream channel	Highly degraded riparian vegetation cover

Source: Caltrans Natural Environment Study, October 2008.

Environmental Consequences

Wetlands

There is 0.14 acre of potential permanent impacts and 0.03 acre of potential temporary impacts to wetlands with Build Alternative 10B (includes jurisdictional and non-jurisdictional wetlands). There would be 0.11 acre of potential permanent impacts and 0.03 acre of potential temporary impacts to wetlands with Build Alternative 10D (includes jurisdictional and non-jurisdictional wetlands).

Formal wetland surveys would be completed to determine wetland quality and specific impacts from each build alternative. Figure 2.8 shows biological impact areas including wetlands.

Other Waters of the U.S.

If all bridge structures were constructed, then the total potential temporary impacts would be 0.74 acres and 0.98 acre for Build Alternatives 10B and 10D, respectively. The total potential permanent impacts would be 1.39 acres and 1.17 acres for Alternatives 10B and 10D, respectively. These values are the combined totals for other water channels and their associated riparian habitat. See Table 2.21.

If all bridge structures were not constructed, then the total potential temporary impacts would be 0.66 acre and 0.84 acre for Build Alternatives 10B and 10D, respectively. The total potential permanent impacts would be 2.14 acres and 2.16 acres for Alternatives 10B and 10D, respectively. See Table 2.21.

Table 2.21 Other Waters of the U.S.

	Alternative 10B Impact (Acres)				Alternative 10D Impact (Acres)			
	Perm	Perm*	Temp	Temp*	Perm	Perm*	Temp	Temp*
Other Waters of the U.S.	2.14	1.39	0.66	0.74	2.16	1.17	0.84	0.98

(*) = Impact value if all bridge structures are feasible.
Source: Caltrans Natural Environment Study, October 2008.

Riparian

Impacts to riparian zones depend on the final design. If all bridge structures are constructed, then temporary impacts would be increased but permanent riparian impacts would be reduced. See Table 2.22.

Table 2.22 Riparian

Structures	Temporary Impacts		Permanent Impacts	
	Alternative 10B	Alternative 10D	Alternative 10B	Alternative 10D
With bridge structures	0.91 acre	1.26 acres	0.49 acres	0.47 acre
Without bridge structures	0.21 acre	0.21 acre	1.43 acres	1.76 acres

Source: Caltrans Natural Environment Study, October 2008.

Least Environmentally Damaging Practical Alternative

Eighteen build alternatives were considered over the life of the project. Eight of the build alternatives were eliminated due to environmental impacts including:

- Excessive footprint
- Extensive earthwork
- Floodplain impacts
- Business/residential impacts.

Another eight of the build alternatives were eliminated due to engineering concerns including:

- Did not meet purpose and need
- Out of direction travel
- An unnecessary second bridge structure
- Roundabout concerns

This left only two viable build alternatives; 10B and 10D. Table 2.2.3 displays impacts to those resources that could be quantified.

Table 2.2.3 Least Environmentally Damaging Practical Alternative

Alternative	Land	Biology (Acres of potential permanent impacts)						Floodplain/ Hydrology[3]	Noise [1]	Relocations	Visual [2]	Water Quality [3]	Score (Lower number indicates less impact)
	Converted Acres	Natural Communities	Special status animal habitat	Seasonal Wetlands	Other Waters of the U.S.	Riparian	Temporary Impacts		Receivers	Business and Residential			
10B with bridge structures	77	1.12	12.73	.49	1.39	0.49	0.91	N/A	59.57	6	4.75	N/A	164.45
10B without bridge structures	77	2.06	13.56	.49	2.14	1.43	0.21	N/A	59.57	6	4.75	N/A	167.21
10D with bridge structures	74	.69	13.52	.46	1.17	0.47	1.26	N/A	59.71	8	4.75	N/A	164.03
10D without bridge structures	74	1.98	14.73	.46	2.16	1.76	0.21	N/A	59.71	8	4.75	N/A	167.76

1. Averaged 2035 noise levels (dBA) with project
2. Averaged NB/SB visual impacts with project after mitigation
3. Difference between alternative impacts following minimization/mitigation measures is unquantifiable

From an engineering standpoint, Build Alternative 10B was eliminated because its alignment does not reflect the lower traffic volumes found on Cole Road compared to those found on San Juan Road. The No Build-Alternative would not meet the project purpose and need.

The Least Environmentally Damaging Practical Alternative is Build Alternative 10D with bridge structures, however the cost of bridge structures would place project funding at risk, so culverts are to be constructed instead. Additionally, we are not having a substantial impact on aquatic resources that would be created with the construction of bridge structures and the temporary impacts associated with the construction of bridge structures would increase. Finally, the scores reflected on Table 2.2.3 do not indicate a clear difference in environmental impacts. For these reasons, Build Alternative 10D without bridge structures is preferred over the other build alternatives.

Avoidance, Minimization, and/or Mitigation Measures

Wetlands

Avoidance and minimization measures include building retaining walls to reduce impacts to seasonal wetlands, establishing environmentally sensitive areas, onsite biological monitoring, and controlling erosion with appropriate storm water best management practices. In addition, construction activities would be restricted to the dry season (typically May 1 to November 1).

Seasonal wetlands that are temporarily disturbed during construction will be replaced onsite within the new Caltrans right-of-way by restoring the wetland areas to their original condition. In the case of areas that were highly degraded before construction, restoration plans will be designed according to recommendations made by Caltrans staff, the U.S Army Corps of Engineers and California Department of Fish and Game.

Two wetlands—one described as a pond and the other a seep—are not under the jurisdiction of the U.S. Army Corps of Engineers or California Department of Fish and Game. Impacts to both of these wetlands are being analyzed in conjunction with ongoing fairy shrimp surveys. Any minimization or mitigation measures will be formulated as part of the Biological Opinion process and reported in the final environmental document for these two wetlands.

A third wetland, near Cole Road, has not been surveyed due to the property owner's refusal to allow surveys on the property. Wetland analysis was accomplished using aerial mapping. This wetland appears to be under the jurisdiction of the U.S. Army Corps of Engineers and California Department of Fish and Game. Minimization and mitigation measures will be formulated as part of the permit process with the U.S. Army Corps of Engineers and California Department of Fish and Game should either of the build alternatives be approved and the parcel is acquired.

Compensatory mitigation for the potential temporary and permanent impacts associated with the project includes restoring areas within the Caltrans highway right-of-way. If all or part of this land were determined to be unsuitable or unavailable, then additional parcels and/or mitigation bank credits will be identified and acquired as part of the advanced mitigation plan within the Elkhorn Slough watershed.

Only Practicable Finding

Executive Order 11990 - Protection of Wetlands (1977), calls for no net loss of habitats referred to as wetlands. Wetlands are driven by hydrology. The presence of

water near the soil surface results in soil and plant characteristics that are not found in uplands (mostly dry) or aquatic (almost always wet) areas. Wetlands are generally found in transition zones between upland and aquatic habitats.

For the regulatory process, the Army Corps of Engineers and U.S. Environmental Protection Agency jointly define wetlands as follows: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (EPA, 40 CFR 230.3 and ACOE, 33 CFR 328.3).

Caltrans recognizes this definition and uses it in the assessment of biological impacts of transportation projects. The Environmental Protection Agency, Army Corps of Engineers, U.S. Fish and Wildlife Service and the California Department of Fish and Game work together in reviewing and approving the permits most frequently required for projects that will impact wetlands. The Regional Water Quality Control Board may also have a role in its capacity of providing Section 401 certification.

The following wetland types are commonly found in California:

Freshwater: These areas may be permanent or seasonal, inland or coastal. This category includes riparian, or streamside areas, marshes, seeps, montane mountain meadows, and vernal pools. In some cases, wetlands may also occur within riparian settings above the wettest portions of the streambed. Areas subject to saltwater influence in coastal settings support vegetation adapted to brackish conditions. Alkaline conditions may support vegetation similar to that found in areas influenced by saltwater.

Saltwater: Coastal marsh, subject to full tidal action, occurs along the coast of California.

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

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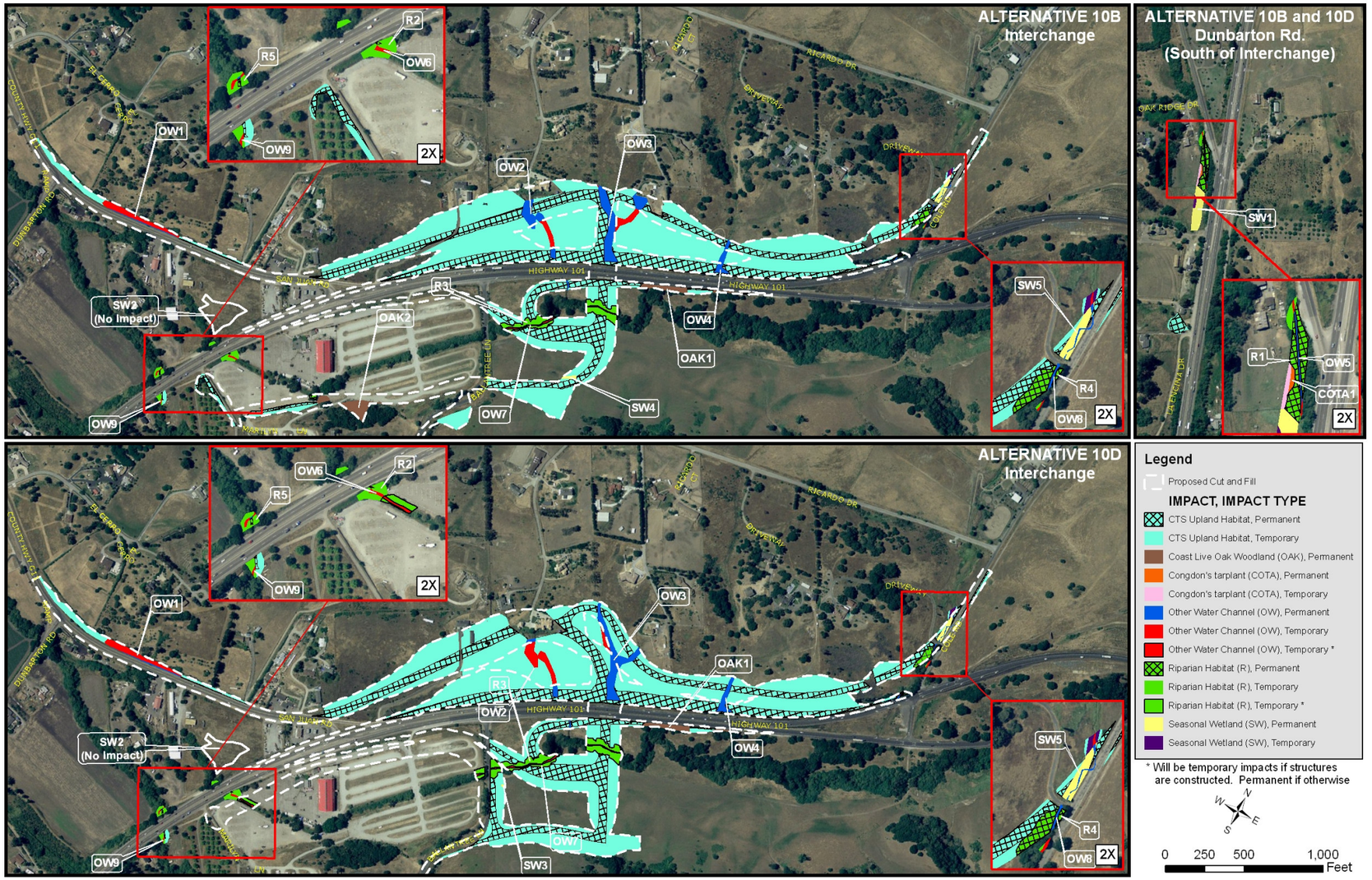

05-MON-101 PM 100.0-101.3
05-SBt-101 PM 0.0-1.6

05-315800

Figure 2.8 Biological impacts

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Other Waters of the US

Avoidance and minimization measures include building retaining walls to reduce impacts to other waters, establishing environmentally sensitive areas, onsite biological monitoring, and controlling erosion with appropriate storm water best management practices.

Riparian

Avoidance and minimization measures include building retaining walls to reduce impacts to riparian habitat, establishing environmentally sensitive areas, onsite biological monitoring, and controlling erosion with appropriate storm water best management practices.

Mitigation for impacts associated with the project will include restoring areas within the Caltrans highway right-of-way (removing exotics and enhancement planting of currently degraded waterways). If all or part of this land were determined to be unsuitable or unavailable, then additional parcels and/or mitigation bank credits will be identified and acquired as part of the advanced mitigation plan within the Elkhorn Slough watershed.

2.3.3 Animal Species

Regulatory Setting

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

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

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

Southwestern Pond Turtle

This subspecies of the western pond turtle, which is the only native turtle in California, is listed as a California species of special concern.

Western pond turtles, once widely distributed in Pacific slope streams, are an aquatic species ranging in size from 4.7 to 8.3 inches. Changes in land and water use, and grazing practices, have negatively affected the western pond turtle populations in the Pajaro and Salinas drainages. Most western pond turtle populations examined in this region appear to show an age/size structure increasingly biased toward adults due to nesting failures and the fact that non-native bullfrogs prey on hatchling turtles.

One southwestern pond turtle was discovered in the riparian portion of the intermittent stream channel at Cole Road during animal surveys. It is assumed that all such water channels are suitable for this species, so presence is assumed throughout the project area within such habitat.

Environmental Consequences

Southwestern Pond Turtle

Potential temporary impacts will include displacing individual turtles during construction and potential temporary loss of the use of aquatic and riparian habitat in areas next to the construction area.

The acres of habitat that are actually used by this species are not quantifiable based on presence/absence surveys. Therefore, permanent or temporary impacts to habitat based on acres were not calculated for this species.

Avoidance, Minimization, and/or Mitigation Measures

Southwestern Pond Turtle

Avoidance and minimization measures for this species include pre-construction surveys. If pond turtles were found, environmentally sensitive areas will be established and onsite biological monitoring will occur throughout construction activities in aquatic/riparian areas. Where feasible in areas that have suitable habitat,

vegetation will be removed by hand and vegetation in temporarily disturbed areas will be cut off at ground level rather than clearing and grubbing with heavy equipment.

2.3.4 Threatened and Endangered Species

Biological surveys included the following threatened and endangered (special-status) animal species in the project impact area:

- California red-legged frog
- California tiger salamander
- Vernal pool branchiopods (fairy shrimp)

Suitable habitat for the Least Bell's vireo was found in the project area, but no individuals were found during protocol-level surveys in 2002 and 2007. Therefore, this document does not discuss the Least Bell's vireo. Complete analysis and documentation of this species is included in the Natural Environment Study completed for the project.

Regulatory Setting

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 United States Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend.

Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric 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

California Red-legged Frog

This species spends most of the year in upland grassland habitat, mainly in small mammal burrows migrating to aquatic habitat during the breeding season.

In 2002, a survey for the California red-legged frog was conducted. The results of this study concluded that suitable habitat for the California red-legged frog exists within two of the stock ponds adjacent to, but outside, the project area. However, suitable habitat also exists with the riparian channels that are within the project area that could be affected. It is unclear whether they would hold water long enough for breeding. However, the California red-legged frog may be present in these affected riparian zones during construction. Therefore, in the absence of protocol-level surveys, presence is assumed throughout the project area where riparian channels or wetlands exist.

California Tiger Salamander

The California tiger salamander is native to California and occurs in the Sierra Nevada foothills, the Central Valley, the Coast Ranges and intermountain valleys. California tiger salamanders have lost an estimated 75 percent of their habitat due to human activities. This species spends most of the year in upland grassland habitat, mainly in small mammal burrows, migrating to aquatic habitat during the breeding season.

In 2007, protocol-level spring aquatic surveys for the California tiger salamander were performed. The study was inconclusive due to access limitations and a poor rainy season. The presence of adults in upland and aquatic habitats is assumed.

Fairy Shrimp

Fairy shrimp are branchiopods that include brine shrimp. They often appear in vernal pools, pot holes and other ephemeral pools. They are well adapted to living in arid areas where water is present for only part of the year. Their eggs will survive drought for several years and hatch about 30 hours after rains fill the pools where they live.

Protocol-level surveys for fairy shrimp were conducted in 2003 for the project area at that time. This included one pond east of the intersection of Dunbarton Road and U.S. Route 101. This survey was negative; however, the project footprint has changed since this survey to include additional potential habitat within the Rocks Ranch area. As a result, additional wet and dry season surveys may be required.

In Chapter 3, Table 3.1 describes consultation with agencies having permit responsibility for biological resources.

Environmental Consequences

California Red-legged Frog and California Tiger Salamander

The U.S. Fish & Wildlife Service reviewed the current status of the California Red-legged Frog and California Tiger Salamander, the environmental baseline for the project area and the effects of the project. The Service's Biological Opinion issued October 7, 2009 determined that the project is not likely to jeopardize the continued existence of the California Red-legged Frog and California Tiger Salamander because:

- In comparison with the amount available to the California Red-legged Frog and California Tiger Salamander elsewhere in Monterey and San Benito Counties, only a small amount of habitat will be permanently lost or temporarily disturbed;
- Few if any California Red-legged Frogs and California Tiger Salamanders are likely to be killed or injured during project activities; and
- Caltrans has proposed measures to reduce the adverse effects of the proposed work on the California Red-legged Frog and California Tiger Salamander.

Fairy Shrimp

The U.S. Fish & Wildlife Service Biological Opinion agrees with the Caltrans determination that based on protocol surveys, the project will not affect vernal pool fairy shrimp.

Avoidance, Minimization, and/or Mitigation Measures

California Red-legged Frog

Avoidance and minimization measures include doing pre-construction surveys, establishing environmentally sensitive areas, and onsite biological monitoring during construction activities where there is habitat for California red-legged frog. Also, where feasible, exotic aquatic species will be removed during construction activities. All trash that may attract predators will be properly contained and regularly removed from the work site.

In addition to the avoidance and minimization measures listed above, the terms and conditions identified in the Biological Opinion to be issued by the U.S. Fish and Wildlife Service will be implemented to further avoid and reduce impacts to this species. In Chapter 3, Table 3.1 describes consultation with agencies having permit responsibility for biological resources.

Since California red-legged frogs inhabit aquatic and riparian areas associated with the wetlands and other waters in the project limits, habitat that is lost during construction will be replaced when the compensatory mitigation measures included for wetlands, riparian habitat, and other waters of the U.S. are implemented.

California Tiger Salamander

Avoidance and minimization measures include working during the dry season and pre-construction surveys to identify small mammal burrows that may provide upland habitat. Where feasible, environmentally sensitive areas will be established around areas containing small mammal burrows, and onsite biological monitoring will occur throughout construction in upland habitat that may support the species. Staging areas outside the footprint of the project will be restricted.

Caltrans will re-vegetate all temporarily affected upland habitat areas. In addition to the avoidance and minimization measures listed above, any additional measures identified by the U.S. Fish and Wildlife Service during the consultation process will be implemented.

Since California tiger salamanders inhabit upland areas, mitigation will be developed in conjunction with the Biological Opinion rendered by the U.S. Fish and Wildlife Service. In Chapter 3, Table 3.1 describes consultation with agencies having permit responsibility for biological resources.

Parcels and/or mitigation bank credits will be identified and acquired as appropriate mitigation in advance of project construction as part of an advanced mitigation plan within the Elkhorn Slough watershed if onsite mitigation is not feasible or enough to accommodate mitigation requirements.

Fairy Shrimp

Avoidance and minimization measures including building retaining walls to reduce impacts to seasonal wetlands, establishing environmentally sensitive areas, onsite biological monitoring to maintain environmentally sensitive areas throughout construction, and controlling erosion with appropriate storm water best management practices have been incorporated into the project. In addition, construction activities will be restricted to the dry season, typically May 1 to November 1.

2.3.5 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

Highway corridors provide opportunities for the movement of invasive plant species, which can travel on vehicles and in the loads the vehicles carry. Invasive plants can also be moved from site to site during spraying and mowing operations. Weed seed can be inadvertently introduced into the corridor on equipment during construction and through the use of mulch, imported soil or gravel, and sod.

Ice plant, Pampas grass, and Scotch broom occur in the proposed project area:

- Iceplant, brought from South Africa to prevent erosion, is an invasive species. It forms dense, low-growing mats, grows quickly out of control and chokes out native vegetation in coastal dunes and coastal scrub habitats.
- Pampas grass, native to South America but used in California for landscaping, is another invasive species found in the project area. It colonizes bare, disturbed ground and competes with native vegetation.
- Scotch broom, a perennial shrub 6 to 10 feet tall and native to Europe and North Africa, was introduced as ornamental and for erosion control in California. Scotch broom is common in disturbed areas, but can also invade undisturbed grassland and shrub land.

Environmental Consequences

Construction activities will likely remove invasive species from the project area and will not cause it to spread. Any hydroseeding of disturbed areas following construction will not use invasive plant species. Seed mixtures will conform to the California State Seed Law of the Department of Agriculture.

Avoidance, Minimization, and/or Mitigation Measures

The project is not likely to introduce or promote the spread of any invasive species outside the highway corridor; however, measures to avoid introducing invasive species are recommended. Caltrans standard practice includes the prevention of the introduction and the proliferation of invasive plant species in the highway corridor. This standard practice may include the following:

- Bared soil will be landscaped with Caltrans' recommended seed mix from locally adapted species to preclude the invasion of noxious weeds. The use of site-specific materials, which are adapted to local conditions, increases the likelihood that re-vegetation of bare soil will be successful and maintains the genetic integrity of the local ecosystem.
- In areas of particular sensitivity, extra precautions will be taken if invasive species were found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

2.4 Construction Impacts

Equipment staging, materials storage and detours must not occur in the following areas:

- Stream channels and significant drainages
- Riparian corridors (minimum 50 feet from the top of bank of the stream channel)
- Wetlands and springs (minimum 25-foot buffer)
- Wells (minimum 25-foot buffer/larger buffers if used for domestic water supply)
- Areas of preserved vegetation that will function as treatment of design best management practices
- Steep slopes (2 to 1 or steeper to prevent erosion)

Table 2.23 summarizes the construction impact discussions from previous sections.

Table 2.23 Construction Impacts

Construction Impact	Description	Minimization/Mitigation Measures
Air Quality	• Particulates from grading activities • Emissions from asphalt and petroleum products used in construction project • Emissions from construction vehicles • Particulates from haul roads and borrow sites	Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts. The provisions of these specifications require the contractor to comply with the Monterey Bay Air Pollution Control District's rules, ordinances, and regulations. The following measures are recommended by the Monterey Bay Unified Air Pollution Control District in California Environmental Quality Act Air Quality Guidelines, June 2004 for reducing emissions of PM_{10}. Implementation of appropriate measures from this list at the discretion of the Resident Engineer can reduce PM_{10} emissions by more than 50 percent. Implementation is recommended when daily watering of all soil areas disturbed by construction, a dust control measure required by the Caltrans Standard Specification, Chapter 7, is insufficient at keeping dust from blowing offsite. 1. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil and wind exposure. 2. Prohibit all grading activities during periods of high wind 15 mph. 3. Apply chemical soil stabilizers on inactive construction areas. 4. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro-seed area. 5. Haul trucks shall maintain at least 2.0 feet of freeboard. Cover all trucks hauling dirt, sand, or loose materials. 6. Plant vegetative cover in disturbed areas a soon as possible. 7. Plant tree windbreaks on the windward perimeter of the construction project adjacent to open land. 8. Cover inactive storage piles. 9. Install wheel washers at the entrance to construction sites for all exiting trucks. 10. Sweep streets if visible soil is carried out from the construction site 11. Limit the area under construction at any one time. 12. Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance). In addition, the contractor's diesel construction equipment is required to use California Air Resources Board approved on road diesel fuel when it is locally available.. With respect to diesel emissions during construction, Caltrans will take all minimization measures that are listed in Caltrans Standard Specifications to reduce particulate emissions.
Biology	• Natural Communities • Wetlands and other Waters of the US • Plant Species • Threatened and Endangered Species • Invasive Species	Depending on the biological resource potentially affected, any of the following measures may be implemented (see Section 2.3 for specific information): 1. Establishment of environmentally sensitive areas 2. Onsite biological monitoring 3. Erosion control with appropriate storm water best management practices 4. Construction work windows 5. Species removal 6. Construction site clean-up to control predators 7. Replacement of individual plants
Noise and Vibration	It is inevitable that local noise levels in the vicinity of the construction will be increased due to construction activities. The amount of the increased noise will vary with the equipment used. Average noise from normal construction activities can be as much as 86 decibels at 50 feet from the source.	Since night construction is possible with the project, the following actions are recommended to minimize construction noise impacts: 1. Advanced notice—Notice should be published in local news media of the dates and duration of proposed construction activity. A telephone number should be included to answer questions about the project from local residents. 2. Construction schedule—When possible, noisier construction activities should be scheduled during the earlier parts of the evening or after noon. 3. Temporary noise barriers—Temporary noise barriers can be constructed where construction activities will be conducted near residential receptors.
Water Quality	Water pollution related to the construction of highways and to the drainage of completed highways should be limited to the maximum extent practical. This objective should be considered from the early planning, through the detailed design phase, to the end of construction.	Caltrans requires contractors to prepare and implement a program to control water pollution during construction of all projects. Because all build alternatives exceed 1 acre in soil disturbance, the proposed project is subject to the State Water Resources Control Board National Pollutant Discharge Requirements General Permit. Because all build alternatives exceed 1 acre in soil disturbance, the contractor is required under Department Special Provisions to prepare and submit a Storm Water Pollution Prevention Plan. best management practices in accordance with Caltrans Storm Water Quality Handbook: Construction Site best management practices Manual March 1, 2003 are to be followed by the contractor.

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Table 2.23 Construction Impacts (continued)

Construction Impact	Description	Minimization/Mitigation Measures
Disposal, Staging and Borrow Sites	It is often necessary to obtain or dispose of fill dirt, aggregate, and other material with highway projects. It is also often necessary to store equipment and/or materials on land outside of the Caltrans right-of-way.	The Caltrans Design Manual describes policy and procedures concerning disposal, staging and borrow sites. This section is too detailed for discussion in table format but in essence states that material and disposal sites must meet environmental, economic, capacity and access standards as well as those standards for materials set forth in the California Surface Mining and Reclamation Act of 1975. Caltrans has the option to identify and clear designated sites making them available for the contractor's use. The contractor has the flexibility to use alternative sites, upon approval of a DSB site submittal. Any necessary permits for DSB sites will be included among those obtained during Plans, Specifications and Estimates.
Transportation and Access	• Local and regional traffic • Emergency traffic • Access to business and residences	A detailed Traffic Control Plan for moving traffic through or around a construction zone must be developed and included in the Plans, Specifications and Estimates for all projects to assure that adequate consideration is given to the safety and convenience of motorists, pedestrians and workers during construction. Design plans and specifications must be carefully analyzed in conjunction with Traffic, Construction and Structure personnel to determine in detail the measures required to warn and guide motorists through the project during the various stages of work. The Traffic Control Plan shall be in accordance with 110.7 of the Highway Design Manual.
Cultural Resources	Artifacts and human remains	If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist could assess the nature and significance of the find. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the county coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner will notify the Native American Heritage Commission, who will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact Valerie Levulett, Branch Chief at (805) 549-3669 so that she may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.
Paleontological Resources	Fossils	If any vertebrate or plant fossils are discovered during construction, it is required that work be stopped in the immediate vicinity of the discovery (30-foot radius) until the District Archaeologist or District Paleontology Coordinator can review the discovery. Contact numbers are: • District Archaeologist Krista Kiaha: (805) 542-4799 • District Paleontology Coordinator Isaac Leyva: 805-549-3487 Remediation of sensitive fossils found before and during construction can include removal, preparation and curation of any significant remains.
Visual Resources	Construction equipment, materials storage, lighting, signs and traffic cones are some of the elements that will have a temporary visual impact.	Mitigation for temporary impacts should be appropriately incorporated into the project staging and scheduling.

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2.5 Cumulative Impacts

While it is not possible to analyze cumulative impacts with total accuracy, there are methods available that offer reasonable accuracy. A systematic method of cumulative impact analysis requires the following steps:

- Identify resources
- Define the study area for each resource
- Describe the current health and historical context for each resource
- Identify direct and indirect impacts from the proposed project
- Identify reasonably foreseeable projects that might impact identified resources
- Assess potential cumulative impacts
- Assess potential mitigation measures

Regulatory Setting

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

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

Section 15130 of the California Environmental Quality Act Guidelines describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under the California Environmental Quality Act, can be found in Section 15355 of the

California Environmental Quality Act Guidelines. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality regulations.

Affected Environment

A Resource Study Area map displaying the various study boundaries for each resource was completed. All the resource study boundaries were within a 2-mile radius of the project's mid-point. Table 2.24 shows completed and proposed projects in the overall Resource Study Area.

Table 2.24 Completed and Proposed Projects

Completed Projects in the Resource Study Area	
Project	**Description**
Red Barn Complex	Large structure on 40+ acres.
Residences	Approximately 100 single-family residences on 5-acre (or larger) parcels in the Resource Study Area.
Businesses	Approximately 25 small businesses in the Resource Study Area.
Farms	Approximately 10 parcels under cultivation in the Resource Study Area.
Transportation	U.S. Route 101 is a major transportation facility in the Resource Study Area. There are also numerous public and private access roads in the Resource Study Area.
Infrastructure	Overhead and underground utilities and surface water features are present in the Resource Study Area.
Proposed Projects in the Resource Study Area	
Project	**Description**
San Juan Interchange	Construct interchange on U.S. Route 101 at the Monterey/San Benito County Line.
Prunedale Improvement Project	Construct interchanges and operational improvements.
Heritage Oaks	35 residential units near San Juan Road and U.S. Route 101.

The only resource determined to have cumulative impacts was the view (visual resource). Table 2.25 shows the current health, historical context, direct and indirect impacts, reasonably foreseeable future projects and potential cumulative impacts to the view resulting from the proposed project.

Table 2.25 Cumulative Impacts to Visual Resources

Cumulative Impacts to Visual Resources in the Project Area	
Resource History and Previous Impacts	The project will be the fifth overhead structure along U.S. Route 101 in the region when considered with previously constructed projects and new projects proposed for the Prunedale area. There have also been several acceleration and deceleration lanes added in the corridor recently.
Resource Condition or Health	The Resource Study Area is mostly rural density and scenic, but the scenery has been affected by the Red Barn, development on the hillsides, and transportation facilities.
Direct and/or Indirect Impacts from Project	The most noticeable cumulative impacts from the proposed project will be the extension of the sequence of grade separation structures, which begins in the City of Salinas, and the general loss of vegetation. This project will be the fifth new flyover along U.S. Route 101 in the region when considered with previously constructed projects and new projects proposed for the area. There have also been several acceleration and deceleration lanes added in the corridor recently. While all projects have included or will include new landscape planting, trees will be small and immature for many years before they begin to function as the screens or landmarks they replaced. Travelers on U.S. Route 101 will experience less of a distinction between the more urbanized Prunedale area and the San Juan Road area. The loss of mature vegetation and skyline trees is also likely to contribute to a decrease in the generally scenic rural character of the area, especially when combined with previous losses and the expected sensitivity of local viewers of the roadway and surrounding neighborhoods. Additional cumulative impacts could result in the future if more human-made elements were added to the corridor shoulders, which will block or distract from views of the surrounding hills.
Reasonable and Foreseeable Future Projects	Proposed transportation projects in the Resource Study Area include the Prunedale Improvement Project and the San Juan Road Interchange Project. The only proposed non-transportation project within the Resource Study Area is the Heritage Oaks Housing Development.
Loss/No Net Loss to Resource	There will be cumulative visual impacts. Measures to minimize those impacts are included in the visual impact section of this document.

Avoidance, Minimization, and/or Mitigation Measures

Numerous measures involving grading and structures, materials and aesthetics, and landscaping and erosion control will be included in the project. Once landscaping is established, the cumulative impacts may be viewed in a positive, rather than negative, light. A detailed description of visual resources is provided in Section 2.1.7.

2.6 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (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 (CO_2), 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. Assembly Bill 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 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.

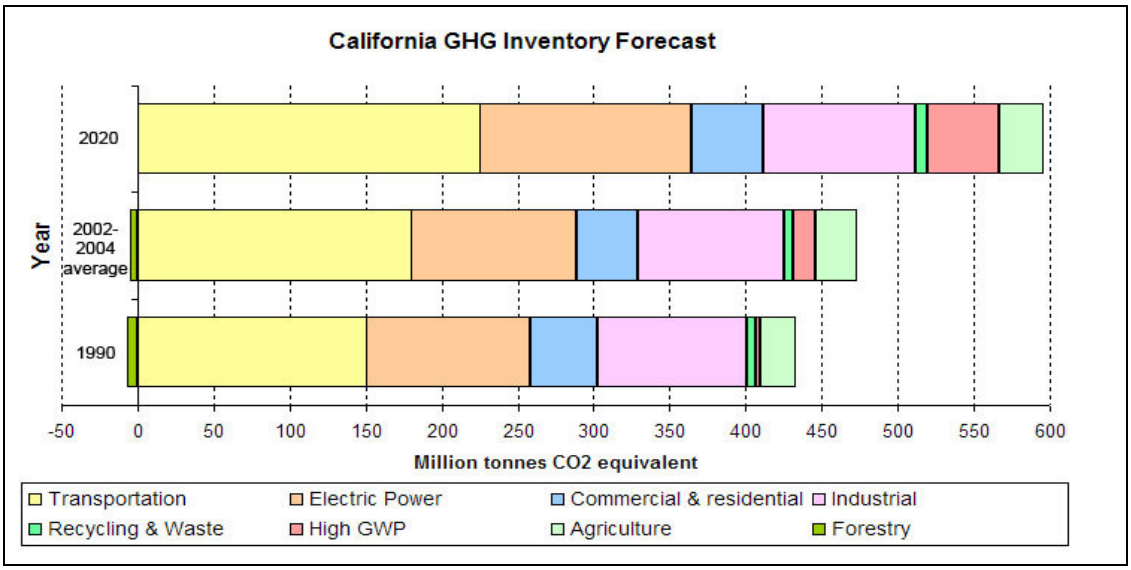
On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this order is to reduce California's greenhouse gas emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall greenhouse gas emissions reduction goals while further mandating that 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 percent by 2020.

Climate change and greenhouse gas reduction are 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 (EPA) 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.

According to *Recommendations by the Association of Environmental Professionals on How to Analyze Greenhouse Gas Emissions and Global Climate change in CEQA Documents* (March 5, 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 in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft Scoping Plan, the California Air Resources Board recently 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.



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

Figure 2.9 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 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human made greenhouse gas emissions are from transportation (see *Climate Action Program at Caltrans* (December 2006)), Caltrans has created and is implementing the *Climate Action Program at Caltrans* that was published in December 2006. This document can be found at: http://www.dot.ca.gov/docs/ClimateReport.pdf.

One of the main strategies in the Department's Climate Action Program to reduce greenhouse gas emissions is to make California's transportation system more efficient. Transportation's contribution to greenhouse gas emissions is dependent on 3 factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel. The highest levels of CO_2 from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour). Optimum speeds are between 45 and 50 miles per hour. Looking at the state transportation system as a whole, enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in greenhouse gas emissions.

Project Analysis

Outside of the cities of Salinas, Seaside, Soledad and Monterey, Monterey County is a largely rural/agricultural area. The unincorporated areas of the county are mostly

characterized by low-density land use patterns with schools, retail and employment separated by distances that necessitate driving and make alternative transportation such as public transit, walking or biking less likely.

Monterey County had a 2007 population of 425,960, an increase of 0.7% over 2006. During the same period, California grew at an annual average rate of 1.3 percent.

Monterey County has proposed policy changes to the Draft General Plan (OS-10.11) that state in part:

- "Within 24 months of the adoption of the General Plan, Monterey County will develop a Greenhouse Gas Reduction Plan with a target to reduce emissions by 2020 by 28 percent relative to the estimated business as usual emissions."
- "During preparation of the Greenhouse Gas Reduction Plan, the County shall also evaluate potential options for changes in County policies regarding land use and circulation as necessary to further achieve the 2020 and 2030 reduction goals and measures to promote urban forestry and public awareness concerning climate change."

The proposed changes to the General Plan do not specifically address highway projects, but the proposed project's congestion relief properties do support the County's Greenhouse Gas Reduction Plan.

Outside of the city of Hollister, San Benito County is a largely rural, agricultural area. According to the U.S. Census Bureau, the county experienced a 45 percent population increase between 1990 (population 36,697) and 2000 (population 53,234). This increase was due in large part to the regional employment associated with the computer and software industry. The population increase rate was dramatically slower between 2000 (population 53,234) and 2007 (population 54,667). About 65 percent of the population of San Benito County lives in Hollister.

The project lies in the North Central Coast Air Basin, which is currently classified as "in attainment/unclassified" for all current federal air quality standards and in an "unclassified" area for state standards. Carbon dioxide is a common indicator of the various greenhouse gases. Carbon dioxide and most of the greenhouse gases are not currently listed in the Clean Air Act as priority pollutants; therefore, there is no federal or state ambient air quality limit for these gases.

The San Juan Interchange Project build alternatives would reduce local congestion by improving local traffic flow in the vicinity of the existing San Juan interchange. This

would be accomplished by replacing three existing at-grade intersections (Dunbarton Road, San Juan Road and Cole Road) with a single, grade-separated interchange. This will result in reduced idling emissions for vehicles waiting to enter the traffic stream of U.S. Route 101. Since the highest emission factors for carbon dioxide (CO_2), the main greenhouse gas pollutant, occur at idle to 10 miles per hour and the lowest emission factors occur at 45 to 50 miles per hour, the approximate entry speeds for the new ramps, the proposed project can only lead to a reduction in local greenhouse gas emissions over the No-Build Alternative.

The project will not affect the traffic volumes or speeds on U.S. Route 101. Since the highway has a far larger volume of traffic than the local roads, the resulting reductions in CO_2 levels at the local level will be overshadowed by increases that will take place on the highway. Since the project does not affect the volumes or speeds on the highway, CO_2 levels from highway traffic will be the same with or without the project.

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 will thus dramatically change the projected CO_2 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 percent in 2004, with projections at 48 percent in 2008.

Table 2.26 Required Miles Per Gallon by Alternative

2015 Required Miles Per Gallon (mpg) by Alternative							
No-Build		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 2.26 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 (CAFE) 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 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. DOE 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."[1]

[1] 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.

Third and as previously stated, California has recently adopted a low-carbon transportation fuel standard. The California Air Resources Board is scheduled to come out with draft regulations for low-carbon fuels in late 2008 with implementation of the standard to begin in 2010.

Fourth, 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-fuel-efficient automobiles have risen, showing an increase in demand for the more fuel-efficient vehicles.

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 2.10 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."

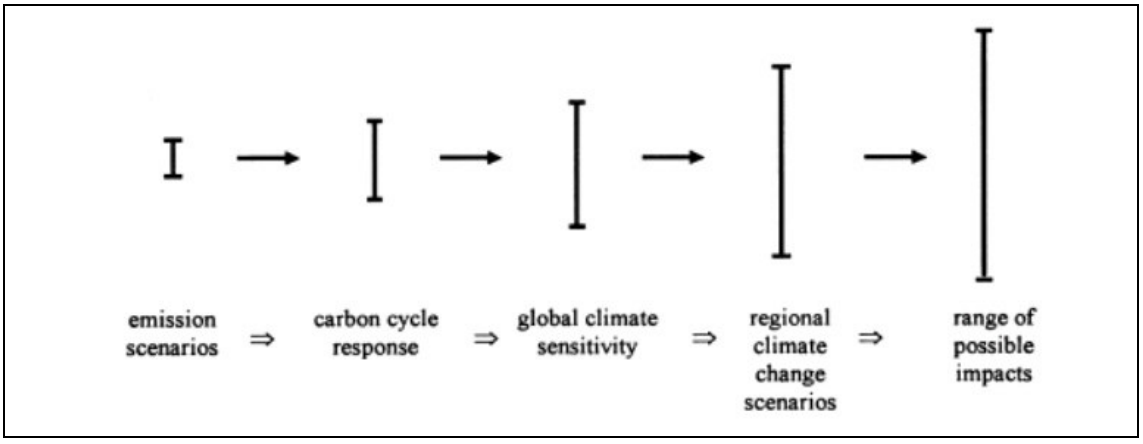


Figure 2.10 Cascade of Uncertainties

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 CO_2 emissions would mean for climate change given the overall California greenhouse gas emissions inventory of approximately 430 million tons of CO_2 equivalent. This uncertainty only increases when viewed globally.

The IPCC 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 IPCC scenarios project an increase in global greenhouse gas emissions by 9.7 up to 36.7 billion metric tons CO_2 from 2000 to 2030, which represents an increase of between 25 and 90 percent.[2]

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 percent to 1.1 percent. The resulting change in sea level rise (compared to the No Action Alternative) ranges, across the

[2] 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.

alternatives, from 0.04 centimeter to 0.07 centimeter. In summary, the impacts of the MY 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 CO_2, the primary gas driving the climate effects, from the United States automobile and light truck fleet represented about 2.5 percent 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 CO_2 emissions from the United States light 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]

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 CEQA 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, as previously stated, Caltrans does anticipate a reduction in greenhouse gas emissions with the project. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions. These measures are outlined in the following section.

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as the California Air Resources Board works to implement AB 1493 and help achieve the targets set forth in Assembly Bill 32. Many of the strategies Caltrans is using to help meet the targets in Assembly Bill 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 in Figure 2.11, 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.

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 the California Air Resource Board.

Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the University of California at Davis.

Table 2.27 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.

Figure 2.11 Outcome of Strategic Growth Plan

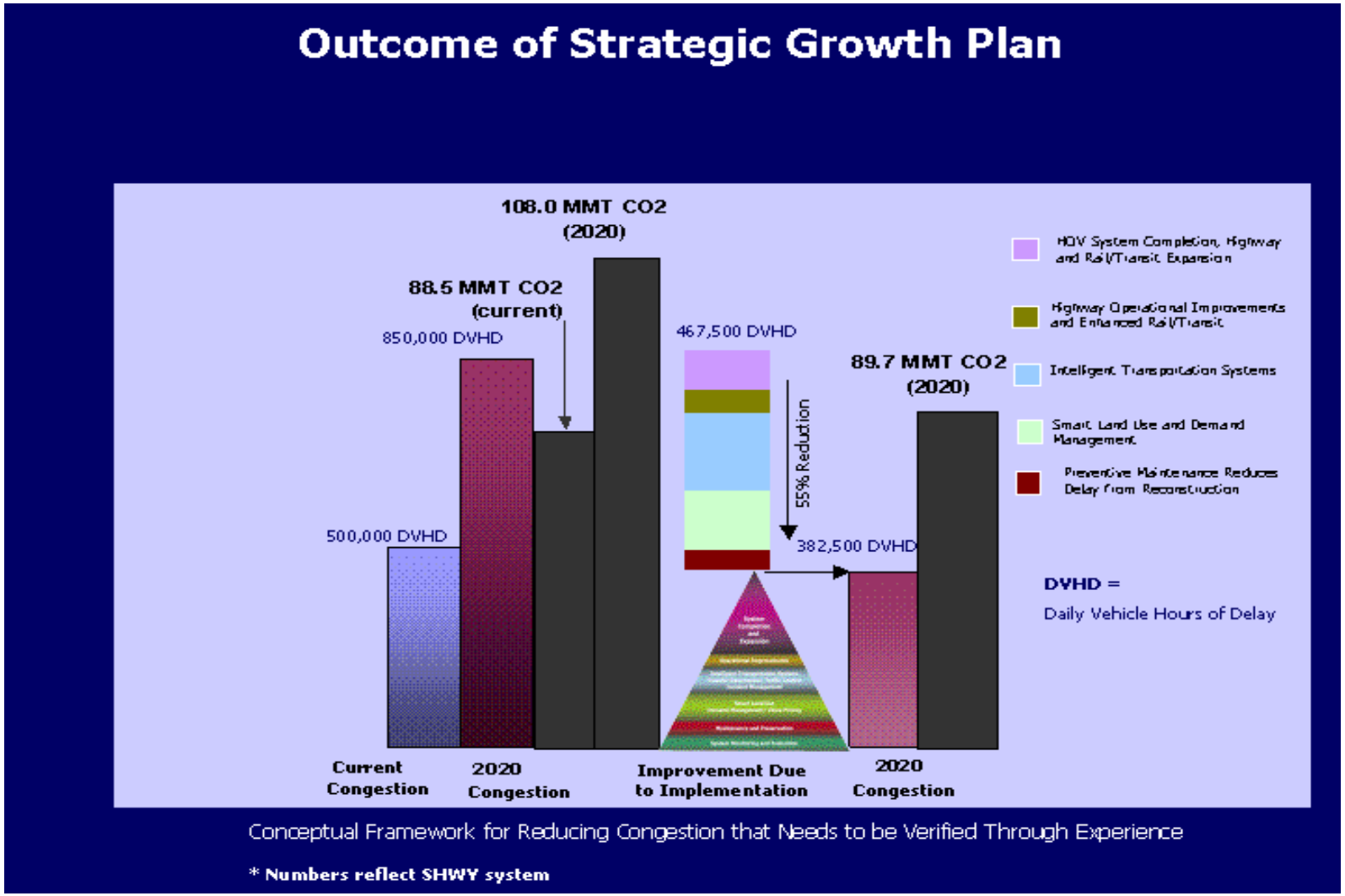


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Table 2.27 Climate Change Strategies

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	.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	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	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 would also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project:

- The proposed project will be designed to minimize removal of existing trees, especially mature trees. The proposed project will overlap existing road surfaces or will remove existing pavement that is no longer needed and will re-vegetate those surfaces thus helping to maintain the carbon sequestration potential of the project site.
- Crossing the highway from the west side of the community to the east side is currently only safely possible by vehicle. Sidewalks will be incorporated into the overhead structure to help facilitate pedestrian use allowing crossing of the highway by means other than by car such as on foot or by bicycle.
- The project will plant the intersection and other disturbed areas with a variety of native and drought tolerant trees and shrubs in ratios sufficient to replace the air quality and cooling benefits of trees removed by construction of the project. Additional trees will be planted as space allows to further increase those benefits. Trees will be planted from large-size containers to accelerate reestablishment of the greenhouse gas sink and to shade the pavement. Riparian planting will also be included to maintain shade along creek corridors. In the short term, immature tree planting will probably not offset greenhouse gas produced as a result of project construction, however in the long-term tree planting should enhance the carbon sequestration potential of the project site and greenhouse gas emission levels will in theory continue to improve overtime as the trees became more mature, except as counteracted by increased traffic volumes.
- The project will seed slopes, drainage channels, and other disturbed areas with native and drought-tolerant shrubs, perennials and grasses.

The following “green” practices and materials will 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 and solar or battery power
- Restricted pesticide use and reduction goals

The State of California maintains several websites that provide public information on measures to improve renewable energy use, energy efficiency, water conservation and efficiency, land use and landscape maintenance, solid waste measures, and transportation alternatives.

Chapter 3 Comments and Coordination

Early and continuing coordination with appropriate public agencies and the general public is an essential part of the environmental process. 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 correspondence, and public meetings.

This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

Agency Participation

Caltrans staff met or corresponded with representatives of various resource agencies or governmental bodies. Table 3.1 shows this activity and related dates.

Table 3.1 Agency Meeting Dates and Descriptions

Date	Activity
March 1999	State Historic Preservation Officer consultation.
November 2001	Caltrans requested an official species list for the Prunedale, San Juan Bautista, Chittenden, and Watsonville East U.S. Geological Service 7.5-minute quadrangles.
December 2001	Caltrans received an official species list from U.S. Fish and Wildlife Service.
December 2002	Caltrans requested and received permission to conduct fairy shrimp surveys from U.S. Fish and Wildlife Service.
August 2003	Caltrans submitted the completed fairy shrimp survey to the U.S. Fish and Wildlife Service.
October 2003	State Historic Preservation Officer consultation.
February 2006	Caltrans contacted the California Department of Fish and Game to introduce the proposed project. The California Department of Fish and Game responded with a request for a complete assessment of the habitats, flora and fauna within and adjacent to the project area.
November 2006	Caltrans biologists held a telephone conference with the U.S. Fish and Wildlife Service to introduce the proposed project, discuss studies already performed, and discuss potential impacts to California tiger salamander, California red-legged frog, Least Bell's vireo, and fairy shrimp. Caltrans requested that U.S. Fish and Wildlife Service provide a recommendation of which work needed to be repeated. Caltrans sent a copy of the California tiger salamander, California red-legged frog, Least Bell's vireo, and fairy shrimp surveys already performed.
February 2007	Caltrans completed a site assessment for California tiger salamander.
March 2007	Caltrans biology requested and received approval from U.S. Fish and Wildlife Service to begin California tiger salamander aquatic surveys by the biological consultant.
June 2007	Spring aquatic surveys for California tiger salamander were completed, and a report was submitted to U.S. Fish and Wildlife Service. The report determined that California tiger salamanders were likely to occur throughout the proposed project limits.
September 2007	The Least Bell's vireo protocol survey report was completed and submitted to U.S. Fish and Wildlife Service. It was determined that some suitable and marginal habitat for Least Bell's vireo does exist within the project limits, but no Least Bell's vireo was seen during the survey.

Public Participation

Open House

Public participation in the project was solicited during an Open House for the project. The Open House was held on August 28, 2007 in Aromas, California.

The Open House provided information and exhibits on the project, including the purpose and need for the project, and introduced the build alternatives.

Members of the public could submit comments to Caltrans at the Open House and for a period of 30 days after the Open House.

Comments received included the following:

- Leave Dunbarton Road open so southbound traffic can access the highway. This would reduce congestion on the new interchange by allowing the heavy truck traffic continued access from Dunbarton Road and allow another highway access point during slow-downs from accidents.
- The project would increase traffic on local roads.
- Why don't you just buy out the Red Barn? That would solve most of the traffic problems.
- The facilities chosen for the Open House were not adequate.

All comments were answered either personally or through an Open House newsletter that was sent to all who expressed interest in the project or signed in at the Open House.

Homeowners Meeting

A meeting was held with Ballantree Estates and Marilyn Road homeowners on January 22, 2008 to discuss the proposed frontage road along the east side of the Red Barn complex as well as explain potential visual impacts from the proposed interchange.

Public Hearing

A Public Hearing was held February 5, 2009 in Aromas as part of the circulation phase of this environmental document, which began January 15, 2009 and ended February 15, 2009. Comments received during this period and their responses are provided in Appendix I.

The Public Hearing is held to provide the public and public agencies with project information, to answer questions and to get input on the proposed project via verbal or written comments. Caltrans design engineers, right-of-way agents, environmental planners, and resource specialists were on hand, as were representatives from Monterey and San Benito County. Exhibits showing the build alternatives, right-of-way information, environmental impact information and funding and schedule information were displayed.

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Chapter 4 List of Preparers

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

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Valerie A. Levulett, Senior Environmental Planner. Ph.D., Anthropology, University of California, Davis; 38 years experience in Cultural Resource Studies and Environmental Analysis. Contribution: Oversight of Air, Noise, Water, Hazardous Waste and Cultural Resource technical documents.

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Appendix A California Environmental Quality Act Checklist

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

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

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?		X		
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?		X		
AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?			X	
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				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 that exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentration?				X
e) Create objectionable odors affecting a substantial number of people?			X	
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?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		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?		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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?				X
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	-	-	-	-
	Archaeological resources are considered "historical resources" and are covered under (a).			
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
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.				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral			X	

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
spreading, subsidence, liquefaction or collapse?				
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.				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
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?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
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?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?				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 that would not support existing land uses or planned uses for which permits have been granted)?			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 that would result in substantial erosion or siltation on or offsite?			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 that would result in flooding on or offsite?			X	
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			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?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?				X
j) Result in inundation by a seiche, tsunami, or mudflow?				X
LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				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?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
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?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X
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?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
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)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
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?				X
Police protection?				X
Schools?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
Parks?				X
Other public facilities?				X
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?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a Level-of-Service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patters, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
UTILITY AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?				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?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
MANDATORY FINDINGS OF SIGNIFICANCE -				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
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	
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?				X

Appendix B 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.

RANDELL H. IWASAKI
Director

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Appendix C Summary of Relocation Benefits

California Dept. of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

The California Department of Transportation (Caltrans) will 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 will 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 will receive information on comparable properties for lease or purchase.

Residential replacement dwellings will 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 will 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 will 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 Chuck Siek at charles_siek@dot.ca.gov, phone (559) 243-8302 or 2015 East Shields Avenue, 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.

The Business and Farm Relocation Assistance Program

For more information or a brochure on the relocation of a business or farm, please contact Chuck Siek at charles_siek@dot.ca.gov, phone (559) 243-8302 or 2015 East Shields Avenue, 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 will 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 will 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 will 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:

Gordon Watkins
Associate Right of Way Agent
Central Region Planning and Appraisals
(559) 445-6181

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Appendix D Minimization and/or Mitigation Summary

Air Quality	• Caltrans recommends that the project special provisions be amended to specifically prohibit grading of greater than 6 acres per day, and to insist on strict adherence to Caltrans Standard Specifications requiring dust control. • Caltrans Standard Specifications pertaining to dust control and dust palliatives are a required part of all construction contracts and should effectively reduce and control air pollutant emission impacts during construction. • Caltrans Standard Specifications, Section 7-1.01F (Air Pollution Control) requires the contractor to comply with all local, state and federal rules, ordinances, and regulations regarding air quality. • Standard Specifications Sections 17 (Watering) and Section 18 (Dust Palliatives) and Section 10 (Dust Control) provide further requirements for the construction contractor to minimize fugitive dust. • The California Health and Safety Code requires the contractor to prevent visible dust from leaving the construction site. This is normally accomplished by daily watering of all areas disturbed by construction activity.
Biology (Natural Communities)	Oak Woodland: The construction of retaining walls (where feasible) to reduce the project footprint, pre-construction surveys and on-site biological monitoring during construction has been incorporated into the project. Mitigation for potential impacts includes restoring areas within the Caltrans highway right-of-way and preserving large stands of oak woodland that occur on Caltrans property. This State property includes an estimated minimum of 168 acres of Coast Live Oak Woodland. If this land were unavailable, additional parcels will be identified and acquired as part of an advanced mitigation plan within the Elkhorn Slough watershed. Riparian: Avoidance and minimization measures including construction of retaining walls to reduce impacts to riparian habitat, establishment of environmentally sensitive areas, on-site biological monitoring and erosion control with appropriate storm water best management practices have been incorporated into the project. Mitigation for impacts associated with the project includes restoring areas within the Caltrans highway right-of-way (removal of exotics and enhancement planting of currently degraded waterways) and preserving riparian habitat that occur on Caltrans property. If this land were unavailable, additional parcels will be identified and acquired as part of an advanced mitigation plan within the Elkhorn Slough watershed.
Biology (Wetlands)	Avoidance and minimization measures including construction of retaining walls to reduce impacts to seasonal wetlands, establishment of environmentally sensitive areas, on-site biological monitoring, and erosion control with appropriate storm water best management practices have been incorporated into the project. In addition, construction activities will be restricted to the dry season (typically May 1 to November 1). Seasonal wetlands that are temporarily disturbed during construction will be replaced on-site within the new Caltrans right-of-way by restoring the wetland areas to their original condition. In the case of areas that were highly degraded before construction, restoration plans will be designed according to recommendations made by Caltrans staff, the Army Corps of Engineers and California Department of Fish and Game. Compensatory mitigation for the potential temporary and permanent impacts associated with the project includes restoring areas within the Caltrans highway right-of-way and preserving seasonal wetlands that occur on Caltrans property. If this land were unavailable, additional parcels will be identified and acquired as part of an advanced mitigation plan within the Elkhorn Slough watershed.
Biology (Other Waters of the US)	Avoidance and minimization measures including construction of retaining walls to reduce impacts to other waters, establishment of environmentally sensitive areas, on-site biological monitoring, and erosion control with appropriate storm water best management practices have been incorporated into the project.
Biology (Plant Species)	All Monterey pines will be avoided if possible with the use of environmentally sensitive area fencing. Compensatory mitigation measures are not included specifically for this species. However, individual plants that are lost during construction will be replaced at an appropriate replacement ratio. Efforts will be made to avoid all Congdon's tarplants as possible. Where disturbance is not avoidable, the top 8 inches of soil should be collected and stock piled. After construction is complete this topsoil should be applied to all temporarily impacted areas. Environmentally sensitive area fencing will be erected to protect areas outside of the work zone. Compensatory mitigation measures are not included specifically for this species. However, individual plants that are lost during construction will be replaced at an appropriate replacement ratio.
Biology (Invasive Species)	• Bared soil will be landscaped with Caltrans' recommended seed mix from locally adapted species to preclude the invasion of noxious weeds. The use of site-specific materials, which are adapted to local conditions, increases the likelihood that re-vegetation of bare soil will be successful and maintains the genetic integrity of the local ecosystem. • In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

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Appendix D Minimization and/or Mitigation Summary

Biology (Threatened and Endanger Species)	**California tiger salamander:** Avoidance and minimization measures include working during the dry season, and pre-construction surveys to identify small mammal burrows that may provide upland habitat. Where feasible, environmentally sensitive areas will be established around areas containing small mammal burrows, and on-site biological monitoring is to occur throughout construction in upland habitat that may support the species. In temporarily disturbed areas. Staging areas outside the footprint of the project will be restricted. Caltrans Biology will coordinate with Landscape Architecture to re-vegetate all temporarily impacted upland habitat areas. In addition to the avoidance and minimization measures listed above, any additional measures identified by the US Fish & Wildlife Service during the consultation process will be implemented. Since California Tiger salamander inhabit aquatic and riparian areas associated with the wetlands and other waters within the project limits, habitat that is lost during construction will be replaced when the compensatory mitigation measures included for wetlands and Other Waters of the U.S. are implemented. Upland habitat impacts will be mitigated at an agreed upon mitigation ratio per the Biological Opinion with the US Fish & Wildlife Service. Parcels will be identified and acquired as appropriate mitigation in advance of project construction as part of an advanced mitigation plan within the Elkhorn Slough watershed if onsite mitigation is not feasible or enough to accommodate mitigation requirements. **California red-legged frog:** Avoidance and minimization measures include pre-construction surveys, establishment of environmentally sensitive areas, and on-site biological monitoring during construction activities where there is habitat for California red-legged frog. Also, where feasible, exotic aquatic species will be removed during construction activities. All trash that may attract predators will be properly contained and regularly removed from the work site. In addition to the avoidance and minimization measures listed above, the terms and conditions identified in the Biological Opinion that shall be issued by the US Fish & Wildlife Service will be implemented to further avoid and reduce impacts to this species. This will include limiting the construction window within known California red-legged frog habitat. Since California red-legged frog inhabit aquatic and riparian areas associated with the wetlands and other waters within the project limits, habitat that is lost during construction will be replaced when the compensatory mitigation measures included for wetlands, riparian habitat, and other Waters of the U.S. are implemented. **Southwestern pond turtle:** Avoidance and minimization measures for this species include pre-construction surveys. If pond turtles are observed, environmentally sensitive areas will be established, and on-site biological monitoring will occur throughout construction activities in aquatic/riparian areas. If these methods are not possible, then a Memorandum of Understanding with the California Department of Fish & Game will be necessary to capture and release animals to a pre-designated location outside of the work area that has appropriate habitat. To further reduce impacts in areas that have suitable habitat for pond turtles, vegetation will be removed where feasible by hand and vegetation in temporarily disturbed areas will be cut off at ground level rather than clearing and grubbing with heavy equipment. This subspecies is regionally common and there is suitable habitat within the larger Prunedale area. Compensatory mitigation measures are not included for loss of habitat specifically for this subspecies. Habitat that is lost during construction will be replaced when the compensatory mitigation measures included for wetlands and Other Waters of the U.S. are implemented.
Climate Change	• Caltrans Standard Specification Provisions restricts idling time for lane closure during construction to 10 minutes in each direction; in addition, the contractor must comply with Monterey Bay Unified Air Pollution Control District's rules, ordinances, and regulations in regards to air quality restrictions. • The project will incorporate energy efficient LED traffic signals. High-pressure sodium lighting is planned at this time for other applications however testing is underway to determine if LED lighting is also feasible for other project applications. • Crossing the highway from the west side to the east side is currently only safely possible by vehicle. Sidewalks will be incorporated into the overhead bridge structure to help facilitate pedestrian or bicycle use. • The proposed project will be designed to minimize removal of existing trees, especially mature trees. The proposed project will overlap existing road surfaces or will remove existing pavement that is no longer needed and will re-vegetate those surfaces thus helping to maintain the carbon sequestration potential of the project site. • The project will plant the intersection and other disturbed areas with a variety of native and drought-tolerant trees and shrubs in ratios sufficient to replace the air quality and cooling benefits of trees removed by construction of the project. Additional trees will be planted as space allows to further increase those benefits. Trees will be planted from large-size containers to accelerate reestablishment of the greenhouse gas sink and to shade the pavement. Riparian planting will also be included to maintain shade along creek corridors. • The project will seed slopes, drainage channels, and other disturbed areas with native and drought-tolerant shrubs, perennials and grasses. • The proposed project will include measures to reduce potential project contributions to greenhouse gas emissions and energy use. To the extent that it is applicable or feasible the following measures will be incorporated into the project: • PVC irrigation pipe with recycled content • Non-chlorinated High Density Polyethylene irrigation crossover conduit • Compost and soil amendments derived from waste materials • Fiber produced from recycled pulp such as newspaper, chipboard, cardboard • Wood mulch made from green waste and/or clean manufactured or natural wood • Irrigation controllers with water conservation features and solar or battery power • Restricted pesticide use and reduction goals

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Appendix D Minimization and/or Mitigation Summary

Cultural Resources	If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist could assess the nature and significance of the find. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner will notify the Native American Heritage Commission, who will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact Val Levulett, Branch Chief, at (805) 549-3669 so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.
Farmland	Four build alternatives were considered but rejected in part due to impacts to farmland. No further avoidance, minimization or mitigation measures are planned.
Hazardous Waste	• Aerial-deposited lead (Southbound): Aerial-Deposited Lead test results for southbound U.S. Route 101 indicate that the top 1.0 foot of excavated soil will require disposal as hazardous waste but will not require disposal as a Resource Conservation and Recovery Act hazardous waste. • Aerial deposited lead (Northbound): Aerial Deposited Lead test results for northbound U.S. Route 101 indicate that the top 2.0 feet of excavated soil will require disposal as hazardous waste but will not require disposal as a Resource Conservation and Recovery Act hazardous waste. • Per Caltrans requirements, the Contractor(s) should prepare a project-specific Lead Compliance Plan to minimize worker exposure to lead-impacted soil. The plan should included protocols for environmental and personnel monitoring, requirements for personal protective equipment and other health and safety protocols and procedures for the handling of lead-impacted soil.
Hydrology and Floodplain	All culverts and bridges will be constructed so that they convey flow from a 100-year flood. The existing overtopping of U.S. Route 101 will be eliminated by constructing additional culverts under U.S. Route 101 near the existing ones, and replacing the culvert under Ballantree Lane with an adequate culvert or bridge. Floodplain impacts to developed areas upstream of the Red Barn will be kept insignificant by including adequate culverts or bridges that can convey the 100-year flow. The floodplain downstream from U.S. Route 101 will not be affected or changed.
Land Use	Several Build Alternatives having relatively larger footprints were removed from consideration to minimize land use impacts (see Section 1.3.4 Alternatives Considered but Eliminated From Further Discussion). Contact was made with San Benito County Planning Department to determine if potential project related development will conflict with its General Plan. San Benito advised Caltrans that the developer will be responsible for the environmental analysis and any mitigation deemed necessary from that analysis to be compliant with San Benito County plans and policy as well as CEQA.
Noise	• Notice should be published in local news media of the dates and duration of proposed construction activity. A telephone number should be included to answer questions about the project from local residents. • When possible, noisier construction activities closest to residences should be scheduled during the earlier parts of the evening or afternoon. • If complaints are received**,** temporary noise barriers can be constructed where construction activities are conducted near residential receptors. These consist of plywood sheets on portable concrete barriers.
Paleontology	If any vertebrate or plant fossils are discovered during construction, it is required that work be stopped in the immediate vicinity of the discovery (33 foot radius) until the District Archaeologist or District Paleontology Coordinator can review the discovery. Contact numbers are: • District Archaeologist Krista Kiaha (805) 542-4799 • District Paleontology Coordinator Isaac Leyva 805-549-3487 Remediation of sensitive fossils found before and during construction can include removal, preparation and curation of any significant remains.

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Appendix D Minimization and/or Mitigation Summary

Scenic Resources	***Materials and Aesthetics Treatments*** • The overcrossing structure and retaining walls shall be textured with a rural rock-masonry like pattern to match the established aesthetic of other existing walls and bridges in the Prunedale area, for regional visual continuity, and to mitigate for cumulative impacts. No-climb fencing on the structure shall also match to minimize reflective appearance and visual presence against the skyline. • Bridges and walls shall not be colored but shall be composed of similar aggregate and concrete mixes so that they match the existing tone of other walls and median barrier in the area, and to reduce the visibility of any future maintenance repairs. • Slope paving under structures shall have exposed aggregate or other rough natural texturing and color. • Median barrier end treatments shall be metal beam type, where possible, to tie the concrete barrier visually to other guardrail in the area. • All surfaces shall be protected with anti-graffiti coating. • Right-of-way fencing shall be rural in character, - wire and wood or metal posts; chain link fencing shall be avoided. • Traffic signs shall be limited to the greatest extent possible and obsolete signs shall be removed. • New light sources shall be limited to the greatest extent possible. Lights shall have cut-off shades to help preserve dark, night sky views. ***Landscaping and Erosion Control*** • Landscape planting shall separate and screen the highway and frontage roads from each other and from the neighborhood. Planting shall include a variety of sizes of plant material to increase the density of cover and screen more quickly and to lend a more mature blended appearance to the overall project. Trees especially shall be planted in medium and large containers and in box sizes at some locations. • Tall trees which balance the large scale of the new structure and wide paved expanses and which form a welcoming “gateway,” shall be planted to frame views and create a visually appealing scene. • Other trees and shrubs shall be massed on slopes so that changes are softened and absorbed into the larger rural context of the corridor. • Additional skyline trees shall be added throughout the project limits as needed to unify the region’s distinct identity. • Various plant species, textures, foliage colors and seasonal accents shall be layered to create interest, provide rhythm, and avoid monotony. • Landscaping shall emphasize drought tolerant and native plants with low maintenance, and low or no supplemental water requirements once established. • Plant material shall be grouped to provide simplicity for highway viewing speeds and shall emulate natural landscape patterns. • Retaining walls shall be planted with vines to soften their appearance and to prevent secondary visual impacts such as graffiti. • All slopes shall be treated with appropriate erosion control best management practices and shall be seeded with native grasses and wildflowers. • Temporary detours, stockpile areas and contractor’s yards shall be cultivated and seeded and planted as necessary to blend them with the surrounding environment. • Maintenance vehicle pullouts and access gates shall be included as needed to facilitate landscape and road maintenance. ***Grading and Structures*** • Grading shall be minimized to preserve existing vegetation, especially to avoid the loss of mature trees, and to reduce areas exposed to potential erosion. • Landform grading techniques (as opposed to traditionally engineered cut and fill slopes) shall be used to more closely mimic the natural hill contours, and to avoid harsh contrasts or a monotonous man-made appearance. • A combination of slopes and retaining walls shall be used (at locations where they are determined to be geologically feasible) to reduce vegetation loss and impacts from large cut slopes. Wall ends shall transition gracefully into the landscape. • Slope transitions shall be rounded to blend and hasten the recovery of visual scars. • Grading which exposes bedrock or rock outcroppings shall be sculpted for a natural appearance (rather than planed at a constant slope). Large boulders removed as part of grading shall be incorporated into new landscape planting areas. • Woodland edges adjacent to new clearing shall be selectively thinned to emulate natural vegetation patterns and to visually soften transition edges. • Temporary detours shall be regraded to blend with surrounding terrain and drainage patterns. • The profile of overcrossing shall be minimized such that it appears as a thin line on the horizon. Narrow supports, and see through bridge rails shall be considered. • Berming at abutment wingwalls shall be used to shorten the perceived height of the grade separation structure and to soften geometric forms and hard edges. Berms shall be rounded to mimic surrounding landforms and the slopes and sizes of berms shall be varied. • Slope paving under structures shall be included to prevent erosion problems.

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Appendix D Minimization and/or Mitigation Summary

Water Quality	• Wetland Disturbances: Avoid temporary and permanent disturbances to existing wetlands during construction. Where temporary disturbances to wetlands are unavoidable, reasonable measures to maintain the original grade and soil characteristics should be implemented to prevent permanent wetland loss. • Riparian Corridors: The project should be designed to minimize impacts to riparian areas, preserve channel length and movement, and preserve shade canopy to the maximum extent practicable. • Staging Areas: Staging areas for construction equipment, stockpiles, etc., should be located in upland locations at least 100-feet from all waterways, wetlands and riparian areas. • Hydrology: Storm water runoff rates and volumes will be minimized by encouraging sheet flow, preserving vegetation, minimizing impervious surfaces, and encouraging the temporary storage and infiltration of storm water within the right-of-way, if feasible. • Highway Pollutants**:** Litter on the highway should be removed periodically. Additional litter will be contained by the use of sheet flow and vegetated swales and removed as deemed necessary by the Maintenance Department. Safety improvements of the proposed project should minimize the discharge of brake lining residual, tire residual, and accidental spills. • Mitigation Measures • Wetlands: Construct mitigation wetlands to ensure no net loss of wetlands. Mitigation wetlands should be installed onsite if feasible. If onsite wetland mitigation is not feasible, then off site locations within the Elkhorn Slough Creek watershed should be considered. • Impacts to Oak Woodland Riparian Corridors: According to the Natural Environment Study, the proposed project will impact riparian oak woodlands. Mitigation for riparian impacts should occur onsite, if feasible. If onsite mitigation is not feasible, then offsite areas within the Elkhorn Slough watershed should be investigated further. • Invasive Plants: All invasive plants that could adversely affect water quality and associated beneficial uses should be removed and prevented from spreading, if feasible. Eradication of invasive species may require the use of mechanical equipment and/or herbicides. The Project Development Team will determine final mitigation measures following consultation with various responsible agencies and the circulation/comment period of the draft environmental document.

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Appendix E Farmland Impact Rating

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 6/2/08
Name Of Project San Juan Interchange	Federal Agency Involved California Department of Transportation
Proposed Land Use Interchange	County And State Monterey and 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? *(If no, the FPPA does not apply -- do not complete additional parts of this form).* Yes ☐ No ☑ | Acres Irrigated | Average Farm Size

Major Crop(s) Small Veg-Row Crops; Orchard	Farmable Land In Govt. Jurisdiction Acres: 86,937 %	Amount Of Farmland As Defined in FPPA Acres: 86,937 % 3
Name Of Land Evaluation System Used Storrie Index	Name Of Local Site Assessment System Soil Survey	Date Land Evaluation Returned By NRCS 7/16/08

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	77.0	74.0		
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	77.0	74.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
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				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	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	Site A	Site B	Site C	Site D
1. Area In Nonurban Use	15	9	9		
2. Perimeter In Nonurban Use	10	5	5		
3. Percent Of Site Being Farmed	20	4	4		
4. Protection Provided By State And Local Government	20	5	5		
5. Distance From Urban Builtup Area	15	15	15		
6. Distance To Urban Support Services	15	0	0		
7. Size Of Present Farm Unit Compared To Average	10	2	2		
8. Creation Of Nonfarmable Farmland	10	3	3		
9. Availability Of Farm Support Services	5	3	3		
10. On-Farm Investments	20	2	2		
11. Effects Of Conversion On Farm Support Services	10	0	0		
12. Compatibility With Existing Agricultural Use	10	2	2		
TOTAL SITE ASSESSMENT POINTS	160	50	50	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	50	50	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	50	50	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection:

Please Note: Site A=Build-Alternative 10B Site B=Build-Alternative 10D

(See Instructions on reverse side) **Form AD-1006 (10-83)**

This form was electronically produced by National Production Services Staff

Appendix F Growth Inducement Checklist

1. Will the project attract more residential development or new population into the community or planning area? If yes, would it be higher than is projected in the local general plan?

   A landowner (with significant property holdings) has requested that San Benito County rezone a portion of his property to allow commercial/residential development. The rezone may be incorporated into the General Plan update. Additionally, the proposed project would decrease commute time, which may attract residential development.

2. Will the project encourage the development of more acreage of employment generating land uses in the area (such as commercial, industrial or office)? If yes, would it be beyond that which is designated in the current local general plan?

   It is possible that the proposed project would increase commercial or retail land use or that services typically seen at interchanges such as fast food and gas stations would be built in the existing commercially zoned area around San Juan Road and U.S. Route 101.

3. Will the project lead to the increase of roadway, intersection, sewer, water supply, or drainage capacity? If yes, would it be beyond that planned for in the local general plan?

   Yes. The roadway increase is not addressed in the General Plan however the proposed project is on the current 2006 Federal Transportation Improvement Program (4-Year Cycle) within Monterey County. This program is administered by the Association Of Monterey Bay Area Governments, which represents the counties of Monterey, San Benito and Santa Cruz. The project is also on the 20-Year Regional Transportation Plan that is generated by Transportation Agency for Monterey County.

4. Will the project encourage the rezoning or reclassification of lands in the community general plan from agriculture, open space or low density residential to a more intensive land use?

   Land zoned as "Agriculturally Productive" would be acquired for construction of the proposed project. This area is used for grazing and it is currently under the Williamson Act. The landowner contacted Caltrans indicating cancellation of the Williamson Act prior to construction. Rezoning or reclassification is possible if initiated by local government action.

5. Is the project not in conformance with the growth related policies, goals or objectives of the local general plan(s)? Or, is it in conflict with implementation measures contained in the area's growth management plan?

The proposed project appears to be in conformance with growth related policies, goals or objectives of the local general plan(s). The Monterey County General Plan stipulates that growth remains generally consistent with established development and land use patterns. The highway alignment remains as-is and the new frontage roads reduce access points, minimizing the potential for any change to existing land use patterns. Potential growth in San Benito County is consistent with the General Plan's allowance for highway service development to meet demand.

6. Will the project lead to the intensification of development densities or accelerate the schedule for development or will it facilitate actions by private interests to redevelop properties within two miles of an existing or future major arterial roadway or within four miles of a limited access highway interchange?

Private interests are advocating development on their property, should the San Benito County General Plan be updated to include a rezone of land currently zoned for grazing then commercial, retail and residential development is likely within the proposed project area. The San Juan Road/U.S. Route 101 intersection area is currently zoned as commercial and is therefore subject to business growth. The balance of the proposed project area is currently zoned as Rural Density Residential, Agricultural Conservation or Agricultural Productive.

7. Will the project measurably and significantly decrease home to work commuter travel times to and from or within the project area (more than 10 percent overall reduction or five minutes or more in commute savings)?

Numerous variables such as home and work locations, trip distance, time of day, day of week etc. make accurate time saving calculations for the average driver inaccurate. It is safe to say however that based on the long delays often seen at the intersections of San Juan Road, Dunbarton Road and Cole Road that the project could substantially reduce home to work commuter times for some.

8. Is the project directly related to the generation of cumulative effects as defined by CEQA guidelines?

Yes, see Table 2.24 Cumulative Impacts

Appendix G SHPO Concurrence Letter

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.ca.gov
www.ohp.parks.ca.gov

November 14, 2007 Reply To: FHWA070906A

Valerie Levulett
Chief, Central Region Technical Studies Branch
Heritage Resource Coordinator
Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401-5415

Re: Determination of Eligibility for the Proposed San Juan Interchange Project, Monterey and San Benito 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) is requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, that the following properties are not eligible for the National Register of Historic Places (NRHP):

- 1000 El Camino Real
- 1250 El Camino Real
- 1290 El Camino Real
- 3840 Ballantree Lane
- 168 Dunbarton Road
- 187 Dunbarton Road
- 148 A&B Dunbarton Road
- 56 Dunbarton Road

- 27 Dunbarton Road
- 2916 San Juan Road
- 2900 San Juan Road
- 2961 San Juan Road
- Segment of San Juan-Watsonville Road
- Segment of Watsonville-Natividad Road
- Segment of Highway 101 (El Camino Real)

Based on my review of the submitted documentation, I concur with the foregoing determinations.

Thank you for considering historic properties during 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 or Bill Soule at (916) 654-4614 or wsoule@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Appendix H Level of Service Figures

LEVELS OF SERVICE
for Multi-Lane Highways

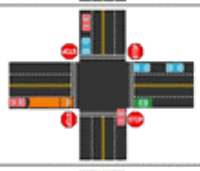
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		60	Highest level of service. Traffic flows freely with little or no restrictions on maneuverability. **No delays**
B		60	Traffic flows freely, but drivers have slightly less freedom to maneuver. **No delays**
C		60	Density becomes noticeable with ability to maneuver limited by other vehicles. **Minimal delays**
D		57	Speed and ability to maneuver is severely restricted by increasing density of vehicles. **Minimal delays**
E		55	Unstable traffic flow. Speeds vary greatly and are unpredictable. **Minimal delays**
F		<55	Traffic flow is unstable, with brief periods of movement followed by forced stops. **Significant delays**

Source: 2000 HCM, Exhibit 21-3, Speed-Flow Curves with LOS Criteria for Multi-Lane Highways

LEVELS OF SERVICE

Unsignalized Intersections

Four-Way Stop

Level of Service	Flow Conditions	Delay per Vehicle (seconds)	Technical Descriptions
A		<10	Very short delays
B		10-15	Short delays
C		16-25	Minimal delays
D		26-35	Minimal delays
E		36-50	Significant delays
F		>50	Considerable delays

Source: 2000 HCM, Exhibit 17-22, Level of Service Criteria for AWSC Intersections

Appendix I Comments and Responses

The draft Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment was circulated for public review and comment from January 15 to February 15, 2009.

Caltrans sent letters to federal, state and local officials and to affected property owners announcing the availability of the draft Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment for public review and comment. The letter also invited the public to attend the public hearing held on February 5, 2009 in Aromas, California.

Comments received on the circulated draft document, as well as those submitted via comment card and the court reporter's transcripts from the public hearing, are provided in this appendix.

This comments in this appendix are organized as follows:

- Section 1.0 State Agencies
- Section 2.0 Local and Regional Agencies
- Section 3.0 Individuals
- Section 4.0 Transcripts from Public Hearings

Numbers in the right-hand margin correspond with the response to the comment. No comments were received from any federal agencies or organizations.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

February 17, 2009

Chuck Siek
Department of Transportation, District 6
2015 E Shields Avenue, Suite 100
Fresno, CA 93726

Subject: San Juan Road Interchange
SCH#: 2006021071

Dear Chuck Siek:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on February 13, 2009, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Document Details Report
State Clearinghouse Data Base

SCH# 2006021071
Project Title San Juan Road Interchange
Lead Agency Caltrans #6

Type MND Mitigated Negative Declaration

Description Caltrans proposes to make operational and safety improvements along U.S. Route 101 at the Monterey/San Benito county line. The project would construct an interchange with frontage roads on US Route 101 and a median barrier to close existing gaps The project limits are 0 4 mile south of Dunbarton Road in Monterey (PM 100.0) to 1 mile north of Cole Road in San Benito County(PM 1.6)

Lead Agency Contact

Name Chuck Siek
Agency Department of Transportation, District 6
Phone 559-243-8302 **Fax**
email
Address 2015 E. Shields Avenue, Suite 100
City Fresno **State** CA **Zip** 93726

Project Location

County Monterey, San Benito
City
Region
Lat / Long
Cross Streets US 101 cross streets of Dunbarton, San Juan and Cole Roads
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways US 101
Airports
Railways
Waterways
Schools
Land Use

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual; Biological Resources

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 4; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services; California Highway Patrol; Department of Food and Agriculture; Air Resources Board, Transportation Projects; Integrated Waste Management Board; Regional Water Quality Control Board, Region 3; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 01/14/2009 **Start of Review** 01/14/2009 **End of Review** 02/13/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

California Regional Water Quality Control Board

Central Coast Region

Linda S. Adams
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb3
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger
Governor

February 19, 2009

G. William "Trais" Norris III
Senior Environmental Planner
Sierra Pacific Environmental Analysis, Unit 189
California Department of Transportation
2015 East Shields Avenue, Ste 100
Fresno, CA 93726

Dear Mr. Norris:

INITIAL STUDY — MITIGATED NEGATIVE DECLARATION FOR THE SAN JUAN ROAD INTERCHANGE, COUNTY OF SAN BENITO, SCH #2006021071

Thank you for the opportunity to comment on the subject project. The Central Coast Regional Water Quality Control Board (hereafter, "Water Board") understands that this project involves constructing an interchange and overpass over US 101 north of San Juan Road, in San Benito County. The project includes connecting San Juan Road and Cole Road to the overpass north of US 101 and constructing related frontage road improvements south of US 101.

As you are aware, the Water Board is a responsible agency charged with the protection of Waters of the State of California in the Central Coast Region. Waters of the State include surface waters, ground waters, and wetlands. The Water Board is responsible for administering regulations established by the Federal Clean Water Act and the California Water Code. These regulations cover discharges to surface water and groundwater, as well as discharges to land that may affect ground water. The Water Board also administers regulations established by the Central Coast Region Water Quality Control Plan.

In order to maximize the environmental value of this project and facilitate Section 401 Water Quality Certification approval, we offer the following comments for your review.

Water Board Objectives

The vision of the Water Board is healthy, functioning watersheds. A healthy watershed is one in which hydrology, stream flow, aquatic habitat, riparian vegetation, stream bed stability, sediment balance, and water quality exist and interrelate within natural, sustainable ranges. Watershed health can be impacted by activities such as removing

vegetation, placing fill material within the riparian corridor, altering drainage patterns and flowrates, fixing stream bed location, hardening channels, and introducing urban and automobile-related pollutants. The proposed project involves all of these activities. The Water Board appreciates that these activities are often necessary to improve traffic safety. However, the project must be designed and constructed in a way which protects the quality and beneficial uses of California's water resources. It is not clear that the mitigation practices described in the Initial Study – Mitigated Negative Declaration will sufficiently protect water resources and beneficial uses.

Project Impacts

This project will have numerous and varied impacts on water quality and aquatic habitat, including the impacts listed below. Please address them specifically and explicitly in the final environmental document.

1. Bridges, culverts, and roadways south of US 101 will disturb and/or destroy riparian vegetation and heavily impact the riparian corridor. **1**
2. Roadway construction south of US 101 will involve the placement of a significant amount of fill material within the riparian corridor. Placing fill in a riparian corridor alters drainage patterns and destroys riparian vegetation and habitat. **2**
3. Roadway construction on both sides of US 101 will radically alter drainage patterns. The existing hydrologic condition is sheet flow from the heights north and south of the freeway. The proposed roadways are generally located perpendicular to the flow direction, diverting sheet flow into concentrated flow at a few locations. This process will also shorten flow lengths and time of concentration for runoff reaching the creek. In addition, the road connecting San Road/Cole Road to the overpass appears to be located on top of the natural drainage from the hills north of the freeway. **3**
4. Roadway construction, including proposed cut and fill operations, will disturb soil and remove existing vegetation, increasing the risk of erosion and damaging the landscape's capacity to reduce, slow, and filter runoff. **4**
5. Roadway construction will increase impervious area, leading to increased runoff, decreased time of concentration, and decreased infiltration. **5**
6. Proposed construction activities appear to involve the removal of mature trees. Mature trees serve an important hydrologic function, intercepting rainfall and allowing it to evaporate before it can become runoff and providing forest litter that absorbs and infiltrates runoff. **6**
7. The proposed design encroaches into the riparian corridor in several locations, at least twice on the outside of a curve in the creek. These encroachments have the potential to permanently fix the stream channel in its current location and prevent natural channel movement. In addition, the design raises the possibility that future maintenance will require hardening of the channel in these locations to protect the roadways. **7**
8. The project proposes to disconnect the project hydraulically from the watershed. While this measure will protect the watershed from urban pollutants and **8**

increased runoff, it will also impact the health of the watershed by further altering drainage patterns.

Mitigation Measures

The Water Board appreciates Caltrans' willingness to incorporate best management practices to protect water quality and its commitment to revegetate the area. Water Board staff also recommends the following measures to mitigate the water quality impacts of this project.

- Provide a drainage plan which maintains pre-project hydrology (runoff volume, rate, time of concentration; infiltration; and drainage patterns) to the maximum extent practicable. The plan should indicate how off-site run-on is managed, how runoff is directed, how it receives volume and quality treatment, and where it is discharged. 9
- Provide treatment measures to maintain pre-project runoff volume, intensity, and quality. These measures may include directing flows from impervious areas onto pervious areas, using flow spreaders to divert concentrated flow to sheet flow, and planting robust vegetated strips along the roadways to delay and filter runoff. 10
- Provide a riparian corridor preservation and restoration plan for the area south of US 101. The plan should include minimizing cut and fill activities in this area, providing sufficient riparian buffers to protect the roadways without hardening channels, preserving vegetation, minimizing soil disturbance, and revegetating (including planting native tree species). 11
- Design roadways to follow the natural contours of the ground in order to minimize cut and fill operations. 12
- Use bridges instead of culverts to minimize disturbance to the riparian corridor. 13
- Lengthen the cloverleaf loop to provide a larger setback between the road and the creek. 14
- Indicate how access will be provided to the Red Barn property. 15

Recommendations

Alternative 10B

Water Board staff prefers Alternative 10B because it reduces the number of creek crossings. In addition, we recommend that the project incorporate bridges instead of culverts at these crossings in order to minimize encroachment and impact on the riparian corridor. 16

Riparian Corridor Restoration Plan for the Red Barn Property

Water Board staff realizes that Caltrans is not responsible for historic damage to the riparian corridor on the Red Barn property. However, this project provides an opportunity to address some of those impacts because the property stands to benefit from the project. Therefore we recommend working with the owners of the Red Barn property to create a riparian corridor restoration plan. The plan should include at least the following elements: 17

- Placing vegetated buffer strips along the creek to filter runoff into the creek;
- Planting trees throughout the property; and
- Providing best management practices in the parking lot and flea market areas to retain and infiltrate rainfall.

Thank you again for the opportunity to comment on this project. If you have any questions or would like to discuss these comments, please contact **Jon Rohrbough** at **(805) 549-3458** or at jrohrbough@waterboards.ca.gov, or Matt Thompson at (805) 549-3159.

Sincerely,

MThompson

for Roger W. Briggs
Executive Officer

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***Response to comment 1*:** Bridges, culverts and roadways would be constructed to minimize impacts by using a design that limits the plantings that must be removed, and later by replacing any vegetation that is removed with appropriate native trees, shrubs and understory. Trees would be replaced at ratios necessary to ensure no net loss riparian habitat and to ensure successful coverage of disturbed ground and to continue shading of the creek. Replacement planting work would also include removal of non-native plant species where practical, and removal of trash and debris to improve the general health of the riparian corridor.
***Response to comment 2*:** The project originally called for a single box culvert for drainage; however that was changed to two box culverts with an open area in between to preserve existing riparian vegetation. Additionally, the original box culvert alignment was changed to be more aligned with the existing watercourse to preserve existing riparian vegetation. The hydraulic engineer will be looking at additional ways to minimize impacts as the final design nears completion.
***Response to comment 3*:** While drainage patterns will change as a result of this project, these changes will be minimized. The final design will maintain the pre-project hydrology to the maximum extent feasible using culverts and bridges to maintain existing drainage patterns as discussed in the previous response to comment 2.
***Response to comment 4*:** All disturbed areas will receive appropriate temporary protections during construction including best management practices such as seasonally limited open earthwork areas, slope cover of various types, velocity reduction and sediment filters such as fiber rolls and drainage inlet protections. Finished slopes will receive permanent erosion control including seeding and compost, and netting or blanket to protect the surface as well as fiber rolls. Slopes will be planted with appropriate native trees and shrubs both for erosion control and visual screening, as well as biological habitat benefits.
***Response to comment 5*:** Prior to beginning grading work, natural duff and native topsoil will be collected and stockpiled for replacement later on newly graded slopes. Trees will be replaced with appropriate native trees and shrubs, planted in a variety of container sizes, including a mix of large trees in order to speed recovery of the area. Flow from the hills to the west toward the road connecting San Juan and Cole Roads to the new bridge will be handled by a combination of engineering features and erosion control measures including top of slope and roadside ditches, earthen berms and/or fiber rolls, and seeding and/or planting vegetation. Caltrans will be constructing four retaining walls in order to reduce the steepness and length of adjacent slopes thus reducing the sheet flow velocity.
***Response to comment 6*:** We agree that removal of mature trees can influence watershed hydrology. However, the removal of trees from this project constitutes a less than significant change from a watershed perspective. In addition, Caltrans will remove trees only if unavoidable and removed trees will be mitigated up to a ratio of ten to one. Riparian shade canopy will be restored as the planted trees mature. Replacement trees will be selected for species and size to accelerate recovery and the return to normal runoff rates. The replacement of native topsoil and natural duff will reduce runoff rates during the recovery period.

***Response to comment 7*:** Natural meandering of the stream channel will be retained or recreated and the riparian corridor will be protected to the maximum extent possible. If stream channel impacts including hardening are unavoidable, appropriate mitigation measures will be adopted as part of the permitting process. Please refer to Section 2.3.2 for details. Only the flow of stormwater runoff, with its potential pollution constituents, will be "disconnected" from running directly into the creek, thereby protecting and improving the creek's water quality.
***Response to comment 8*:** Caltrans agrees that altering drainage patterns can impact the health of the watershed. Our goals are to retain storm water for infiltration or treat storm water before it leaves the project site and to minimize alteration to natural drainage as much as possible. This is accomplished via infiltration, retention or bio-attenuation (vegetated strips and swales), which will minimize the effect on drainage patterns. This appears to be the desire of the Regional Water Quality Control Board as well.
***Response to comment 9*:** A drainage plan will be developed for this project during the design phase to address both onsite and offsite runoff. Storm water will be designed to flow as sheet flow and measures to slow, infiltrate and/or filter storm water within the right-of-way will be incorporated. In the vicinity of creeks, storm water will be routed through vegetated areas to minimize direct connections between the highway and waterways. During construction, standard erosion control practices will be used on finished slopes, but for areas with severe erosion potential, Caltrans Landscape Architecture may recommend additional erosion control measures.
***Response to comment 10*:** Treatment best management practices will be incorporated into this project to the maximum extent practicable. Roadway edges will have appropriate shoulder backing material about 3 feet wide along the edge of pavement. All bare ground next to shoulder backing will be seeded with appropriate erosion control grasses and critical areas will be planted with pre-grown native grass sod strips where practical.
***Response to comment 11*:** A landscaping plan will be developed during the design phase of this project. It will include re-vegetation of all affected riparian areas of this project. Cut and fill, hardened channel features, soil disturbance and other disturbances of the riparian areas will be minimized as much as practical during the design phase of this project. Landscape and irrigation plans designed by the Caltrans landscape architect will be included as part of the construction documents. All disturbed areas will be seeded for erosion control and planted with appropriate native trees such as sycamores, alders, bay laurels, willows, and oaks. Engineering will continue to look for ways to minimize cut and fill as design progresses. The feasibility and cost of retaining walls in some areas is being considered (pending geotechnical assessments). Contour grading and slope rounding are techniques that will be incorporated into the design as right of way space allows to soften grading impacts. Additionally, excess soil may be used to create bermed separations between the mainline, ramps, local roads and the creek where space allows.
***Response to comment 12*:** Cut and fills necessary for this project will be minimized, if feasible. This project will also use "landform grading" to further prevent concentration of storm water runoff and to minimize erosion. Contour grading, which more closely mimics natural slopes than traditional road cuts, and slope rounding will be techniques incorporated into the design as right of way space allows.

***Response to comment 13*:** Culverts will be designed to minimize impacts to the riparian areas. Adjustments to the horizontal and vertical alignment will be made where the design allows an increase to the setback between the creek and the road.

***Response to comment 14*:** Increasing the setback between the roadways and the creek will be considered during the design phase and implemented if feasible. The project originally called for a single box culvert for drainage; however that was changed to two box culverts with an open area in between to preserve existing riparian vegetation. Additionally, the original box culvert alignment was changed to be more aligned with the existing watercourse to preserve existing riparian vegetation. The hydraulic engineer will be looking at additional ways to minimize impacts as the final design nears completion.

***Response to comment 15*:** The Red Barn has five parcels that will access the frontage road via the cul-de-sac. These parcels will be provided with at least one driveway access per parcel onto the proposed frontage road. The exact locations will be finalized during the design phase of the project.

***Response to comment 16*:** The Regional Water Quality Control Board's preference for Build Alternative 10B and for bridges rather than culverts has been noted however Build Alternative 10D has been identified as the preferred alternative by Caltrans because this alternative best meets the project purpose and need while minimizing environmental impacts for the following reasons:

- Traffic volume data indicate far more traffic on San Juan Road than on Cole Road therefore the Alternative 10D alignment was designed to allow uninterrupted traffic flow towards the State Route 101 overcrossing bridge. This design supports improved levels of service for the majority of drivers with a lower cost.
- The frontage road alignment on the west side of the Red Barn complex results in less impact to businesses and local residents.
- The Cole Road alignment requires acquiring less land.

***Response to comment 17*:** Off-site mitigation for riparian impacts (on private property) is only considered when there is not sufficient space within the existing right-of-way to meet requirements. At this time Caltrans anticipates all required restoration planting to be done within state right-of-way. If off-site mitigation does become necessary, Caltrans works with established restoration groups such as the Elkhorn Slough Foundation or the Nature Conservancy to support regional watershed preservation and restoration goals. Individual property owners are usually not willing to assume the long term responsibility and restrictions that come with plant establishment, maintenance, and protection of mitigation sites. Caltrans will consider the Regional Water Quality Control Board's recommendation to include features of its riparian corridor restoration work (such as vegetated buffer strips and tree planting) in the Red Barn parking lot under consideration; however, we do not consider this to be a likely possibility at this time.

MONTEREY COUNTY

RESOURCE MANAGEMENT AGENCY
PLANNING DEPARTMENT, Mike Novo, Director
168 W. Alisal St., 2nd Floor Salinas, CA 93901
(831) 755-5025 FAX (831) 757-9516

February 12, 2009

California Department of Transportation
2015 Shields Avenue, Suite 100
Fresno Ca. 93726

Attn: G. William "Trais" Norris III, Senior Environmental Planner
Sierra Pacific Environmental Analysis, Unit 189
Or email: trais_norris@dot.ca.gov

Subject: Comments on San Juan Road Mitigated Negative Declaration

The following issues were identified in the Initial Study/Environmental Assessment for the San Juan Road Interchange:

• Our Geographical Information System indicated that the project area surrounding the interchange is identified as a high archaeological area. **1**

• The project area is located within 650 feet of a potentially active fault or seismic zone buffer area **2**

• The report indicates that the project is not growth inducing however since access, circulation, and safety of the properties east of the highway in the Light Commercial Zoning Districts will be highly improved and will induce the potential for growth and or intensification of those commercial districts **3**

On behalf of the County thank you for the opportunity to respond with comments on your environmental document I am available for further comment so please feel free to contact me at your convenience.

Sincerely,

_____

Ramon A. Montano, Assistant Planner
Monterey County Resource Management Agency, Planning Department

***Response to comment 1*:** The Historic Property Survey Report and attached Archaeological Survey Reports describe the steps taken to identify prehistoric archaeological resources within the project Area of Potential Effects. A records search was conducted at the Northwest Information Center for information on known sites in the area. The records search identified two prehistoric sites within one mile of the project area.

Several intensive archaeological surveys were done within the project area. No prehistoric sites were identified during the surveys.

A geomorphological study was also done to determine the potential for buried archaeological sites within the project limits. This study, which included geological mapping as well as field study, concluded that the project area has a low potential for containing buried archaeological sites.

In addition to the field studies, the Historic Property Survey Report documents past ground disturbances that have taken place within the proposed project area. Large ground disturbing activities have occurred over the last century within the area, and none of these have revealed any archaeological discoveries.

***Response to comment 2*:** Caltrans is aware of the local seismicity. All structures would be designed to meet current seismic standards.

***Response to comment 3*:** The environmental document does foresee project related growth as indicated in Section 2.1.2. and Appendix F.

Council of San Benito County Governments

February 23, 2009

G. William "Trais" Norris III
Senior Environmental Planner
Sierra Pacific Environmental Analysis Branch
California Department of Transportation
2015 East Shields Avenue, Ste. 100
Fresno, CA 93276

RE: Comments on Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment for the San Juan Road Interchange Project

Dear Mr. Norris:

Thank you for the opportunity to comment on the above-referenced project. The Council of San Benito County Governments supports the San Juan Road Interchange Project and has no comments on the Environmental Assessment.

The Council of Governments recommends that Alternative 10D be selected as the preferred alternative. This alternative is more cost effective and also provides better traffic flow from San Juan Road than Alternative 10B. The construction of a T-shaped intersection at Cole Road and San Juan Road included in Alternative 10B would increase project cost and require traffic on the overcrossing to stop in all directions. Due to the low traffic volume on Cole Road, it does not appear that this type of intersection would be prudent to construct. 1

Again, thank you for this opportunity to provide comments on the San Juan Road Interchange Project. Should you have any questions, please contact Lisa Rheinheimer, Executive Director, at (831) 637-7665.

Sincerely,

Anthony Botelho
Chairperson

cc: Richard Krumholz, Caltrans District 5
Debbie Hale, Transportation Agency for Monterey County

Council of Governments ♦ Measure A Authority
Airport Land Use Commission ♦ Service Authority for Freeways and Expressways
330 Tres Pinos Road, Suite C7 ♦ Hollister, CA 95023 ♦ Phone: 831.637.7665 ♦ Fax: 831.636.4160
www.sanbenitocog.org

March 10, 2009 **"Hank Myers" Hank@tamcmonterey.org**

The Transportation Agency for Monterey County recommendation for the San Juan Road Interchange Project is for Alternative 10D.

This alternative is preferred because it has the right angle intersection of Cole Road at San Juan Road. Since there will be less traffic on the frontage road (Cole Road) than on San Juan Road, a tee intersection is not really needed. **2**

Alternative 10 D is also preferred because it has the frontage road that follows the western edge of the Red Barn Parking area, rather than along the eastern edge (so less impact on the adjacent properties to the east).

Additionally, Alternative 10 D has a smaller overall footprint, which results in less right of way take, reduced grading impacts and reduced costs.

***Response to comments 1 and 2*:** Thank you for expressing your preference for Build Alternative 10D. This alternative has been selected as the preferred alternative.

Section 3.0 Individuals

LanceSfactor@aol.com

02/11/2009 11:42 AM

San Juan Road Interchange home owner comments : 02.11.09

02/ 11/09

Dear William ,

I am writing you today with some comments and concerns from February 5th's Public Information Meeting.

(a) **Loss of quality of life** ;
My family and most Marilyn property owners moved to this area because of the "quality of life" living in the country. Many of us feel that the quality of life would be impacted adversely, if a gate was not constructed on Marilyn lane, possibly near our current mail boxes. See example on Ballentree Lane and 101. We are "very concerned " that our quiet country -lane would be open access to hundreds of Red Barn customers. This would bring more cars, noise , possible crime to our mailboxes and residents in the Community. 1

(b) Alternative 10d or 10b :
We also have questions on the "time or wait " to gain access our or egress to your homes on Sundays, Flea Market ,(or RV shows, Car shows etc on weekends.)
Will Marilyn lane home owners have to wait in line to get in and out, with hundreds of Red Barn customers ? 2
Would 10d or 10b Alternative ,slow access for Fire Dept and EMT's to our Community on Marilyn lane ?

(c) We are recommending - 10d to be built.
After reviewing both alternatives, we feel that 10d with Frontage Road East, would be the better choice of the two. We have concerns , that driving near the Red Barns "rear maintance yard "on alternative 10b could cause loss of property value & potential access issues , in the future to all home owners on Marilyn lane. 3

Thank you for your time and giving us the ability to file these comments in public record.

Regards,

Lance A. Sorensen
1195 Marilyn Lane
Aromas Ca. 95004
831-320-3427
LanceSfactor@aol.com
The year's hottest artists on the red carpet at the Grammy Awards. AOL Music takes you there.

***Response to comment* 1:** Caltrans has agreed to provide for the reconstruction of the Ballantree Estates gate. This is considered an element of the project and will most likely be under capital funds. Caltrans cannot build a gate on Marilyn Lane because access to the lane is provided by an easement across land owned by the Red Barn.

***Response to comment* 2:** The Sunday peak hour average delays and level of service are shown In the summary table below for Build Alternative 10D. The delay calculations are based on existing Sunday counts. All the intersections would operate at level of service B or better at the new interchange. However, at the entrance to the Red Barn (especially on Sundays, including the day the count was done), there is potential for backed up traffic to spill out onto the frontage road. The future frontage road will include a continuous two-way left-turn lane leading to the entrance of the Red Barn; this would provide some storage for spillback from the entrance, and help in keeping the through lane cleared. Residents and emergency services shouldn't have any trouble navigating through the interchange and frontage road to get to Marilyn Lane and Ballantree Lane during peak hours of operation (weekdays or weekends).

Intersection	AM (11 am – 12 pm)		PM (2 pm – 3 pm)	
	Delay (sec)	Level of Service	Delay (sec)	Level of Service
NB On/Offramp and San Juan Road/Frontage Road	9.6	A	9.5	A
SB On/Offramp and San Juan Road	8.0	A	14.1	B
San Juan Road and Cole Road	0.4	A	0.4	A

***Response to comment 3*:** Build Alternative 10D has been selected as the preferred alternative. Construction of the proposed project is dependent on the availability of funding.

"Rick Phinney" <rpjr@cruzio.com>

02/10/2009 03:21 PM

Dear Mr. Norris,

I am writing to you regarding the proposed bypass on U.S. 101 at San Juan road and the Red Barn. As a resident of Ballantree Estates and a Real Estate broker of 30 years, I have some serious concerns about this latest proposal which I will try to outline below.

First, it appears that this plan benefits the business of the Red Barn at the expense of the residential home owners in Ballantree Estates in any number of ways.

By proposing to move the entry of Ballantree Estates approximately 100 yards to the South, it in essence puts the entry gate of this gated community in the backyard of the home owner on the East side and thus has a very, very negative effect on the value of his property in a already declining Real Estate market. The alignment of the frontage road could and should be moved towards U.S. 101 instead of away from it. It appears that the proposed plan only benefits the owners of the Red Barn property. 1

As I recall, the left turn lane in U.S. 101 south bound that allows for ingress to the Red Barn property is and always has been illegal, according to the documentation that said "there shall be no left turn lane" into the Red Barn property from the south bound lane at San Juan Road. 2

99% of the congestion at San Juan Road and 101 is as a result of the Red Barn and their commercial endeavors there, why should the home owners and taxpayers of the state and or county, both Monterey County and San Benito County have to either pay for with tax dollars or reduced values on their residential homes bear the burden for this commercial enterprise? 3

To take land away from Ballantree Estates, move the gate to such a close proximity to home owners and create a commercial atmosphere in what has been a peaceful rural residential community is blatantly unfair and unwarranted. If land is to be used to enhance the Red Barn, then the Red Barn should provide the land. They own 40 acres of land, if it were to be studied properly and decisions made without regard to what only the Red Barn wants then this latest proposal from Cal Trans would certainly have a much different look than what we see so far. Under this plan, it is transparently clear, it provides yet another way for the Red Barn to expand its business at the expense of Ballantree Estates, Marilyn Lane and even the home owners on the North side of the highway, on Ricardo lane, whose land is also being negatively impacted. When people buy homes thinking that they have bought something special to them, only to have it

impacted by a commercial business that is not supposed to "expand its business" there is something wrong with the system. The county of Monterey has told the Red Barn to do nothing more to expand its business, this plan as shown clearly shows they are going to try to expand.

After hearing back from you and your department, I will be giving serious consideration to contacting our local congressmen and senators to see if they can find out why this plan has been laid out the way it is.

It may or may not be of interest to you to know that we are currently litigating this very move by the Red Barn in their attempt to take our gate and most of our entry road away from us. If you would like the name of the attorney's that represent us, please let me know and I will be happy to provide that information to you.

I look forward to hearing further, your thoughts and reasoning for this ill conceived plan.
Thanking you in advance for your time and consideration in this matter.

Rick Phinney

***Response to comment 1*:** Caltrans has agreed to provide for the reconstruction of the Ballantree Estates gate. This is considered an element of the project and will most likely be under capital funds. Regarding the frontage road, Alternative 10D, which aligns the frontage road close to U.S. Route 101, has been selected as the preferred alternative.

***Response to comment 2*:** The proposed project would close the gaps in the median, preventing illegal turns.

Response to comment 3: As described in Chapter 1, congestion on U.S. 101 and local roads would be alleviated by the project. Local residents, businesses and highway users will benefit from the project.

Linda Wardell <lwardell@juno.com>

02/12/2009 02:21 PM

Dear Sirs, Feb. 12, 2009

I would like to comment on the design plans and study/assessments regarding the 101/San Juan Road
Interchange Project that were presented Feb.5, 2009 in Aromas and online.

Our residence, of 30 years, could be negatively affected, along with others residing on El Cerrito Ct./Way
in Monterey County. Part of our property borders Ricardo Court and has a southern view of the Vona/
Melano properties. Those properties will be affected by either designs, but I feel there are major differences.

Proposed design Fig.1.7 Alt.10D-Sheet B would cut needlessly far into the west side of 101 taking out the
entire Voss home that we face at 72 Ricardo Ct. It would also take out several mature oaks on the adjacent
hillside (Vona and Melano) properties. This plan would also make the project much more visible for us and
for many other property owners along El Cerrito Ct./Way.

Conversely, proposed design Fig.1.3 Alt.10B-Sheet B would save the Voss home and would preserve
more of the adjacent hillside. This design disturbs less land and also appears to remove fewer oaks, natural
vegetation and hillside views.

Unfortunately, I notice the "new" Alt.10B does cut into the west hillside even further than the Aug. 2007 Alt.10B.
I question why this wasn't addressed on the website. Even so, I definitely feel Alt.10B should be considered over
Alt.10D. In addition to the above, it does save 2 additional residences affected by this project.

After reading the study, I feel it somewhat favored the implementation of Alt.10D. Hopefully this isn't the case
and Alt.10B will be unbiasedly considered. Another consideration might be a design plan that combines the two,
the western portion of 101 from Alt.10B, with the Red Barn side of 101 from Alt.10D.

Thank you,

Linda Wardell
19220 El Cerrito Ct.
Aromas, Ca 95004

1

***Response to comment* 1:** Your preference for Build Alternative 10B or a combination of features from Alternatives 10B and 10D is noted. We are continuing to look for ways to lessen impacts to homes and to minimize cut slopes wherever possible. In general, views from El Cerrito Way and Ricardo Court looking east would be altered by the proposed new alignments of San Juan Road and Cole Road. One or more residences and several mature trees that currently help to screen highway views would likely be removed and the new local road alignments would place new pavement within view of some homes on the west side, although these realigned roads would generally be below the grade of the homes. Some residents would have a view of the new interchange, especially immediately following construction and removal of screening vegetation. Mitigation for this situation includes adding retaining walls to lessen cuts, and earth berming and revegetation with large container-size trees and fast growing shrubs to help screen views of the interchange from west side residences.

David Wardell <dwardell52@hotmail.com>

02/12/2009 03:13 PM

Dear Sirs, Feb. 12, 2009

I would like to address some issues that I have regarding the proposed San Juan Road Interchange project.

You have proposed 2 alternate plans 10B and 10D both of which would cause the removal of a number of dwellings and severely alter the terrain of the hillside west of highway 101.

It is my understanding, after having read the report, that your concern is the visual impact of the project on those driving on highway 101. Motorists on 101 will only have to endure the sight of an overpass and connecting ramps for a minute or two, while residents in the area will have to endure it for a lifetime.

In regards to the work done on the west side of 101, I feel that every effort should be made to minimize the number of residents displaced and the negative impact that this project would have on this scenic area. This could be achieved by keeping the proposed construction to the smallest footprint and the lowest elevation as possible. Your plan, alt.10B seems to do this better than alt.10D although the original alt.10B (August 2007) appeared to cause the least amount of destruction to homes and hillsides. 1

Although, I do understand the need for this project, I hope that you will seriously consider the needs and wishes of the residents in this area.

Thank You

David Wardell
19220 El Cerrito Ct.
Aromas, Ca 95004

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***Response to comment 1*:** Your preference for Build Alternative 10B is noted. It may be that the draft design that you may have first seen for that alternative showed cut and fill lines for 1½:1 slopes that were determined to be too steep to control erosion in such sandy soils. The slopes had to be redesigned to be less steep, which unfortunately resulted in greater impacts to homes and trees. Caltrans will be constructing retaining walls in some areas to reduce the footprint of the project so that impacts to homes and erosion potential are both reduced. The project will include replanting with native trees and shrubs and will attempt to screen the new interchange as much as possible within the limited right-of-way space.

Dear Sir -

May name is Cheryl Gidding and I live at 1170 Marilyn Lane, Aromas. CA. My husband and I have owned a home here since 1995 and I am well aware of the freeway issues in front of the Red Barn.

I was unable to attend the last two public meetings held regarding the proposed project in front of the Red Barn but I would like this email to go on record - I am 100% against it and I would like to share why.

1. It is amazing to me that the County of Monterey is considering suing the State for the 40,000,000 dollars it is owed and which will cost the State millions more for the law suit itself; yet has no problem spending almost 90,000,000 on a freeway project that is 100% unnecessary.
2. The roadway itself is not the problem - it is the Red Barn traffic that is the problem and this only occurs on Sundays when the Red Barn is open for business. This project is rather like undergoing major surgery at Stanford for a hang-nail!
3. I personally have never had a problem getting in and out of Marilyn Lane even with a fully loaded gooseneck trailer in the back.
4. I am personally outraged that this project was proposed on the last local election as an 'agricultural' issue with the reasoning of trucks getting backed up. Many of the people who voted on this, I have no doubt, saw 'agriculture' and automatically voted yes without having a clue what the real issue is. The majority of trucks travel through this area on Tuesdays and even then the traffic flows right on by. The back up is on Sundays and is directly due to the Red Barn.
5. Ten years to finish the project? Ten years of a mess out here in front of our home? In order to keep the Red Barn in business? **1**
6. I understand that the 'experts' have decided that the environmental impact would be minimal. They are wrong. I live here. I come from big cattle country and I understand the patterns and cycles of the various animals that live in these parts. Their traveling in the area is seasonal. The deer's grazing area for one would be GREATLY effected and anyone that tells you differently either doesn't have a clue or doesn't care. This also goes for other wildlife in the area. **2**
7. This is a privately owned road back here. It has been a peaceful neighborhood with no trouble or accidents. By opening up an access road through the flea-market you are opening up our private road to a mass of flea-market patrons and sellers and anybody else who decides to go for a Sunday drive just to see what's back here. I don't want this and will be outraged if people begin driving up and down this road daily 'just to see what's here'. Especially those who drive drunk after being at the flea market all day.
8. We have wild life, children and people on horses that travel this road safely and if you open up an access road for people to start driving back here someone (or an animal) is bound to get hurt or killed. People can be extremely careless especially when they 'think' it's a public road and have no clue that a child may be headed down to get the mail on a horse!

My suggestions, and I ask that you take them very seriously.....

Why doesn't the county simply demand that the owners of the Red Barn lengthen the entry road into their place of business - this will allow people to exit much quicker and safer; and the Red Barn can pay for keeping their business open themselves.

Why doesn't the county simply create (using the Red Barns own property) a longer highway access road and put up a sign that says **'Oncoming traffic stay to the right!!!'** That prevents the Red Barn patrons from crossing over onto Cole Road and causing a jam. Cole road in itself is not a problem. It's the people driving that come from the Red Barn that have no sense about it so why not simply put the signs up and ENFORCE it. **3**

If the county is willing to take other peoples property for this project then why not just buy the Red Barn property and turn the land into something worth while instead of a busier, junkie mess in an otherwise nice quiet beautiful area. If I wanted to live by flipping a freeway over pass I would have moved to L.A. This project would greatly destroy the area in many ways including aesthetically.

If for some 'behind the scenes' reason the 'powers that be' forge ahead with this unbelievable project then will the county be paying for a LARGE fence and automatic gate to be put in to keep the flea-market patrons and the wanderers off of our private property; and in order to protect the animals, both wild-life and domestic? **4**

Response to comment 1: The construction phase is anticipated to last 2 years

***Response to comments 2, 3, and 4*:** We note your opposition to the project.

Dear Mr. Norris,

Thank you for the good presentation you and the many team members from Cal Trans offered at the Aromas school last Thursday evening. It was impressive in its scope and detail. I appreciate the opportunity to give you my comments as follows:

1. In either plan B or D, an important component of making this significant change fit in with the existing landscape is to use contoured edges whenever possible for the cut and fill areas. Minimizing the long, angular slopes of cut and fill planes would be very helpful for blending the new construction into local land forms. **1**

2. Retaining walls have been proposed as a way to minimize some of the long, sloped, straight cut and fill slopes. Retaining walls that are textured to imitate rock forms or other natural surfaces would be preferred over flat concrete.

3. After much consideration about the possibility of putting a stoplight at the intersection of Cole Road and San Juan Road, I believe that plan D has the best solution, that of keeping Cole Road as a smaller, secondary road to San Juan Road with no stoplight. This may help discourage extra traffic from entering Cole Road or using it as a thoroughfare. **2**

4. Since Cole Road will intersect with San Juan Road and this could possibly lead to more traffic on Cole Road, I think it is vital to limit the size and weight of the vehicles on it to avoid it becoming a truck route. **3**

5. Landscaping for the finished project should try to minimize the impact of this huge change for our local landscape by incorporating whatever kinds of contouring and selection of plants that best "break up" the mass of the increased roadways. Separating and shielding roadways from each other could have a benefit of reducing headlight beams for oncoming traffic. Noise reduction might also benefit from separation and shielding with landscape techniques. **4**

6. Minimize the impact of lighting on surrounding hillsides and also reflected light, and limit signs as much as possible. **5**

7. The creek and its surrounding habitat area that runs parallel with 101 should be preserved as much as possible, with minimal disturbances. **6**

Again, I thank you for your consideration of my comments.

Sincerely,
Jane Rekedal

***Response to comment 1*:** The project will use landform grading, which replicates irregular shapes of natural slopes. This technique uses various slope gradients with natural or concealed drainage. The overpass will include aesthetic treatments such as rock-like texturing to improve its appearance in the rural landscape. It will also be screened as much as possible with earth berming and landscaping.

***Response to comment 2*:** Caltrans has identified Build Alternative 10D is the preferred Alternative. Caltrans concurs that the configuration of Cole Road should discourage the use of Cole Road as a thoroughfare thus no stop light is warranted.

***Response to comment 3*:** Caltrans discussed this concern with San Benito County Department of Public Works. They stated that there are currently no weight restrictions for vehicles on Cole Road because there are no bridge structures. They also stated that they did not believe truck traffic will ever be a problem due to the narrow road, which will be hard for large trucks to navigate.

***Response to comment* 4:** Landscape and irrigation plans will be included as part of the final design. All disturbed areas will be seeded for erosion control and planted with appropriate native trees and shrubs. Landscaping in combination with earth berming will be incorporated into the grading design to help create visual screens between the mainline, ramps, local roads and the creek wherever space allows.

***Response to comment 5*:** The number of lighting fixtures will be minimized to the greatest extent possible. Lighting fixtures will meet Title 24 energy conservation requirements and will include downcast shielding to reduce artificial light pollution in this rural area, as required by San Benito County regulations. Existing billboards (including their lights) will be removed from the project limits and will not be replaced. When an area becomes classified as "landscaped freeway" off-site outdoor advertising (billboards) are prohibited.

***Response to comment 6*:** All impacts to riparian and other sensitive habitat will be fully mitigated. Every effort will be made to avoid and minimize the degree of impact to all sensitive habitat. The hydraulic engineer is looking at the feasibility and cost of alternative design solutions such as box culverts at the northbound off and on ramps which will lessen permanent impacts to the creek and to riparian vegetation. Removed vegetation will be replaced with appropriate native trees, shrubs and understory. Trees will be replaced at ratios necessary to ensure no net loss of wetland or riparian habitat and to ensure successful coverage of disturbed ground and to provide shading to the creek. Revegetation work will also include removal of non-native plant species where practical, and removal of trash and debris to improve the general health of the riparian corridor.

Sig Matt <sigmatt@sbcglobal.net>

02/17/2009 09:47 AM

Dear Mr. Norris,

As a longtime resident of this area I am intimately familiar with the location.
My choice for the projected interchange is **Alt 10B** with one exception, that at the proposed San Juan Road - Cole Road intersection location, the
configuration shown on **Alt 10D** should be used. **1**
The relatively heavy commercial traffic on San Juan Road should have preference at that intersection over the relatively light residential traffic on
Cole Road.

I believe that a limited question and answer period during the presentation would have been beneficial to all concerned. While there were a sufficient
number of Caltrans personnel present, there was not enough Caltrans personnel there who were familiar enough with the project details to address
the public's concerns satisfactorily.

My remaining questions are: **2**
1a) How does southbound traffic, originating on Dunbarton Road South, enter onto Highway 101?
b) How does traffic on Highway 101, southbound from Gilroy, get to Dunbarton Road South? **3**

2) What is the reason for eliminating the present southbound Dunbarton Road on-ramp?
San Juan Road is the major preferred regional north-south traffic route between Salinas and Watsonville/Santa Cruz. To impair this traffic **4**
with 'out of direction travel' and additional traffic lights is to force drivers to choose alternative routes, all of which will cause increased local congestion.

Caltrans' credibility suffers badly when projects such as the Dunbarton Road on ramp-acceleration lane, 20 years late in being built, barely
1 year in operation, is being demolished in favor of other costlier, less streamlined alternatives.

Sincerely

Sig Matt
831-663-2471

***Response to comment 1*:** Your preference for a modified Build Alternative 10B is noted, however Build Alternative 10D has been selected as the preferred alternative because this alternative provides for uninterrupted traffic flow on San Juan Road to the overcrossing bridge. It also results in less impact to businesses and local residents and requires less land acquisition at Cole Road. Specific details on the rationale for selection of the preferred alternative is in Section 1.3.4.

***Response to comment 2*:** The north end of Dunbarton Road (south) will allow only right-in and right-out traffic movement. To enter the southbound lanes of U.S. Route 101, the traffic will have to go north to the new San Juan Road interchange, exit via the northbound direct off-ramp, cross the U.S. Route 101 over the bridge, and enter the southbound U.S. Route 101 via the southbound direct on-ramp.

***Response to comment 3*:** The southbound traffic can enter Dunbarton Road (south) at its south end using the existing left-turn lane on the southbound U.S. Route 101. The access from the southbound U.S. Route 101 will be prohibited at the north end of Dunbarton Road (south). A concrete barrier will be constructed in the median there. Please refer to the preliminary project map on page 23.

***Response to comment 4*:** From an operational standpoint, a freeway has a higher capacity than an expressway, with 200 to 400 vehicles per hour per lane. A freeway has controlled access. The at-grade intersections on an expressway facility create interruptions in the traffic flow, lowering the speed and capacity. By closing the at-grade access Caltrans can slightly improve capacity without having to build more lanes. Although there's a southbound acceleration lane at Dunbarton Road, it does not give trucks enough room to accelerate to an acceptable speed before merging with mainline traffic. The difference in speed between the through and merging traffic disrupts traffic flow.

Rocks Ranch
C/O Graeme Robertson
P. O. Box 756
Carmel, CA 93921
831.594.4903
carmelgraeme@aol.com

February 20, 2009

G. William "Trais" Norris III
Senior Environmental Planner
Sierra Pacific Environmental Analysis Branch
California Department of Transportation
2015 East Shields Avenue, Suite 100
Fresno, CA 93726

Dear Trais,

I represent the property owner of APN 011-310-001 in San Benito County where the San Juan Road Interchange is proposed. Thank you for the opportunity to comment on the Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment. We support the project, and look forward to the future operational and safety improvements that the project provides. We offer the following comments for your consideration:

Exhibits: The Alternative 10B and 10D exhibits distributed at the February 5 Public Hearing differ slightly from those shown in the December 2008 Initial Study. Please revise the Initial Study to reflect the current proposal. Specifically, the access road in both Alternative 10B and 10D should be consistent in all exhibits. **1**

Project Description: Please consider adding detail to the Project Description on page iii, to the Summary on page v, and to the Alternatives explanation (Section 1.3) that begins on page 7. The actual project scope is not described in a central location; details are embedded in subsections of Chapter 2. For example, signals and street lights are only discussed in Section 2.1.7, Visual/Aesthetics; storm water improvements are addressed in Sections 2.2.1 and 2.2.2. **2**

Page 2 – Traffic: Table 1.1 identifies Average Daily Trips and Peak Period Traffic Volumes for the highway segment during year 2008 and projects them to year 2035. This

segment of Highway 101 experiences high levels of congestion and significant traffic delays on weekends. Please confirm that the June 2008 Traffic Study referenced in Section 2.1.6 included traffic counts that were conducted on weekends as well as weekdays. Are the interchanges shown in Alternatives 10B and 10D designed to accommodate weekend traffic volumes? 3

Pages 40 and 41 – Growth: The Initial Study acknowledges that San Benito County has received a General Plan Amendment application. Please revise the language to reflect the application on file with the San Benito County Planning Department that requests 180,000 square feet of commercial and up to 150 mixed-use residential units. 4

Page 47 - Farmlands/Timberlands. This section identifies land under Williamson Act, but does not acknowledge the Rocks Ranch Notice of Nonrenewal on file with San Benito County effective September 29, 2000. The property will no longer be subject to the Williamson Act effective February 2010. 5

Page 72 – Hydrology: The document identifies existing infrastructure deficiencies that contribute to backwater conditions and flooding in portions of the project area. The project would improve the existing conditions by constructing additional culverts under U.S. Route 101 and by replacing the culvert under Ballantree Lane with an adequate culvert or bridge (page 73). The Initial Study concludes that the floodplain downstream from U.S. 101 will not be affected or changed. However, the Water Quality section on page 76 states that "the size, alignment, and placement of culverts can influence Los Carneros Creek's geomorphology. Specifically, culverts prevent the creek from moving (meandering); the slope of the culvert may accelerate the water; and the length of the channel may be decreased by culvert installation". The Initial Study appears to offer conflicting information related to the project's effect on downstream conditions. 6

This Elkhorn Slough Watershed is known to have downstream flood-related problems. Constructing improvements that accommodate 100-year flows and prevent flooding within the project area will convey a greater volume of runoff at higher velocities than currently exist. Please clarify the project's impacts to the existing downstream watershed. 7

Page 76 – Water Quality and Storm Water Runoff: The Regional Water Quality Control Board typically requires projects to release storm flows at pre-development rates, to provide a filtration process for storm water before it reaches waterways, and sometimes limits the volume of storm water conveyed off-site to pre-developed conditions. According to the Initial Study, the project adds approximately 6 acres of impervious surface to the project area. The Initial Study commits the project to incorporate permanent design best management practices in order to minimize the direct discharge of highway storm water to adjacent waterways (see bottom of page 76). However, most of the language in the Avoidance, Minimization, and/or Mitigation Measures section includes "if feasible" clauses. If all of the mitigation measures are found to be infeasible, then this project could avoid water quality implementations altogether. What assurances can Caltrans provide to guarantee that storm water will be subject to detention and 8

filtration before its release into local waterways?

Page 76 - Water well: Caltrans will need to develop a water well in the vicinity of the interchange for irrigation purposes. Has there been a well and/or location identified? **9**

Page 77 – Geology/Soils/Seismicity/Topography: The Initial Study provides a cursory review of the geology within the project vicinity. It notes distances to known active faults and identifies local soil types, citing information from the U.S. Department of Agriculture Soil Survey of Monterey County. It describes the water table as "high" and the liquefaction potential as "moderate". Without boring data or further geotechnical study, the Initial Study concludes that 2:1 slope angles are permissible. This type of conclusion is generally drawn from a technical study. Has one been completed for this project? If so, does it address heights and lengths of walls? Cut/fill slope heights? Earthwork volumes? Abutment size and location? **10**

Page 101 – Noise: Noise levels at Receptor #2 exceed NEPA noise abatement criteria levels. Since mitigations are determined to be infeasible, should this be identified as a significant-unavoidable impact? **11**

In addition, we have sponsored additional Biological Studies which are outlined below, in part, for your use and comment.

The Natural Environment Study (NES) prepared for the San Juan Interchange project (December 2008) identifies studies completed in the Biological Study Area (BSA), which includes a portion of our property. We have sponsored additional studies on our property over the past year targeting special-status plant and animal species and would like the results of these studies to be included in the public record. Following is a summary of the methods and results of the studies conducted on the portion of our property that is within the BSA for the project.

Special Status Plants

Directed surveys for special status plants were conducted on February 13, March 26, May 28 and 29, June 24 and 25, and July 15, 2008 by botanist with Zander Associates. The surveys were conducted following the *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (DFG December 9, 1983; Revised May 8, 2000). Prior to initiation of field surveys, a list of target plant species was developed through a query of the California Natural Diversity Database, review of California Native Plant Society information for San Benito and Monterey Counties, and through Zander Associates' knowledge of the local flora. During each survey, Zander Associates' botanists traversed all of the property that was within the study area, which included all of our property in the BSA for the San Juan Interchange project, and all plants encountered were identified in the field to species and/or subspecies or collected and identified in the lab and recorded. No special status plant species were found on our portion of the property that is within the BSA for the project. **12**

California Red-legged Frog

Surveys for California red-legged frog were performed following the U.S. Fish and Wildlife Service (USFWS) protocol - *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog August 2005*. Daytime and nighttime visual surveys were conducted during breeding season on the following dates: February 11, 12, 18, 27, 2008; March 5, 6, 13, 17, 2008; April 3, 14, 2008. Daytime visual surveys during the non-breeding season were completed on July 16 and 23, 2008. No red-legged frogs were found in the portion of our property that is within the BSA for the San Juan Interchange project. **13**

California Tiger Salamander

Spring larval surveys were performed following the protocol described in the, *Interim Guidance on Site Assessment for Determining the Presence or a Negative Finding of the California Tiger Salamander, October 2003* (USFWS and CDFG 2003). All aquatic sampling sites were surveyed using dip nets, seine and/or minnow traps, depending on the characteristics of the sampling site (e.g., depth, size, extent and type of vegetation). Pursuant to the protocol, a site assessment and request to conduct spring sampling for CTS was submitted to the USFWS March 25, 2008 and approval to proceed with sampling was received from Jacob Martin of the USFWS via email on April 4, 2008. The email was followed by a letter dated April 21, 2008.

Aquatic sampling in all suitable ponds on the property within the study area began April 22, 2008 and was completed May 29, 2008. The study area included a pond that is nearby the portion of our property within the BSA for the San Juan Interchange project. Where conditions permitted, 100% of the pond was seined; otherwise, where vegetation density and/or depth precluded complete sampling, minnow traps were employed, in addition to sampling with dip nets and seine around the littoral zone. No CTS eggs, larvae or adults were observed during this study. **14**

On September 23, 2008, we met with Jacob Martin from USFWS on the property to discuss next steps with respect to CTS surveys. The protocol requires an upland drift fence study to support a negative finding of aquatic surveys. However, in consultation with USFWS, we are postponing upland surveys at this time but may conduct additional aquatic sampling in the spring of 2009.

Trais, we appreciate the opportunity to comment on the San Juan Road Interchange Project. We will look forward to your response on the issues outlined above. In the meantime, please feel free to contact me if you have any questions regarding our comments or studies. We are very supportive of the project and look forward to working with Cal Trans on the successful completion of the Interchange.

***Response to comment 1*:** The primary alignment features of Build-Alternative 10D have been consistent in both the Initial Study/Proposed Mitigated Negative Declaration and the Initial Study/Mitigated Negative Declaration (this document). Minor changes are often made during the final design phase that may or may not be permanent therefore the environmental document may not display these iterative changes. If major changes were to occur, the environmental document would either be revised and re-circulated or there would be a reevaluation.

***Response to comment 2*:** The Summary pages iii and v are meant to be brief overviews describing major build alternative features. Specific details are provided in Chapter 1.

***Response to comment 3*:** The proposed project has the capacity to accommodate Sunday traffic volumes, including the Red Barn traffic on Sundays. The traffic operation analysis has shown that the new interchange will operate at an acceptable level of service accommodating existing Sunday volumes and 2035 weekday peak hour volumes on San Juan Road/Dunbarton Road.

***Response to comment 4*:** The Final Environmental Document has been updated.

***Response to comment 5*:** The Final Environmental Document has been updated.

***Response to comment 6*:** The information in the Environmental Document regarding flooding and water quality does not conflict. The Floodplain/Hydrology section focuses on conditions caused by 100-year floods. On the other hand, the water quality section on stream geomorphology looks at channel forming creek flow that results from 2-year to 10-year floods.

***Response to comment 7*:** Culverts crossing U.S. Route 101 will only be extended on the upstream side, so any limitation on meandering will only be on the upstream side (about 160 feet on the northern culvert). The southern culvert will not be extended, but a second cell will be added to the culvert. A third cell will be added to the northern culvert. The culvert extension and the new cells will have the same slope as the existing culvert, so there will be no increase in water velocity.

The addition of new cells to the culverts will lower the headwater elevation on the upstream side. The lower headwater elevation will decrease the pressure of water going into the culverts, thereby decreasing the velocity of the water. The more area the water has to get through a pipe, the slower it will go with the same flow and slope.

Increasing the size of the culverts crossing U.S. Route 101 will not increase the flow downstream. With the existing culverts, the flow that cannot get through the culverts goes over the roadway. The flow is the same whether it goes through a smaller culvert and over the roadway, or just through a larger culvert. Caltrans will direct the water through the culverts by making them larger. The only increase in flow comes from the increase in impervious surface, which amounts to 0.2% of the area of the watershed upstream of the project.

***Response to comment 8*:** As stated in your letter, the project must incorporate permanent storm water treatment facilities to the maximum extent practicable. These will most likely be in the form of bio-filtration swales/strips. The goal is to treat 100% of the storm water from the project.

At this time Caltrans does not require hydromodification (limiting the volume and run-off rates of storm water conveyed off-site to pre-developed conditions) in the MS4 Permit. The MS4 Permit refers to the Municipal Separate Storm Sewer System general permit, which is mandated by the federal regulations under the Clean Water Act. These requirements may be required for future projects. These requirements are however incorporated into the new Construction General Permit.

The project will also be incorporating permanent design pollution prevention best management practices. It is important to know that best management practices are not mitigation but rather standard practices. This category of best management practices is included for all Caltrans projects as required by the Caltrans Stormwater Quality Design Guidance Manuals (specifically the Project Planning and Design Guidance Manual).

The term "if feasible" is in line with the requirement that all of these best management practices categories are incorporated into all projects to the maximum extent practicable. There are certainly cases where some best management practices are found to be infeasible. However to fail to consider and incorporate these best management practices into the project to the maximum extent practicable would be a violation of the Caltrans' Statewide MS4 Permit. Caltrans has developed an EPA award-winning stormwater design and documentation process that requires the maximum extent practicable process be followed. Third party consultant audits are a part of this process to further refine and ensure the maximum extent practicable process is followed.

***Response to comment 9*:** A water source for landscape irrigation has not yet been identified. Water will come from either a new well developed by Caltrans somewhere within the interchange right-of-way (at a location with the best possibility of water availability and safe maintenance access) or be purchased from an existing water district with transmission lines in the Aromas area. We expect that irrigation water will be needed for three to five years while plants are being established (more water the first season and less water in subsequent years) and then plants would be weaned off irrigation water to survive on their own (with only occasional supplemental water if needed). Plants, except in the riparian area, would be native or drought-tolerant species. There may be existing domestic wells in the area that could serve as a source of irrigation water but past experience suggests that individual domestic well production rates are generally not sufficient for landscape needs.

***Response to comment 10*:** A full Geotechnical Report has been completed and is currently under review by Design. The Report discusses embankments, cuts, retaining walls, pipe jacking, and box culverts. The preliminary information in the draft environmental document was based on specific questions posed to Design and Geotechnical staff in order to complete the Geology/Soils/Seismic/Topography Section and California Environmental Quality Act checklist.

Retaining walls will be constructed near the San Juan Road/Cole Road intersection and near the San Juan Road/Red Barn frontage road intersection and along the southbound on-ramp and off-ramp. The retaining wall near the San Juan Road/Cole Road intersection will be about 1,200-feet long and 32-feet high. The retaining wall near the San Juan Road/Red Barn frontage road intersection will be about 510-feet long and 32-feet high. The retaining wall near the southbound on-ramp and off-ramp will be about 500-feet long and 36-feet high.

***Response to comment 11*:** The Traffic Noise Analysis for Receptor 2 shows a 66 dBA with Build Alternative 10B which would have approached the noise abatement criteria of 67 dBA. However, Build Alternative 10D was selected as the preferred alternative where the Traffic Noise Analysis shows 64 dBA with or without the project for Receptor 2. This finding and the fact that there would not be a 12 decibel increase over the existing noise level means that the project causes no significant noise impacts requiring mitigation.

Response to comment 12, 13 and 14: Comment noted.

I attended the Public Hearing on the San Juan Road Interchange this evening, and I have some comments that I'd like included in your ongoing environmental analysis. Hats off for the large amount of information that has been made available at the meeting tonight, with a lot of friendly staff support from Caltrans.

I have lived in the Anzar Hills since 1970, and watched the highway evolve from a trickle to a torrent. The traffic has made our connection at Cole Road more and more challenging. Immediate family members have been involved in a very serious, nearly fatal accident at this spot. So my first reaction when hearing about a plan to build an interchange was one of relief. After studying the text and maps for the project on the Caltrans web site, I realized the scale of this project, and what a profound impact it will have on our beloved view sheds. When I tell people from out of the area where I live, they almost always know just where I'm describing, having retained an imprint of the sculptural hills and the largely unspoiled rural character. A major freeway interchange will have a huge impact on these landscapes. So my first priority in contributing to your planning process is an appeal to soften the character of the finished grades and landscape treatments to blend in as much as possible with the existing terrain. An interchange that would jive with an urban environment would be out of place in a rural area that has been designated as having high scenic value. I suggest that you utilize the following strategies:

Minimize and break up large, continuous cut and fill planes. These may sometimes be efficient from an engineering perspective, but they create a stark contrast to the surrounding natural land forms. Vary the slope angles on these areas, using slope rounding at the vertical and horizontal changes in plane to soften and integrate the masses. Gentle out the toes.

Use retaining walls to minimize the steepness of cut and fill slopes. Use colored and textured concrete to blend in with the natural environment.

Use berming and mass planting between highway, ramps and frontage roads to create separated areas that minimize the dominance of the improvements on the landscape.

Avoid isolated islands of areas that are left at existing grade, but have no logical relationship to the newly created landforms. Blend the intersections between adjacent mass graded areas. **1**

Consolidate and minimize signage, especially in the prime view corridors.

Use walls and box culverts where the creeks need to be channelized to minimize disruption to the riparian habitat.

Where lighting is needed, specify an increased number of smaller lamps, downcast with cut-offs facing away from the highway corridor.

I also have some concerns about traffic engineering:

Cole Road is an unimproved primitive country road, very narrow in places and with virtually no base structure. The new connection with San Juan Road may inadvertently encourage increased truck traffic. The entrance to Cole Road at San Juan Road should be posted to exclude truck traffic, with a weight limit.

At the meeting tonight, several Caltrans representatives mentioned that the traffic impacts were all determined based on the peak loading on Monday thru Friday. I don't think that this makes sense at this location. Due to the traffic at the Red Barn on Sundays, coupled with peak flows on the highway during the same time period, it would be really missing the most significant traffic impacts not to have accurate weekend trip counts, and use them for some of the traffic analysis. Peak flows by definition need to be measured at their peak! **2**

The intersection of San Juan Road and 101 is known regionally as a dangerous spot, and area motorists have long avoided it for that reason. Whenever possible I will steer clear of taking San Juan Road to 101 and turning left onto the highway heading north. I think that that's common for lots of folks all over the central coast area. Once the connection is improved with an interchange, I believe that there will be a marked increase in vehicle trips. This needs to be extrapolated into the traffic engineering calculations that are done,

particularly in analyzing the intersection at Cole and San Juan Road and the intersections at the frontage roads.

Traffic analysis should consider the possible increased traffic from the proposed Rocks Ranch Project on the east side of 101 just north of the Monterey San Benito County line.

Although the traffic counts on Cole Road may be low, heavy peak flows on San Juan Road may dictate some form of traffic control at the intersection with San Juan Road. 3

Stop signs should be considered as a cost effective alternative.

If the traffic light planned for Option 10B is not installed, look for strategies to create gaps in the traffic flow on San Juan Road (both directions) at the Cole Road intersection

All of these intersections should be engineered for traffic signals, even if the lights will not be installed at the time of original construction. This should include the installation of all conduit needed for future build-out.

I applaud the plans that staff described tonight to include provisions for bicycle traffic to safely travel through the redesigned road system.

It would be a big help for the public to fully understand the different option if Caltrans were to do the following:

Post the fabulous 3D flyover simulation on your web site. It's a great tool and it would be useful to be able to watch it at one's own pace. It deserves a wider showing after all of the work that went into making it.

Post engineering drawings that show the proposed post construction contours. I realize that the design isn't final, but it's difficult to contribute useful input on the grading concepts without being able to see the actual design. It's hard to get the full picture from just the cut and fill lines, as provided on the published maps. Although I think that posting the drawings on the web for public viewing is preferable, if that isn't feasible, an alternative would be to email them to me directly. 4

I would like to thank the Caltrans staff for the thorough and professional presentation you did tonight. Everyone was positive and cooperative and seemed genuinely interested in helping us understand the project. I have one suggestion for an improvement in the format. I did hear another community member request that questions be fielded from the audience after the presentation was made. I think that this would have been a useful complement to the opportunity for one-on-one conversation with Caltrans staff. A group Q&A allows everyone to benefit and elaborate on other audience members questions and comments in a group conversation. I was surprised that this didn't happen at an event that was advertised as a "Public Hearing."

Please add my name to the Project Mailing List:

Seth Capron
1811 Cole Road
Aromas, CA 95004

After a little field observation and further consideration, I would like to add to the comments that I emailed to you below.

I think that Alternative 10D, with San Juan Road making a continuous arc connection to the new interchange and Cole Road tee'ing in as a side road, makes the most sense. I see three advantages to this alternative.

1. The majority of the traffic is on San Juan Road, and it would impede traffic movement to introduce a traffic light and a 90 degree turn where it connects with Cole Road. 5
2. It is my opinion that the stop light shown in 10B would introduce a significantly greater noise impact than the continuous curve in 10D. The Caltrans noise person at the open house at the Aromas School said that he thought that the curve would create more noise, because the primary decibel generator of traffic is the sound of tires running on the road

surface. I think that the tire noise on San Juan Road would largely blend in with the much more significant tire noise generated by the larger traffic volume on Highway 101. The human receptors would be much more likely to notice and be disturbed by the sounds of cars and large trucks stopping and starting at an intersection. I think that the intermittent nature and variety of pitch from deceleration and acceleration would stand out against the steady background noise of the highway, which is made up of a more continuous hum of rubber on asphalt.

3. I think that a disadvantage of the tee intersection shown in Alternative 10B is the possibility that it will inadvertently direct additional traffic on to Cole Road, which, as described below, is a narrow rural road not engineered for larger traffic loads.

Please reply with a quick email acknowledging that have have received my comments. Thanks again for your work on bringing information to area residents and for your consideration of our input.

***Response to comment 1*:** Slope rounding and land form grading that more closely mimic natural slopes than traditional road cuts, are both techniques we will be using. Caltrans will continue to look for ways to minimize cut and fill slopes as design progresses. Retaining walls will be constructed near the San Juan Road/Cole Road intersection and near the San Juan Road/Red Barn frontage road intersection and along the southbound on-ramp and off-ramp. The retaining wall near the San Juan Road/Cole Road intersection will be about 1,200-feet long and 32-feet high. The retaining wall near the San Juan Road/Red Barn frontage road intersection will be about 510-feet long and 32-feet high. The retaining wall near the southbound on-ramp and off-ramp will be about 500-feet long and 36-feet high. Concrete structures, including the retaining walls and bridge will include aesthetic treatment such as rock-like texture appropriate to the natural rural setting.

As suggested, berming and mass planting will be incorporated when possible to lessen visual impacts.

The only signage within Caltrans right-of-way will be highway related. Signage outside of right-of-way is under the jurisdiction of Monterey and San Benito Counties.

***Response to comment 2*:** Caltrans discussed Cole Road concerns with San Benito County Department of Public Works. They stated that there are currently no weight restrictions for vehicles on Cole Road because there are no bridge structures. They also stated that they did not believe truck traffic will ever be a problem due to the narrow road, which will be hard for large trucks to navigate.

Although the Red Barn is a major traffic generator, existing traffic counts show that the combined traffic volumes on San Juan Road and Dunbarton Road are higher during the weekday peaks. Therefore, it is appropriate to follow standard practice and analyze the operation of the new interchange during the weekday peaks. The traffic operation analysis has shown that the new interchange will operate at an acceptable level of service accommodating existing Sunday volumes and 2035 weekday peak hour volumes on San Juan Road/Dunbarton Road. These traffic engineering calculations also factor in increased traffic demand on completion of the project.

Caltrans is aware of the traffic situation resulting from the Red Barn Sunday swap meet customers but the safety and level of service need for this project extends beyond Sundays. Intersection conflicts occur seven days a week and can best be resolved with a grade-separation project. It should also be noted that Monterey County has taken steps to reduce traffic demand on Sundays related to the Red Barn Swap Meet.

***Response to comment 3*:** The proposed project would include electrical installations necessary to support traffic signals that will be added at a later date. Caltrans Traffic Analysis is aware of the potential Rocks Ranch development however Caltrans cannot design interchanges based on speculation or possible future development. Should the development occur, the developer/landowner is responsible for environmental impact analysis, mitigation, and access to/from the development. The County of San Benito may also require developer fees to cover highway improvements required for increased traffic demand.

***Response to comment 4*:** The simulation shown at the Public Hearing was based on preliminary design. While it was and remains accurate, Caltrans engineers are in the final design process and there may be minor modifications therefore we will not be posting the simulation.

Response to comment 5: The commenter noted the difference in noise levels at an intersection (Build Alternative 10B) rather than at free flow conditions for San Juan Road (10D). His feeling was that noise levels would be louder with the intersection, and according to Caltrans modeling, they are, but only marginally so (0.4 dB in the case modeled.) The commenter is also correct in his assumption that noise from the highway with its much higher traffic volumes overwhelms the noise at the San Juan Road/Cole Road intersection (for nearby residents) under either alternative. Alternative 10D was selected by Caltrans as the preferred alternative.

Thank you for your comments, your name, as well as others who commented are on the project mailing list.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Tonya Large
ADDRESS: 360 Robbins ~~Box 759~~ CITY: Aromas ZIP: 95004
REPRESENTING: Resident

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

Thank you for having this mtg — very informative, looking forward to the new addition -

1

Please comment by February 15, 2009

Response to comment 1: Your comment is appreciated. One of the primary purposes of this project is to improve safety. See Section 1.2.2.2. for details.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Shirley Brown

ADDRESS: 19260 Oak Ridge Dr. CITY: Aromas ZIP: 95004

REPRESENTING:

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

impact of cul-de-sac on entrance to Oak Ridge drive (off of Dunbarton Rd.) Concern about access for handicap vehicle + drainage of creek from Dunbarton drainage culvert + Oak Ridge drainage culvert

Please comment by February 15, 2009

1

***Response to comment*:** As a part of the proposed cul-de-sac on Dunbarton Road the existing Oak Ridge Drive connection would be rebuilt between the existing Oak Ridge Drive gate and the proposed cul-de-sac. That would reduce the existing grade. At this time there is no proposal to reconstruct/replace the culvert under Oak Ridge Drive. The proposed cul-de-sac grade would conform to the existing Dunbarton Road (north).

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Keith Rostner

ADDRESS: 681 Seely Ave CITY: Aromas ZIP: 95004

REPRESENTING: Resident

Do you wish to be added to the project mailing list? ☐ YES ☒ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

I like option D. It will be safer for all entering the 101 North or South. This will also be safer and save time over using 129 and battling with the gravel trucks. Good luck on your project!

1

Please comment by February 15, 2009

***Response to comment*:** Thank you for your comment. Build Alternative 10D has been selected as the preferred alternative.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: _____

ADDRESS: _____ CITY: _____ ZIP: _____

REPRESENTING: _____

Do you wish to be added to the project mailing list? ☐ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): _____

the interchange is much needed.
I won't go northbound from
San Juan Rd. It is way too
dangerous. The exit at Dunbarton
is also dangerous but at least it
is possible to cross without
too much hazard.

Please comment by February 15, 2009

1

Response to comment: Your comment is appreciated. Section 1.2.2.2 addresses the safety aspect of the project.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: DAVID & LESA MONK

ADDRESS: 225 DUNBARTON CITY: AROMAS ZIP: 95004

REPRESENTING: SELF

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

PLEASE CONSIDER A SMALL DECELERATION AND ACCELERATION LANE FOR TRAFFIC TO/FROM DUNBARTON ROAD EAST OF 101. CURRENTLY TRAFFIC NEEDS TO SLOW DOWN IN THE #2 LANE TO PREPARE FOR A 90° TURN. ALMOST GET REAR ENDED EVERY TIME. THANKS!

B OR D, BOTH LOOK GOOD, BUT FRONTAGE ON EAST SIDE OF RED BARN IS A PLUS.

Please comment by February 15, 2009

1

***Response to comment*:** The traffic studies completed indicate light traffic on Dunbarton Road east therefore acceleration and/or deceleration lanes will not be constructed.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: LARRY DICK

ADDRESS: 16470 TWINLAKES Dr. CITY: Groveland ZIP: 95076

REPRESENTING:

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

IT is unfortunate that ALTERNATIVE Xportation is given such little consideration

Getting a Bicycle from ~~[illegible]~~ San Juan Rd to Crazy Horse Canyon is extremely difficult. This capability would open up tremendous possibilities.

1

Please comment by February 15, 2009

***Response to comment*:** Caltrans considered a bike path however Caltrans does not allow bicycles on freeways (classified as a highway having full access control) and purchasing right of way for a bike path outside of the freeway corridor was beyond the scope and budget of the project.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Justin Gilliss

ADDRESS: 821 San Juan Rd CITY: Royal Oaks ZIP: 95076

REPRESENTING: Self Resident

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

I do not believe this to be needed
This is a farm /ag Road, The increased
traffic will place greater hazards to
Residents & farm equip operators.
The Increase Noise /Traffic levels will
Surpass the already excessive levels.
additionally the 90 mill cost has
already been rejected by vote and in
These times we the people who would be
Stuck paying for it Simply say NO more
enough is enough.

1

Please comment by February 15, 2009

***Response to comment*:** Caltrans believes that the safety, congestion and access improvements gained by the project outweigh the cost concerns. Environmental impacts (including noise), would be avoided, minimized or mitigated. Section 2.2.6 specifically addresses noise levels at 11 locations. Noise levels at all other sensitive receptors would be below the residential noise abatement criteria level. Temporary noise level increases from construction will occur but provisions are in place to minimize these impacts.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Mary Hsia-Coren

ADDRESS: 501 Ricardo Dr CITY: Aromas ZIP: 95004

REPRESENTING: ~~[illegible]~~ self

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): I prefer Alternative 10B because it is safer for residents in the Cole Rd. area as it has a stop light at the Cole Rd and 101 overpass intersection. Also the noise impact is reduced. I would request the addition of stop signs or stop light at the on ramps and off ramps that intersects with the 101 overpass. ~~[illegible]~~

Please comment by February 15, 2009

1

***Response to comment*:** Caltrans has identified Build Alternative 10D as the preferred alternative. Traffic volume data indicate far more traffic on San Juan Road then on Cole Road. Alternative 10D has San Juan Road in a continuous arc across U.S. Route 101. This design supports improved levels of service for the majority of drivers with a lower cost and fewer impacts than Alternative 10B would have.

The Traffic Operational Analysis does not indicate that traffic signals would be warranted at the proposed Cole Road/ San Juan Road intersection, or at the ramp intersections. However, the project will install underground conduits at these intersections for later traffic signal installation in case signals become warranted in the future.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Tom Karis

ADDRESS: 1160 Marilyn Ln CITY: Aromas ZIP: 95004

REPRESENTING: self

Do you wish to be added to the project mailing list? ☑ YES ☐ NO
already on

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

Can we have a gate to control access of the public to the private road part of Marilyn Lane? Added Red Barn traffic will be a privacy and security problem without a gate.

Please comment by February 15, 2009

1

***Response to comment*:** Caltrans has agreed to provide for the reconstruction of the Ballantree Estates gate. This is considered an element of the project and will most likely be under capital funds. Caltrans cannot build a gate on Marilyn Lane because access to the lane is provided by an easement across land owned by the Red Barn.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: William Van Gelder

ADDRESS: 18495 Rea Ave CITY: Aromas ZIP: 95004

REPRESENTING: Aromas Citizens for Planned Growth

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

Excellent Presentation!!

1

Please comment by February 15, 2009

Response to comment: Your comment is appreciated.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: DEBBIE MOORE

ADDRESS: 68 RICARDO CT. CITY: ARONAS ZIP: 95004

REPRESENTING: HOMEOWNER / SAN BENITO COUNTY

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

BOTH PLANS AFFECT AT LEAST THREE (3) HOMEOWNERS IN OUR (12) HOUSEHOLD WATER ASSOCIATION (ARONAS ~~HILLS~~ MUTUAL WATER ASSOC). IF THESE THREE HOMEOWNERS LOSE THEIR PROPERTIES, THEN THE REMAINING NINE HOMEOWNERS "WATER BILLS" WOULD INCREASE (AS THE TOTAL COSTS WOULD THEN BE DIVIDED AMONG NINE HOMEOWNERS). DOES ~~EMINENT~~ EMINENT DOMAIN (RIGHT-OF-WAY) COVER THESE LOSES? WOULD THE WATER ASSOC. BE ENTITLED TO ANY COMPENSION?

MY PREFERENCE IS FOR PLAN 10B.

1

Please comment by February 15, 2009

***Response to comment*:** Caltrans would not compensate the remaining homeowners for increased water costs; however, Caltrans is considering the water source as a potential source of irrigation water for the landscape work involved in the project. Use of the water is dependent on the quantity and pressure available from the water source. In a project just south of the San Juan Interchange, wells had to be quite deep to reach sufficient water. Until geotechnical studies are complete there is insufficient information on the water availability and pressure. Caltrans will contact any potential water suppliers to see what they have and to compare their price versus developing a separate well.

Generally Caltrans would pay an initial fee for a water meter (price is usually dependant on the size of the meter and the price the water district or other provider has established for its meters) and then an agreed upon monthly rate based on use. Caltrans would use water for the first 3-5 years, but then use would taper off as the plants become established.

In reference to the commenter recommendation of Alternative 10B: Build Alternative 10D was selected as the preferred alternative. Please see section 1.3.4. of this document for details on the selection.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Paul Lapidus

ADDRESS: 2995 Rea Ct CITY: Atomas ZIP: 95004

REPRESENTING: self

Do you wish to be added to the project mailing list? ☒ YES ☐ NO
am already on

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

I think 10 D is far superior to 10 B. Give priority to 95% of the traffic. It lets San Juan traffic flow smoother. I do like the 10 B east side better however - let the frontage road go behind the red barn. I'm dissappointed to see Dunbarton become a cul de sac. It wouldn't take much to improve it as an on ramp. It would save gas (more direct route south) and make the main interchange less congested. Dunbarton would be just an on ramp south, not an interchange.

Please comment by February 15, 2009

1

***Response to comment*:** Build Alternative 10D was selected as the preferred alternative. Please see section 1.3.4 of this document for details on the selection.

Your comment on the Dunbarton Road cul-de-sac was also brought up by others commenting on the project. Caltrans considered the possibility of leaving it open but it was determined that it would be best for public safety to provide access control at Dunbarton Road as well as at San Juan Road and Cole Road. This also negates the need for future access control projects at this intersection, which would have resulted in a higher overall cost, future traffic disruption and potential accidents resulting from at-grade entry on to the highway.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Deborah Gilliss

ADDRESS: 821 San Juan Rd CITY: Royal Oaks ZIP: 95076

REPRESENTING: Residence

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): This project will increase traffic on San Juan Rd causing a greater safety hazzard. I have lived at this residence for 29 years & in this area all my life. Traffic that is currently using San Magill Canyon overpass + 129 overpass will likely use San Juan Rd if given the option. (It would be faster to use San Juan). We have witnessed Fatalities Right in front of our house. More traffic = more deaths & accidents
Answer = No left turn at San Juan Rd.

1

Please comment by February 15, 2009

***Response to comment*:** The only traffic increases that can be anticipated would be from the residents on Dunbarton Road who could no longer enter the southbound lanes of U.S. Route 101 which would not result in a substantial increase. The realignment of Cole Road would result in traffic accessing the on/offramps at the overcrossing bridge, not at the existing San Juan Road. All indications are that the proposed project would improve safety. Please see Section 1.2.2.2 for details.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Sal Ciolino

ADDRESS: 1940 Dunbarton CITY: Acampo ZIP: 95004

REPRESENTING: Self

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): I would like to know if my property will be bulidit on.

1

Please comment by February 15, 2009

***Response to comment 74*:** Your property is at the intersection of Dunbarton Road and U.S. Route 101 on the east side of the highway. We do not currently plan to acquire your property.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: David F. Costa

ADDRESS: 7674 Tustin Rd CITY: Salinas ZIP: 93907-8501

REPRESENTING: Frank & Wilma Costa 217 Dunbarton Rd Aromas 95004

Do you wish to be added to the project mailing list? ☑ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): I would like to see an acceleration lane and a deceleration lane built on the Eastern Dunbarton Rd on the North side.

Thank you
David F Costa

Please comment by February 15, 2009

1

Response to comment: Caltrans Design is not considering acceleration and/or deceleration lanes for this project. Traffic studies, which included the accident history at this location did not justify the acceleration and deceleration lanes.

San Juan Road

Public Information Meeting
February 5, 2009

NAME: MIKE GIDDING

ADDRESS: 1176 MARILYN LANE CITY ARBUCKLE ZIP: 95004

REPRESENTING: SELF

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

WITH THE COST OF THE PROJECT & THE NEIGHBORHOOD RESISTANCE, HAVE THERE EVER BEEN DISCUSSED THE POSSIBILITY OF THE COUNTY BUYING THE RED BARN & PROPERTY & SIMPLIFYING THE OVERPASS PLANS & POSSIBLY USING THE RED BARN & 50 + ACRES FOR A MUSEUM OR SOMETHING THAT THE COUNTY COULD BENEFIT FROM. THE TRAFFIC & CONGESTION MOSTLY COMES FROM THE FLEA MARKET & SHUTTING IT DOWN WOULD BENEFIT EVERYBODY.

1

Please comment by February 15, 2009

***Response to comment*:** The Red Barn Flea Market does in fact generate heavy traffic during operational hours; however, the purpose and need for the proposed project is to improve safety, congestion and access problems that are present every day of the week.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Steve R. Drake

ADDRESS: 3960 Ballantree CITY: Aromas ZIP: 95004

REPRESENTING:

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: C. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print):

I talked to Mr Norris on 2-13-09. Explaining to him that I have been the owner/Operator at the gas station @ 101 & San Juan rd for 20 years and a resident at Ballantree for 10 yrs. I have seen all the problems here. The interchange bridge prepossed as 10B & 10D in my opinion will not correct the worst problem wish is the Red Barn. I have much information & thoughts About this Area. Please contact me for more information.

1

Please comment by February 15, 2009

***Response to comment*:** Caltrans agrees that the Flea Market does cause congestion on Sundays but there are safety, congestion and access problems everyday of the week and our traffic projects indicate that these problems will only increase in the future if the project were not built. Interchange projects such as this have historically been the best means of improving congestion and safety.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Peter Voss

ADDRESS: 72 Ricardo Ct. CITY: Aromas ZIP: 95004

REPRESENTING:

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): I read your brochure "Your Rights and Benifits as a Displacee Under the Uniform Relocation Assistance Program -2007" and it does not discuss the situation where our U.S. economy is in. If I refinanced when my property was $940K, and the mortgage is around ~$700K, and when CalTrans purchases, an appraised value is ~~of~~ $650K, I then lose out because I am forced out of my home with no equity and I am forced to pay $50K to my lender. Does CalTrans ~~get~~ pay any of this or am I forced into some kind of legal battle?? Thanks for any input – Peter

1

Please comment by February 15, 2009

***Response to comment*:** The current economy has put a number of homeowners in similar situations, where they owe more than the current value of their home. When homes such as these are affected by a State project, Caltrans staff has been instructed to investigate them on a case-by-case basis. If justified, the Acquisition Branch **may** be able to settle the purchase price based on the amount owed to the mortgage holder. The Relocation Assistance Branch **may** then be able to provide funds toward a down payment for a replacement home. A recent memorandum dealing with this situation, including examples similar to what you described can be found on the Caltrans website:

http://www.dot.ca.gov/hq/row/rap/RARF2009-01.pdf

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: Mary Voss

ADDRESS: 72 Ricardo Ct CITY: Arcadia ZIP: 95004

REPRESENTING:

Do you wish to be added to the project mailing list? ☒ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): I would like to know if Plan "B" is engaged, would the property need to be sold to Cal Trans since it looks like it only "touches" the edge of the property. Can Cal Trans only buy that edge.

— Thanks

1

Please comment by February 15, 2009

***Response to comment 79*:** Yes, the State often purchases only a portion of a property needed for the right-of-way; however Caltrans has selected Build-Alternative 10D as the preferred alternative.

San Juan Road
INTERCHANGE

Public Information Meeting
February 5, 2009

NAME: ANTHONY VIOLA AND PATRICIA MILLER VIOLA

ADDRESS: 20140 ROCK SPRINGS LANE CITY: AROMAS ZIP: 95004

REPRESENTING: BALLANTREE ESTATES

Do you wish to be added to the project mailing list? ☐ YES ☐ NO

Please drop comments in the Comment Box or
Mail to: CALTRANS CENTRAL REGION – DIST. 06
Environmental Analysis Branch
2015 East Shields Suite 100
Fresno, CA 93726
Attention: G. William "Trais" Norris III at (559) 243-8178
Email address: Trais_Norris@dot.ca.gov

I would like the following comments filed in the record (please print): WE PREFER PLAN 10D WITH THE FRONTAGE ROAD ON THE FREEWAY SIDE OF THE "RED BARN" PROPERTY AND BALLANTREE LANE MAKING A "T" WITH THE FRONTAGE ROAD JUST NORTH OF ITS PRESENT LOCATION. THIS INTERSECTION WILL REQUIRE A STOP SIGN TO ITS LEFT, FACING THE NORTH BOUND TRAFFIC ON THE FRONTAGE ROAD EXITING THE "RED BARN" AREA. THE TRAFFIC FROM THE "RED BARN" AREA IS SO HEAVY ON SUNDAYS THAT THE TRAFFIC EXITING BALLANTREE ESTATES WOULD BE UNABLE TO ENTER THE NORTH BOUND FLOW OF TRAFFIC ON THE FRONTAGE ROAD LEAVING THE "RED BARN" AREA. SEE ATTACHED MAP.
THANK YOU

Please comment by February 15, 2009

1

***Response to comment*:** Build Alternative 10D has been selected as the preferred alternative. Please see Section 1.3.4 for details on the selection.

Caltrans does not install stop-control for a private street. Traffic on the public road has the right-of-way over traffic coming out of private streets. The county may decide otherwise when they take over the frontage road. Since the events at Red Barn are special weekend events, the Red Barn may be asked by the county to develop and implement a traffic flow control plan for its events, enabling better access to the nearby residences.

Section 4.0 Transcripts from Public Hearings

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CERTIFIED
COPY

REPORTER'S TRANSCRIPT OF PROCEEDINGS

MONTEREY AND SAN BENITO COUNTIES
HIGHWAY 101 AND DUNBARTON ROAD
IMPROVEMENT PROJECT

RECORD OF COMMENTS AT
PUBLIC HEARING HELD

THURSDAY, FEBRUARY 5, 2009

HELD AT:
AROMAS ELEMENTARY SCHOOL
AROMAS, CALIFORNIA

MONTEREY PENINSULA COURT REPORTERS, INC
P. O BOX 2681, MONTEREY, CALIFORNIA 93942-2681
(LOCAL) 831 375.2258 (FAX) 831 655 2258 TOLL FREE 800 242 6727

AROMAS, CA, TUESDAY, SEPTEMBER 25, 2007, 4:00 P.M.

MS. TOMPKINS: I am Hazel Tompkins. I've been a resident of Castroville and Monterey County for 35 years, although I'm on the road quite a bit. I have no opinion as of yet about the project; I want to hear what the group has to say first. But it's always safety first. Safety first. And, where is the money coming from?

1

MR. MEHRABI: Karim Mehrabi. All right. I have a business which is on exactly 101 and San Juan Road would be affected by this bridge overpass. I am at 2961 San Juan Road. My business is the gas station which is the only business is off the 101 which would be affected by this overpass.

And I have paid tremendous amount of money for this business. I put my life into it. And they are closing in and out of the San Juan Road which my business is established on base of it. And I am going to really fight for this. And if I have to get a lawyer, I will get a lawyer no matter what is going to cost me.

And I wanted to be here and I don't really want to be run over because I am the only one is off that 101. This is the third time I really said that, but I wanted to be sure they understand. This gas station was based, was built on base of this in and out of the 101, so is going to really destroy my life if this overpass will close in and out to my

2

business.

And whatever it takes, I will do. And I want to chance to have Caltrans get hold of me so we could go over this complaint.

And basically, I have a lot to say, but I don't think I could talk all night. This is the gas station, which is on the map -- of all those maps they have -- they gave us to for that overpass and what it is. I have -- they said basically the most dangerous part of the 101 is going over from northbound to the southbound, and it cause a lot of accidents. But for past ten, eleven years, I haven't seen or hear anybody coming from 101 to San Juan Road or from San Juan Road getting back to 101 was causing any accident or any problem.

And I wanted -- I don't mind to see they cure the problem, which is going over the 101, which it creates the accident, to be blocked, but I don't understand why in and out of the 101 will be blocked, which is basically they permit me because of that in and out. And I don't see why they want to really block that off. Thank you very much.

I can add that I hope someone will call me or I hear from someone. I am going to write down directly complaint to the Caltrans headquarters, but I wanted to -- to have someone explain for me why they are going to do that. Is going to affect me a lot. And I did talk to them several

1 times, too, in -- I think that headquarters was down in
2 Fresno. I can't recall exact. Thank you.
3 (Further comments at 6:29 p.m.)
4 I make some addition to complaint. Again, my name
5 is Karim Mehrabi, 2961 San Juan Road.
6 I just want to say I purchase this station with --
7 with lots of money and I have all paperwork available. And I
8 just listen to the Project Manager here, and I did not
9 realize it, but this is look like the end of business for me
10 because the Project Manager say they going to close the 101
11 by putting a fence all the way across my station.
12 That means they going to shut me down from 101 and
13 I am not going to have any access from San Juan Road because
14 San Juan Road before my station is going to change behind and
15 goes to the Cole Road, and that means I am -- that's it.
16 That's the end of it for me. I don't think am even going to
17 have even one customer who comes to my station. All the way
18 around the station, I'm going to be surrounded with the
19 closing fence in the front changing the San Juan Road all the
20 way back to the Cole Road. I am done. I have -- I am
21 complaining really highly.
22 My life is on the line. And if I have to sell
23 everything I own, I am going to fight this project. This is
24 not -- tonight, all I hear is what happened to the Red Barn.
25 We go this way off the Red Barn, we go that way off the Red

1 Barn, but no concern about the gas station which is close to
2 the Red Barn, and they going to shut me down. Basically,
3 they try to get all kinds of access to the Red Barn, but not
4 the gas station who is open seven days of the week and trying
5 to do a business 365 days of the year. No closing.
6 And they really going to shut me down. And
7 everything I own, I'm going to sell really by this project
8 unless somebody directly come and talk to me and solve my
9 problem, because I am the only one is going to really be shut
10 down here. That's it for me. Today or tomorrow, or in 2013,
11 it really doesn't matter. They're going to shut me down.
12 All the plans, all the plans shows regardless they
13 going to close all access from 101 to my station. That means
14 they going to make my station dead meat, that's what it is.
15 And I need someone to contact me or I am going to contact
16 them if I have to. I don't know, have lawyer or whatever.
17 But this shows the end of my business. And this is going to
18 be -- this end of the business is going to the Caltrans who
19 is going to liable for it. Because they is planning that,
20 they are putting this project together with no concern about
21 that piece of property.
22 That's all I hear tonight. Not one word, not one
23 bit of concern for the gas station is there. My gas station
24 is a landmark, too. Has been there forever. Has been there
25 as long as the Red Barn has been across to the station. If

they have a great concern for Red Barn, I am across from the Red Barn; they should have a concern for me. I am asking for same as they are.

Please have someone contact me. This is hundred times I say that. I am going to go after this project and no matter what. Thank you very much. **3**

MS. MONTEJANO: My name is Juliana Montejano. We're the owners of one of the properties involved.

In looking through the alternatives, we have actually seen that the Alternative D will be better for us since we can actually stay in the house and not have to leave. So I think the Alternative D, as in dog, will be best for us. **4**

MS. TAYLOR: I am Judith Taylor. I'm interested in the impact and what's going to happen on Oak Ridge Drive and Dunbarton. What kind of impact the project will have on it, and whether or not the road will be lowered. Because it has to be at the same level it is now because we have a handicapped person that drives in and out and barely makes it because of the slope down into -- on to Oak Ridge versus Dunbarton. **5**

And are they going to, with that, replace the drainage pipe that goes under Oak Ridge just beyond Dunbarton -- south of Dunbarton. I was concerned about making sure that it doesn't raise that road. It would be better if they **6**

1 actually lowered it, Dunbarton, at that area where the
2 cul-de-sac's going to go in, where the work's going to
3 happen. Thank you.
4 MR. SCIRIGIONE: My name is John, last name is
5 Scirigione.
6 I am a resident of Ricardo Drive and I routinely
7 take the Cole Road crossover to turn northbound on Route 101.
8 I am additionally concerned on weekends especially when
9 confronted with an excessive amount of traffic coming from
10 the Red Bard that is turning from northbound 101 to
11 southbound 101 via the Cole Road crossover to head back to
12 Salinas.
13 I am concerned that during construction, these
14 conflicts will increase, and recommend that Caltrans consider
15 a separate, dedicated connection between northbound 101 and
16 southbound 101 for traffic going each direction to be able to
17 make that turn safely. Thank you.
18 MS. WHITMAN: I'm Adrienne Whitman, and my concern
19 is the traffic from the Red Barn. If this could be a
20 temporary lane for the people going southbound -- actually
21 they're going to northbound 101 and that was before they get
22 to the Cole Road exit. If there could be a lane before Cole
23 Road so they can do their U-turns back onto southbound 101,
24 it would be safer.
25 I think the biggest problem right now is just

7

dealing with the Red Barn traffic, period. And my other concern is, I'm hearing that there is going to be more truck traffic coming through the neighborhoods because the 129 truckers are actually making statements that if this interchange does occur, they'll decide to use San Juan Road and use the freeway access to Watsonville, so there will be added truckers.

8

MR. MONTEJANO: My comment would be, I think I prefer the D -- 10D. I prefer 10D over 10B.

I think overall, I like the design of it better and I think it would work for better traffic flow. It would be added trucks; I agree. That would actually help because they're not having to come to a complete stop probably. It would be worse for us, but better for traffic. Thank you.

9

MS. BALLANTRI: I am Viola Ballantri, and this is fine, except we need stop signs to regulate the flow of traffic from people exiting the Red Barn on Sunday and one on ours to patrol our traffic. Thank you very much.

10

(End of comments.)

STATE OF CALIFORNIA)
) ss.
COUNTY OF MONTEREY)

I, JOANNE C. BUSHAW, a Certified Shorthand Reporter, License No. 4334, duly certified by the State of California, do hereby certify:

That the foregoing proceedings, being pages 1 through 8 only, were taken before me at the time and place first herein set forth;

That the foregoing transcript is a true and correct record of all proceedings had at the time and place of this public hearing, as recorded by me stenographically, to the best of my ability, and thereafter prepared in transcript form under my direction;

I further certified that I am a disinterested person, and that I am in no way interested in the outcome of said action.

DATED this 5th of February, 2009.

Joanne C. Bushaw
Certified Shorthand Reporter
State of California

***Response to comment 1*:** Funding would come from Federal and State highway funds as well as from the Transportation Agency for Monterey County.

Response to comments 2 and 3: The commenter may have misunderstood Caltrans staff at the Public Hearing held in Aromas February 5, 2009.

- There are no plans to construct any additional fencing beyond the existing around the Valero (Union 76) Gas Station.
- There are no plans to close access to the gas station; in fact San Juan Road will have continuous two-way left turn lane for San Juan Road business access.
- No property will be acquired from the gas station.

The project would improve access for westbound traffic on San Juan Road by providing a continuous two-way left-turn lane. There may be temporary construction impacts, however a Traffic Management Plan will be in force to allow continued access to businesses.

***Response to comment 4*:** Build Alternative 10D has been selected as the preferred alternative. Please see Section 1.3.4 for details on the selection.

***Response to comments 5 and 6*:** As a part of the proposed cul-de-sac on Dunbarton Road the existing Oak Ridge Drive connection would be reconstructed between the existing Oak Ridge Drive gate and the proposed cul-de-sac. The existing grade would be reduced. At this time there is no proposal to reconstruct/replace the culvert under Oak Ridge Drive. The proposed cul-de-sac grade would conform to the existing Dunbarton Road (north).

***Response to comment 7*:** A Traffic Management Plan will be in place for the construction phase of the project. The plan will consider all turns. Following construction, controlled access from the ramp network would prevent further conflicts.

***Response to comment 8*:** Access control from the ramp network should alleviate conflicts with the Red Barn customers. Caltrans Traffic Analysis reviewed these comments and is aware of your concerns about increased truck traffic.

***Response to comment 9*:** Build Alternative 10D has been selected as the preferred alternative. Please see Section 1.3.4 for details on the selection.

***Response to comment 10*:** Caltrans does not install stop-control for a private street. Traffic on a public road has the right-of-way over traffic coming out of private streets. The county may decide otherwise when it takes over the frontage road.

Appendix J Biological Opinion

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
81440-2009-F-0345

October 7, 2009

Jim Walth, Associate Environmental Planner
California Department of Transportation
50 Higuera Street
San Luis Obispo, California 93401-5415

Subject: Biological Opinion for the San Juan Interchange Project, Monterey and San Benito Counties, California (8-8-09-F-36)

Dear Mr. Walth:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the California Department of Transportation's (Caltrans) San Juan Interchange Project, Monterey and San Benito Counties, and its effects on the federally threatened California red-legged frog (*Rana aurora draytonii*), California tiger salamander (*Ambystoma californiense*), and vernal pool fairy shrimp (*Branchinecta lynchi*), and the federally endangered Conservancy fairy shrimp (*Branchinecta conservitio*), longhorn fairy shrimp (*Branchinecta longientenna*), vernal pool tadpole shrimp (*Lepidurus packardi*), and least Bell's vireo (*Vireo bellii pusillus*) in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.).

Caltrans has assumed the Federal Highway Administration's (FHWA) authority and responsibility for compliance with the National Environmental Policy Act and other environmental laws. A memorandum of understanding between the FHWA and Caltrans allows Caltrans to serve as the lead Federal agency for formal consultation on the proposed project. Your request for initiation of formal consultation, sent June 15, 2009, was received by our office on June 16, 2009.

The subject project is within or near the historic range of the vernal pool fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp. Protocol level dry season and wet season surveys were conducted in all potential vernal pool habitat in 2008 and 2009 (Caltrans 2009). The results for all the surveys were negative for fairy shrimp. Therefore, you have determined that the subject project will not affect vernal pool fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp. We concur with your determination. We have based this concurrence on the results of the protocol level surveys that indicated a lack of occupied habitat within the project area. Based on this concurrence, vernal pool fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp will not be discussed further within the biological opinion.

The subject project is within the range of the least Bell's vireo. Protocol level surveys were conducted in the project area in 2007 (Greaves 2007). The results were negative for presence of least Bell's vireo. Therefore, you have determined that the subject project will not affect least Bell's vireo. We concur with your determination. We have based this concurrence on the limited amount of suitable habitat and the results of the protocol level surveys that indicated a lack of occupied habitat within the project area. Based on this concurrence, least Bell's vireo will not be discussed further within the biological opinion.

This biological opinion is based on information that accompanied your request for consultation, including the biological assessment (Caltrans 2009). A complete administrative record for this consultation is on file at the Ventura Fish and Wildlife Office.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

Caltrans and the Federal Highway Administration (FHWA) propose to construct an interchange on U.S. Route 101 north of the city of Prunedale, Monterey and San Benito Counties. The proposed project would construct an overcrossing at a right angle with Route 101 northeast of the Monterey/San Benito county line. The southbound on-ramp and southbound off-ramp would be a compact diamond interchange configuration. The northbound off-ramp and northbound on-ramp would be a one-quadrant cloverleaf interchange configuration.

The overcrossing of San Juan Road would end at the intersection with a public frontage road on the east side of Route 101. This public frontage road would run south between the northbound off-ramp and the existing Red Barn structure and the end with a cul-de-sac at Marilyn Lane. The Red Barn building would be preserved. Marilyn Lane and Ballantree Lane are private roads and would be connected to this frontage road.

Access to Dunbarton Road (north) from Route 101 would be removed. Dunbarton Road (north) would become a frontage road ending with a cul-de-sac. The gaps in the median barrier on Route 101 within the project limits would be closed with a concrete barrier. Full access control is proposed from 0.4-mile north of Dunbarton Road (north) in Monterey County to 0.2-mile north of Cole Road in San Benito County, and conversion of this segment of Route 101 from a 4-lane rural expressway to a freeway.

The facility would be an interchange on a rural freeway in rolling terrain. The freeway design speed would be 70 miles per hour. The proposed overcrossing structure would provide for future widening to the ultimate six-lane freeway.

The existing Route 101 would retain the current horizontal, vertical, and cross-sectional geometric features except for the section from the San Juan Road intersection to Cole Road. The outside shoulders would be widened to the standard width of 10 feet. A 22-foot wide median with a new concrete barrier would be constructed from the San Juan Road intersection to the

point where the southbound and northbound lanes diverge. The existing gaps in the median barrier at Dunbarton Road (north) and at San Juan Road would be closed with a concrete barrier.

The overcrossing structure would span Route 101, the proposed northbound on-ramp, and the adjacent Elkhorn Slough tributary. The structure width would accommodate three, 12-foot-wide lanes, 8-foot-wide shoulders, and a 6-foot-wide sidewalk. Ramps would have a 12-foot-wide lane and 4- and 8-foot-wide shoulders.

Caltrans proposes the following conservation measures to minimize adverse effects to California red-legged frogs and California tiger salamanders (Caltrans 2009):

1. Work that would impact aquatic resources will be completed during the dry season (typically May 1 –November 1).

2. A qualified biologist or designee will conduct pre-construction surveys for special-status plants and wildlife species. Pre-construction surveys will be scheduled 2 weeks prior to the beginning of construction. The survey area will include the Area of Potential Impact (API) identified on project maps, potential temporary construction access areas and routes, vehicle and equipment storage areas, stream channels in the API, and any staging or borrow sites.

3. The biologist or designee will be present on site during all construction activities that have the potential to impact special-status species within the API and will monitor compliance with all avoidance and minimization measures. The biologist or designee will provide the contractor with instructions on the identification of all special-status species that can occur within the API.

4. The Caltrans Resident Engineer, in consultation with the biologist or designee will have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during regulatory agency review. If work is stopped, the appropriate regulatory agency will be notified by the biologist or designee.

5. Environmentally Sensitive Area (ESA) fencing or other appropriate protective markers or signs will be installed to reduced impacts to biological resources. ESA protection will be established in construction areas that have the potential to impact sensitive plant communities, wetlands, potential habitat for special status species, and any identified special-status plant or wildlife species. ESAs will be shown on the project plans and delineated in the field by the project biologist or designee prior to the on-set of construction activities, including vehicle storage.

6. Any water used to control dust and protect air quality during construction will not be taken from local streams and ponds that are known to support sensitive animal species.

7. The number of access routes, size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries

will be clearly defined in the field to minimize activities in biologically sensitive areas. Where practical, all access will be restricted to the existing roads or to designated temporary access areas.

8. No heavy equipment will be operated in flowing water outside of the designated work area.

9. Refueling and maintenance of equipment and vehicles will be conducted at least 20 meters (60 feet) from aquatic habitat, wetland areas, or other water resources. The contractor will be required to take appropriate measures to prevent contamination of aquatic resources during such operations.

10. All construction activities will be completed in accordance with Caltrans National Pollution Discharge Elimination System Permit, the General Construction Permit, and Caltrans Statewide Stormwater Management Plan. The permittee will implement appropriate best management practices to minimize or eliminate the potential for a non-storm water discharge to occur. A permanent erosion control plan and seeding specification will be included with the project plan.

11. If work areas need to be de-watered, pumping intakes will be completely screened to prevent aquatic wildlife form entering the pumping system. Water will be released or pumped downstream to maintain appropriate stream flows.

12. Where feasible, vegetation within all temporarily disturbed areas will be cut off at ground level rather than clearing and grubbing with heavy equipment.

13. Creek contours will be returned to their original condition at the end of the project activities, unless determined unbeneficial by regulatory agencies.

14. After construction is complete, areas disturbed by the project will be revegetated with native vegetation.

15. Any trees that need to be removed for construction will be removed between September 1 and February 15 to avoid potentially nesting migratory birds. The biologist or designee will be contacted at least 1 month prior to trees being removed to allow time for inspection of the trees for active nests.

ANALYTICAL FRAMEWORK FOR THE JEOPARDY DETERMINATION

The jeopardy analysis in this biological opinion relies on four components: (1) the Status of the Species, which evaluates the range-wide condition of the California red-legged frog and California tiger salamander, the factors responsible for that condition, and their survival and recovery needs; (2) the Environmental Baseline, which evaluates the condition of the California red-legged frog and California tiger salamander in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the California

red-legged frog and California tiger salamander; (3) the Effects of the Action, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the California red-legged frog and California tiger salamander; and (4) the Cumulative Effects, which evaluates the effects of future, non-Federal activities in the action area on the California red-legged frog and California tiger salamander.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the current status of the California red-legged frog and California tiger salamander, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the California red-legged frog and California tiger salamander in the wild.

The jeopardy analysis in this biological opinion places an emphasis on consideration of the range-wide survival and recovery needs of the California red-legged frog and California tiger salamander and the role of the action area in the survival and recovery of the California red-legged frog and California tiger salamander as the context for evaluation the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

STATUS OF THE SPECIES

California red-legged frog

The California red-legged frog was federally listed as threatened on May 23, 1996 [61 Federal Register (FR) 25813]. The Service completed a recovery plan for the subspecies in 2002 (Service 2002). The Service designated critical habitat for the California red-legged frog on April 13, 2006 (71 FR 19244). On September 16, 2008, the Service proposed a new rule to designate 1.8 million acres as critical habitat for the California red-legged frog, an area that is 300 percent larger than the 2006 designation for the subspecies (73 FR 53492). Caltrans and the Service are not consulting on critical habitat as the project does not occur within a designated or proposed critical habitat unit.

The historic range of the California red-legged frog extended coastally from southern Mendocino County and inland from the vicinity of Redding, California, southward to northwestern Baja California, Mexico (Jennings and Hayes 1985, Storer 1925). The California red-legged frog has been extirpated or nearly extirpated from 70 percent of its former range. Historically, this subspecies was found throughout the Central Valley and Sierra Nevada foothills. Four additional occurrences have been recorded in the Sierra Nevada foothills since listing, bringing the total to five extant populations, compared to approximately 26 historical records (Service 2006). Currently, California red-legged frogs are known from three disjunct regions in 26 California counties and one region in Baja California, Mexico (Grismer 2002; Fidenci 2004; and R. Smith and D. Krofta, in litt. 2005). At present, California red-legged frogs are known to occur in 243 streams or drainages from 22 counties, primarily in central coastal California.

California red-legged frogs have been found at elevations that range from sea level to about 5,000 feet. In the Sierra Nevada Mountains, California red-legged frogs typically occur below 4,000 feet in elevation (Service 2006). The California red-legged frog uses a variety of habitat types, including various aquatic systems, riparian, and upland habitats. The diet of California red-legged frogs is highly variable. Tadpoles probably eat algae (Jennings et al. 1992). Hayes and Tennant (1985) found invertebrates to be the most common food item of adults. Vertebrates, such as Pacific tree frogs (*Hyla regilla*) and California mice (*Peromyscus californicus*), represented over half of the prey mass eaten by larger frogs (Hayes and Tennant 1985). Feeding activity probably occurs along the shoreline and on the surface of the water. Hayes and Tennant (1985) found juveniles to be active diurnally and nocturnally, whereas adults were largely nocturnal.

California red-legged frogs breed from November through March; earlier breeding has been recorded in southern localities (Storer 1925). Males appear at breeding sites from 2 to 4 weeks before females (Storer 1925). Female California red-legged frogs deposit egg masses on emergent vegetation so that the masses float on the surface of the water (Hayes and Miyamoto 1984). Egg masses contain about 2,000 to 5,000 moderately-sized, dark reddish brown eggs (Storer 1925, Jennings and Hayes 1985). Eggs hatch in 6 to 14 days (Storer 1925). Larvae undergo metamorphosis for 3.5 to 7 months after hatching (Storer 1925, Wright and Wright 1949). Sexual maturity can be attained at 2 years of age by males and 3 years of age by females (Jennings and Hayes 1985); adults may live 8 to 10 years (Jennings et al. 1992) although the average life span is considered to be much lower. The California red-legged frog is a relatively large aquatic frog ranging from 1.5 to 5 inches from the tip of the snout to the vent (Stebbins 2003).

California red-legged frogs breed in aquatic habitats. Larvae, juveniles, and adults have been collected from streams, creeks, ponds, marshes, plunge pools and backwaters of streams, dune ponds, lagoons, and estuaries. California red-legged frogs frequently breed in artificial impoundments such as stock ponds, if conditions are appropriate. Although California red-legged frogs successfully breed in streams and riparian systems, high seasonal flows and cold temperatures in streams often make these sites risky environments for eggs and tadpoles. The importance of riparian vegetation for this species is not well understood. When riparian vegetation is present, California red-legged frogs spend considerable time resting and feeding in it; the moisture and camouflage provided by the riparian plant community likely provide good foraging habitat and may facilitate dispersal in addition to providing pools and backwater aquatic areas for breeding.

Juvenile and adult California red-legged frogs may disperse long distances from breeding sites throughout the year. They can be encountered living within streams at distances exceeding 1.8 miles from the nearest breeding site, and have been found up to 400 feet from water in adjacent dense riparian vegetation (Bulger et. al 2003). During periods of wet weather, starting with the first rains of fall, some individuals may make overland excursions through upland habitats. Most of these overland movements occur at night. Bulger et al. (2003) found marked California red-legged frogs in Santa Cruz County making overland movements of up to 2 miles over the course of a wet season. These individual frogs were observed to make long-distance movements that

are straight-line, point to point migrations over variable upland terrain rather than using riparian corridors for movement between habitats. For the California red-legged frog, suitable habitat is considered to include all aquatic and riparian areas within the range of the species and includes any landscape features that provide cover and moisture (Service 1996).

Habitat loss and degradation, combined with over-exploitation and introduction of exotic predators, were important factors in the decline of the California red-legged frog in the early to mid-1900s. Continuing threats to the California red-legged frog include direct habitat loss due to stream alteration and loss of aquatic habitat, indirect effects of expanding urbanization, competition or predation from non-native species including the bullfrog (*Rana catesbeiana*), catfish (*Ictalurus* spp.), bass (*Micropterus* spp.), mosquitofish (*Gambusia affinis*), red swamp crayfish (*Procambarus clarki*), and signal crayfish (*Pacifasticus leniusculus*). Chytrid fungus (*Batrachochytrium dendrobatidis*) is a waterborne fungus that can decimate amphibian populations, and is considered a threat to California red-legged frog populations.

California tiger salamander

The Service recognizes three distinct populations of the California tiger salamander; in Sonoma County (68 FR 13498), in Central California (69 FR 47212), and in northern Santa Barbara County (65 FR 57242). On September 21, 2000, we listed the Santa Barbara County distinct population of the California tiger salamander as endangered (65 FR 57242). On March 19, 2003, we listed the Sonoma County distinct population segment of the California tiger salamander as endangered (68 FR 13498). On August 3, 2004, we published a final rule listing the California tiger salamander as threatened range-wide, including the previously identified Sonoma and Santa Barbara distinct population segments (69 FR 47212). On August 19, 2005, U.S. District Judge William Alsup vacated the Service's downlisting of the Sonoma and Santa Barbara populations from endangered to threatened. Thus, the Sonoma and Santa Barbara populations are once again listed as endangered, and the Central California population is listed as threatened. On November 24, 2004, we designated critical habitat for the Santa Barbara County population of California tiger salamander (69 FR 68568). On August 23, 2005, we designated critical habitat for the California tiger salamander, Central population, in four regions: Central Valley, Southern San Joaquin Valley, East Bay, and Central Coast (70 FR 49380). On December 14, 2005, we designated critical habitat for the Sonoma County distinct population segment of the California tiger salamander (70 FR 74138).

The California tiger salamander is endemic to the grassland community found in California's Central Valley, the surrounding foothills, and coastal valleys (Fisher and Shaffer 1996). The distribution of breeding locations of this amphibian does not naturally overlap with that of any other species of tiger salamander (Loredo et al. 1996, Petranka 1998, Stebbins 2003).

Historically, natural ephemeral vernal pools were the primary breeding habitats for California tiger salamanders (Twitty 1941, Fisher and Shaffer 1996, Petranka 1998). However, with the conversion and loss of many vernal pools through farmland conversion and urban and suburban development, ephemeral and permanent ponds that have been created for livestock watering are now frequently used by the species (Fisher and Shaffer 1996, Robins and Vollmar 2002).

California tiger salamanders spend the majority of their lives in upland habitats and cannot persist without them (Trenham and Shaffer 2005). The upland component of California tiger salamander habitat typically consists of grassland savannah, but includes grasslands with scattered oak trees, and scrub or chaparral habitats (Shaffer et al. 1993, 65 FR 57242). Juvenile and adult California tiger salamanders spend the dry summer and fall months of the year in the burrows of small mammals, such as California ground squirrels (*Spermophilus beecheyi*) and Botta's pocket gophers (*Thomomys bottae*) (Storer 1925, Loredo and Van Vuren 1996, Trenham 1998, Pittman 2005). The creation of burrow habitat by ground squirrels and utilized by California tiger salamanders suggests a commensal relationship between the two species (Loredo et al. 1996).

Movement of California tiger salamanders within and among burrow systems continues for at least several months after juveniles and adults leave the ponds (Trenham 2001). California tiger salamanders cannot dig their own burrows, and as a result their presence is associated with burrowing mammals (Seymour and Westphal 1994). Active ground-burrowing rodent populations likely are required to sustain California tiger salamanders because inactive burrow systems become progressively unsuitable over time (69 FR 47212). Loredo et al. (1996) found that California ground squirrel burrow systems collapsed within 18 months following abandonment by, or loss of, the mammals.

California tiger salamanders have been found in upland habitats various distances from aquatic breeding habitats. In a trapping study in Contra Costa County, California tiger salamanders were trapped approximately 2,625 feet to 3,940 feet away from potential breeding habitat (69 FR 47212). During a mark and recapture study in the Upper Carmel River Valley, Monterey County, Trenham et al. (2000) observed California tiger salamanders dispersing up to 2,200 ft between breeding ponds between years. In research at Olcott Lake, Solano County, Trenham and Shaffer (2005) captured California tiger salamanders in traps installed 1,312 feet from the breeding pond.

Adults enter breeding ponds during fall and winter rains, typically from October through February (Storer 1925, Loredo and Van Vuren 1996, Trenham et al. 2000). Males migrate to the breeding ponds before females (Twitty 1941, Shaffer et al. 1993, Loredo and Van Vuren 1996, Trenham 1998). Males usually remain in the ponds for an average of about 6 to 8 weeks, while females stay for approximately 1 to 2 weeks. In dry years, both sexes may stay for shorter periods (Loredo and Van Vuren 1996, Trenham 1998).

Females attach their eggs singly or, in rare circumstances, in groups of two to four, to twigs, grass stems, vegetation, or debris in the water (Storer 1925, Twitty 1941). In ponds with little or no vegetation, females may attach eggs to objects, such as rocks and boards on the bottom (Jennings and Hayes 1994). In drought years, the seasonal pools may not form and the adults may not breed (Barry and Shaffer 1994). The eggs hatch in 10 to 14 days with newly hatched salamanders (larvae) ranging in size from 0.5 to 0.6 inch in total length (Petranka 1998). The larvae are aquatic. Each is yellowish gray in color and has a broad fat head, large, feathery external gills, and broad dorsal fins that extend well onto its back. The larvae feed on zooplankton, small crustaceans, and aquatic insects for about 6 weeks after hatching, after which

they switch to larger prey (J. Anderson 1968). Larger larvae have been known to consume smaller tadpoles of Pacific tree frogs and California red-legged frogs (J. Anderson 1968). The larvae are among the top aquatic predators in the seasonal pool ecosystems.

The larval stage of the California tiger salamander usually lasts 3 to 6 months, because most seasonal ponds and pools dry up during the summer (Petranka 1998). Amphibian larvae must grow to a critical minimum body size before they can metamorphose (change into a different physical form) to the terrestrial stage (Wilbur and Collins 1973). Larvae collected near Stockton in the Central Valley during April varied from 1.9 to 2.3 inches in length (Storer 1925). Feaver (1971) found that larvae metamorphosed and left the breeding pools 60 to 94 days after the eggs had been laid, with larvae developing faster in smaller, more rapidly drying pools. The longer the inundation period, the larger the larvae and metamorphosed juveniles are able to grow, and the more likely they are to survive and reproduce (Semlitsch et al. 1988, Pechmann et al. 2001). The larvae perish if a site dries before they complete metamorphosis (P. Anderson 1968, Feaver 1971). Pechmann et al. (2001) found a strong positive correlation between inundation period and total number of metamorphosing juvenile amphibians, including tiger salamanders.

Metamorphosed juveniles leave the breeding sites in the late spring or early summer. Like the adults, juveniles may emerge from these retreats to feed during nights of high relative humidity (Storer 1925, Shaffer et al. 1993) before settling in their selected upland sites for the dry, hot summer months. While most California tiger salamanders rely on rodent burrows for shelter, some individuals may utilize soil crevices as temporary shelter during upland migrations (Loredo et al. 1996). Mortality of juveniles during their first summer exceeds 50 percent (Trenham 1998). Emergence from upland habitat in hot, dry weather occasionally results in mass mortality of juveniles (Holland et al. 1990).

Lifetime reproductive success for California and other tiger salamanders is low. Trenham et al. (2000) found the average female bred 1.4 times over a lifetime, and produced 8.5 young that survived to metamorphosis, per reproductive effort. This resulted in approximately 12 metamorphic offspring over the lifetime of a female. Trenham et al. (2000) also reported that most California tiger salamanders in their study did not reach sexual maturity until 4 or 5 years old, and that less than 5 percent of juveniles survived to reach sexual maturity.

The California tiger salamander is threatened primarily by the destruction, degradation, and fragmentation of upland and aquatic habitats, primarily resulting from the conversion of these habitats by urban, commercial, and intensive agricultural activities (65 FR 57242, 68 FR 13498, 69 FR 47212). Additional threats to the species include hybridization with introduced non-native barred tiger salamanders (*A. tigrinum mavortium*) (65 FR 57242, 69 FR 47212), destructive rodent-control techniques (e.g., deep-ripping of burrow areas, use of fumigants) (68 FR 13498), reduced survival due to the presence of mosquitofish (Leyse and Lawlor 2000), and mortality on roads due to vehicles (65 FR 57242).

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) of the Act define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 Code of Federal Regulations (CFR) 402.02). For the purposes of this biological opinion, we consider the action area to be all areas where people and equipment will be working or staging as described in the Description of the Proposed Action portion of this biological opinion.

The proposed project area is located approximately 4 miles north of the city of Prunedale in Monterey and San Benito Counties, California. The project extends along the existing Route 101 alignment from approximately 0.3-miles south of the Dunbarton Road junction, north to Cole Road; along San Juan Road from the junction with Route 101, west to the junction with Dunbarton Road. The upland habitat in the project area includes annual grassland and highly disturbed areas, such as roads and parking lots.

California red-legged frog

No records of California red-legged frogs occur within the action area; however, we believe that it is possible that California red-legged frogs could occur there (CNDDB 2009). No protocol surveys were performed for California red-legged frogs for this project. Numerous records of California red-legged frogs within 5 miles of the project area are reported in the California Natural Diversity Database (CNDDB) (CNDDB 2009).

California tiger salamander

No records of California tiger salamanders occur within the action area; however, we believe that it is possible that California tiger salamanders could occur there (CNDDB 2009). Several potential breeding ponds for California tiger salamanders occur within the vicinity of the action area. Protocol level aquatic surveys were conducted in 2007. No California tiger salamanders were identified; however, the results of the surveys were inconclusive due to access limitations of private land and limited rainfall (Mori 2007). One known California tiger salamander breeding pond is approximately 0.10-mile from the action area (Mori 2007; CNDDB 2009).

EFFECTS OF THE ACTION

The proposed action would permanently remove approximately 14 acres of suitable upland habitat for California red-legged frogs and California tiger salamanders from the realignment of the Route100/San Juan Road interchange and frontage roads. The cut and fill activities associated with the interchange project would result in the temporary loss of approximately 40 acres of suitable upland habitat for California red-legged frogs and California tiger salamanders. The replacement of the 15 culverts and the creek realignment would result in temporary loss of aquatic habitat for the California red-legged frog.

Development and construction activities in the action area could result in long-term and short-term effects on California red-legged frogs and California tiger salamanders from permanent and temporary disturbance to upland and aquatic habitat. Direct adverse effects to California red-legged frogs and California tiger salamanders in the action area may include injury or mortality from being crushed by heavy equipment, construction debris, and worker foot traffic. These impacts would be reduced by minimizing and clearly demarcating the boundaries of the project area and equipment access routes. Attempting to avoid work activities during the dispersal season would further reduce adverse impacts.

Construction activities, including noise and vibration, may cause California red-legged frogs and California tiger salamanders to temporarily abandon habitat adjacent to work areas. The disturbance may increase the potential for predation and desiccation when California red-legged frogs or California tiger salamanders leave shelter areas.

Grading and paving activities associated with the interchange project could likely result in the death of California red-legged frogs and California tiger salamanders sheltering within ground squirrel burrows and migrating through the action area. The destruction of any rodent burrows could result in mortality or injury to any California tiger salamanders that remain in the project area. Identification of, and fencing or marking a buffer around, upland burrows suitable for salamander or frog refugia in the project area, as proposed in the Description of Proposed Action section of this biological opinion, would minimize injury or death to California red-legged frogs and California tiger salamanders.

The capture and handling of California red-legged frogs and California tiger salamanders to move them from a work area could result in injury or mortality as a result of improper handling, containment, or transport of individuals or from releasing them into unsuitable habitat. The use of a Service-approved biologist, who is authorized to relocate any California red-legged frogs and California tiger salamanders found alive during grading and construction activities, would help minimize injury to California red-legged frogs and California tiger salamanders.

Chytrid fungus is a water-borne fungus that can be spread through direct contact between aquatic animals and by a spore that can move short distances through the water. The fungus only attacks the parts of an animal's skin that have keratin (thickened skin), such as the mouthparts of tadpoles and the tougher parts of adults' skin, such as the toes. It can decimate amphibian populations, causing fungal dermatitis, which usually results in death in 1 to 2 weeks. Infected animals may spread the fungal spores to other ponds and streams before they die. Once a pond has become infected with chytrid fungus, the fungus stays in the water for an undetermined amount of time. Infected equipment or footwear could introduce chytrid fungus into areas where it did not previously occur. If this occurs in the action area, many California red-legged frogs or California tiger salamanders could be affected.

The potential exists for uninformed workers to intentionally or unintentionally injure or kill California red-legged frogs or California tiger salamanders. The potential for this impact to occur would be reduced by informing workers of the presence and protected status of these

species and the measures that are being implemented to protect them during project activities as described in the project description section of this biological opinion.

Potential temporary impacts to aquatic habitat for California red-legged frogs could occur from dewatering activities during culvert replacement. California red-legged frogs could become stranded and desiccate if appropriate habitat is not available nearby. Tadpoles may be entrained by pump intakes, if such devices are used to dry out work areas. Screening pump intakes with wire mesh with holes not larger than 0.2 inches will preclude larger tadpoles from entering the intakes. Surveying for individuals prior to construction and activities and proper relocation of any individuals would minimize risk of injury or mortality.

Work in streams or in floodplains could cause unusually high levels of siltation downstream. This siltation could smother eggs of California red-legged frogs and alter the quality of the habitat to the extent that use by individuals of the species is precluded. Implementing best management practices and reducing the area to be disturbed to the minimum necessary will likely assist in reducing the amount of sediment that is washed downstream as a result of project activities.

Trash left during or after project activities could attract predators to work sites, which could, in turn, prey upon California red-legged frogs or California tiger salamanders. For example, feral cats (*Felis catus*) and raccoons (*Procyon lotor*) are attracted to trash and could prey opportunistically on California red-legged frogs or California tiger salamanders.

Accidental spills of hazardous materials or careless fueling or oiling vehicles or equipment could degrade aquatic or upland habitat to a degree where California red-legged frogs or California tiger salamanders are adversely affected or killed. The potential for this impact to occur will be reduced by requiring: all refueling, maintenance, and staging of equipment and vehicles to occur at least 60 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat; the monitor to ensure contamination of habitat does not occur during such operations; that a plan is in place for prompt and effective response to any accidental spills; and all workers be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

The proposed action would affect a small number of California red-legged frogs and California tiger salamanders during project implementation. Because of the small amount of potentially suitable habitat in the action area, the timing of the proposed activities, and because Caltrans has proposed measures to protect both species, we anticipate that few, if any, California red-legged frogs or California tiger salamanders are likely to be killed or injured during this work.

In summary, the effects from implementing the proposed action on the California red-legged frog and the California tiger salamander are likely to be minimal. Only a small portion of habitat of the entire range of California red-legged frogs and California tiger salamanders would be affected by the project.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. We are unaware of any non-federal actions that are reasonably certain to occur in the action area.

CONCLUSION

After reviewing the current status of the California red-legged frog and the California tiger salamander, the environmental baseline for the action area, the effects of the proposed interchange construction, and the cumulative effects, it is the Service's biological opinion that the proposed project is not likely to jeopardize the continued existence of the California red-legged frog or the California tiger salamander.

We have reached these conclusions because:

1. In comparison with the amount of habitat available to the California red-legged frog and the California tiger salamander elsewhere in Monterey and San Benito Counties, only a small amount of habitat would be permanently lost or temporarily disturbed;

2. Few, if any, California red-legged frogs or California tiger salamanders are likely to be killed or injured during project activities; and

3. Caltrans has proposed measures to reduce the adverse effects of the proposed work on the California red-legged frog and the California tiger salamander.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. The Act defines take as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The Service defines harm to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. The Service defines harass as intentional or negligent actions that create the likelihood of injury to a listed species 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 Service defines incidental take as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary and must be undertaken by Caltrans so that they become binding conditions of any grant or permit issued by Caltrans as appropriate, for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this incidental take statement. If Caltrans does not ensure their contractors adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

We anticipate all California red-legged frogs and California tiger salamanders found within the action area may be taken in the form of capture during relocation efforts. As a result of capture, a subset of captured California red-legged frogs and California tiger salamanders may be injured or killed or may experience a substantial disruption of normal behavioral patterns to the point that they have been harassed. Any California red-legged frogs and California tiger salamanders that remain in the action area may be crushed or otherwise injured or killed.

We cannot determine the precise number of California red-legged frogs or California tiger salamanders that may be killed, injured, harassed, or harmed as a result of the construction activities authorized by Caltrans. Although protective fencing and/or markers will be placed around potential habitat or individual California red-legged frogs or California tiger salamander in the project area, any California red-legged frogs and California tiger salamanders that remain in the action area may be crushed or otherwise injured or killed. Numbers and locations of California red-legged frogs and California tiger salamanders within a population vary from year to year. Incidental take of the California red-legged frog or the California tiger salamander would be difficult to detect because of their small body size and finding dead or injured specimens is unlikely, especially while below ground in burrows. However, because of the small amount of potentially suitable habitat in the action area, the timing of the proposed activities during the dry season, and because Caltrans has proposed measures to protect both species, we anticipate that few, if any, California red-legged frogs or California tiger salamanders are likely to be killed or injured during this work.

This biological opinion does not exempt any activity from the prohibitions against take contained in section 9 of the Act that is not incidental to the action as described in this biological opinion. Take that occurs outside of demarcated work areas or from any activity not described in this biological opinion is not exempted from the prohibitions against take described in section 9 of the Act.

REASONABLE AND PRUDENT MEASURES

We believe the following reasonable and prudent measures are necessary and appropriate to minimize take of California red-legged frogs and California tiger salamanders:

1. Caltrans must ensure that the level of incidental take that occurs during project implementation is commensurate with the analysis contained herein.

2. Biologists must be authorized by the Service before they survey for, capture, and move California red-legged frogs and California tiger salamanders in the action area.

3. Effects to California red-legged frogs and California tiger salamanders must be minimized in the project area.

Our evaluation of the effects of the proposed action includes consideration of the measures to minimize the adverse effects of the proposed action on the California red-legged frog and the California tiger salamander that were developed by Caltrans and repeated in the Description of the Proposed Action portion of this biological opinion. Any subsequent changes in these measures proposed by Caltrans may constitute a modification of the proposed action and may warrant reinitiation of formal consultation, as specified at 50 CFR 402.16. These reasonable and prudent measures are intended to supplement the protective measures that were proposed by Caltrans as part of the proposed action.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, Caltrans must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. The following term and condition implements reasonable and prudent measure 1:

   If more than one California red-legged frog or California tiger salamander are found dead or injured during construction activities, Caltrans must contact our office immediately so we can review the project activities to determine if additional protective measures are needed. Project activities may continue pending the outcome of the review, provided that all protective measures proposed by Caltrans, and the terms and conditions of this biological opinion, have been and continue to be fully implemented.

2. The following term and condition implements reasonable and prudent measure 2:

   A Service-approved biologist or a designated monitor, trained by the Service-approved biologist, must survey all potential California red-legged frog or California tiger salamander habitat within project area prior to the start of construction, to confirm that no protected species are above ground on the site. If any individuals are located, they must be moved out of harm's way to the nearest appropriate habitat. The request for biologist approval must be in writing and be received by us at least 15 days prior to any such activities being conducted. If a designated monitor is used to conduct surveys, a Service-approved biologist must still be available to capture and relocate any California red-legged frogs or California tiger salamanders that are discovered during the surveys. If California red-legged frogs or California tiger salamanders are located in the project area, they must be relocated by the Service-approved biologist to an appropriate location, pre-determined by Caltrans with Service approval.

3. The following terms and conditions implement reasonable and prudent measure 3:

   a. To ensure that diseases are not conveyed between work sites by Service-approved biologists, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force must be followed at all times. A copy of the code of practice is enclosed. The Service-approved biologist may substitute a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water) for the ethanol solution. Care must be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.

   b. The work area must be kept clean. All food-related trash items must be enclosed in sealed containers and regularly removed from the project area. Pets of project personnel must not be allowed on site.

REPORTING REQUIREMENTS

The ongoing effects of the project on the California red-legged frog and the California tiger salamander must be monitored through annual reports provided to the Service. These reports enable the Service to determine how much habitat has been temporarily and permanently affected by the covered actions and how many California red-legged frogs or California tiger salamanders have been killed or injured.

DISPOSITION OF DEAD OR INJURED SPECIMENS

Within 3 days of locating any dead or injured California red-legged frog or California tiger salamander, Caltrans must notify the Ventura Fish and Wildlife Office, by telephone ((805) 644-1766) and in writing (2493 Portola Road, Suite B, Ventura, California 93003). The report must include the date, time, location of the carcass, a photograph, cause of death or injury (if known), and any other pertinent information.

Care must be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. Should any injured California red-legged frogs or California tiger salamanders survive, the Service must be contacted regarding their final disposition. The remains of California red-legged frogs and California tiger salamanders must be placed with the California Academy of Sciences Herpetology Department (Contact: Jens Vindum, Collections Manager, California Academy of Sciences Herpetology Department, 875 Howard Street, San Francisco, California, 94103, (415) 321-8289). Arrangements regarding proper disposition of potential museum specimens must be made with the Collections Manager of the California Academy of Sciences or other Service-approved facility prior to implementation of any actions.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid

adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. We recommend the following conservation measures to promote recovery of the California red-legged frog and California tiger salamander:

1. We recommend that Caltrans relocate any native reptiles and amphibians found within the action area to nearby suitable habitat, if such activities comply with State laws. This would help conserve the native wildlife in the region.

2. Non-native predators of the California red-legged frog and the California tiger salamander, such as bullfrogs, should be permanently removed from the wild during project activities, if they can be captured and if such activities are in compliance with State laws.

The Service requests notification of the implementation of any conservation recommendations, so that we may be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats.

REINITIATION NOTICE

This concludes formal consultation on the San Juan Interchange Project in Monterey and San Benito Counties, California. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions, please contact Christopher Diel of my staff at (805) 644-1766, extension 305.

Sincerely,

For Diane K. Noda
Field Supervisor

Enclosure

List of Technical Studies that are Bound Separately

Air Quality Report

Draft Relocation Statement

Historical Property Survey Report (public review restricted)

Hazardous Waste Reports:

- Initial Site Assessment
- Preliminary Site Investigation (Geophysical Survey)

Initial Paleontology Study

Location Hydraulic Study

Natural Environment Study

Noise Study Report

Visual Impact Assessment

Water Quality Report