

# Gaviota Curve Realignment Project

Santa Barbara County  
05-SB-101-PM 45.6/46.4  
05-0002-0029  
EA# 05-0T6300

## Initial Study with Proposed Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation

May 2013



# General Information About This Document

## ***What's in this document?***

The California Department of Transportation (Caltrans) has prepared this Initial Study which examines the potential environmental impacts of alternatives being considered for the proposed project in Santa Barbara County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

## ***What should you do?***

- Please read this document. Additional copies of this document as well as the technical studies are available for review at the Caltrans district office at 50 Higuera Street, San Luis Obispo Ca 93401. The Environmental Document is available for review at the Vista de Las Cruces School at 9467 San Julian Road, Lompoc, CA 93436; and at the Goleta Branch Library at 500 N Fairview Ave, Goleta, Ca 93117. In addition, this document can also be accessed electronically at the following website: <http://www.dot.ca.gov/dist05/projects/>
- Attend the Open Forum Public Hearing on June 5, 2013 at Vista de Las Cruces School Auditorium located at 9467 San Julian Road.
- We welcome your comments. If you have any concerns about the proposed project, please attend the Public Hearing or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Matt C. Fowler, Senior Environmental Planner  
Central Coast Analysis Branch  
California Department of Transportation  
50 Higuera Street  
San Luis Obispo, CA 93401

Submit comments via email to: [Matt.C.Fowler@dot.ca.gov](mailto:Matt.C.Fowler@dot.ca.gov)

- Submit comments by the deadline: June 22, 2013.

## ***What happens next?***

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

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

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: Kelso Vidal, Central Coast Analysis Branch, 50 Higuera Street, San Luis Obispo, CA 93401; (805) 542-4671 Voice, or use the California Relay Service TTY number, 1 (800) 735-2929 or dial 711.

Curve realignment and shoulder widening to improve safety along Highway 101 between Post Mile 45.6 to 46.4 in Santa Barbara County, California.

**INITIAL STUDY  
with Proposed Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA  
Department of Transportation

*May 1, 2013*  
Date of Approval

*Janet A. Newland*  
Janet Newland  
Office Chief, Central Region  
Environmental Central Coast  
California Department of Transportation  
CEQA Lead Agency

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## **Proposed Mitigated Negative Declaration**

Pursuant to: Division 13, Public Resources Code

### ***Project Description***

The California Department of Transportation (Caltrans) proposes a safety improvement project along Highway 101 between Post Mile 45.6 to 46.4 in Santa Barbara County, California. The project proposes to realign the existing northbound compound curve with a single radius curve. In addition, the project proposes to widen the existing shoulders along the 2 northbound lanes, modify the median barrier, culverts and vertical profile located on the northbound side of Highway 101.

### ***Determination***

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

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

The proposed project would have no effect on: growth, farmland/timberland, the community, cultural resources, geology/soils/seismic/topography, hazardous waste or materials, air quality, noise or vibration.

In addition, the proposed project would have no significant effect on: Land Use, Coastal Zone, Parks and Recreational Facilities, Utilities/ Emergency Services, Traffic and Transportation, Visual/ Aesthetics, Hydrology and Floodplain, Water and Storm Water Runoff, Amlinal Species, Invasive Species, Construction Impacts, or Climate Change.

In addition, the proposed project would have no significantly adverse effect on paleontological resources, natural communities, and threatened and endangered species because the following mitigation measures would reduce potential effects to insignificance:

### ***Paleontology***

- A qualified principal paleontologist would prepare a detailed Paleontological Mitigation Plan prior to the start of construction. All geologic work must be

performed under the supervision of a California Professional Geologist. The Paleontological Mitigation Plan would address in detail the procedures for data collection. Additional components of the Mitigation Plan can be found in Section 2.2.3.

#### *Natural Communities*

- Affected purple needle grass habitat would be replaced onsite at a minimum ratio of 1:1 using salvaged plants and a hydroseed mixture containing purple needlegrass seed. One year plant establishment period.
- Hydroseeding of native purple needlegrass accompanied with straw containing needlegrass seed.

#### *Threatened and Endangered Species (California Red Legged Frog)*

- United States Fish and Wildlife Service identifies California red legged frog as a federally threatened Species. Section 7 consultation is required. The regulatory agency must provide written approval of findings and measures to implement. Proposed measures submitted to the United States Fish and Wildlife Service is located in Section 2.3.3.

#### *(Gaviota Tarplant)*

- Gaviota tarplant would have a replacement ratio of 1:1 with a three year monitoring period.
- Gaviota tarplant is listed as a state endangered plant species, and thus, subject to California Department of Fish and Wildlife Section 2081 Incidental Take Permit. Additional measures may be requested during coordination with the regulatory agency; although, the final environmental document would include any measures required by a permitting agency. Additional measures for tarplant can be located in Section 2.3.3

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Janet Newland  
Office Chief  
Environmental Central Coast

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Date

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# Chapter 1 Proposed Project

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## 1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) for the Gaviota Curve Realignment Project. The California Department of Transportation (Caltrans) proposes safety improvements along Highway 101, from 0.7 mile north of Beckstead Overcrossing (post mile 45.6) to 0.9 mile south of Gaviota Tunnel (post mile 46.4) in Santa Barbara County near Gaviota. The project proposes to realign northbound 101 and replace the existing curve. See Figures 1-1 and 1-2, which show the project vicinity map and location map, respectively.

Highway 101 is a major transportation corridor through the Central Coast, linking the Bay Area to Southern California. This segment of highway is a four-lane divided highway with rolling terrain. Excluding the transportation corridor, the immediate surrounding area is owned by the California Department of Parks and Recreation and is designated as recreational. Within the project limits, the northbound travel-way is a compound curve. A compound curve consists of two separate curve segments with decreasing radii. The project proposes to cut the hillside back to create a single radius curve. The project would also widen the inside and outside shoulders along the northbound travel-way, adjust vertical profile along the northbound approach, modify culverts, and remove a portion of the median barriers.

The project would require minor right-of-way acquisition to accommodate the safety modifications. A total of 4.2 acres would need to be acquired from Gaviota State Park property.

The project is estimated to cost \$5,682,919 (November 2012) for construction and \$307,519 (November 2012) for right-of-way acquisition, utility relocation, and environmental permit fees. This project is programmed in the 2012 State Highway Operation and Protection Program under the 201.010 safety improvements program. Project construction is anticipated to begin in March 2016 and take approximately 1 year to complete.

## **1.2 Purpose and Need**

### **1.2.1 Purpose**

The purpose of this project is to improve the safety along this segment of the highway by reducing the potential for run-off-the-road collisions.

### **1.2.2 Need**

This segment of northbound Highway 101 south of the Gaviota Rest Area (from postmile 45.7 to postmile 46.3) has experienced a pattern of run-off-the-road collisions along a curve with varying radii. Motorists have had difficulty adjusting vehicle steering while negotiating the two consecutive curves with decreasing radii. Errant vehicles that drove beyond the limits of the traveled way at this location have shown a pattern of overcompensation, also referred to as “overcorrecting,” and colliding with the existing center concrete median barrier. The collision rate at this location is over five times the statewide average for similar facilities.

## **1.3 Project Description**

The California Department of Transportation (Caltrans) proposes safety improvements along Highway 101, from 0.7 mile north of Beckstead Overcrossing (post mile 45.6) to 0.9 mile south of Gaviota Tunnel (post mile 46.4) in Santa Barbara County near Gaviota. The project proposes to realign northbound 101 and replace the existing compound curve with a single radius curve. A compound curve consists of two separate curve segments with decreasing radii. In addition, the project would widen the inside and outside shoulders along the northbound travel-way, adjust vertical profile along the northbound approach, modify culverts, and remove a portion of the median barriers.

## **1.4 Alternatives**

There are two alternatives under considered for this project. Alternative 1 proposes to realign the curve by cutting the slope (Build-Alternative). Alternative 2 is the No-Build Alternative.

### **1.4.1 Build Alternatives**

Only one build alternative is feasible at this location since the site is nestled between the Santa Ynez Mountains on the east, and Pacific Ocean on the west. Refer to Section 1.4.4 for other alternatives that were considered but rejected.

## ***Design Features of the Build Alternative***

### Curve Realignment

The project would require excavation of a new cut slope roughly parallel to the existing cut slope yet recessed 75-feet back.

### Shoulder Widening

Both the inside and outside northbound shoulders would be widened and paved. Existing outside shoulders along the northbound lanes would be widened from 8-feet to 10-feet. The existing various inside shoulders of 0 to 7-feet would be widened to 10 to 12-feet.

### Vertical Profile Modification

Vertical height of the northbound lane prior to the curve would be modified to meet current design standards for sight distance. Cut and fill to the roadway would vary from 0 up to approximately 8- inches between Post Mile 45.7 to 45.9.

### Median Barrier

The project proposes to adjust the concrete median barrier to the immediate north of the Gaviota State Park at-grade intersection. Crash cushions would be replaced at post mile 46.2 and 46.3.

### Culvert Modification

Upgrade drainage inlets and attach flare ends on outlets would be placed where applicable. The project proposes to place rock slope protection at areas experiencing scour issues.

## **1.4.2 No-Build Alternative**

The No-Build Alternative considers the effects of not implementing the proposed project. The existing roadway conditions on northbound Highway 101 and the adjacent hillside would remain as they are now. The compound curve would remain and the pattern of run-off-the-road collisions into the median barrier is likely to continue. The compound curve would conflict with current Caltrans design standards, and safety issues would persist. No utilities would be relocated and the 4.2 acres of right-of-way acquisitions from State Parks would not be required

The No-Build Alternative would not meet the project's Purpose and Need.

### 1.4.3 Comparison of Alternatives

The Build Alternative would improve safety by reducing the potential for run-off-the-road collisions; whereas, the No-Build alternative would maintain the compound curve and the pattern of median barrier collisions would continue. The Build Alternative would remove approximately 200,000 cubic yards from the hillside; whereas the No-Build alternative would leave the hillside in its current condition. The Build-Alternative would enhance the safety of left turns onto northbound 101 from Gaviota State Park entrance by removing a segment of the concrete median barrier; whereas, the No-Build alternative, the median barrier would remain and vehicles with trailers or recreational trailers may clip edge of barrier when exiting Gaviota State Park onto northbound 101. The Build Alternative would bring the highway facility up to current Caltrans design standards with a few exceptions. Under the No-Build Alternative, horizontal and vertical curves would remain in conflict with Caltrans standards.

### 1.4.4 Alternatives Considered but Eliminated from Further Discussion

Other alternatives considered yet rejected were similar to replacement of the northbound Highway 101 compound curve, but involved having smaller radii. Alternatives with smaller radii than the proposed would result in a design speed of less than 65 miles per hour. The project's purpose and need would not be met, since vehicles would continue to travel at high speeds around small curves which would not resolve the existing safety concerns.

#### Higher Design Speed/ Larger Radius Curve Realignment

A higher design speed alignment was considered but rejected. To meet geometric requirements, this alternative required substantially more roadway excavation which would increase the construction cost. This alternative would exceed the project's current budget by more than double, and there would be no benefit to the project's scope. Thus, this alternative was rejected.

#### Curve Realignment with Retaining Wall

An alternative that involved curve replacement with a differing radii single curve and retaining walls was proposed. This alternative would have reduced right-of-way acquisition, but the increased construction costs far exceeded the benefit of reduced amount of land acquisition. The types of walls suggested included gravity, semi-gravity, non-gravity-cantilever walls and soil reinforcement systems, but a soil-nail wall was recommended for stabilization. This alternative would have reduced the

amount of land acquisition; however, the wall construction would nearly double the project's budget.

*Curve Realignment with Minimized Excavation (Shift Alignment Westward)*

An alternative was considered that would avoid the excavation of the easterly hillside by shifting northbound Highway 101 lanes westerly, consequently also shifting southbound 101 lanes in a westward direction. Significant excavation from both sides of the highway would be required. This alternative would also require a retaining wall. The footprint of this alternative would be considerably larger and impact archeological and biological resources. Shifting the alignment of both northbound and southbound travel-ways substantially exceeds available budget.

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Figure 1-1 Project Vicinity Map

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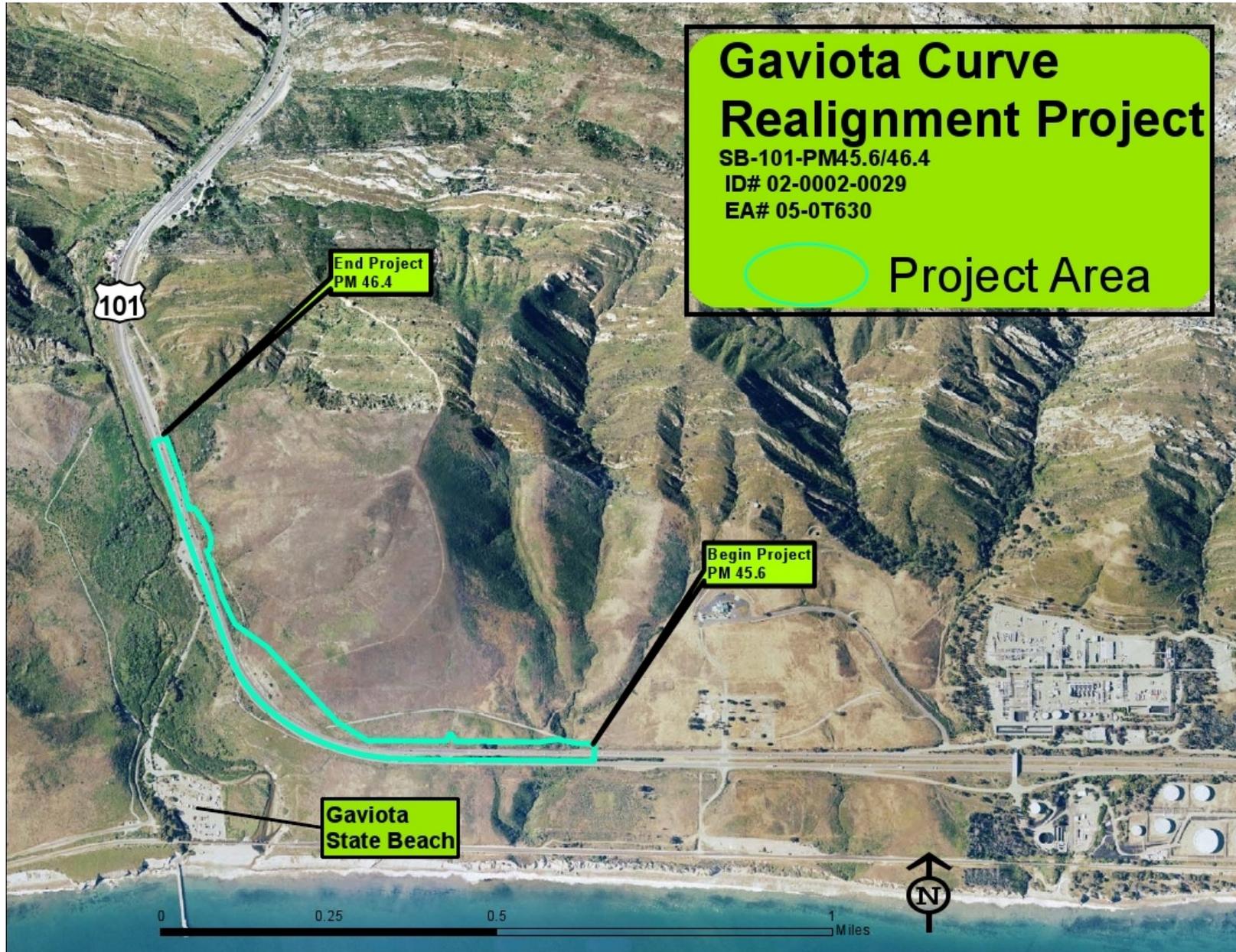


Figure 1-2 Project Location Map

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## 1.5 Permits and Approvals Needed

Section 7 consultation was initiated with the Ventura office of the U.S. Fish and Wildlife Service in February 2012 for potential impacts to Gaviota tarplant, California red-legged frog, and critical habitat for both species.

If the project is approved, The California Department of Fish and Wildlife would be contacted if the for a Section 2081 Incidental Take Permit for the state listed Gaviota tarplant.

The project limits fall in the jurisdiction of the California Coastal Commission. The County of Santa Barbara has a local coastal plan and has the responsibility to review and issue Coastal Development Permits.

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

**Table 1.1 Permits Required**

<b>Agency</b>	<b>Permit/Approval</b>	<b>Status</b>
United States Fish and Wildlife	Biological Opinion for California red legged frog and Gaviota tarplant	Biological Assessment submitted 2013
California Department of Fish and Wildlife	Section 2081 Incidental Take Permit	Would be completed prior to construction
Santa Barbara County Planning and Development	Coastal Development	Would be completed prior to construction

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

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

- Growth— Population growth is not anticipated as a result of the project. The safety project consists of curve realignment (Growth Screening analysis 2012).
- Farmlands/Timberlands— The County of Santa Barbara’s zoning map identifies the project area as recreation. The proposed project would not impact agriculture land since farmland or timberland are not located the project area (Zoning Map; Field visit, August 3, 2011).
- Community Impacts— The proposed project is not anticipated to impact any housing, businesses, or low-income and/or minority populations. The existing transportation corridor separates State Parks and Los Padres National Forest from the coastline and the Hollister Ranch community (Field visit, 2012).
- Cultural Resources— The project would have no adverse effect to cultural or historical resources. As a standard condition, Environmentally Sensitive Area (ESA) fencing would be installed to restrict construction activity, and during ground disturbance an archeological monitor would be present (HPSR 2012). Please refer to the State Historic Preservation Office’s concurrence letter on findings which is located in Appendix E.
- Geology/Soils/Seismic/Topography—No geological issues are anticipated (Geologic Hazards Assessment). Please refer to Section 2.2.3 Paleontology for information of rock formation that exists in project location.
- Hazardous Waste or Materials—No permanent impacts from hazardous materials are anticipated. Refer to Section 2.4 for temporary construction impacts (Initial Site Assessment, November 2012).
- Air Quality— No additional lanes would be added and the project limits fall within an attainment area. Thus, there would be no long-term air quality emissions produced from the project (Air Report, July 2012).
- Noise — The project would not produce any long-term effects from noise or vibration. Refer to section 2.4 for temporary construction impacts (Noise Study, July 2012).

## **2.1 Human Environment**

### **2.1.1 Land Use**

#### **2.1.1.1 Existing and Future Land Use**

##### ***Affected Environment***

The project resides in an unincorporated area of Santa Barbara County along the Gaviota Coast area, approximately 33 miles west of Santa Barbara. At the immediate project site, existing land use is zoned as a transportation corridor. Highway 101 predominantly travels north-to-south; however, within the project limits, Highway 101 heads south and radically curves due east towards Santa Barbara (Please refer to Figure 1.2).

The area of direct impact is a steep hillside that Santa Barbara County has zoned as recreation. California State Parks and Recreation owns the majority of the property that surrounds the project area. A total of 2775 acres of Gaviota State Park is in the project vicinity which adjoins to both sides of Highway 101. The northeast portion of Gaviota State Park property is approximately 615 acres which meets up with the north-eastern Santa Ynez Mountains of Los Padres National Forest. West of the highway corridor is approximately 2080 acres of Gaviota State Park property which includes the Gaviota State Beach entrance located at the north-end project limits. An access road from the entrance leads to day-use beach access and overnight car-campsites. Gaviota State Park has a few hiking trails through their property on both sides on Highway 101.

West of Gaviota State Beach is Hollister Ranch; 14,400 acres of agricultural land primarily used for cattle grazing, but also is the home of an upscale private residential community and nature preserve.

South of the project site resides the coastline of the Pacific Ocean. Union Pacific Railroad tracks are seated along the coastal bluffs between State Parks' property and the ocean.

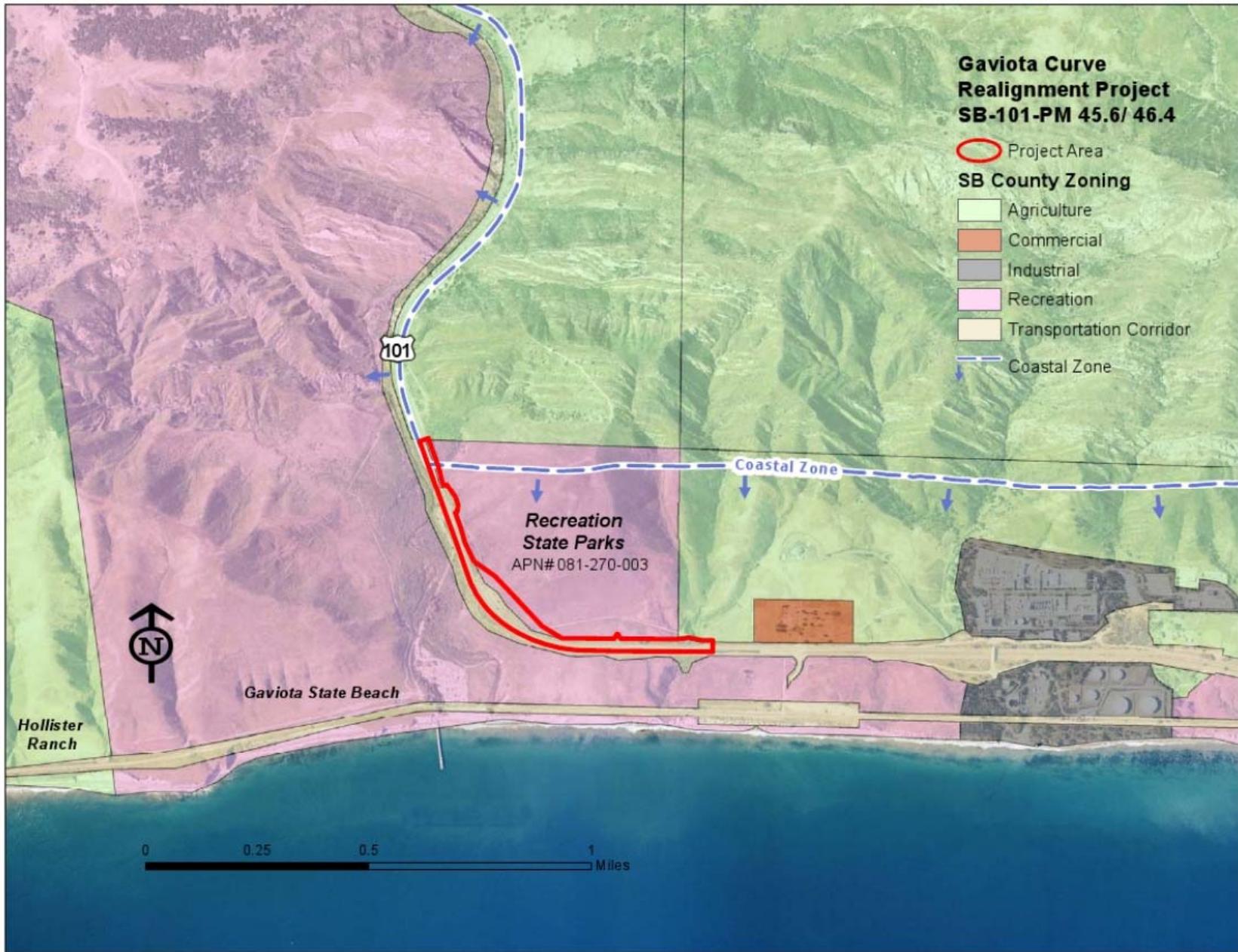


Figure 2-1 Designated Land Use

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### ***Environmental Consequences***

Approximately 4.2 -acres of Gaviota State Park property would require partial-property acquisitions. The project would not impact any existing or future hiking trails. Please refer to the Section 2.1.1.5 *Parks and Recreational Facilities* for additional detail.

A database search from Santa Barbara County Planning and Development department indicates no proposed projects in the near vicinity. According to the Cumulative Projects Map dated October 2011, the nearest potential development activity is an agricultural development located 6.2 miles away, but this proposal is under permit review and the development has not yet been approved.

### ***Avoidance, Minimization, and/or Mitigation Measures***

Land use impacts are anticipated to be insignificant, thus no measures are proposed. Refer **Section 2.1.1.4 *Parks and Recreational Facilities*** for additional information pertaining to land use impact.

## **2.1.1.2 Consistency with State, Regional, and Local Plans**

### ***Affected Environment***

The project must coincide with the goals and policies of the County of Santa Barbara Comprehensive Plan Land Use Element. In addition, there should be consistency with the Santa Barbara County Code of Ordinances, and the local Gaviota Coast Planning Area.

Land Use: Provisions within the Land Use plan require hillsides protection from development. In general, this policy states that work shall be designed to minimize cut and fill operations to the maximum extent feasible, fit the site topography and other existing conditions, protect natural features and landforms, and stabilize soils to protect from erosion.

Ordinances: County's Grading Code Chapter 14 identifies provisions on adequate excavation, handling of erosion, dust control, facilitating drainage, and level of slope ratios.

Gaviota Planning Area: Santa Barbara County Board of Supervisors appointed 11 people to a committee to facilitate in the draft of the Gaviota Coast Local Plan. This planning committee is known as the Gaviota Planning Advisory Committee, or more commonly known as the GavPAC. The GavPAC conducts regular meetings and receive public input on which guidelines should be implemented to preserve and protect the pristine Gaviota coastline. However, an official local plan has yet to be established.

### **Environmental Consequences**

Land Use: The Build-Alternative is consistent with applicable adopted plans and policies established in the County of Santa Barbara's Land Use Element. Because the Build-Alternative cuts an existing hillside with an unnatural formation that was previously cut in 1952, the proposed work would fit the site topography similar to existing conditions.

Ordinances: Caltrans is consistent with the County's Grading Code since the requirements are equivalent to Caltrans' Design Standards and Best Management Practices conducted on all projects.

Gaviota Planning Area: Since a specific local plan is currently being drafted by the GavPAC, the proposed project does not conflict with any guidelines established as of date. Steep slopes of the hillside make the land nonviable for development.

### **Avoidance, Minimization, and/or Mitigation Measures**

No measures are required since the proposed project would remain consistent with state, region and local plans.

#### **2.1.1.3 Coastal Zone**

##### **Regulatory Setting**

The Coastal Zone Management Act of 1972 is the main federal law enacted to preserve and protect coastal resources. The Coastal Zone Management Act sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the Coastal Zone Management Act; they include the protection and expansion of public access and recreation, the protection, enhancement, and restoration of environmentally sensitive areas, the protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments (15 coastal counties and 58 cities) to enact their own local coastal programs. Local coastal programs determine the short- and long-term use of coastal

resources in their jurisdiction consistent with the California Coastal Act goals. A federal consistency determination may be needed as well.

### **Affected Environment**

In January 1980, Santa Barbara County approved the county's Coastal Plan mandated by the California Coastal Act of 1976. This plan establishes and guides land use planning and coastal protection policies for the county. The proposed project is in a coastal zone, under the Santa Barbara County Coastal Plan. However, because the project is located within a statutorily-defined appealable area, the County's decision on the Coastal Development Permit could be appealed to the Coastal Commission, whether approved or denied.

The surrounding area is designated by the County as "recreational" and is viewed as having a high scenic value under the Coastal Plan; although, the immediate project area is identified as a transportation corridor according to County planning maps. Refer to Figure 2-1 above.

According to the Santa Barbara County Article II Coastal Zoning Ordinance, Section 35-80 (CH- Highway Commercial),

*"the purpose of this district is to provide areas adjacent to highways or freeways exclusively for uses which serve the highway traveler".*

In addition, a primary concern of the Santa Barbara County Coastal Plan is to protect views to scenic resources, such as wetlands, rivers and streams, from public areas such as highways (Section 3.4.2). Furthermore, County Coastal Plan Policy 30251 states

*"Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas."*

### **Environmental Consequences**

The proposed project is consistent with this County's ordinance (Sec 35-80) since the project would realign the roadway immediately adjacent to its existing location. Construction of the realignment would occur in existing Caltrans' right-of-way; whereas, the additional area proposed for acquisition would accommodate the cut-slope to provide a clear sight distance for the highway traveler.

In 1952, the construction of the existing highway modified the natural landform with the excavation of a large cut into the hillside. This existing cut-slope has an unnatural and engineered appearance, and does not have much native vegetation growth due to the type of soil material. The original 1952 cut altered the naturally compatible appearance of this hillside; whereas, the proposed still maintains a cut-slope but with round edges and a less drastic slope-angle which would dilute the existing engineered appearance. Scenic resources would be slightly affected with the implementation of Caltrans' Safety and Design Standards for the new cut-slope. Refer to Section 2.1.4 Visual/ Aesthetics for additional discussion on visual impacts.

The proposed project would remain consistent with Santa Barbara County Coastal Plan. Thus, impacts to the coastal zone are anticipated to be less than significant.

### ***Avoidance, Minimization, and/or Mitigation Measures***

No known measures are required. However, the project is subject to a Coastal Zone Development permit from Santa Barbara County. The County may request measures to offset any perceived environmental impact.

## **2.1.1.4 Parks and Recreational Facilities**

### ***Affected Environment***

California Department of State Parks and Recreation (State Parks) owns the majority of the property that surrounds the project area. A total of 2775 acres of Gaviota State Park is in the project vicinity which adjoins to Highway 101. The northeast portion of Gaviota State Park property is approximately 615 acres. West of the highway corridor is approximately 2080 acres of Gaviota State Park property which includes the entrance to Gaviota State Beach, located at the north end of the project limits. The access road leads to the beach and overnight campsites. Gaviota State Park has a few hiking trails through their property on both sides of Highway 101.

### ***Environmental Consequences***

The Gaviota Curve Realignment project would impact 4.2 acres from parcel APN#081-270-003, a property which is owned by the State Parks (Refer to Figure 2-1). To accommodate for the curve realignment, the project requires a 75-foot cut slope into the hillside located on the northbound side of Highway 101 roughly across from the entrance to Gaviota State Park. A total of 200,000 cubic yards of rock and soil would be removed from cutting the hillside back. From the proposed top-of-slope, an additional 30-foot of right-of-way would be

acquired by Caltrans for maintenance access. Please refer to the enclosed cross sections and profile sheets for additional information (Appendix F &G).

After preliminary analysis and consultation with State Parks, Caltrans determined that the impact to California State Parks' property is of minor relevance. The impact to publicly owned park property is determined to be insignificant. Caltrans contacted the officials having jurisdiction over Gaviota State Park, in which State Parks' Channel Coast District concurred the impact to the property is not significant. Refer to Appendix B for a copy of the correspondence letters with State Parks.

### ***Avoidance, Minimization, and/or Mitigation Measures***

Since another California State Agency (Parks and Recreation) owns the property to be acquired by Caltrans, a mutual agreement was made between the two agencies.

An Interagency Agreement Framework was signed on September 4, 2012 between the District Directors of Caltrans and Gaviota State Park. This letter initiates the fundamental arrangement of how State Parks would facilitate the safety project by transferring a portion of Gaviota State Park property to Caltrans. In exchange, Caltrans would provide engineering services to State Parks to study an alternative access road to Gaviota State Park. Fair market property value would be equivalent to Caltrans' engineering service hours. An official agreement with specific detail and legal verbiage would be executed in the Design phase of the project. Please refer to Appendix C for a copy of the Interagency Agreement Framework Letter.

## **2.1.2 Utilities/Emergency Services**

### ***Affected Environment***

Utilities in the vicinity that surround the project site include waterlines, gas pipelines, oil pipelines, electric and cable utility poles. A few utilities are located above ground on utility poles, while others are buried underground. In the immediate project area, Southern California Edison utility poles exist on both side of Highway 101.

### ***Environmental Consequences***

Approximately 4 poles would be replaced adjacent to their current locations but setback from the new edge-of-traveled way and outside Caltrans' right-of-way to accommodate the new cut slope. No underground utilities would be impacted.

The northbound roadway may be reduced down from two lanes to one lane during times of construction. A one lane closure may queue up or bottleneck vehicles and produce traffic to move slower, which would increase emergency response times.

However, the project would have no long-term significant impacts to utility or emergency services. Both services would be available to the public during construction.

### **Avoidance, Minimization, and/or Mitigation Measures**

1. Utility companies would be responsible for moving their respective lines. Utility companies would notify affected residents in advance of any disruption in service during utility relocation.
2. A Traffic Management Plan would be established in the Design phase. This plan would assist emergency responders during construction to minimize response times.

### **2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities**

The following analysis regarding collision data was derived from the Traffic Accident Surveillance and Analysis System (TASAS) and the Draft Project Report (July 2012).

#### ***Affected Environment***

Within the project limits, this section of Highway 101 is classified as a rural principal arterial roadway with a posted speed limit of 55 miles per hour. The roadway was originally constructed in 1917 and upgraded in 1952 with 12-foot lanes and minimum of 8-foot outside shoulders. The median varies in width from 22-feet to 50-feet along its center, and includes a concrete median barrier.

Vehicles that travel this segment of Highway 101 northbound encounter a compound curve with two separate curve radii. This type of curve combined with excessive speeds beyond the posted speed limit makes vehicular steering difficult while negotiating the multiple curve radii, and can result in run-off-the-road collisions.

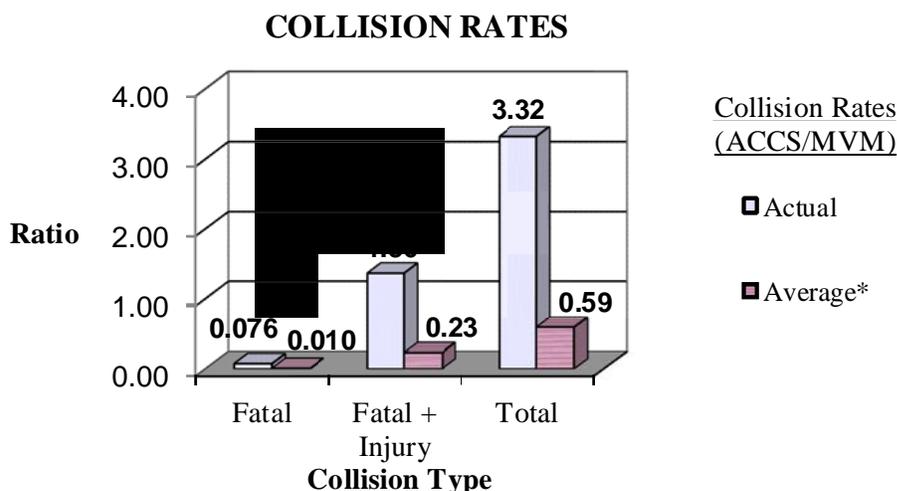
The collision rate within the project limits is five times higher than the statewide average for similar facilities. The statewide average is 0.59 collisions per million vehicles (MVM). Caltrans' Traffic Safety branch conducted a 3 year study of the project area between August 1, 2005 to July 31, 2008 and found the actual collision rates to be 3.32 collisions per million vehicles.

Within these 3 years of study, forty-four (44) collisions occurred within the project limits. One (1) collision was fatal, seventeen (17) were injury collisions, and the remaining were "property damage only" collisions. The following table depicts the actual collision data and rates within the project limits for the three year study period.

**Table 2-1 Collision Data**  
(08/01/2005 to 07/31/2008)

LOCATION	POST MILE	NUMBER OF COLLISIONS			ACCIDENT RATES	
		TOTAL	FATAL	INJURIES	ACTUAL TOTAL (ACCS/MVM)	AVERAGE* TOTAL (ACCS/MVM)
Highway 101	45.6 to 46.4	44	1	17	3.32	0.59

ACCS/ million vehicle miles



Note: Rates are collisions per million vehicle miles (MVM).

\* Statewide average collision rate for similar facilities. (Cooridor and System Coordination)

**Figure 2-2 Collision Rates**

### ***Environmental Consequences***

The project would have a net benefit on traffic and transportation/ pedestrian and bicycle facilities since the compound curve would be removed and constructed with a curve that meets current design standards. Difficulty negotiating the curve would no longer be an issue for those traveling northbound at this segment of Highway 101. In addition, the existing various inside shoulders of 0 to 7-feet would be widened to 10 to 12-feet, and the soft center median would be widened to various ranges between 23-feet up to a maximum of 80-feet.

The outside northbound shoulder would be widened and paved. Existing outside shoulders along the northbound lanes would be widened from 8-feet to 10-feet, providing an additional buffer between bicyclist and vehicles traveling on the mainline. Although the proposed curve would be designed for speeds up to 65 miles per hour, the posted speed of 55 would remain.

## **Avoidance, Minimization, and/or Mitigation Measures**

The project is a safety project to reduce collision rates, no measures are required.

### **2.1.4 Visual/Aesthetics**

#### **Regulatory Setting**

The California Environmental Quality Act (CEQA) 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 [PRC] Section 21001[b]).

#### **Affected Environment**

The following analysis regarding potential impacts to visual resources is derived from the Visual Impact Assessment (February 2013).

The project is located approximately 33 miles northwest of Santa Barbara, immediately adjacent to Highway 101. The highway generally follows the coastline between Santa Barbara and Gaviota. Within the project vicinity, Highway 101 has two travel lanes for each direction with a concrete median barrier that divides the travel-ways.

The existing visual quality of the Gaviota Coast is high. This view quality is due primarily to the panoramic views of the Pacific Ocean, inland hillsides, varied topographic relief, exposed rock outcroppings, open space, and native vegetative patterns. The visual quality of the region is viewed as sensitive or generally high based on the area’s numerous visual resources, as well the importance of the scenic environment and highway corridor as identified in state and local coastal planning policy. This segment of Highway 101 is designated as “Eligible” in the State Scenic Highway system.

The regional landscape consists of the Gaviota coastline and Gaviota Pass in rural Santa Barbara County. The landscape of the area is characterized by coastal terrace and bluffs meeting the southern branch of the Santa Ynez Mountains. Gaviota Pass and Gaviota Creek cut through the rugged Santa Ynez Mountains and drop down to the ocean in the vicinity of the proposed project. The overall visual context is one of a high-quality combination of mountains, coastline and ocean. Much of the Gaviota region is dominated by dramatic topographic and/or vistas of the Pacific Ocean. The Gaviota Pass is especially scenic where Gaviota Creek cuts a rugged canyon down through the Santa Ynez Mountains and opens up to expansive vistas of the Pacific Ocean where it meets the sea. Rock outcroppings and exposed geologic strata are visible throughout much of the project vicinity and region.

Existing vegetation along the roadside includes naturalized grasses, scattered native shrubs, and a few native and non-native tree species.

The project is located where Highway 101 curves inland away from the coast and through the Gaviota Pass to the north. Construction of the existing highway required the creation of an approximately 700 feet long excavation (cut) slope along the inside, northwestern side of the curve. The existing cut slope reaches a maximum height of 90 feet, and is fairly steep with a slope ratio ranging from approximately 0.5:1 to 1.5:1 (horizontal: vertical). Three 20 foot wide horizontal benches are visible mid-slope. A moderate amount of natural revegetation has occurred on approximately fifty percent of the slope-face. Exposed earth visible at various locations on the slope and several locations surface erosion and minor slip-outs are evident.

### ***Environmental Consequences***

Within the project limits the existing northbound roadside cut slope causes a minor reduction in the high visual quality of the area. The existing cut slope is easily seen from viewpoints along Highway 101, where the roadway runs immediately adjacent to the slope. From these close viewpoints the adjacent slope generally dominates views along the northeast side of the highway, and at some locations the slope's close proximity precludes views to the remainder of the hillside.

Depending on the specific viewpoint, the most noticeable aspects of the project would be the newly excavated cut-slope and the realigned northbound roadway. The northern portion of the slope would be excavated at a 0.5:1 ratio (horizontal: vertical) and the southern portion of the slope would be built at a less steep 1.5:1 ratio. The entire slope would be reseeded with native plant species to minimize erosion and encourage the establishment of permanent vegetation.

The proposed landform grading would result in the new slope appearing less engineered than the existing slope. The new slope, although slightly larger, would have a more undulated face along with more rounded transitions around the perimeter. The new slope would also eliminate the existing slope benches. The less-steep slope-angle along the southern portion would allow for greater revegetation in that area. These design features of the new slope would appear more consistent with the natural topography of the region than the existing landform. Over time, minor sloughing may occur on the slope and would likely reveal the underlying geology, consistent with the exposed rock outcroppings prevalent in the area.

Depending on the type of sub-surface geology encountered during construction, the project may include the use of rock bolts to hold a portion of the slope in place. If used, the rock bolts would be installed only at the zone where the slope transitions from a steeper angle to

the flatter section along the south. Only the ends of the bolts and the washer-plates would be seen on the ground surface. Each individual washer-plate would be less than a foot in size. Although the exact number of rock bolts, if any, would not be known until construction, they would be concentrated in one area, and their noticeability would be minimal. Slope-protection hardware is not uncommon in the region and along Highway 101 in the vicinity of the project. Rockfall fencing and netting can be seen along the northbound roadside just south of the roadside rest, and both north and south of the Gaviota tunnel. Even if seen, rock bolts would not be unexpected nor out of character elements at this roadway/ dramatic landform interface.

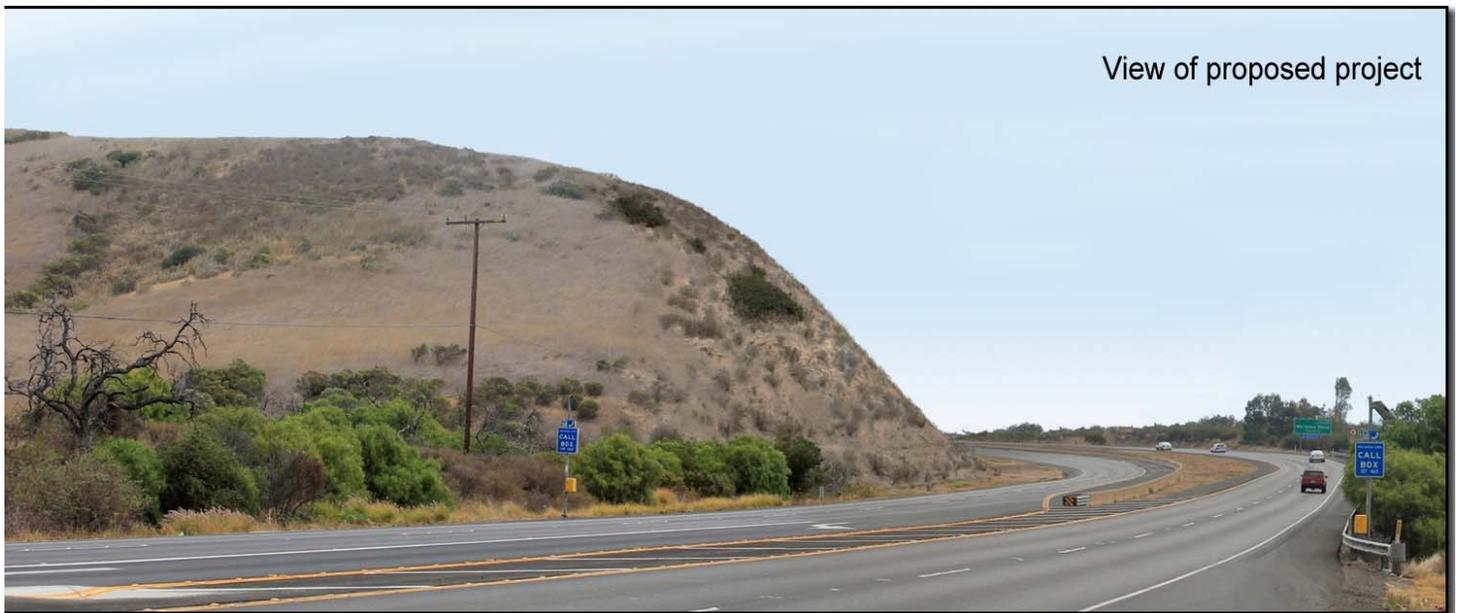


Figure 2-3 Viewpoint Locations

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Existing view



View of proposed project

**Figure 2-4 Viewpoint 1: From southbound Highway 101 looking southbound**



**Figure 2-5 Viewpoint 2: From northbound Highway 101 looking northbound**



**Figure 2-6 Viewpoint 3: From Gaviota State Park camping area**



**Figure 2-7 Viewpoint 4: From Gaviota State Park Recreational Trail**

### *Highway Perspective*

The realigned northbound roadway would be noticeable from viewpoints along the highway; however, to the casual observer, the new roadway would appear as a continuation of the existing highway to the north and south. From the highway perspective, the new slope would be constructed approximately 18 feet back from the roadway and open-up views of the surrounding landscape in the northbound direction.

Moving the slope further from the roadway would also allow for visibility of a greater portion of the slope at one time. Due to the curvature of the roadway and proximity of the slope, views from the northbound lanes would still be slightly limited to the closest portion of the adjacent slope-face. The varied-angle slope-face and rounded edge transitions would reduce the engineered appearance of the project. The project viewed from the southbound direction shows the more rounded profile of the slope, yet views of the Pacific Ocean dominate the scenery.

### *Off-Site Perspectives*

Gaviota State Park, Hollister Ranch Road, and Southern Pacific Railroad train tracks (Amtrak), would have a view of the new slope. Views to the project from Gaviota State Park include areas within the campground, the pier, portions of the beach, and the hiking trails. Recreational users visiting the State Park are expected to have a heightened sensitivity to changes in the scenic environment. The realignment of the highway would not be seen from these vantage points, but the overall shape of the slope would be evident. The proposed landform grading and revegetation of the new slopes would result in a more natural appearance that would blend and transition into the surrounding landscape.

Over time, because of the proposed landform grading and revegetation efforts the project would appear less engineered than the existing slope. The new slope, although slightly larger than the current slope, would be more consistent with the natural landform and geology of the region. Although visible, the new slope and realigned roadway would not detract from the surrounding high-quality views, nor be out-of-character with the highway environment along the Gaviota Coast.

### ***Avoidance, Minimization, and/or Mitigation Measures***

The following measures would reduce the project's potential visual impacts as seen from Highway 101, Gaviota State Park, and the surrounding area. These measures, combined with proposed landform grading listed in Section 1.3 Project Description, would help the project visually integrate with the adjacent natural setting.

1. Preserve as much existing vegetation as possible. Use prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible.
2. The entire new cut slope would be revegetated to the greatest extent possible. Cut slope revegetation would include methods that ensure establishment and long-term growth of native grasses and shrubs as appropriate. The slope revegetation strategy would be developed through collaboration of Caltrans Landscape Architecture Branch and the Caltrans biologist.
3. All disturbed areas along the northbound roadside not specifically designed as rockfall catchment areas or as recoverable surfaces would be graded to appear as natural as possible. Natural-appearing roadside grading would include broad, random undulations, gently-rounded transitions between adjacent slope-faces and varied planar surfaces.
4. Portions of the existing northbound roadway lanes to be removed (and not repaved) would be restored to a natural-looking condition. Disturbed areas in the median would be re-contoured and made suitable for re-establishment of grasses and native shrubs where appropriate. The abandoned road and road-bed would be removed. The sub-grade would be scarified and amended if necessary and the areas re-seeded.
5. All disturbed construction access roads, staging areas and other temporary uses would be restored to a natural-looking condition after construction. These areas would be re-contoured and re-vegetated to match the surrounding landscape.
6. Plant and maintain oak trees and large native shrubs along the northbound roadside approximately between stations 84+15 and 89+50, and approximately between stations 96+20 and 98+81. The plants would be planted in natural-appearing patterns which visually transition the project to the surrounding landscape.
7. All new and replaced concrete median barriers would be Type 60.
8. New and replaced concrete median barrier would be colored a sandstone hue to match the existing concrete median barrier north of the Gaviota State Park entrance.
9. If rock bolts and plate washers are used, all exposed portions would be colored to match the adjacent natural ground. The color would be selected in collaboration with the Caltrans Landscape Architecture branch.
10. Metal components of new, replaced and relocated barrier, guardrail, and end treatments would be darkened to simulate age and reduce glare.

11. Yellow barrel crash cushion end treatments would not be used other than on a temporary basis if required during construction.
12. Relocate the existing De Anza Trail Historic Trail sign to a point north of the southbound “State Beach Right Turn” sign (approximately PM 46.56).

## 2.2 Physical Environment

### 2.2.1 Hydrology and Floodplain

#### **Affected Environment**

A preliminary hydraulic recommendation memo was issued to analyze potential hydraulic issues within the project limits (September 2012).

There are a total of six culverts within the project limits, each of which are steel corrugated pipes. Excluding two 30-inch diameter culverts, the remaining four drainage pipes are 24-inch diameter. See Figure 2-8.



Figure 2-8 Location of Culverts Proposed for Modification

### **Environmental Consequences**

The project would modify or upgrade existing culverts at four locations within the project limits. Damaged pipes would be repaired at:

Location 1 and 2: no impacts anticipated to existing culverts.

Location 3: the culvert would be extended at the northbound shoulder with a flared end section installed.

Location 4: on the northbound side, the project would extend the existing culvert and relocate the drainage inlet. Within Caltrans' right-of-way on the southbound side, the project would install rock slope protection at the outlet and repair the damaged pipe-end section.

Location 5: the project would construct a drainage swale leading to the median drainage inlet at PM 46.23 to account for increased median drainage.

Location 6: the proposed project would reconstruct a concrete swale leading from northbound shoulder to inlet. Maintain drainage basin capacity at inlet to the maximum extent compatible with design. Culverts would be extended at inlet to catch point and would have installation of a junction box for maintenance access. Lastly, the project would extend the 18" culvert from an existing northbound slope to new fill slope, and would construct a down drain to a new 30-inch culvert inlet.

### **Avoidance, Minimization, and/or Mitigation Measures**

- 1 Caltrans would implement standard specifications pertaining to drainage to insure all channels to the inlets are maintained during construction.

## **2.2.2 Water Quality and Storm Water Runoff**

### **Regulatory Setting**

#### *State Requirements: Porter-Cologne Water Quality Control Act*

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. The Porter-Cologne Act predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just Waters of the U.S. such as groundwater and surface waters not considered Waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is

broader than the Clean Water Act definition of “pollutant.” Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable Regional Water Quality Control Boards Basin Plan. States designate beneficial uses for all water body segments and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with Clean Water Act Section 303(d). If a state determines that waters are impaired for one or more constituents, and the standards cannot be met through point source controls, the Clean Water Act requires the establishment of total maximum daily loads that specify allowable pollutant loads from all sources (point, nonpoint, and natural) for a given watershed.

#### *State Water Resources Control Board and Regional Water Quality Control Boards*

The State Water Resources Control Board administers water rights, water pollution control, and water quality functions throughout the state. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

#### *Construction General Permit*

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that result in a disturbed soil area of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the risk level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, plus before and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan. In accordance with the Caltrans Standard Specifications, a Water Pollution Control Plan is necessary for projects with disturbed soil areas less than one acre.

### ***Section 401 Permitting***

Under Section 401 of the Clean Water Act, any project requiring a federal license or permit that may result in a discharge to a water body must obtain a 401 certification that certifies the project would be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are Clean Water Act Section 404 permits issued by the U.S. Army Corps of Engineers. The 401 permit certification is obtained from the appropriate Regional Water Quality Control Board, dependent on the project location, and is required before the U.S. Army Corps of Engineers issues a 404 permit.

In some cases the Regional Water Quality Control Board may have specific concerns with discharges associated with a project. As a result, the Regional Water Quality Control Board may issue a set of requirements known as Waste Discharge Requirements under the State Water Code that define activities such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. Waste Discharge Requirements can be issued to address both permanent and temporary discharges.

### ***Affected Environment***

The following analysis regarding potential project-related water quality and storm water runoff impacts is based on the Water Quality Assessment Report (July 2012).

#### ***Surface Water***

The project is located in the South Coast Arguello Hydrologic #315.10 Basing Planning Area as established by the Regional Water Quality Control Board. The Central Coast Regional Water Quality Control Board has jurisdiction within the project limits. The receiving water bodies adjacent to the project limits are the Gaviota Creek and the Pacific Ocean, both listed on the 303 (d) list.

### **Ground Water**

The Central Coast Basin Aquifer is the primary groundwater aquifer identified in Santa Barbara County. Groundwater depth within the region varies from a few feet to more than 100-feet.

Groundwater Basin in the Gaviota area lies between the crest of the Santa Ynez Mountains and the Pacific Ocean within consolidated rocks and stream valleys. Perched water and subsurface groundwater are identified in the project limits. Perched water infiltrates and percolates through the sandy terraces, then becomes perched on or within less porous bedrock units.

The quality of well water is generally very hard and averages near 1,000 mg/l total dissolved solids (TDS). Groundwater in the area is typically low in sodium and high in calcium and magnesium. In addition, the groundwater is relatively high in fluoride concentrations and low in boron mineral concentrations.

### **Environmental Consequences**

The total disturbed soil area has been estimated to be 9.7 acres. The impervious area (pavement) of the existing roadway is approximately 99,028 square feet; whereas, the proposed impervious area is estimated to be approximately 95,461 square feet. With a reduction of approximately 3,567 square feet of impervious surface, the Build Alternative would have an overall net benefit. The slight reduction of impervious surface would slightly decrease the amount of storm water runoff and erosion.

No ground water impacts are expected from the project.

With incorporation of standard Caltrans' provisions during construction, it is anticipated that there would be no significant short or long term impacts for stormwater, water quality or impacts to aquatic life .

### **Avoidance, Minimization, and/or Mitigation Measures**

1. To reduce short term impacts to water resources, the contractor would implement and comply with the Best Management Practices of the Construction General Permit.
2. The statewide storm water pollution prevention plan would be implemented to reduce storm water runoff.

### 2.2.3 Paleontology

#### **Regulatory Setting**

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

Fossils (especially vertebrate fossils) recovered in situ by qualified paleontologists are our main source of important information about the history and changing environments of the land we now inhabit.

The current geologic age is called the Holocene, and it began about 10,000 years ago. Several laws regulate impacts on paleontological resources. Some of these regulations are:

**-The Antiquities Act of 1906** requires permission for collecting ‘objects of antiquity’ on public lands.

**The National Environmental Policy Act (NEPA)** requires federal agencies to use “all practicable means to preserve important historic, cultural and natural aspects of our national heritage” when projects have a federal nexus such as federal land, federal dollars, or federal agency jurisdiction. The level of consideration may vary with the agency involved.

**The Federal-Aid Highway Act [23 U.S. Code 305]** authorizes the use of federal highway funds for paleontological salvage on projects with federal funding. The Highway 101 realignment project has federal funding and as such is eligible to use federal funding for paleontological salvage.

**Limitation on Federal Participation (23 USC 1.9)** requires that federal-aid funds shall not participate in any cost which is not incurred in conformity with applicable Federal and State law. Since the California Environmental Quality Act (CEQA) requires that paleontological resources be addressed as part of the State environmental process, any project receiving federal-aid funds must also address paleontological resources.

**The California Environmental Quality Act (CEQA)** states that it is the policy of the state that projects should not be approved if there are feasible alternatives that would avoid “significant effects” to the environment or feasible mitigation measures available, which

would substantially lessen the significant environmental effects of such projects. This includes effects to sensitive paleontological resources.

**Public Resource Code 5097.5** requires permission from the regulating agency to “excavate upon, remove, destroy, injure or deface...” paleontological features on public land.

**California Code of Regulations Title 14 Sections 4307 & 4309** prohibits disturbance of paleontological features on lands administered by the California Department of Parks and Recreation (DPR) unless such activities have been properly permitted. The project alternatives include excavation within Gaviota State Park, property currently held by DPR. However it is anticipated that title to the property would be transferred to the Department of Transportation before excavation begins. If that is the case, Title 14 sections 4307 and 4309 would no longer apply. If property transfer does not occur, a permit from DPR to disturb paleontological resources would be necessary.

**Public Resources Code Division 20 California Coastal Act** authorizes the California Coastal Commission (CCC) to review permit applications for development within the coastal zone and, where necessary, to require reasonable mitigation measures to offset the effects of that development. Section 30244 of the Act, "Archaeological or Paleontological Resources," states: “Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.” Permits for development are issued with "special conditions" to ensure implementation of these mitigation measures. The CCC issues permits for all development within the CCC's jurisdiction (generally within one mile of the mean high tide line). As a result of the project being located within the coastal zone the California Coastal Commission (CCC) has jurisdictional authority.

### ***Affected Environment***

The following analysis regarding potential project-related paleontology impacts is based on the Paleontology Identification/ Evaluation Report (August 2012).

The project resides near the Santa Inez Mountains which contains a thick sequence of folded Cretaceous (135 to 65 million years old) and Tertiary (65 to 1.6 million years old) sedimentary rocks including sandstone, siltstone, and shale. Only Tertiary rocks are present within Gaviota Park boundaries. Three distinct geologic units appear within the project site: Monterey Formation, Rincon Formation, and Marine-terrace deposits.

Monterey Formation:

The Monterey Formation is comprised of marine deposits which are rich in fossils. This formation is primarily recognized for producing whale and dolphin fossils; in addition to many finely preserved crabs, fish and gastropods. Although extremely rare, this formation has been known to fossilize kelps or other sea weeds.

At the project site, the Monterey Formation is identified at the southern portion of the project limits. This formation consists of upper and lower rock formations, both made of shale. A vertebrate database research from the University of California Berkeley's Museum of Paleontology indicates paleontological resources found near the project area. Fossils have been discovered in the Monterey Formation at Gaviota State Park, adjacent to the project site but were not specifically cataloged. According to the National Park Service, a 7-11 million year old fossil flat fish and marine mammal resembling a seal lion was discovered adjacent to the project site (1998).

Rincon Formation:

Rincon Shale identified at the northerly end of the project limits. This formation is massive to poorly-bedded, and consists of predominantly clay-like, shale and mudstone. Two layers of siliceous shale (hard glass or granite-like mineral) are found in the middle of the unit, and they outcrop noticeably in the region.

Marine-terrace deposits:

The Marine-terrace deposits are located above the Monterey Formation and overlap a small portion of the Rincon north east of the project site. These deposits, also known as, surficial sediment or Continental deposits consist of upper Pleistocene deposits (1.6 million years to 11,000 years). These deposits overlie eroded bedrock or older sediments on elevated marine wave-cut abrasion platforms. The lower section of marine-terrace usually consists of a thin (<1 m-thick) fossilized cobble to pebble gravel layer that locally grades upward.

Database research from University of California Berkeley's Museum of Paleontology and the Los Angeles County Museum of Natural History (LACM) do not identify any fossil sites within the project area. However, according to the USGS, unpublished 2001 data indentified fossil finds of open-coast invertebrate fauna of at least 125 taxa, including 102 mollusks and 18 foraminifers from the lowermost emergent Marine-terrace, and a rare fossil solitary coral *Balanophyllia elegans*. Dibblee (1966) reported the presence of a jaw bone of a late Pleistocene mammoth (*Archidiscodon imperator*) in alluvium within Marine-terrace deposits near the western edge of Goleta.

### ***Environmental Consequences***

The Goleta Curve Realignment Project would remove approximately 200,000 cubic yards of rock, shale and soil from the hillside with the 75-foot cut into the slope. Construction excavation would occur in areas underlain by Miocene and Pleistocene sediments that may contain sensitive paleontological resources.

The middle to upper Pleistocene sedimentary rocks (1.6 million years to 11,000 years) of the Marine-terrace deposits, Monterey and Rincon Formations have produced vertebrate, invertebrate, plant and microfossils in the region and are therefore designated as a sensitive resource. Thus, there is a possibility of encountering scientifically significant specimens during excavation into middle to upper Pleistocene age sedimentary rocks of the Marine-terrace deposits and the Tertiary age Monterey and Rincon Formations.

The Rincon Formation, Monterey Formations and Marine-terrace deposits contain nonrenewable paleontological resources of scientific interest that are unique, unusual and stratigraphically important. These may include terrestrial vertebrate fossils that are rarer than other types of fossils. Any additional fossils found would add to the existing body of scientific knowledge. Scientifically significant paleontological resources are identified sites or geologic deposits containing individual fossils or assemblages of fossils that are unique or unusual, diagnostically or stratigraphically important and add to the existing body of knowledge in specific areas, stratigraphically, taxonomically or regionally. Rock units that contain or are likely to contain significant vertebrate, significant invertebrate or significant plant fossils require monitoring and mitigation.

### ***Cumulative Impacts***

Construction excavation for the Highway 101 Goleta Curve Realignment Project could have an adverse cumulative impact on paleontological resources; implementation of appropriate mitigation measures to salvage those resources during construction could reduce that impact to a less than significant level.

### ***Avoidance, Minimization, and/or Mitigation Measures***

With the exception of the No-build Alternative, the adverse impact to potential paleontological resources cannot be avoided. The current build alternative is constrained by the specific design criteria and the impact to local geologic formations is inevitable based on the scope of the project. As a result, minimization measures are unlikely to be effective. However, proper mitigation could actually result in beneficial effects through the discovery of fossils that would not have been exposed without construction and, therefore, would not have been available for study.

Mitigation measures, specifically monitoring, salvage of fossil specimens, and data recovery during construction excavation for this project would result in the reduction of any potential adverse impact. To reduce adverse impacts on paleontological resources, the project would implement full-time monitoring during construction activities at excavation sites.

Paleontological mitigation for the project would require the following actions:

1. A nonstandard special provision for paleontology mitigation must be included in the construction contract special provisions to advise the construction contractor of the requirement to cooperate with the paleontological monitoring and salvage activities.
2. A qualified principal paleontologist (M.S. or PhD in paleontology or geology familiar with paleontological procedures and techniques) must be retained to prepare a detailed Paleontological Mitigation Plan once enough design information is available to precisely define monitoring areas and prior to the start of construction. All geologic work must be performed under the supervision of a California Professional Geologist. The Paleontological Mitigation Plan would address in detail the procedures for data collection including:
  - Recording pertinent geographic and stratigraphic information.
  - Recovery methods for both macrofossil and microfossil remains.
  - Stabilization (preservation) methods for the specimens.
  - Provisions for the specimens to be accessioned into the collections of an appropriate repository (such as the LACM or UCMP) and catalogued for future scientific study.
  - Preparation of a final report detailing the results of the mitigation program once work is completed
3. The qualified principal paleontologist would be present at pre-grading meetings to consult with grading and excavation contractors.
4. Prior to the start of excavation, the principal paleontologist would conduct an employee environmental awareness training session for all persons involved in earth moving for the project.
5. A paleontological monitor, under the direction of the qualified principal paleontologist, would be on site to inspect cuts for fossils at all times during original disturbance of sensitive geologic formations. Once excavation is underway, the intensity of monitoring may be reduced in areas that are not producing fossils.

6. If fossils are discovered, the paleontologist (or paleontological monitor) would recover them. Construction work in these areas may be halted or diverted to allow recovery of fossils remains in a timely manner.
7. Bulk sediment samples would be recovered from fossiliferous horizons and processed for micro vertebrate remains as determined necessary by the principal paleontologist.
8. Fossil remains collected during the monitoring and salvage portion of the mitigation program would be cleaned and prepared to the point of identification (not exhibition), sorted, and cataloged.
9. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would then be deposited in an appropriate and Caltrans approved scientific institution with paleontological collections.
10. A final report would be completed that outlines the results of the mitigation program and would be signed by the Principal Paleontologist and Professional Geologist.

## **2.3 Biological Environment**

### **2.3.1 Natural Communities**

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

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Threatened and Endangered Species, Section 2.3.3.

#### ***Affected Environment***

##### ***Ruderal (Disturbed)/ Non-native Grassland***

The biological study area is dominated with ruderal vegetation and annual non-native grasses. Ruderal vegetation is typical of areas where the native vegetation is regularly disturbed by human activities, such as land significantly altered by agriculture, grazing, construction, or other land-clearing activities. Ruderal/disturbed occupies approximately 15.51 acres of the Biological Study Area. Refer to the Biological Study Area identified on Figure 2-9.

In the study area, non-native annual grassland covers approximately 10.61 acres and varied in density from moderate to dense with grasses growing over 2 ft high. Annual grasslands

can support quality habitat for various sensitive species, but provides little cover for wildlife. However, numerous species do forage, and several species breed in this habitat.

### *Coastal Scrub*

In the project limits, coastal scrub occurs as an understory within and surrounding Coast Live Oak Woodland, on hillsides adjacent to streams, between roadways and fence lines, and on slopes particularly in the northeastern portion of the project area. Central (Lucian) Coastal Scrub is dominated by coyote brush (*Baccharis pilularis*) and more common throughout the middle and western portions of the biological study area, and Venturan Coastal Sage Scrub is dominated by California sagebrush (*Artemisia californica*) which is located primarily in the northeastern portion.

Coastal scrub vegetation may support habitat for certain special-status plant species, reptile species, and various nesting bird species. There is potential for the federally endangered Smith's blue butterfly, which uses seacliff buckwheat in coastal scrub habitat as both larval and adult food plants; however, no occurrences of seacliff buckwheat were observed.

### *Valley Purple Needlegrass*

Purple needlegrass (*Stipa pulchra*) is a densely tufted, long-lived, upright perennial grass that grows in clumps. The grass is generally 2 to 3 feet tall, and spreads loosely open from approximately 4 to 8 inches with smooth to finely haired leaf blades. Valley Needlegrass Grasslands provide foraging and/or breeding habitat and movement corridors for wildlife species in the area.

Patches of valley needlegrass were identified and accounts for approximately 0.16 of the biological study area. It was most abundant along the shoulders and medians of the dirt roads in the northern section of the biological study area. A small population was also mapped along the upper terrace of the main cut slope.

### *Arroyo Willow Thicket*

The arroyo willow thicket was identified in the biological study area, mostly near the failing culvert at the southern end of the project limits. This species has clustered stems and grows as a thicket shrub or a small tree which provides nesting habitat for a variety of local bird species.

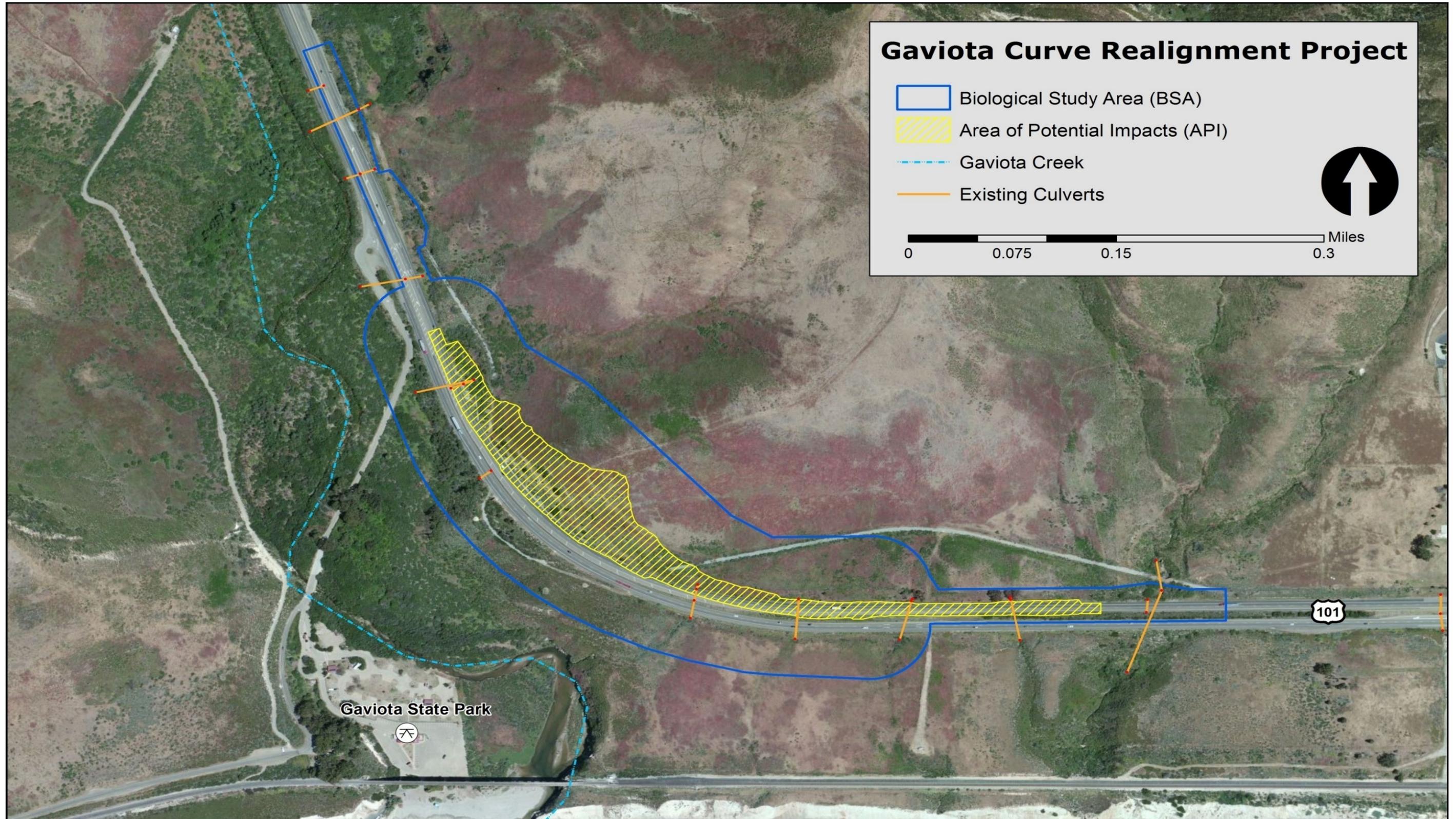


Figure 2-9 Project Limits and Biological Study Area

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## ***Environmental Consequences***

### ***Ruderal (Disturbed)/ Non-native Grassland***

The project is estimated to permanently impact 0.35 acre of Ruderal/ disturbed area, and 0.59 acre temporarily. Approximately 0.04 acre of non-native annual grassland would be impacted to accommodate the new pavement and shoulders along the northbound lane. Approximately 2.19 acres of non-native annual grasslands would be temporarily affected from cut/fill activities on the slope.

### ***Coastal Scrub***

The project would require the removal of Coastal scrub due to the cut and fill limits proposed on the slope. Approximately 1.45 acres of Coastal scrub would be permanently impacted and 1.48 acres temporarily impacted.

### ***Valley Purple Needlegrass***

The proposed project would temporarily impact 0.1 acre of Valley purple needlegrass due to the slope cut and construction. The impact does not meet the County's significant criteria. According to Santa Barbara County (2003), impacts to Native Grassland habitats may be considered significant if the grasslands contains at least 10% relative cover by native grassland species and the area is greater than 0.25 acres.

### ***Arroyo Willow Thicket***

During breeding bird surveys, no nesting birds were observed within the Arroyo Willow Thicket.

## ***Avoidance, Minimization, and/or Mitigation Measures***

### ***Ruderal (Disturbed)/ Non-native Grassland***

No measures are required

### ***Coastal Scrub***

No measures are required

### ***Valley Needlegrass Grassland***

1. Annual habitat mapping of valley needlegrass land would continue within the area of potential impact (API) until the proposed project goes to construction to provide the most accurate distribution of valley needlegrass land with a greater than 10% cover of purple needlegrass within the project limits.

2. On slopes that are 2:1 or flatter, as delineated on contract documents, purple needlegrass plants removed for construction and other project activities would be salvaged during construction and replanted in appropriate soils within the project's area of potential impact.
3. Duff layers from impacted purple needlegrass grassland would be stockpiled on site, as delineated on contract documents, and redistributed within the project API following construction.
4. Affected purple needlegrass habitat would be replaced onsite at a minimum ratio of 1:1 using salvaged plants collected from the project site and a hydroseed mixture containing purple needlegrass seed with a one year plant establishment period.
5. Hydroseeding would be accompanied by application of native purple needlegrass straw containing purple needlegrass seed.
6. Follow up weed management would occur for one successive year within the project's area of potential impact to lessen long-term impacts to native perennial grassland.

### **2.3.2 Animal Species**

#### ***Regulatory Setting***

This section discusses potential impacts and permit requirements for wildlife not listed or proposed for listing under the California Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.3. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and species of special concern.

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Wildlife Code
- Section 4150 and 4152 of the California Fish and Wildlife Code

### **Affected Environment**

#### *American Badger*

The American badger (*Taxidea taxus*) is considered a State Species of Concern by the California Department of Fish and Wildlife. This stocky mammal is a member of the weasel family, with distinctive white and black head markings, short powerful legs, and long claws adapted for digging. Badgers dig burrows or reuse abandoned dens from other animals.

The surrounding arid landscape is suitable habitat for these mammals, but may be marginal considering the proximity of Highway , the hilly terrain in some areas, and the soil types within the project area. One potential badger den was observed in the central portion of the study area, although no signs (tracks, scat) of recent occupancy were observed at this location.

#### *San Diego Desert Woodrat*

The San Diego desert woodrat (*Neotoma lepida intermedia*) is considered a State Species of Concern by the California Department of Fish and Wildlife. Limited suitable habitat was observed on both sides of the highway at rocky outcrops and cactus patches within the coastal scrub. No woodrats were observed in the study area.

### **Environmental Consequences**

#### *American Badger*

American badgers could be entombed during grading or injured by construction equipment, resulting in the adverse effects of injury or mortality. Temporary habitat disturbance may occur during construction operations, but the proposed project would not likely displace entire populations or even individual home ranges, and would not result in substantial impact to the species.

#### *San Diego Desert Woodrat*

The project would permanently remove 1.45 acres of coastal sage scrub. This would remove suitable habitat, but the project is not anticipated to displace entire woodrat populations or result in a significant impact to the species.

### **Avoidance, Minimization, and/or Mitigation Measures**

#### *American Badger*

1. No less than 14 days and no more than 30 days prior to any construction activities or any project activity likely to impact the American badger, a

- preconstruction survey shall be conducted for American badger. The survey shall identify American badger habitat features on the project site, evaluate use by American badger and, if possible, assess the potential impacts to the American badger by the proposed activity. The status of all dens would be determined and mapped. Known dens, if found occurring within the footprint of the activity, shall be monitored for three days with tracking medium to determine the current use. If no American badger activity is observed during this period, the den shall be destroyed immediately to preclude subsequent use. If American badger activity is observed at the den during this period, the den shall be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den is determined to be unoccupied shall the den be excavated under the direction of the biologist.
2. Written results of the preconstruction/preactivity survey would be submitted to California Department of Fish and Wildlife within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If the preconstruction survey reveals an active den or new information regarding American badger presence within 200 ft of the project boundary, the California Department of Fish and Wildlife shall be immediately notified.
  3. Prior to ground breaking, a qualified biologist shall conduct an environmental education and training session for all construction personnel.
  4. Project employees shall be directed to exercise caution when driving within the project area. A 20-mph speed limit shall be strongly encouraged within the project site. Cross-country travel by vehicles shall be prohibited outside of the proposed areas of disturbance, unless authorized by California Department of Fish and Wildlife. Project employees shall be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards. Construction activity shall be confined within the project site, which may include temporary access roads and staging areas specifically designated and marked for these purposes.
  5. A litter control program shall be instituted within the BSA. No canine or feline pets or firearms (except for law enforcement officers and security personnel) shall be permitted on construction sites in order to avoid harassment, killing, or injuring of American badger.

6. Maintenance and construction excavations greater than 2-ft deep shall be covered (e.g., with plywood, sturdy plastic, steel plates, or equivalent), filled in at the end of each working day, or have earthen escape ramps no greater than 200 ft apart to prevent trapping American badger.
7. The resident engineer or their designee shall be responsible for implementing these conservation measures and shall be the point of contact.
8. All grindings and asphaltic-concrete waste shall be stored within previously disturbed areas absent of habitat and at a minimum of 150 ft from any culvert, wash, pond, vernal pool, or stream crossing.
9. Restoration and revegetation work associated with temporary impacts shall be done using California endemic plants appropriate for the location. To the maximum extent practicable, topsoil shall be removed, cached, and returned to the site according to successful restoration protocols. Loss of soil from run-off or erosion shall be prevented with straw bales, straw wattles, or similar means provided they do not entangle or block escape or dispersal routes of American badger.
10. The project construction area shall be delineated with high visibility temporary fencing, flagging, or other barrier to prevent encroachment of construction personnel and equipment onto any sensitive areas during project work activities. Such fencing shall be inspected and maintained daily until completion of the project and would be removed only when all construction equipment is removed from the site. No project activities shall occur outside the delineated project area.

#### *San Diego Desert Woodrat*

- Prior to implementation of proposed project activities, a pre-construction visual survey would be conducted within suitable woodrat habitat (coastal scrub) in the BSA to determine the presence or absence of woodrat nests.
  1. If woodrat nests are located during this survey, avoid the nest(s) and establish an ESA with a 25-ft buffer around each nest.
  2. To the extent feasible, project activities requiring grading, mechanized equipment or vehicles, or large crews within the 25-foot protective buffer would only occur during the non-breeding season (October-November) to

- avoid noise impacts to any breeding woodrats that may occupy the nest from December through September.
3. If project activities cannot avoid impacting or removing the nest, then the nest(s) would be dismantled by hand prior to grading or vegetation removal activities. The nest dismantling shall occur during the non-breeding season (October-November) and shall be conducted so that the nest material is removed starting on the side where most impacts would occur and ending on the side where the most habitat would be undisturbed, which would allow for any woodrats in the nest to escape into adjacent undisturbed habitat.
  4. If young are encountered during nest dismantling, the dismantling activity would be stopped and the material replaced back on the nest and the nest would be left alone and rechecked in 2-3 weeks to see if the young are out of the nest or capable of being out on their own (as determined by a qualified biologist); once the young can fend for themselves, the nest dismantling can continue.

### **2.3.3 Threatened and Endangered Species**

#### ***Regulatory Setting***

The California Endangered Species Act, California Fish and Wildlife Code, Section 2050, et seq. 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 Wildlife is the agency responsible for implementing California Endangered Species Act. Section 2081 of the Fish and Wildlife 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 Wildlife 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 Wildlife. For species listed under both the Federal Endangered Species Act and California Endangered Species Act requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Wildlife may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Wildlife Code. The primary federal

law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA 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 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a no effect finding. Section 3 of FESA 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 (CESA), California Fish and Wildlife Code Section 2050, et seq. CESA 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 Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2081 of the Fish and Wildlife 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 Wildlife Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by California Department of Fish and Wildlife. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, California Department of Fish and Wildlife may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Wildlife Code.

### ***Affected Environment***

Habitats for two State and federally listed species—California Red-legged frog and Gaviota tarplant were identified in the biological study area. Formal consultation for

these species occurred with the California Department of Fish and Wildlife, and the United States Fish and Wildlife Services (Natural Environment Study November 2012; Biological Assessment January 2013).

### *California Red-legged Frog*

The California red-legged frog (*Rana aurora draytonii*) is considered a State Species of Concern by the California Department of Fish and Wildlife, and listed as Federally Threatened by the United States Fish and Wildlife Service. This amphibian is recognized by the reddish color found on the underside of its legs and belly. California red-legged frogs can be found in a variety of areas, including aquatic, riparian, and upland habitats for foraging, shelter, cover, and nondispersal movement.

The central and northern portions of the biological study area occur within an area designated as critical habitat for California red-legged frog. There is suitable upland habitat, but there is no aquatic habitat in the biological study area. According to the California Natural Diversity Database (2012), there are two California red-legged frog occurrence records within 1 mile (1.6 km) of the project site. No protocol surveys were conducted.

### *Gaviota Tarplant*

Gaviota tarplant (*Deinandra increscens ssp. vilosa*) is a State and Federally endangered plant species that is known to occur on the coastal terrace and foothill portion of Gaviota State Park, and on private lands inland of the highway on the Gaviota Coast. It is a member of the sunflower family that has a variable gray-green stem that usually grows from 12 to 35- inches in height and produces a small yellow flower. This is an annual flower that blooms between the months of May through October.

The United States Fish and Wildlife Service designated the Gaviota coastline as critical habitat in 2001. Approximately 4.75 acres of Gaviota tarplant critical habitat lies within the biological study area, however, no Gaviota tarplant was observed within the biological study area during the botanical surveys.

## **Environmental Consequences**

### *California red-legged frog*

The proposed project would impact a total of 5.42 acres of critical habitat for California red-legged frog. Approximately 1.56 acres of critical upland habitat would

be permanently impacted and 3.86 acres is anticipated to be temporarily impacted due to grading and vegetation removal to accommodate the realignment.

Project construction could result in the injury or mortality of California red-legged frogs residing in small mammal burrows. They could be accidentally crushed or trapped in small dens from construction activities; however, the potential for these impacts is anticipated to be unlikely due to no observations of the species during surveys and no aquatic habitat within or in dispersal proximity to the project limits.

Based on the surveys and evidence, Caltrans has determined that the project *may affect, but is not likely to adversely affect*, California red-legged frog or their habitat.

### ***Gaviota Tarplant***

A total of 4.75 acres of critical habitat for Gaviota tarplant would be affected from grading and vegetation removal. The proposed road realignment would permanently impact 1.72 acres and temporarily impact 3.03 acres of critical habitat.

Based on the lack of Gaviota tarplant observed during surveys, Caltrans has determined that the project *may affect, but is not likely to adversely affect*, Gaviota tarplant and/or critical habitat.

## ***Avoidance, Minimization, and/or Mitigation Measures***

### ***California Red-legged Frog***

1. A biologist with experience in identification of all life stages of the California red-legged frog shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is detected, the United States Fish and Wildlife Service shall be notified prior to the start of construction. If Caltrans and the United States Fish and Wildlife Service determine that adverse effects to the California red-legged frog cannot be avoided, the proposed project would not commence until Caltrans completes the appropriate level of consultation with the United States Fish and Wildlife Service.
2. Work activities shall take place during the dry season, between April 1 and November 1, when water levels are typically at their lowest, and California red-legged frogs are likely to be more detectable. If activities need to be conducted outside of this period, Caltrans may conduct or authorize such activities after obtaining the United States Fish and Wildlife Service's written approval.

3. Before work begins, a biologist with experience in the ecology of the California red-legged frog, as well as identification of all life stages, shall conduct a training session for all construction personnel, which would include a description of the California red-legged frog and specific measures that are being implemented to avoid adverse effects to the species during the proposed project.
4. If any life stage of the California red-legged frog is detected in the project area during construction, work would cease immediately and the resident engineer, authorized biologist, or biological monitor would notify the Ventura Fish and Wildlife Office via telephone or electronic mail. If Caltrans and the United States Fish and Wildlife Service determine that adverse effects to the California red-legged frogs cannot be avoided, construction activities would remain suspended until Caltrans and the United States Fish and Wildlife Service complete the appropriate level of consultation.
5. During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
6. Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to implement should a spill occur.
7. All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet away from aquatic or riparian habitat and not in a location from where a spill would drain directly toward aquatic habitat. The spill response plan described in measure 6 would be implemented to minimize contamination of aquatic or riparian habitat.
8. Plants used in re-vegetation would consist of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable. This measure shall be implemented in all areas disturbed by activities associated with the project, unless Caltrans and United States Fish and Wildlife Service determine that it is not feasible or practical.
9. Habitat contours shall be returned to their original configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the Caltrans and United States Fish

and Wildlife Service determine that it is not feasible or modification of original contours would benefit the California red-legged frog.

10. The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas shall be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of aquatic habitat and riparian areas to the maximum extent practicable.
11. To control sedimentation during and after project implementation, Caltrans shall implement Best Management Practices (BMPs). If BMPs are ineffective, Caltrans shall attempt to remedy the situation immediately, in consultation with the United States Fish and Wildlife Service.
12. If a work site is to be temporarily dewatered by pumping, the intake shall be screened with wire mesh not larger than 0.2 inch to prevent any California red-legged frogs not initially detected from entering the pump system. If California red-legged frogs are detected during dewatering, and adverse effects to California red-legged frogs cannot be avoided, construction activities would remain suspended until Caltrans and the United States Fish and Wildlife Service complete the appropriate level of consultation.
13. Unless approved by the United States Fish and Wildlife Service, water shall not be impounded in a manner that may attract California red-legged frogs.
14. A qualified biologist shall permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Wildlife Code.
15. To ensure that diseases are not conveyed between work sites, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force would be followed at all times.

### *Gaviota Tarplant*

The following general avoidance and minimization measures are recommended for project activities occurring within Gaviota tarplant critical habitat, regardless of pre-construction survey findings for occupancy of Gaviota tarplant individuals:

1. A qualified botanist approved by both USFWS and California Department of Fish and Wildlife to work with Gaviota tarplant shall oversee flagging of the perimeter of all approved work areas in Gaviota tarplant critical habitat prior to ground disturbance.
2. Prior to construction, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of Gaviota tarplant and its habitat, the location of critical habitat within the API, the specific measures that are being implemented to conserve Gaviota tarplant for the current project, and the boundaries of proposed areas of disturbance.
3. Preconstruction surveys would be conducted within the BSA during each blooming period to reassess the current distribution of Gaviota tarplant.
4. Prior to ground disturbance, to preserve the seed bank in the soil and the nutrient rich duff/topsoil, the top 2 inches of the soil in the area supporting Gaviota tarplant plants shall be collected for redistribution at the restoration/replacement site. If heavy equipment is used, the qualified biologist would monitor the activity. The soil collection area shall be delineated in the field during the blooming period prior to ground disturbance. Collection and reapplication of the duff/topsoil at the restoration/replacement site and reapplication shall occur as soon as possible.
5. Following excavations and other types of temporary ground disturbance in Gaviota tarplant critical habitat, regardless of the presence of Gaviota tarplant, the soil profile shall be rebuilt using salvaged and stockpiled materials, replacing them on site, in reverse order.
  - a. Layers beneath the final seedbank layer shall be well compacted.
  - b. The seedbank layer would be more loosely compacted by spreading it dry or with minimal water. Tracking, rather than spraying, would be used to pack the seedbank layer into place.
  - c. Replacement of seedbank and topsoil stockpiles shall be monitored by a biologist approved by California Department of Fish and Wildlife for work with Gaviota tarplant.
  - d. Following ground disturbance and seedbank replacement in Gaviota tarplant critical habitat, a compost blanket shall be applied

to disturbed soil areas that are at a 2:1 slope or flatter.

Hydroseeding would be applied to exposed soil utilizing a native seed mix that would not outcompete with Gaviota tarplant.

6. If construction impacts occupied habitat during the growing season (between the first rain of the growing season and the middle of September), standing and/or drying plants that still have ripening seed during the late fall of the year preceding construction would be collected by a California Department of Fish and Wildlife approved biologist. Plants shall be collected by hand. The collected material shall be dried immediately and stored dry to preserve the seeds. The salvaged plant material shall be spread on restored habitat prior to final soil stabilization.
7. The contractor shall employ "triple-lift topsoil salvage" procedures to conserve the soil profile and soil seed bank. All topsoil handling in occupied Gaviota tarplant habitat shall be monitored by a qualified biologist approved by California Department of Fish and Wildlife to work with Gaviota tarplant.
  - a. The contractor shall clear all woody vegetation and stockpile separately in a location where it would be out of the way during construction.
  - b. The contractor shall scrape a 3- to 6- inch lift of soil from the area of Gaviota tarplant habitat where soil would be excavated. Stockpile this seedbank layer in a location where it would be out of the way during construction. Clearly mark the seedbank stockpile for identification and avoidance.
  - c. The contractor shall scrape off a second 6-to 8- inch lift of the sandy soil horizon (shallower if bedrock or other soil type is encountered, such as clay). Stockpile this topsoil lift in a location where it would not be disturbed during construction, and clearly mark it for identification and avoidance.
  - d. The contractor shall keep stockpiled seedbank dry and protected from wind erosion and disturbance per the measures for topsoil conservation throughout construction and until it would be replaced on the restored sites. Water shall be sprayed on the stockpiles to crust the soil and reduce loss to wind erosion, but the

spray shall not be heavy enough to soak into the pile (to avoid soaking seeds and triggering seed germination).

- e. Salvaged seedbank that is being eroded by the wind shall be stabilized by spraying with an organic soil binder used for hydroseeding.
  - f. No irrigation or watering of Gaviota tarplants in the restoration/ replacement area is proposed.
8. The Gaviota tarplant restoration/replacement area shall be delineated on the project plans and delineated in the field with ESA fencing, markers, or equivalent. The location shall remain a conservation area within Caltrans ROW permanently marked with ESA paddles and maintained in perpetuity.
9. The success goal shall be 1:1 replacement of Gaviota tarplant. The permitting agency would appoint a qualified biologist to monitor annually for three years during the appropriate blooming period. Annual monitoring reports shall be prepared.

The project is in formal consultation and informal coordination with regulatory agencies that may request additional measures not mentioned above. The final environmental document would include any measures required by a permitting agency.

### **2.3.4 Invasive Species**

#### ***Regulatory Setting***

On February 3, 1999, President Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States (U.S.). 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 (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list currently maintained by the California Invasive Species

Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

### ***Affected Environment***

Invasive/weedy plants occur within the biological study area. A total of 19 invasive plant species as identified by the online California Invasive Plant Council (Cal-IPC) California Invasive Plant Inventory Database (2012) were observed.

### ***Environmental Consequences***

Sources of impacts would be primarily from the use of construction equipment and associated worker foot-traffic. Trucks, bulldozers, backhoes, compactors, asphalt concrete rollers, clamshells, excavators, compressors, man lifts, scrapers, pavers, water trucks, sweepers, and any other equipment necessary in the course of construction would be used.

### ***Avoidance, Minimization, and/or Mitigation Measures***

To prevent new invasive species from being imported to the site, Caltrans requires that the project contractor implement the following control measures:

1. During construction, the biological monitor(s) would ensure that the spread or introduction of invasive exotic plant species would be avoided to the maximum extent possible.
2. Only clean fill shall be imported. When practicable, invasive exotic plants in the project site would be removed and properly disposed. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species. If soil from weedy areas must be removed off-site, the top six inches containing the seed layer in areas with weedy species shall be disposed of at a certified landfill. Care shall be taken to avoid including any species that occurs on the Cal-IPC Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project.
3. Construction equipment shall be certified as “weed-free” by the biological monitor(s) before entering the construction site. If necessary, wash stations onsite shall be established for construction equipment under the guidance of the biological monitor(s) in order to avoid/minimize the spread of invasive plants and/or seed within the construction area.

## 2.4 Construction Impacts

### ***Affected Environment***

#### *Hazardous Waste*

Hazardous waste is not expected to be a significant issue on this project. The only potential sources for hazardous waste would be soil contaminated with lead from automobile emissions from when lead was a fuel additive, treated wood from guardrail or sign posts and traffic striping that may be removed.

#### *Noise*

Property adjacent to the project area is zoned as recreational and agricultural. The closest potential noise receptor is Gaviota State Beach which is located approximately 1,000 feet away. There are no residences that would be impacted.

### ***Environmental Consequences***

#### *Hazardous Waste*

Lead in soil from automobile emissions is usually only an issue when excavations are shallow and close to the traveled way. Most of the excavation for this project would be from a very large cut slope. Due to the large volume of excavation, the fact that over 50% of it is rock and due to the distance that this excavation is from the traveled way, lead from automobile emissions is not expected to be an issue on this project. Guardrail and sign posts are chemically treated with various wood preservatives. Guardrail and sign posts that are removed would be transported to a treated wood recycling center. Traffic stripe that is removed would be stored and tested to determine how it can be properly disposed of.

#### *Noise*

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications Section 14-8.02 “Noise Control,” which states that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers’ specifications.

Table 2.2, located below, summarizes noise levels produced by construction equipment commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 90 dB at a distance

of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

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

Source: Federal Transit Administration 1995.

**Table 2-2 Construction Equipment Noise**

### ***Avoidance, Minimization, and/or Mitigation Measures***

#### *Hazardous Waste*

Once specific excavation limits are established during the design phase of the project, soil sampling would be performed to characterize the soil that would be excavated for this project in order to ensure that lead from automobile emissions would not be an issue.

#### *Noise*

1. Application of Caltrans Standard Specifications Section 14-8.02 pertaining to noise control.

## **2.5 Climate Change**

### ***Climate Change***

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization's in 1988, has led to increased efforts devoted to

greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gas emissions related to human activity that include carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas (GHG) Mitigation" is a term for reducing greenhouse gas emissions to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts due to climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).<sup>1</sup>

Transportation sources (passenger cars, light duty trucks, other trucks, buses and motorcycles) in the state of California make up the largest source (second to electricity generation) of greenhouse gas emitting sources. Conversely, the main source of greenhouse gas emissions in the United States (U.S.) is electricity generation followed by transportation. The dominant greenhouse gas emissions emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are four primary strategies for reducing greenhouse gas emissions from transportation sources: 1) improve system and operation efficiencies; 2) reduce growth of vehicle miles traveled; 3) transition to lower greenhouse gas emissions fuels; and 4) improve vehicle technologies. To be most effective, all four methods would be pursued collectively. The following regulatory setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

### ***Regulatory Setting***

#### ***State***

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change at the state level.

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases (Assembly Bill 1493), 2002: requires the California Air Resources Board to develop

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<sup>1</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

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. In June 2009, the U.S. Environmental Protection Agency administrator granted a Clean Air Act waiver of preemption to California. This waiver allowed California to use its own greenhouse gas emissions standards for motor vehicles beginning with model year 2009. California agencies would be working with Federal agencies to conduct joint rulemaking to reduce greenhouse gas emissions for passenger cars model years 2017–2025.

Executive Order S-3-05: (signed on June 1, 2005, by then-Governor Arnold Schwarzenegger) the goal 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.

AB32 (AB 32), the Global Warming Solutions Act of 2006: Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that California Air Resources Board create a plan that includes market mechanisms and rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” Executive Order S-20-06 further directs state agencies to begin using Assembly Bill 32 and the recommendations made by the state’s Climate Action Team.

Executive Order S-01-07: Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California’s transportation fuels would be reduced at least ten percent by 2020.

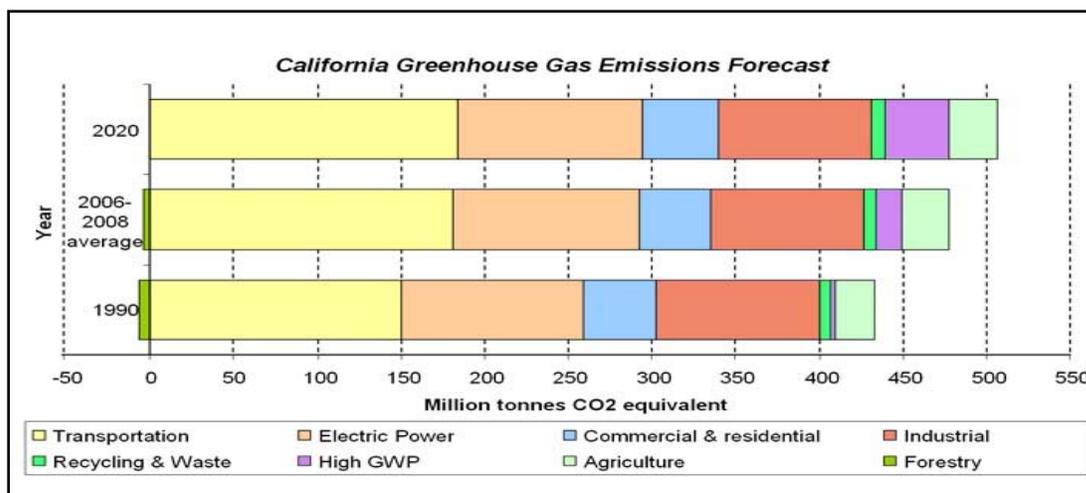
Senate Bill 97 (Chapter 185, 2007): required the Governor's Office of Planning and Research to develop recommended amendments to the California Environmental Quality Act Guidelines for addressing greenhouse gas emissions (effective March 18, 2010).

### *Project Analysis*

An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other

sources of greenhouse gas emissions.<sup>2</sup> In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See California Environmental Quality Act Guidelines sections 15064(h)(1) and 15130. To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

The Assembly Bill 32 Scoping Plan contains the main strategies California would use to reduce greenhouse gas emissions. As part of its supporting documentation for the Draft Scoping Plan, the California Air Resources Board released the greenhouse gas inventory for California (forecast last update: 28 October 2010). The forecast estimates the emissions expected to occur 2020 if none of the foreseeable measures included in the Scoping Plan were used. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas inventory for 2006, 2007, and 2008 (see Figure 2-10).



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

### Figure 2-10 California Greenhouse Gas Forecast

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emissions reduction and climate change. Recognizing that 98 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human made

<sup>2</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the SCAQMD ( Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

greenhouse gas emissions are from transportation, Caltrans created and is using the Climate Action Program published in December 2006 (see Climate Action Program at Caltrans (December 2006)).<sup>3</sup>

The project is a maintenance project that consists primarily of pavement rehabilitation and shoulder widening. There would be no increase in highway capacity since the highway would remain with the exact number of lanes as it currently exists. Thus, the proposed project is not anticipated to result in an increase in operational greenhouse gas emissions.

In actuality, Caltrans has considered measures in all project phases to assist with the reduction of greenhouse gases in order to be more energy efficient. For example, the project improves the transportation system with smoother pavement surfaces that reduces vehicle gas consumption through decreased friction, which in turn, reduces the amount of greenhouse gas emissions produced by vehicles. While construction emissions of greenhouse gases are unavoidable, there would likely be long term public benefits with improved safety and operation due to the widened shoulder and rumble strips.

### *Construction Emissions*

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

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

Additionally, according to Caltrans Standard Specifications Provisions, idling time for lane closure during construction is restricted to 10 minutes in each direction;

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<sup>3</sup> Caltrans Climate Action Program is located at the following web address:  
[http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

furthermore, the contractor must comply with Air Pollution Control District rules, ordinances, and regulations in regard to air quality restrictions.

### *California Environmental Quality Act Conclusion*

While construction would result in a slight increase in greenhouse gas emissions during construction, Caltrans expects that there would be no operational increase in GHG emissions associated with this proposed project. However, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and California Environmental Quality Act significance, it is too speculative to make a determination on the project's direct impact and its contribution on the cumulative scale to climate change. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions. These measures are outlined in the following section.

### **Greenhouse Gas Reduction Strategies**

#### *Assembly Bill 32 Compliance*

Caltrans is actively involved on the Governor's Climate Action Team as the

California Air Resources Board works to use Executive Orders S-3-05 and S-01-07 to 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. Former 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 \$100.7 billion in transportation funding during the next decade. 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 would do this while handling growth in population and the economy. A suite of investment options, when combined should reduce congestion. The Strategic Growth Plan relies on a complete-systems approach to attain CO<sub>2</sub> reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements (see Figure 2-11, Mobility Pyramid).



**Figure 2-11 Mobility Pyramid**

The Department of Transportation supports efforts to reduce vehicle miles traveled by planning and using smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. The Department of Transportation also supports efforts to improve transportation sector energy efficiency by increasing vehicle fuel economy in new cars, light- and heavy-duty trucks; it is doing this by supporting on-going research efforts at universities, by supporting legislative 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 Air Resources Board. Lastly, the use of alternative fuels is also being considered; the Department of Transportation is participating in funding for alternative fuel research at the University of California, Davis. Table 2.1 summarizes statewide efforts that Caltrans is using to reduce greenhouse gas emissions. More detailed information about each strategy is included in the climate Action Program at Caltrans (December 2006).

<b>Table 2-3 Climate Change/CO<sub>2</sub> Reduction Strategies</b>						
<b>Strategy</b>	<b>Program</b>	<b>Partnership</b>		<b>Method/Process</b>	<b>Estimated CO<sub>2</sub> Savings (MMT)</b>	
		<b>Lead</b>	<b>Agency</b>		<b>2010</b>	<b>2020</b>
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 and Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy and GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening and Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.45 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 036	4.2 3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
<b>Total</b>					<b>2.66</b>	<b>18.67</b>

To the extent 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 Department of Transportation, also known as Caltrans, would incorporate landscape in the project. Landscaping reduces surface warming and through photosynthesis decreases CO<sub>2</sub>. The project proposes planting in the riparian area next to San Miguel Creek at a 3 to 1 tree-replacement ratio. These trees help reduce potential CO<sub>2</sub> emissions.

The project would incorporate the use of energy efficient lighting, such as LED (light emitting diode) traffic signals. LED bulbs cost \$60 to \$70 a piece but last five to six years compared to the one-year average lifespan of the incandescent bulbs previously used. The LED bulbs themselves consume 10 percent the electricity of traditional lights, which would also help reduce the CO<sub>2</sub> emissions from project.

According to the Department of Transportation's standard specifications, the contractor must comply with all local Air Pollution Control District rules, ordinances, and regulations in regarding air quality restrictions. These regulations include dust control, engine idling time during construction, as well as use of updated equipment.

### **Adaptation Strategies**

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

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency report on October 14, 2010 outlining recommendations to President Obama for how federal agency policies and

programs can better prepare the U.S. to respond to the effects of climate change. The Progress Report of the Interagency Climate Change Adaptation Task Force recommends that the federal government implement actions to expand and strengthen the nation's capacity to better understand, prepare for, and respond to climate change.

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

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

The California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state, and federal public and private entities to develop The California Climate Adaptation Strategy (Dec 2009)<sup>4</sup>, which summarizes the best known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

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

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<sup>4</sup> <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

The Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010<sup>5</sup> to advise how California would plan for future sea level rise. The report is to include:

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

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

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as the Department as a method to initiate action and discussion of potential risks to the state's infrastructure due to projected sea level rise.

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

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

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<sup>5</sup> The Sea Level Rise Assessment report is currently due to be completed in 2012 and will include information for Oregon and Washington states as well as California.

transportation system vulnerability to climate change, including the effect of sea level rise.

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

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

## Chapter 3      Comments and Coordination

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

**December 6, 2010:** An informal meeting was held between State Parks and Caltrans Environmental Planning to introduce the project's preliminary design. State Parks showed interest in limiting the amount of acquisition and drew attention to flooding issues near the entrance to Gaviota State Park.

**July 6, 2011:** Caltrans Archeological Branch contacts the Native American Heritage Commission requesting a search of the Sacred Lands Inventory and list of Native American individuals who have knowledge of cultural resources in project area.

**July 14, 2011:** Native American Heritage Commission returns response that includes a Native American Contact list for individuals in Santa Barbara County.

**October 13, 2011:** Caltrans District 5 Native American Coordinator sends a project introduction letter to members of the Chumash community and the Santa Ynez Band of Chumash Indians.

**November 15, 2011:** A Project Development Team meeting occurred at the Caltrans' Atoll building. Representatives from California State Parks and Santa Barbara County Planning Department attended.

**November 28, 2011:** Caltrans submits permit request to State Parks' Channel Coast District for authorization to conduct biological studies at Gaviota State Park.

**January 9, 2012:** An on-site project meeting was held with Caltrans District 5 Native American Coordinator, Project Archaeologist, and Project Engineer, and members of the Chumash community and the Santa Ynez Band of Chumash Indians to discuss the project description and schedule.

**January 18, 2012:** Project Development Team meeting including Santa Barbara County and State Parks.

**January 23, 2012:** The draft Archaeological Survey Report was sent to members of the Chumash community and the Santa Ynez Band of Chumash Indians

**February 8, 2012:** Caltrans biologist submitted a request for an official species list for the project area from the United States Fish and Wildlife Services' Ventura office (USFWS).

**March 20, 2012:** Caltrans transmits the Final Archaeological Survey Report to the Coastal band of the Chumash Nations.

**March 27, 2012:** Caltrans received an official United States Fish and Wildlife Service species list for the project area from their Ventura office.

**June 12, 2012:** Caltrans transmits Test Excavation Summary to various Chumash elders.

**July 24, 2012:** Caltrans biologist attempted to contact USFWS to discuss federally listed species and critical habitat potentially affected.

**July 27, 2012:** Caltrans biologist met with California Department of Fish and Wildlife to discuss biological concerns.

**August 1, 2012:** Caltrans and State Parks representatives attended a public meeting conducted by the Gaviota Coast Planning Advisory Committee (GavPAC). Caltrans attendance was to introduce the Gaviota Curve Realignment Project to the Committee and public.

**August 17, 2012:** Caltrans biologist meets with California Department of Fish and Wildlife to discuss project impacts to Valley Needlegrass Grassland and Gaviota tarplant. California Department of Fish and Wildlife biologist also reiterated that a 2080.1 Incidental take Permit would be required for potential "take" of Gaviota tarplant.

**August 23, 2012:** A Project Development Team meeting occurred at the Caltrans' Atoll building. Representatives from various disciplines and from CA State Parks attended.

**August 27, 2012:** Caltrans biologist met at the USFWS's Ventura office to discuss project impacts to listed species and Critical Habitat. It was suggested that Caltrans apply for a Programmatic Biological Opinion for California red-legged frog since formal consultation would be required for effects to Gaviota tarplant, Gaviota tarplant Critical Habitat, and California red-legged frog Critical Habitat.

**August 28, 2012** Caltrans transmits a copy of the draft Extended Phase I/Phase II Archaeological Investigation Report to members of the Chumash community and the Santa Ynez Band of Chumash Indians.

**November 8, 2012:** A Project Development Team meeting occurred at the Caltrans' District #5 Atoll building. Representatives from State Parks attended.

**December 12, 2012:** Caltrans transmits a copy of the final Extended Phase I/Phase II Archaeological Investigation Report to members of the Chumash community and the Santa Ynez Band of Chumash Indians.

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## Chapter 4 List of Preparers

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

Allam Alhabaly, Transportation Engineer. B.S., California State University, Fresno, School of Engineering; 12 years of experience in environmental technical studies, with emphasis on noise studies. Contribution: Noise Report.

Paul Andreano: SWCA Environmental Consultants, Senior Biologist/Associate Environmental Planner, representing Department of Transportation District 5. B.S., Ecology and Systematic Biology, California Polytechnic State University, San Luis Obispo; 12 years of experience as a field biologist and environmental planner. Contribution: Natural Environment Study (NES), Biological Assessment (BA), and permit process.

Linda Baker, Landscape Architect. Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; 20 years of experience in Landscape Architecture Design and Construction Documents. Contribution: Development and preparation of visual simulations.

Robert Carr. Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; 20 years of experience preparing Visual Impact Assessments. Contribution: Review of Scenic Resource Evaluation and Visual Assessment.

Abdulrahim N. Chafi, Ph.D., P.E. Civil/Environmental Engineer. Registered Civil Engineer in the State of California. Ph.D., Environmental Engineering, California Coast University, Santa Ana; B.S., M.S., Chemistry and M.S. Civil/Environmental Engineering, California State University, Fresno; more than 15 years of environmental technical studies experience. Contribution: Air Quality Report.

Rajeev Dwivedi, Associate Engineering Geologist. Ph.D., Environmental Engineering, Oklahoma State University, Stillwater; 19 years of environmental technical studies experience. Contribution: Water Quality Report.

- Matt Fowler. Senior Environmental Planner. B.A., Geographic Analysis, San Diego State University; 11 years of environmental planning experience.  
Contribution: Environmental Project Manager and final editing.
- Valerie A. Levulett. Senior Environmental Planner. M.A. , Ph.D. , Anthropology, University of California, Davis; 40 years of experience in environmental planning. Contribution: technical oversight for cultural, hazardous waste, and paleontology studies.
- Isaac Leyva. Engineering Geologist. B.S., Geology, California State University, Bakersfield; A.S., Cuesta College, San Luis Obispo; 20 years of experience in petroleum geology, environmental, geotechnical engineering. Contribution: Paleontology Identification Report/ Paleontology Evaluation Report.
- Christina MacDonald, Associate Environmental Planner. M.A., Cultural Resources Management, Sonoma State University; B.A., Anthropology, University of California, Los Angeles; 15 years of experience in California prehistoric and historical archaeology. Contribution: Coordinated the Phase I and Extended Phase I/II Reports, prepared the Historic Property Survey Report, and processed findings with the State Historic Preservation Office.
- Ken J. Romero, Senior Transportation Engineer. B.S., Civil Engineering, California State University, Fresno; 8 years of environmental technical studies experience. Contribution: technical oversight of studies for air, noise and water.
- James Tkach, Transportation Engineer. B.S., Soil Science, California Polytechnic State University, San Luis Obispo; Certificate in Hazardous Materials Management, University of California, Santa Barbara; Registered Environmental Assessor; 5 years of experience in project design and construction; more than 20 years of experience in hazardous waste management. Contribution: Initial Site Assessment.
- Kelso Vidal. Associate Environmental Planner. M.A., Sociology, California State University, Sacramento; 6 years of experience in environmental planning. Contribution: Wrote Initial Study and coordinated the environmental process.

## Chapter 5      Distribution List

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Vista Del Mar School District Scott Turnbull 9467 San Julian Road Gaviota, CA 93117	Naples Coalition PO Box 1099 Goleta, CA 93116	Santa Barbara County Office of Emergency Services 4408 Cathedral Oaks Rd Santa Barbara, CA 93110
Surfrider Foundation Santa Barbara Chapter P.O. Box 21703 Santa Barbara, CA 93121-1703	Los Padres ForestWatch P.O. Box 831 Santa Barbara, CA 93102	California Highway Patrol Santa Barbara Office (760) 6465 Calle Real Goleta, CA 93117
COUNTY OF SANTA BARBARA Planning and Development 123 E. Anapamu Street Santa Barbara, CA 93101	Environmental Defense Center 906 Garden Street Santa Barbara, Ca 931201	Southern California Edison James M. Rydberg 103 David Love Place Goleta, CA 93117
COUNTY OF SANTA BARBARA Public Works 123 East Anapamu Street Santa Barbara Ca 93101-	Santa Barbara Audubon Society 5679 Hollister Ave., Suite 5b Goleta, CA 93117	The Land Trust for Santa Barbara County Michael Feeney P.O. Box 91830 Santa Barbara, CA 93190
Santa Barbara County Fire Department Fire Station 18 17200 Mariposa Reina Gaviota, CA 93117	Goleta Valley Sheriff Station 4434 Calle Real Santa Barbara, CA. 93110	California State Parks Richard Rozzelle 911 San Pedro Street Ventura, CA 93001
COUNTY OF SANTA BARBARA Third District Supervisor Farr 105 East Anapamu Street Santa Barbara, CA 93101	Department of Fish and Wildlife South Coast Region (5) 3883 Ruffin Road San Diego, CA 92123	Department of Conservation 801 K Street, M.S. 24-01 Sacramento, CA 95814
Gaviota Coast Conservancy P.O. Box 1099 Goleta, CA 93116	California Coastal Commission South Central Coast District Office 89 South California Street, Suite 200 Ventura, CA 93001-2801	Congresswomen Lois Capps 301 East Carrillo Street, Suite A Santa Barbara, CA 93101
State Senator Hannah-Beth Jackson 225 E. Carrillo Street, Suite 302, Santa Barbara, CA 93101	U.S. Senator Dianne Feinstein 11111 Santa Monica Boulevard, Suite 915 Los Angeles, CA 90025	Santa Barbara County APCD 260 N San Antonio Rd, Suite A Santa Barbara, CA 93110-1315
Office of U.S. Senator Barbara Boxer 2500 Tulare Street, Suite 5290 Fresno, CA 93721	Assembly Assemblyman Das Williams 101 West Anapamu Street, Suite A, Santa Barbara, CA 93101	<u>Various Residences</u> 3-mile radius from project site Name and address intentionally left out for the individual's privacy.

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# Appendix A California Environmental Quality Act Checklist

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The following checklist identifies physical, biological, social, and economic factors that might be affected by the 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 document. 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
--------------------------------	--	------------------------------	-----------

**I. AESTHETICS:** Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**II. AGRICULTURE AND FOREST RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**III. AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

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

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**IV. BIOLOGICAL RESOURCES:** Would the project:

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**V. CULTURAL RESOURCES:** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

- |   |                          |                                     |                          |                                     |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                          | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**VI. GEOLOGY AND SOILS:** Would the project:

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

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

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

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**IX. HYDROLOGY AND WATER QUALITY:** Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

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

**X. LAND USE AND PLANNING:** Would the project:

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

**XI. MINERAL RESOURCES:** Would the project:

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

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

**XII. NOISE:** Would the project result in:

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

**XIII. POPULATION AND HOUSING:** Would the project:

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

**XIV. PUBLIC SERVICES:**

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

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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**XV. RECREATION:**

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

**XVI. TRANSPORTATION/TRAFFIC:** Would the project:

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

**XVII. UTILITIES AND SERVICE SYSTEMS:** Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- 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?
- 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?
- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

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

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

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

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

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)?

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



# Appendix B Correspondence with State Parks

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

## DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET  
SAN LUIS OBISPO, CA 93401-5415  
PHONE (805) 549-3101  
FAX (805) 549-3329  
TTY 711  
<http://www.dot.ca.gov/dist05/>



*Flex your power!  
Be energy efficient!*

December 6, 2012

Richard Rozzelle  
District Superintendent  
CA Department of Parks and Recreation  
911 San Pedro Street  
Ventura, CA 93001-3744

Dear Mr. Rozzelle:

### GAVIOTA CURVE REALIGNMENT: 4(f) DETERMINATION LETTER

The California Department of Transportation (Caltrans) proposes a safety improvement project along State Route 101 between Post Mile 45.6 to 46.4 in Santa Barbara County, California. The project proposes to realign the existing northbound compound curve with a single radius curve to reduce the potential for run-off-the-road collisions. Several of the run-off-the-road collisions at this location resulted in vehicles traveling off the road resulting in collisions with the existing concrete median barrier. The collision rate at this location is over four times the statewide average for similar facilities. In addition, the project proposes to widen the existing shoulders along the 2 northbound lanes and install rumble strips along the edge of traveled way.

The Gaviota Curve Realignment project will require up to a maximum of 4.2 acres from parcel APN#081-270-003, a property which is owned by the California Department of Parks and Recreation. To accommodate the curve realignment, the project requires a 75-foot cut slope into the hillside located on the northbound side of Highway 101 across the highway from the entrance to Gaviota State Park. Approximately 200,000 cubic yards of rock, shale and soil will be removed from cutting the hillside back. From the proposed top-of-slope, an additional 30-foot of right-of-way will be acquired for Caltrans' Maintenance. Please refer to the enclosed cross sections and profile sheets for additional information.

In compliance with Section 4(f) of the Department of Transportation Act (49 U.S.C. 303) and pursuant to SAFETEA-LU Sections 6004 and 6005, Caltrans has determined the proposed project will have a minimal impact to a Section 4(f) resource that is not considered to be adverse. The 4(f) determination was based on the following:

- There is no prudent and feasible alternative
- All possible planning has been taken to avoid the use of a 4(f) property or to minimize harm,
- Not accessible to the public,
- Not established or managed as a park facility,

Richard Rozzelle  
December 6, 2012  
Page 2

- Primarily made up fine grained sandstone with interbedded shale and claystone,
- Non-viable land due to current cut-slope angle,
- Less than a significant impact since the property reduction equates to less than 1% of the 452-acre parcel and 0.001% of the entire Gaviota State Parks property surrounding the project site.
- Measures have been incorporated to help facilitate access to Park and Recreational property.

Caltrans' *De Minimis* impact finding includes a memo-to-file and a letter of concurrence from the agency with jurisdiction of the 4(f) property. Caltrans kindly request the California Department of Parks and Recreation concur with Caltrans' determination to issue a *De Minimis* finding for the Gaviota Curve Realignment Safety Improvement Project. Please send your response on California Department of Parks and Recreation's letterhead indicating State Parks understands the project, its impact to the 4(f) resource, and that Parks and Recreation are in agreement with Caltrans' *De Minimis* determination.

Sincerely,



Matt Fowler  
Senior Environmental Planner

Enclosure

- c. State Parks Director: Anthony L. Jackson  
County of Santa Barbara, Planning and Development: Glenn Russell  
Environmental File  
Environment Management Office  
Project Manager: David Beard  
Design Engineer: Paul Valadao

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State of California • Natural Resources Agency

Edmund G. Brown Jr., Governor

DEPARTMENT OF PARKS AND RECREATION  
Channel Coast District  
911 San Pedro Street  
Ventura, California 93001

Major General Anthony L. Jackson, USMC (Ret), Director

January 30, 2012

Matt Fowler, Senior Environmental Planner  
California Department of Transportation  
50 Higuera Street  
San Luis Obispo, California 93401-5415

Re: Gaviota Curve Realignment: 4(f) Determination

To satisfy section 4(f) of the Department of Transportation Act of 1966 (49 US Government Code 303) requirements for your above referenced project, the California Department of Parks and Recreation (State Parks) is submitting this letter to confirm our understanding of the proposed project and our approval of the proposed measures to avoid impacts and minimize harm to the "4f" resources at Gaviota State Park.

State Parks owns a parcel of land (APN 081-270-003) that will be impacted by California Department of Transportation's (Caltrans) Gaviota Curve Realignment Project. The project is located on Hwy 101 between the Gaviota State Park entrance road and Mariposa Reina, adjacent to and within Gaviota State Park. The project will require approximately 200,000 cubic yards of cut slope and Caltrans will need to obtain an additional 30 feet of right of way in order to maintain the realigned highway. The project will require the conversion of 4.2 acres of park land to highway use. This conversion represents .001% of the total acreage of Gaviota State Park.

California State Parks understands the importance of bringing Hwy 101 at the Gaviota Curve up to current highway standards to improve the public's safe travel through this area. We also believe Caltrans avoided impacts to State Park property to the maximum extent possible given the feasibility of the various realignment alternatives. Based on our review of the project design, it is our belief that this project will not impair the intended purpose of Gaviota State Park which includes protecting its natural, cultural and recreational resources.

If you have any questions, please do not hesitate to call me at (805) 585-1847.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Rozzelle".

Richard Rozzelle  
District Superintendent



# Appendix C Interagency Agreement Framework Letter

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**DEPARTMENT OF TRANSPORTATION**

50 HIGUERA STREET  
SAN LUIS OBISPO, CA 93401-5415  
PHONE (805) 549-3101  
FAX (805) 549-3329  
TTY 711  
<http://www.dot.ca.gov/dist05/>



*For your power!  
Be energy efficient!*

September 4, 2012

Mr. Richard Rozzelle, District Superintendent- Channel Coast District  
Department of Parks and Recreation  
911 San Pedro Street  
Ventura, CA 93001

Dear Mr. Rozzelle:

**INTERAGENCY AGREEMENT FRAMEWORK-GAVIOTA CURVE REALIGNMENT**

This letter documents our understanding of the timing and general terms to be included in an Interagency Agreement (IA) between the Department of Transportation (Caltrans) and the Department of Parks and Recreation (State Parks) related to the Caltrans Route 101 Gaviota Curve Realignment project.

- 1) To facilitate the construction of the curve realignment work on Route 101, State Parks will provide for the transfer of a portion of Gaviota State Park property adjacent to the highway. Initially, State Parks will issue a Right of Entry for the purposes of highway construction, followed by a Transfer of Jurisdiction (TOJ) finalizing the change of ownership to Caltrans.
- 2) Caltrans will provide engineering services to State Parks to study an alternative access road to Gaviota State Park. The study may include, but will not be limited to, preliminary layout, mapping, and cost estimates for a new access road alignment, a new intersection with Route 101, and connection from the new access road to the Gaviota State Park campground. The access road study is intended to be a starting point toward State Parks' subsequent design, environmental study, permitting, and construction of a new access road in the future.
- 3) The engineering service hours performed by Caltrans staff will be tabulated and compared to the estimated value of the State Parks property to be transferred, with the goal that the two will have equivalent monetary value.

RICHARD ROZZELLE

September 5, 2012

Page 2

We look forward to our continued cooperation and coordination with this project. Please feel free to contact David Beard, Project Manager, at (805) 549-3016 to discuss the proposed Interagency Agreement further.

Sincerely,



TIMOTHY M. GUBBINS  
District Director

By signing below, please indicate that you concur with the general framework provided in this letter.



RICHARD ROZZELLE

c. David Beard, Project Manager

*"Caltrans improves mobility across California"*

# Appendix D Title VI Policy Statement

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



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Be energy efficient!*

March 16, 2012

## NON-DISCRIMINATION POLICY STATEMENT

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

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: [http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

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

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

MALCOLM DOUGHERTY  
Acting Director

*"Caltrans improves mobility across California"*



# Appendix E State Office of Historic Preservation

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STATE OF CALIFORNIA – THE RESOURCES AGENCY

EDMUND G. BROWN, Governor

**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

1725 23<sup>rd</sup> Street, Suite 100  
SACRAMENTO, CA 95816-7100  
(916) 445-7000 Fax: (916) 445-7053  
calshpo@parks.ca.gov  
www.ohp.parks.ca.gov



December 13, 2012

In Reply Refer To: FHWA\_2012\_1105\_001

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

Re: Gaviota Curve Realignment Project, Santa Barbara County

Dear Ms. Levulett:

Thank you for seeking my consultation regarding the above noted undertaking in accordance with the *Programmatic Agreement (PA) 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*. Pursuant to Stipulation VIII of the PA, the California Department of Transportation (Caltrans) has determined the Area of Potential Effects (APE) and has completed identification and evaluation of historic properties within the APE.

The undertaking consists of realigning the curve and widening the shoulders along a 0.8-mile stretch of the northbound Highway 101 between post miles 45.6 and 46.4 in Santa Barbara County. The proposed project would require excavation of a new cut-slope, roughly parallel to the existing cut-slope and recessed 75 feet to the northeast from the apex of the curve. Also included is the demolition of existing drainage systems and culvert replacement on the northbound lanes. The APE encompasses all Caltrans right-of-way and proposed new right-of-way where construction activities, including staging areas, will take place.

You are requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, for your finding of No Adverse Effect with Standard Conditions (ESA). You are also requesting my concurrence on your determination that a redeposited midden (associated with CA-SBA-96) located within the Area of Direct Impacts is not eligible for the National Register of Historic Places (NRHP) and that the establishment of an Environmentally Sensitive Area (ESA) will protect CA-SBA-96 from any potential effects. In addition to your letter received November 5, 2012, you have submitted the following documents in support of this undertaking.

- Archaeological Survey Report for the Gaviota Curve Realignment Project, Santa Barbara County, California (Far Western Anthropological Research Group, INC., February 2012).
- *Extended Phase I/Phase II Archaeological Investigation for the Gaviota Curve Realignment Project, Santa Barbara County (Far Western Anthropological Research Group, INC., October 2012).*

FHWA\_2012\_1105\_001

- *Historic Property Survey Report For the Gaviota Curve Realignment Project, Santa Barbara County, California (Christina MacDonald, PQS Principal Investigator, California Department of Transportation District 5, October 2012).*

As documented in the reports noted above, Caltrans has identified two archaeological sites within the APE as a result of a records search and survey by way of ten meter transects. Included is archaeological site CA-SBA-96; no ground disturbing activities including staging areas, construction access, or inadvertent impacts will affect the site as it will be protected by the establishment of a fenced off Environmentally Sensitive Area (ESA). An Area of Direct Impact (ADI) was established to distinguish where ground-disturbing activities will take place. The ADI is limited to the east side of the highway and ground disturbance within it will be to a depth ranging from two to three feet. The APE includes one midden feature in the ADI; test excavations reveal it was mixed with fill material and redeposited as part of previous highway construction activities, likely in the 1930s and is not eligible to the NRHP. Another archaeological site (CA-SBA-2484H/-2485H), was thought to exist in the project area, previous highway construction in the 1930s though likely destroyed it. Native American consultation was undertaken with letters sent by Caltrans to all contacts provided by the Native American Heritage Commission and followed up with on-site meetings.

Based on my review of your letter and supporting documentation, I concur that the redeposited midden within the ADI is not eligible for listing on the NRHP. I concur that Caltrans' plan to avoid site CA-SBA-96 through the implementation of an Environmentally Sensitive Area is appropriate. I suggest that Caltrans have an archaeological monitor present during ground disturbing activities, as the sites have a potential to extend beyond their currently mapped boundaries, especially within the road prism. I have no objection to Caltrans' finding of No Adverse Effect with Standard Conditions (ESA).

Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, Caltrans may have additional future responsibilities for this undertaking under 36 CFR Part 800. Thank you for seeking my comments and considering historic properties as part of your project planning. If you require further information, please contact Brendon Greenaway of my staff, at phone 916-445-7036 or email [bgreenaway@parks.ca.gov](mailto:bgreenaway@parks.ca.gov).

Sincerely,



Carol Roland-Nawi, Ph.D.  
State Historic Preservation Officer

# Appendix F Typical Cross Sections

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	45.6/46.4		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**NOTES:**

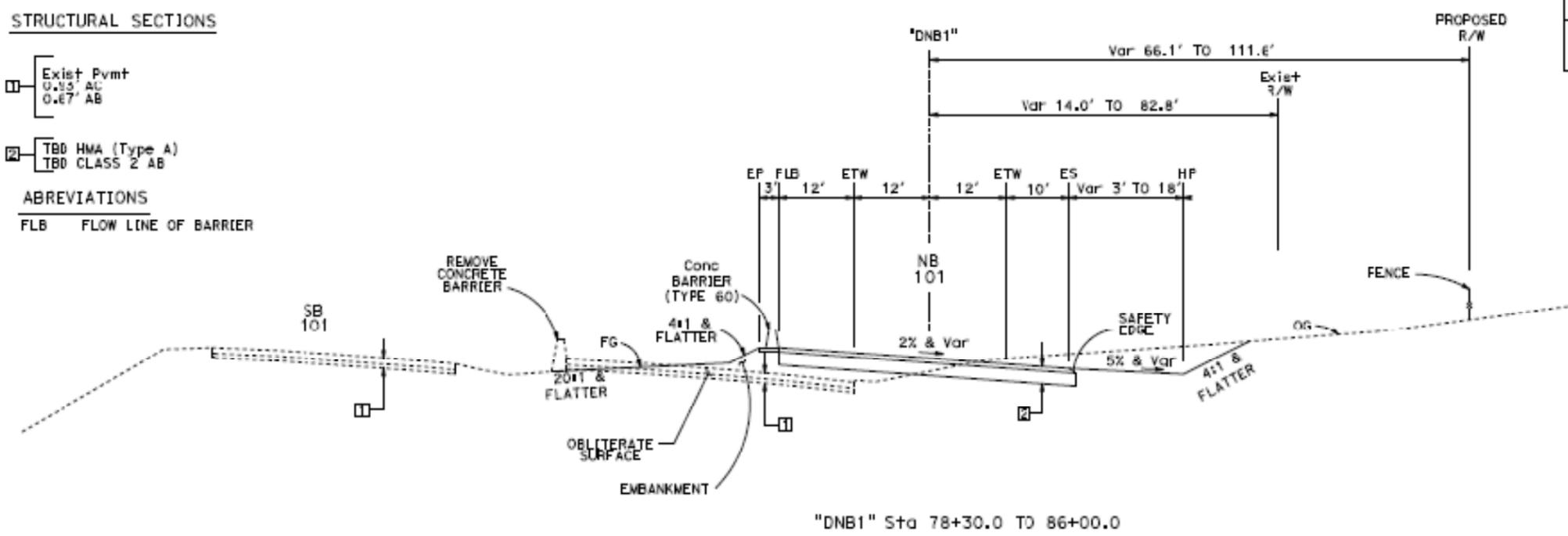
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.

**STRUCTURAL SECTIONS**

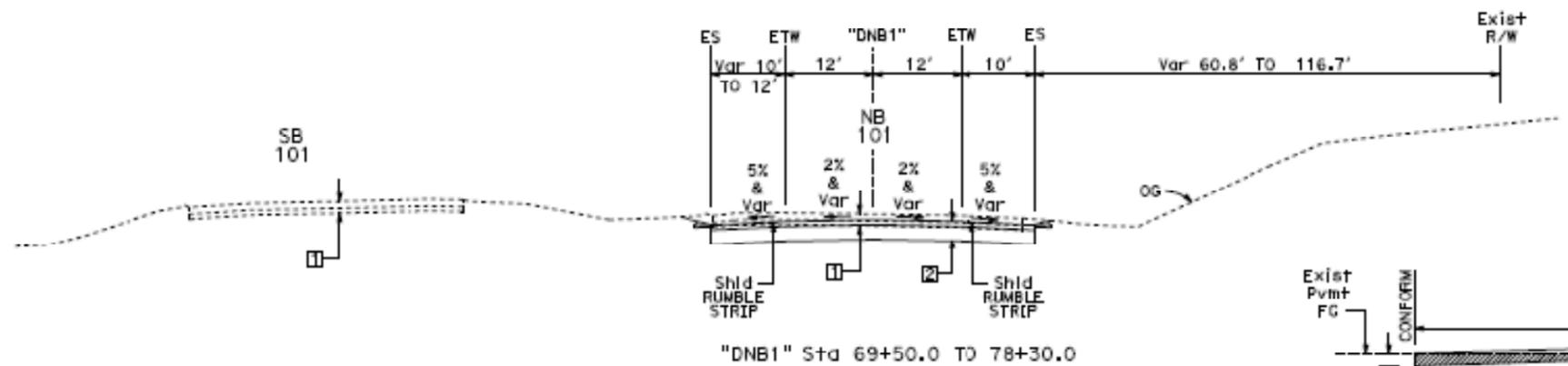
- 1 Exist Pvmt  
0.15' AC  
0.67' AB
- 2 TBD HMA (Type A)  
TBD CLASS 2 AB

**ABBREVIATIONS**

FLB FLOW LINE OF BARRIER

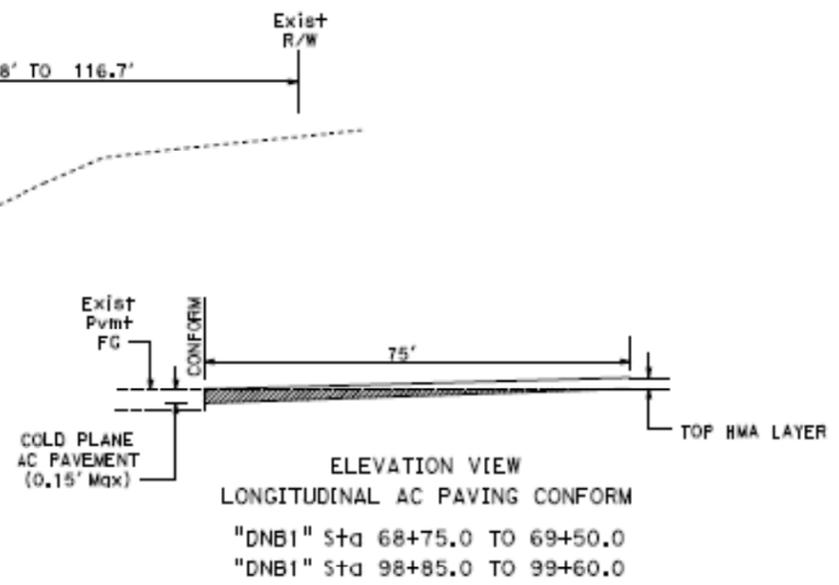


"DNB1" Sta 78+30.0 TO 86+00.0



"DNB1" Sta 69+50.0 TO 78+30.0

**ROUTE 101  
NORTHBOUND**



**ELEVATION VIEW  
LONGITUDINAL AC PAVING CONFORM**  
 "DNB1" Sta 68+75.0 TO 69+50.0  
 "DNB1" Sta 98+85.0 TO 99+60.0

**TYPICAL CROSS SECTIONS  
NO SCALE X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: STEVEN M. WYATT  
 REVISIONS: PAUL F. VALADAO, MICHAEL A. O'NEAL, CHECKED BY, DESIGNED BY, CALCULATED BY, REVISIONS, DATE REVISIONS

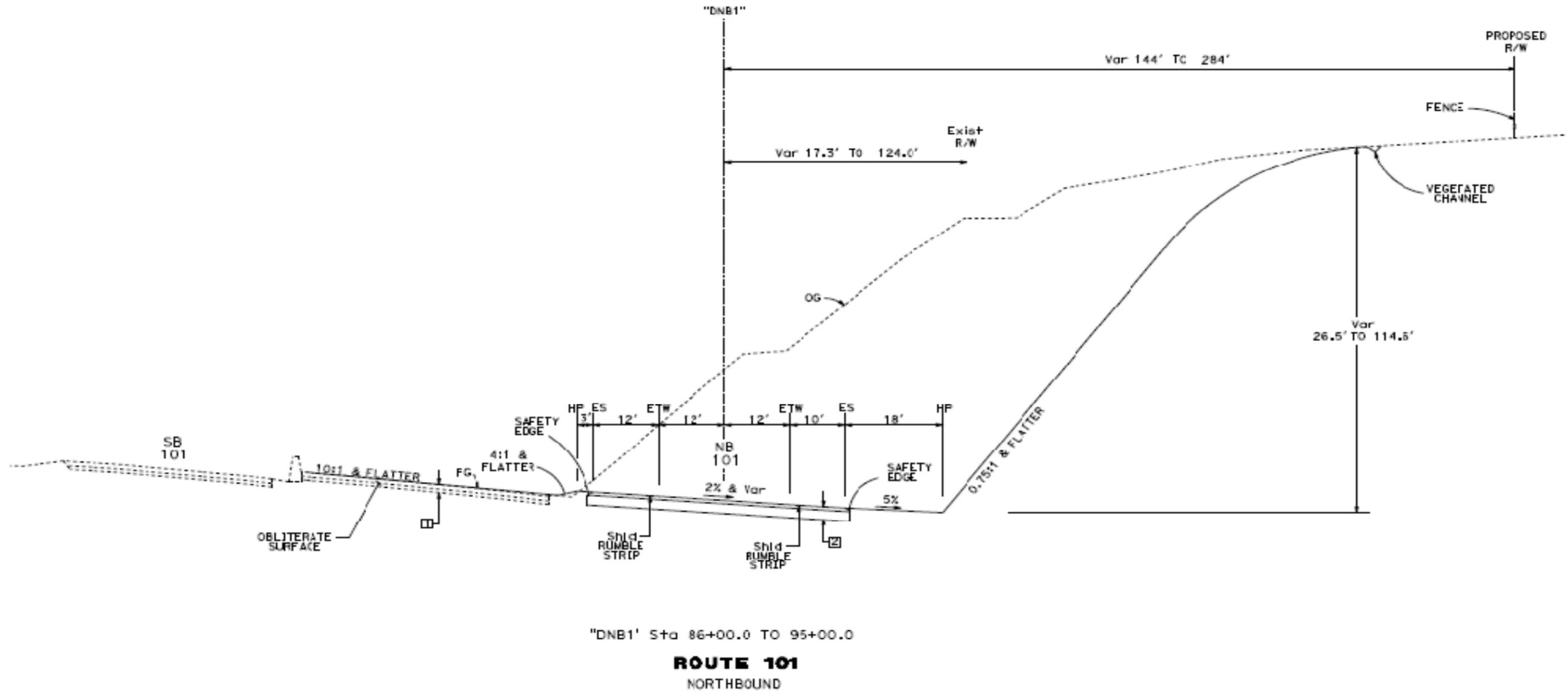
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** DESIGN  
 FUNCTIONAL SUPERVISOR: STEVEN M. WYATT  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 PAUL F. VALADAO  
 MICHAEL A. O'NEAL  
 REVISIONS BY: [Blank]  
 DATE REVISION: [Blank]

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	45.6/46.4		

REGISTERED CIVIL ENGINEER DATE: [Blank]  
 PLANS APPROVAL DATE: [Blank]

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"DNB1" Sta 86+00.0 TO 95+00.0  
**ROUTE 101**  
 NORTHBOUND

**TYPICAL CROSS SECTIONS**  
 NO SCALE  
**X-2**

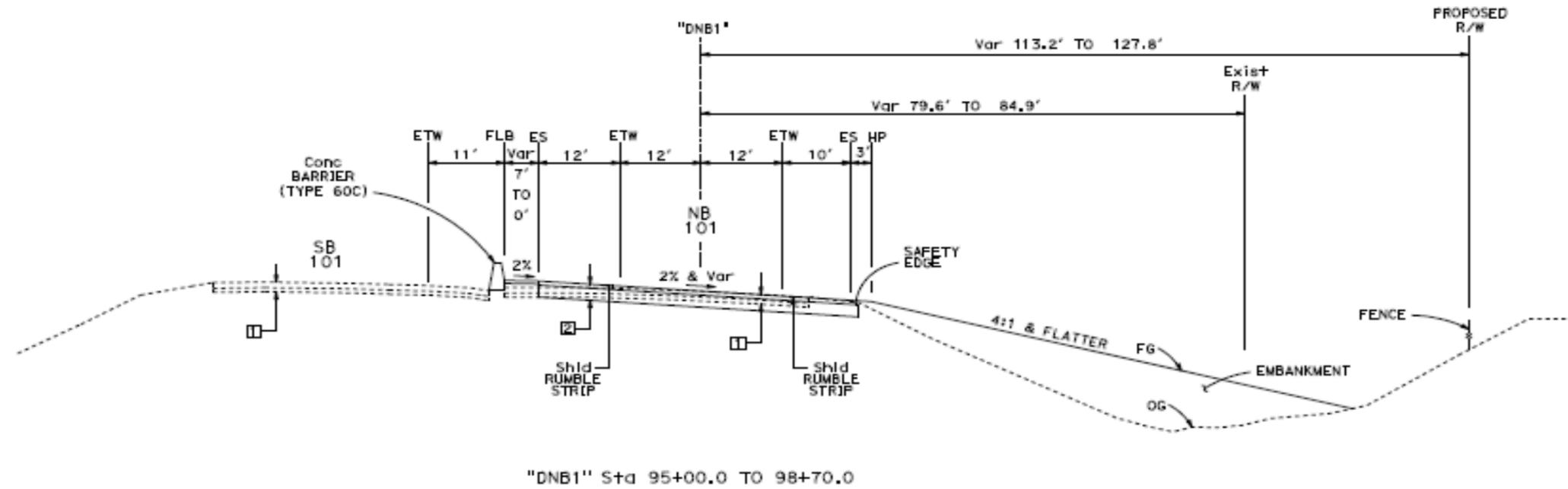
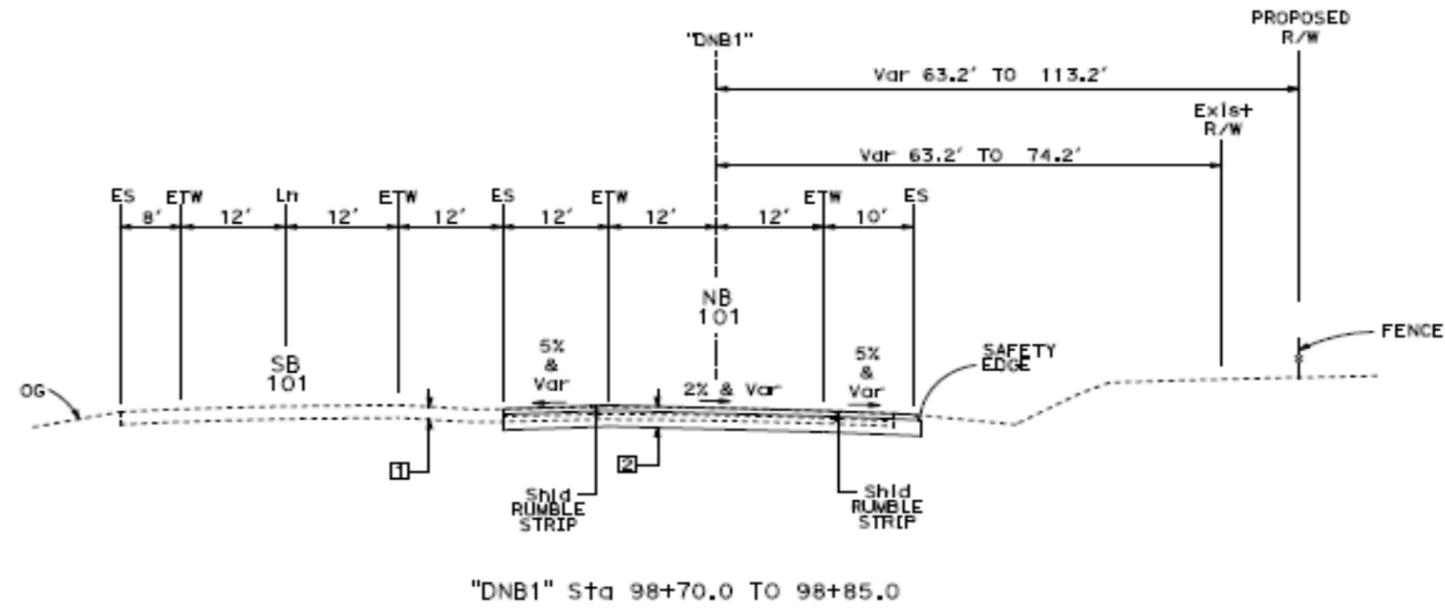
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	45.6/46.4		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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**ROUTE 101**  
NORTHBOUND

**TYPICAL CROSS SECTIONS**  
NO SCALE **X-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DESIGN**

FUNCTIONAL SUPERVISOR  
STEVEN W. WYATT

REVISOR  
PAUL F. VALADAO

REVISIONS  
MICHAEL A. O'NEAL

CHECKED BY  
DESIGNED BY

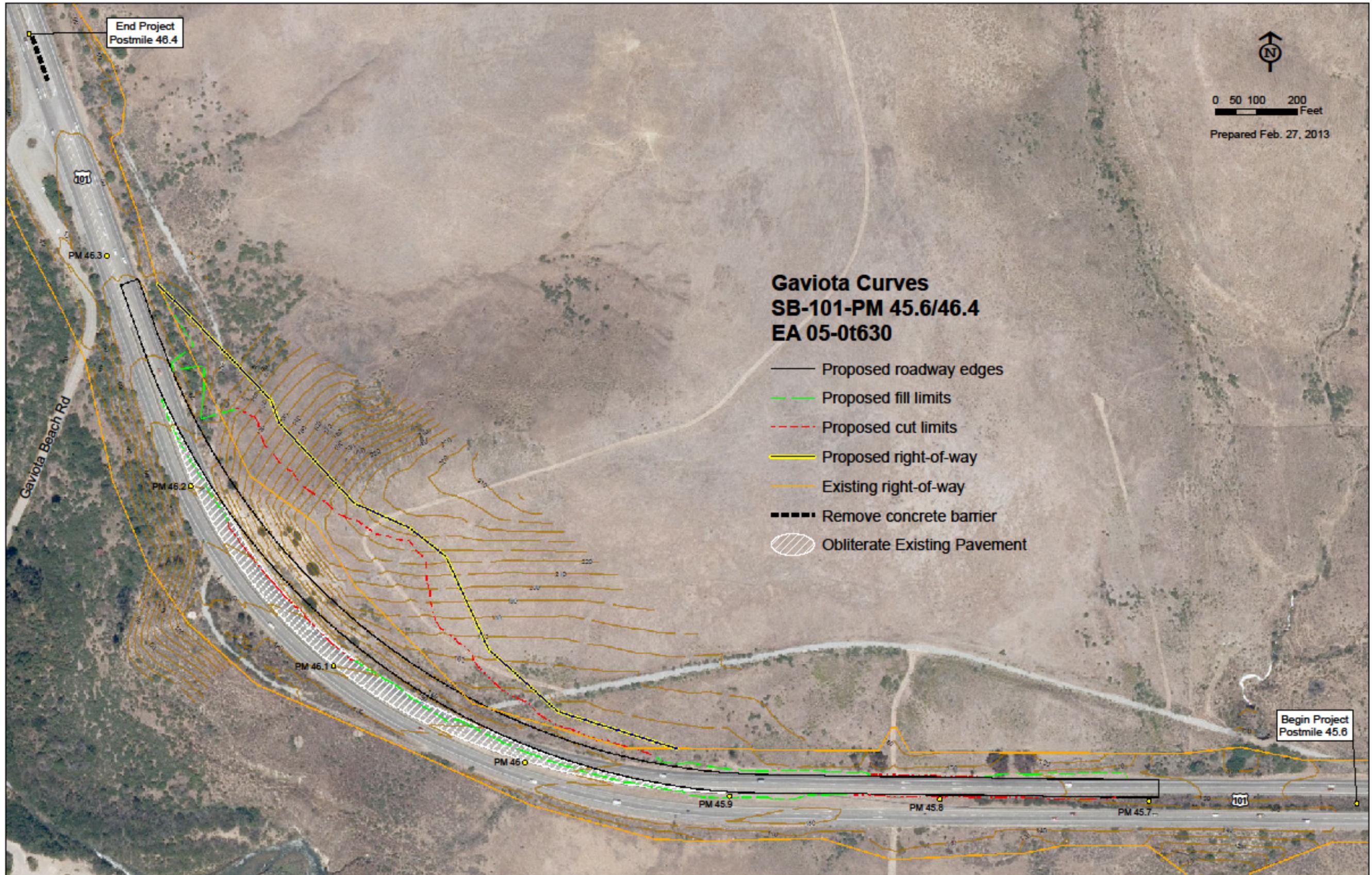
DATE REVISIONS

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# Appendix G Layout and Profile

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Layout and Profile Map

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# Appendix H Minimization and/or Mitigation Summary

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## **Parks and Recreational Facilities**

An Interagency Agreement between Gaviota State Park and Caltrans would be developed to transfer a land sliver of Gaviota State Park to Caltrans in exchange for engineering services. Fair market property value would be equivalent to Caltrans' engineering service hours.

## **Utilities/Emergency Services**

Utility companies would be responsible for moving their respective lines and notifying affected customers in advance.

## **Traffic and Transportation/Pedestrian and Bicycle Facilities**

A Traffic Management Plan would be established

## **Visual/Aesthetics**

1. Preserve as much existing vegetation as possible.
2. The entire new cut slope would be revegetated to the greatest extent possible with methods that ensure establishment and long-term growth.
3. All disturbed areas would be graded to appear as natural as possible.
4. Lanes to be removed would be restored to a natural-looking condition. Disturbed areas in the median would be re-contoured and made suitable for re-establishment of grasses and native shrubs where appropriate.
5. All disturbed construction access roads, staging areas and other temporary uses would be restored to a natural-looking condition after construction.
6. Plant and maintain oak trees and large native shrubs along the northbound roadside. The plants would be planted in natural-appearing patterns.
7. Application of Type 60 concrete median barrier.
8. Application of colored sandstone median barrier.

9. If rock bolts and plate washers are used, all exposed portions would be colored to match the adjacent natural ground.
10. Metal components of relocated barrier, guardrail, and end treatments would be darkened to simulate age and reduce glare.
11. Yellow barrel crash cushion end treatments would not be used.
12. Relocate the existing De Anza Trail Historic Trail sign to a point north of the southbound “State Beach Right Turn” sign.

### **Hydrology and Floodplain**

1. Drainage inlets would be maintained during construction.
2. Preconstruction photos of all drainage facilities

### **Water Quality and Storm Water Runoff**

1. Contractor to implement and comply with the Best Management Practices.
2. Implementation of the statewide storm water pollution prevention plan.

### **Paleontology**

1. Construction contractor must cooperate with the paleontological salvage.
2. A qualified principal paleontologist must prepare a detailed Paleontological Mitigation Plan prior to the start of construction. All geologic work must be performed under the supervision of a California Professional Geologist. The Paleontological Mitigation Plan would address in detail the procedures for data collection including:
  - Recording pertinent geographic and stratigraphic information.
  - Recovery methods for both macrofossil and microfossil remains.
  - Stabilization (preservation) methods for the specimens.
  - Provisions for the remains to be accessioned into the collections of an appropriate repository (such as the LACM or UCMP) and catalogued for future scientific study.

- Preparation of a final report detailing the results of the mitigation program once work is completed
3. The qualified paleontologist would be present at pre-grading meetings
  4. Prior to excavation, the principal paleontologist would conduct an employee environmental awareness training session.
  2. A paleontological monitor would be on site to inspect cuts for fossils at all times during original disturbance of sensitive geologic formations.
  3. If fossils are discovered, the paleontologist would recover them. Construction work in area would be halted to allow recovery of fossils.
  4. Bulk sediment samples may be processed for micro vertebrate remains.
  5. Fossil remains collected during the monitoring and salvage portion would be cleaned, identified, sorted, and cataloged.
  6. Prepared fossils and documentation would be deposited in an approved scientific institution with paleontological collections.
  7. A final report would be completed that outlines the results.

## **Natural Communities**

### *Valley Needlegrass Grassland*

1. Annual habitat mapping of valley needlegrass grassland would continue until the proposed project goes to construction.
2. On slopes 2:1 or flatter, purple needlegrass plants removed would be salvaged and replanted in appropriate soils.
3. Duff layers from impacted purple needlegrass grassland would be stockpiled on site, and redistributed within the project area.
  - Affected purple needlegrass habitat would be replaced onsite at a minimum ratio of 1:1 using salvaged plants and a hydroseed mixture. One year plant establishment period.
4. Hydroseeding of native purple needlegrass and straw containing purple needlegrass seed.

5. Follow up weed management would occur for one successive year within the project's area of potential impact to lessen long-term impacts to native perennial grassland.

### **Animal Species**

#### *American Badger*

1. A preconstruction survey shall be conducted for American badger. Identify habitat, evaluate use, and assess potential impacts. All dens would be mapped and monitored for three days.
2. Preconstruction survey results would be submitted to California Department of Fish and Wildlife within five days after survey completion.
3. Prior to ground breaking, a qualified biologist shall conduct an environmental education and training session for all construction personnel.
4. Speed limit restricted to twenty miles per hour within the project site. Project employees shall be provided with written guidance, rules and regulations. Construction activity shall be confined within the project site.
5. A litter control program shall be instituted. No canine or feline pets or firearms shall be permitted on construction site.
6. Maintenance and construction excavations greater than 2-ft deep shall be covered, filled in, or have escape ramps to prevent trapping American badger.
7. The resident engineer shall be responsible for implementing these conservation measures.
8. All grindings and asphaltic-concrete waste shall be stored within previously disturbed areas absent of habitat and at a minimum of 150 ft from any culvert, wash, pond, vernal pool, or stream crossing.
9. Restoration and revegetation work would be conducted for temporary impacts. Topsoil removed, cached, and returned to the site. Use of straw bales, straw wattles, for soil run-off or erosion.

10. Construction area shall be delineated with temporary fencing to prevent encroachment of construction personnel and equipment onto any sensitive areas. Fencing would be inspected/ maintained daily.

#### *San Diego Desert Woodrat*

- 1 Pre-construction visual survey
- 2 Application of environmentally sensitive area fencing if woodrat nests identified.
- 3 Activity within the fenced area would only occur during the non-breeding season (October-November) to avoid noise impacts to any breeding woodrats, if necessary.
- 4 If project activities cannot avoid impacting or removing the nest, then the nest(s) would be dismantled by hand prior to grading or vegetation removal activities during the non-breeding season (October-November).
- 5 If young are encountered during nest dismantling, the dismantling activity would be stopped and rechecked in 2-3 weeks by a qualified biologist.

#### **Threatened and Endangered Species**

##### *California Red-legged Frog*

- 1 A biologist would survey 48 hours prior to work activities. If any life stage of the California red-legged frog is detected, the USFWS shall be notified prior to the start of construction.
- 2 Work activities shall take place during the dry season, between April 1 and November 1. Work activities outside of this period would require USFWS's written approval.
- 3 Before work begins, a biologist shall conduct a training session for all construction personnel.
- 4 If a California red-legged frog is detected in the project area during construction, work would cease immediately and the resident engineer, authorized biologist, or biological monitor would notify the Ventura Fish and Wildlife Office.
- 5 All trash shall be properly contained and disposed of regularly.
- 6 An accidental spill response plan would be established.

- 7 All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 ft away from aquatic or riparian habitat.
- 8 Plants used in re-vegetation would consist of native riparian, wetland, and upland vegetation suitable for the area.
- 9 Habitat contours shall be returned to their original configuration at the end of the project activities.
- 10 The construction footprint shall be limited to the minimum possible. ESAs shall be delineated to confine access routes and construction areas to the minimum area necessary to complete construction.
- 11 To control sedimentation during and after project implementation, Caltrans shall implement Best Management Practices (BMPs).
- 12 If a work site is to be temporarily dewatered by pumping, the intake shall be screened with wire mesh. If California red-legged frogs are detected during dewatering, and adverse effects to California red-legged frogs cannot be avoided, construction activities would remain suspended until Caltrans and the United States Fish and Wildlife Service complete the appropriate level of consultation.
- 13 Unless approved by the United States Fish and Wildlife Service, water shall not be impounded in a manner that may attract California red-legged frogs.
- 14 A qualified biologist shall permanently remove any individuals of exotic species from the project area, to the maximum extent possible, and he/she shall be responsible for ensuring his or her activities are in compliance with the California Fish and Wildlife Code.
- 15 The fieldwork code of practice developed by the Declining Amphibian Populations Task Force would be followed at all times.

### *Gaviota Tarplant*

The following general avoidance and minimization measures are recommended for project activities occurring within Gaviota tarplant critical habitat, regardless of pre-construction survey findings for occupancy of Gaviota tarplant individuals:

1. A qualified botanist approved by the regulatory agencies shall oversee flagging of the perimeter of all approved work areas in Gaviota tarplant critical habitat prior to ground disturbance.

2. Prior to construction, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of Gaviota tarplant and its habitat, the location of critical habitat within the API, the specific measures that are being implemented to conserve Gaviota tarplant for the current project, and the boundaries of proposed areas of disturbance.
3. Preconstruction surveys would be conducted within the BSA during each blooming period to reassess the current distribution of Gaviota tarplant.
4. The top 2 inches of the soil in the area supporting Gaviota tarplant plants shall be collected for redistribution at the restoration/replacement site. The soil collection area shall be delineated in the field during the blooming period prior to ground disturbance. Collection and reapplication of the duff/topsoil at the restoration/replacement site and reapplication shall occur as soon as possible.
5. Following excavations and other types of temporary ground disturbance in Gaviota tarplant critical habitat, regardless of the presence of Gaviota tarplant, the soil profile shall be rebuilt using salvaged and stockpiled materials, replacing them on site, in reverse order.
  - a. Layers beneath the final seedbank layer shall be well compacted.
  - b. The seedbank layer would be more loosely compacted by spreading it dry or with minimal water. Tracking, rather than spraying, would be used to pack the seedbank layer into place. Soil stabilization would follow immediately.
  - c. Replacement of seedbank and topsoil stockpiles shall be monitored by a biologist approved by CDFG for work with Gaviota tarplant.
  - d. Following ground disturbance and seedbank replacement in Gaviota tarplant critical habitat, a compost blanket shall be applied to disturbed soil areas that are at a 2:1 slope or flatter. Hydroseeding would be applied to exposed soil utilizing a native seed mix that would not outcompete with Gaviota tarplant.

In addition to the measures outlined above, the following avoidance and minimization measures are recommended for Gaviota tarplant, should pre-construction surveys

determine that Gaviota tarplants are growing within the proposed area of potential impact:

6. Where construction may impact occupied habitat during the growing season, seed during the late fall, seed would be collected during the fall preceding construction. Plants shall be collected from permitting agency approved biologist and hand collected. The collected material shall be dried immediately and stored dry to preserve the seeds. The salvaged plant material shall be spread on restored habitat.
7. The contractor shall employ "triple-lift topsoil salvage" procedures to conserve the soil profile and soil seed bank. All topsoil handling in occupied Gaviota tarplant habitat shall be monitored by a qualified biologist approved by CDFG to work with Gaviota tarplant.
  - a. The contractor shall clear all woody vegetation and stockpile separately in a location where it would be out of the way during construction.
  - b. The contractor shall scrape a 3- to 6- inch lift of soil from the area of Gaviota tarplant habitat where soil would be excavated. Stockpile this seedbank layer in a location where it would be out of the way during construction. Clearly mark the seedbank stockpile for identification and avoidance.
  - c. The contractor shall scrape off a second 6-to 8- inch lift of the sandy soil horizon (shallower if bedrock or other soil type is encountered, such as clay). Stockpile this topsoil lift in a location where it would not be disturbed during construction, and clearly mark it for identification and avoidance.
  - d. The contractor shall keep stockpiled seedbank dry and protected from wind erosion and disturbance.
  - e. Salvaged seedbank that is being eroded by the wind shall be stabilized by spraying with an organic soil binder used for hydroseeding.
  - f. No irrigation or watering of Gaviota tarplants in the restoration/ replacement area is proposed.

8. The Gaviota tarplant restoration/replacement area shall be delineated on the project plans and delineated in the field with ESA fencing, markers, or equivalent. The location shall remain a conservation area within Caltrans ROW permanently marked with ESA paddles and maintained in perpetuity.
9. The success goal shall be 1:1 replacement of Gaviota tarplant. Monitoring shall occur annually for three years during the appropriate blooming period for Gaviota tarplant. Annual monitoring reports shall be prepared.

The project is subject to formal consultation and informal coordination with regulatory agencies that may request additional measures not mentioned above. The final environmental document would include any measures required by a permitting agency.

### **Invasive Species**

1. Invasive exotic plant species would be avoided to the maximum extent possible.
2. Only clean fill shall be imported.
3. Construction equipment shall be certified as “weed-free” by the biological monitor(s) before entering the construction site. If necessary, wash stations onsite shall be established.

### **Construction Impacts**

#### *Hazardous Waste*

During the project design phase, testing would be conducted for hazardous materials to verify the actual amount. If hazardous materials are present in concentrations that exceed regulatory limits, Caltrans standard special provisions would be included in the construction contract to properly handle and dispose of these materials in accordance with all applicable laws and regulations.

#### *Noise*

1. Caltrans Standard Specifications Section 14-8.02 pertaining to noise control and use of adequate mufflers on equipment would be implemented.

2. All equipment would have sound control devices that are no less effective than those provided on the original equipment.
3. No equipment would have an unmuffled exhaust.
4. If applicable, Caltrans would direct the contractor to implement additional noise measures including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

## **List of Technical Studies that are Bound Separately**

Air Quality Report

Noise Study Memorandum

Water Quality Report

Natural Environment Study

Biological Assessment

Hydraulics Memorandum

Historical Property Survey Report

- Archaeological Survey Report
- Extended Phase I/ Phase II Archaeological Investigation Report

Hazardous Waste Reports

- Initial Site Assessment
- Preliminary Site Investigation (Geophysical Survey)

Visual Impact Assessment

Paleontology Identification/ Evaluation Report

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