

Gaviota State Park



California Coastal Trail – Gaviota Segment Draft Mitigated Negative Declaration

July 2007



California Department of Parks and Recreation

TABLE of CONTENTS

<u>Chapter/Section</u>	<u>Page</u>
1 INTRODUCTION.....	3
2 PROJECT DESCRIPTION.....	7
3 ENVIRONMENTAL CHECKLIST.....	17
I. Aesthetics.....	19
II. Agricultural Resources.....	22
III. Air Quality.....	23
IV. Biological Resources.....	31
V. Cultural Resources.....	67
VI. Geology and Soils.....	86
VII. Hazards and Hazardous Materials.....	97
VIII. Hydrology and Water Quality.....	103
IX. Land Use and Planning.....	112
X. Mineral Resources.....	115
XI. Noise.....	116
XII. Population and Housing.....	122
XIII. Public Services.....	124
XIV. Recreation.....	126
XV. Transportation/Traffic.....	129
XVI. Utilities and Service Systems.....	133
4 MANDATORY FINDINGS OF SIGNIFICANCE.....	135
5 SUMMARY OF MITIGATION MEASURES.....	137
6 REFERENCES.....	149
7 REPORT PREPARATION.....	159

Appendices

- A** MAPS AND PROJECT GRAPHICS
- B** COMMENTS AND COORDINATION
- C** SENSITIVE SPECIES LIST
- D** ACRONYMS

This page left blank intentionally.

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Mitigated Negative Declaration (IS/MND) evaluates the potential environmental impact of the proposed construction of a new multi-use segment of the California Coastal Trail in Gaviota State Park, Santa Barbara County, California. The proposed trail segment would provide an important link in the intermodal system between Gaviota and Goleta where gaps exist in bicycle and pedestrian facilities. In addition to providing a 4 km (2.5 mile) alternative for bicyclists currently riding the shoulders of U.S. Route 101, the new trail would provide off-highway access for pedestrians with varied mobility impairments, bicyclists, and equestrians from a trailhead off Gaviota Beach Road near the Gaviota State Park entrance to a terminus near Cañada de San Onofre.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq.*

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that project revisions or environmental commitments mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

Project design, permitting and environmental analysis is being funded through the Federal Highway Administration's Transportation Enhancement Act (TEA) grant program, administered by the California Department of Transportation (Caltrans). As a federal grant recipient, DPR is conducting additional technical environmental analysis in consultation with Caltrans, to ensure project compliance with the National Environmental Policy Act (NEPA) and related federal legal requirements.

1.2 LEAD AGENCY

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose."

DPR is the lead agency for the proposed project's compliance with CEQA, as the department owns Gaviota SP, is responsible for its operation and maintenance, and has direct authority over the proposed changes. The proposed project would also require permits from agencies with jurisdiction in the project area including, but not limited to the County of Santa Barbara, the California Coastal Commission, the California Department of Fish and Game, and the U.S. Army Corps of Engineers.

The contact person for the lead agency regarding specific project information is:

Sheri Rain
Landscape Architect
DPR Northern Service Center
One Capitol Mall, Suite 500
Sacramento, CA 95814
(916) 445-8103

Questions or comments regarding this Initial Study/Mitigated Negative Declaration should be submitted to:

Susan Wilcox
Environmental Coordinator
DPR Northern Service Center
One Capitol Mall, Suite 500
Sacramento, CA 95814

Fax: (916) 445-8883

Email: CEQANSC@parks.ca.gov [subject line: Gaviota Trail]

Submissions must be in writing and postmarked or received by fax or email no later than August 10, 2007. The originals of any faxed document must be received by regular mail within ten working days following the deadline for comments, along with proof of successful fax transmission. Email or fax submissions must include the sender's full name and address. All comments will be included in the final environmental document for this project and become part of the public record.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed California Coastal Trail Project at Gaviota State Park. Measures have been incorporated into the project to avoid, reduce, or mitigate any potentially significant impacts to a less-than-significant level.

This document is organized as follows:

- Chapter 1 - Introduction.
This chapter provides an introduction to the project and describes the purpose and organization of this document.
- Chapter 2 - Project Description.
This chapter describes the reasons for the project, scope of the project, and project objectives.
- Chapter 3 - Environmental Setting, Impacts, and Mitigation Measures.
This chapter identifies the significance of potential environmental impacts, explains the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist. Measures are incorporated, where appropriate, to avoid, reduce, or mitigate potentially significant impacts to a less than significant level.
- Chapter 4 - Mandatory Findings of Significance.
This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.
- Chapter 5 - Summary of Mitigation Measures.
This chapter summarizes the mitigation measures incorporated into the project as a result of the Initial Study.
- Chapter 6 - References.
This chapter identifies the references used and sources cited in the preparation of this IS/MND.
- Chapter 7 - Report Preparation
This chapter provides a list of those involved in the preparation of this document.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project.

Based on the IS and supporting environmental analysis provided in this document, the proposed California Coastal Trail – Gaviota Segment Project would result in less than significant impacts for the following issues: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

In accordance with §15064(f) of the CEQA Guidelines, an MND shall be prepared if the proposed project will not have a significant effect on the environment after the inclusion of mitigation measures in the project. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of mitigation measures, the proposed project would have a significant effect on the environment. DPR therefore proposes to adopt a Mitigated Negative Declaration.

CHAPTER 2 PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed California Coastal Trail – Gaviota Segment Project at Gaviota State Park, located near Goleta in Santa Barbara County, California.

The California Department of Parks and Recreation (DPR) proposes to construct approximately 4 km (2.5 mile) of paved multi-use trail and approximately the same length of parallel soft surface equestrian trail. The combined trail corridor would extend east from Gaviota Beach Road (at the Gaviota State Park entrance) to approximately 213 m (700 ft) west of Cañada de San Onofre. The trail would serve pedestrians with varied mobility impairments, bicyclists and equestrians. The trail route would include some areas within California Department of Transportation right-of-way for U.S. Route 101 as well as property currently owned by the Shell Oil Company.

2.2 PROJECT LOCATION

The proposed project area is located in coastal Santa Barbara County in Gaviota State Park and its immediate environs (see Figure 1 in Appendix A). The Park lies entirely within the USGS 7.5-minute Gaviota topographic quadrangle. Approximately 0.8 km (0.5 mi) of the proposed trail is located outside Gaviota State Park in the adjacent Gaviota Marine Terminal (owned by Shell Oil), for which there is an existing offer to dedicate a trail easement to a public agency. The trail would also encroach into the Caltrans right-of-way in various locations along the alignment in order to avoid the construction of large bridges and to allow the trail to meet accessible grades established by the Federal Access Board guidelines.

2.3 BACKGROUND AND NEED FOR THE PROJECT

The need for the proposed Gaviota segment of the Santa Barbara Coastal Trail is high from several viewpoints. It is an important link in connecting the intermodal system between Goleta and Gaviota where gaps exist in pedestrian and bicycle routes. In addition to providing a 4 km alternative which would take the bicyclist off the U.S. Highway 101 shoulder, this segment of the Coastal Trail would provide off-highway pedestrian and equestrian access from the campground at the western end of Gaviota State Park to popular and heavily used areas of the park. By providing bicycling and hiking access to these other park areas, visitor vehicle trips on U.S. Route 101 would be reduced. This important segment of the Coastal Trail is called for by the County's certified Local Coastal Plan (County of Santa Barbara 1982) and the 1979 *Santa Barbara/Ventura Coastal Park System General Plan*, and is consistent with the goals of the State Parks Recreational Trails Program (DPR 2005). This segment is located along a highly scenic corridor that is heavily used by bicyclists and is linked to back-

country areas popular with hikers and equestrians. Construction of this segment of the Coastal Trail would enhance the intermodal transportation system by facilitating and enhancing non-motorized use.

Within the broader context of trail development in Santa Barbara County, the Goleta-Gaviota Coastal Trail has long been recognized as critical in linking the urbanized areas of the South County to the State Park recreation destinations and the rural areas of the North County. With the support of DPR, the State Coastal Conservancy and the Santa Barbara Trails Council in the early 1980s, Santa Barbara County's Public Works Department sponsored an Environmental Impact Report reviewing potential trail alignments between the University of California at Santa Barbara and Gaviota State Park (County of Santa Barbara 1982). The proposed first phase of the project, located in Goleta, was deferred due to prohibitive property acquisition costs. The Gaviota segment is a particularly high priority and most cost-effective because it is located on existing public lands or easements.

Successful implementation of this project proposal may enable the County and the State to obtain additional funding for future links in the California Coastal Trail in Santa Barbara County. The Gaviota Coastal Trail segment was designed to ultimately link with the proposed Refugio-El Capitan segment and the El Capitan Ranch segment. Completion of the proposed segment would also provide a unique interpretive opportunity within a segment of the 1200-mile Juan Bautista de Anza National Historic Trail (1775-1776), designated by Congress in 1990.

In summary, funding construction of the proposed Gaviota Segment of the California Coastal Trail would further the following transportation objectives:

- Provide link in intermodal system to include the Coastal Trail
- Reduce hazards to bicyclists and motorists posed by shared corridor on U.S. Route 101 through a windy and steep area with cross traffic and numerous curves.
- Reduce vehicle trips by providing pedestrian, bicyclist and equestrian access to the beach within Gaviota State Park

2.4 PROJECT OBJECTIVES

This section presents DPR's purpose, need, and objectives of the proposed action, in accordance with CEQA guidelines. These provide the basis for consideration of project alternatives.

The proposed project is consistent with DPR's Mission and Resource Management Directives, as well as federal accessibility guidelines for recreational areas:

- The Department of Parks and Recreation mission (DPR 2001) is,

To provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting

its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

- The Department's Resource Management Policies (DPR 2004) state that,

California State Parks has a mandate to protect natural and cultural resources as well as the scenic and aesthetic resources under our administration. We also have a mandate to provide to all the people of California a high-quality visitor experience and recreation opportunities within our park units, where appropriate and non-damaging to the environment. We can meet this dual mandate with awareness of the environmental consequences of proposed actions, advance planning, cooperation, and knowledge of the environmental review process and the intent of environmental laws.

- Santa Barbara/Ventura Coastal State Park System General Plan
Volume 3—Gaviota State Park

This General Plan, completed by DPR in 1979, envisioned the stabilization of existing hiking trails and the development of new multi-use trail segments to link the various recreational areas within the Park.

- Accessible Trails and Transition Plans

DPR intends to design and construct the paved multi-use trail to meet the requirements of the *Federal Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas; Final Report* dated September 30, 1999.

Based on a current court ruling subsequent to a lawsuit filed against DPR by Disability Rights Advocates, DPR must increase accessibility compliance within the Department's statewide trail system. This additional accessible trail segment would complement the statewide *Transition Plan for Accessibility in State Parks* and *Trail Plan for Accessibility in California* wherein all DPR units will ultimately meet the lawsuit/court ruling requirements or make a good faith effort to do so (DPR 2001a & 2001b).

2.5 PROJECT DESCRIPTION

Alternative A (proposed action)

The proposed California Coastal Trail – Gaviota Segment Project includes approximately 4 km (2.5 mi) of paved multi-use trail and approximately the same length of parallel soft surface equestrian trail. The combined trail would extend east from Gaviota Beach Road (at the Gaviota State Park entrance) to approximately 213 m (700 ft) west of Cañada de San Onofre.

Technical

The cross-section of the paved multi-use portion of the trail would include 2.43 m (8 ft) of asphaltic pavement bordered by 0.46 m (1.5 ft) shoulders on each side of compacted aggregate for a total width of 3.35 m (11 ft). The equestrian trail would contain a soft surface native soil/shale mix tread approximately 1.52 m (5 ft) in width with no shoulders. To minimize cut and fill slope impacts, portions of the trail would require retaining walls of varying heights. The asphalt and soft surface trails would be separated by a distance that varies throughout the length of the trail. The trails would narrow into a close parallel alignment at drainage crossings and would combine into a single shared alignment along one small segment.

A parking area and trailhead of approximately (0.433 ac) would be located at the west end of the trails. The surface of the parking area would be gravel or a form of permeable concrete paving. The trailhead would include interpretive panels, benches, equestrian staging areas and an accessible equestrian platform. The two trail surfaces would extend east across the coastal bluff over cross-slopes of varying terrain, with portions of the trails constructed on linear grades of up to 8.3% for the asphaltic trail and up to 16.9% for the equestrian trail with up to 2:1 side slopes. The equestrian trail and multi-use trail cross each other at defined locations along the alignment to facilitate use separations in steep terrain and avoid potentially hazardous conflicts of use.

The trail alignments cross several drainages that are intercepted by culverts under U.S. Route 101. Four named drainages would be crossed by the trail: Cañada del Barro, Cañada del Cementerio, Cañada Alcatraz, and Cañada del Leon (see Figure 2 in Appendix A). The trails would cross each of these four drainages over the existing culverts that pass under U.S. Route 101. The trail would require approximately 19 new culverts in total.

The trail corridor would extend through the Gaviota Marine Terminal facilitated by an easement provided by an existing offer-to-dedicate. A retaining wall would raise both the equestrian and multi-use trail elements to pass over critical utilities. Proposed fencing through the marine terminal would separate the trail users from the marine terminal operations. The trail corridor would exit the east end of the marine terminal and tie into an existing paved emergency fire access road through an area of sensitive resources. The eastern end of the trail would consist of an interpretive plaza area of approximately 0.65 ha (1.6 ac). The plaza would contain interpretive panels, benches, bike parking and a horse resting area.

The trail would be constructed using small to medium sized road building equipment for grading, constructing the culvert crossings, and hauling material along the trail alignment and existing marine terminal roads. Equipment would access the parking area off of Gaviota Beach Road, Depot Road and the east end of the trails near Cañada San Onofre to grade, construct walls and install paving. The retaining walls along the trail alignment would be of steel "soldier pile" construction for higher walls and stacked concrete block for lower walls and would require the use of heavy equipment, small tractors, and hand labor for installation. Small asphalt paving equipment would be used

for the paving of the multi-use trail. The project's temporary impact areas would be covered with duff and grubbing debris, and replanted with native species to encourage plant establishment and reduce compaction impacts.

Trail construction may be phased, with the first phase comprised of approximately 1 (one) mile each of paved multi-use trail and a small turnaround loop. Phase I would begin at the parking area and extend to just west of the marine terminal. In later phases, DPR would construct the remainder of the paved trail from the end of the first phase to the trail terminus at the east end of the project and construct the soft surface equestrian trail. Additional features may be added to the turnaround including a paved plaza area containing a bench, interpretive panel, room for bicycle parking, and a soft surface area for horse resting.

Economic

DPR received funding for the project's environmental analysis and design phase through a TEA grant from FHWA. Additional TEA funds as well as other grant opportunities may be available for the project construction phase.

Environmental

In order to avoid cultural and natural resources, the trail alignment has been altered in several locations. At the west end of the alignment, the route was relocated to the north in order to avoid a US Army Corps of Engineers (USACE) jurisdictional wetland near Gaviota Beach Road. Between Cañada del Barro and Depot Road the alignment was moved south toward the railroad easement to avoid cultural resources. The California Coastal Commission (CCC) jurisdictional wetland east of Depot Road was avoided by routing the trails south of the wetland. At the bluff area west of Cañada del Cementerio which contains both CCC wetland and Gaviota tarplant (*Deinandra increscens* ssp. *villosa*) habitat, the trails were kept adjacent to each other and aligned to minimize the amount of disturbance to these natural resources. At Cañada del Cementerio the alignment was relocated north of the culvert outfall to avoid the drainage area and move the alignment as far as possible from the monarch butterfly (*Danaus plexippus*) overwintering area. At Cañada Alcatraz, the alignment was relocated to the north of the culvert outfall to avoid disturbance of the drainage. East of the Gaviota Marine Terminal, the trail alignment was routed near the property line fence and along a paved emergency road to avoid sensitive tarplant habitat with a high concentration of known tarplant locations. Between Cañada del Leon and Cañada San Onofre the trail alignments were relocated to the north to avoid CCC jurisdictional wetlands and good quality tarplant habitat.

Impact Area

The permanent project impact area includes approximately 2.52 ha (6.23 ac) of multi-use paved trail, approximately 1.11 ha (2.75 ac) of equestrian native soil/shale mix trail, approximately 224 sm (2,411 sf) of culvert headwall structures, approximately 80 sm (861 sf) of rock slope protection, approximately 0.23 ha (0.57 ac) of trailhead parking and interpretive areas, and approximately 0.31 ha (0.77 ac) of soil borrow area (see Figure 2 in Appendix A). The temporary project impact area includes approximately

0.18 ha (0.44 ac) of construction staging areas and approximately 0.54 ha (1.34 ac) of access routes. Approximately 575 sm (1,900 sf) of the total construction staging area would be located in areas not previously disturbed. Staging areas would be situated in the proposed parking area at the west end of the trail, the interpretive plaza at the east end of the trail, within the marine terminal, and within the Union Pacific Railroad gravel staging area. Construction access routes are all located along existing gravel or paved roads within the project area or along the two trail alignments.

The anticipated soil borrow area is limited to a stockpile of bioremediated soil that is located within the eastern end of the Gaviota Marine Terminal. All other construction material would either be generated by balancing cut and fill or obtained from locations off the project site. All vegetative grubbing waste would either be hauled offsite or disposed in an existing disposal area within Gaviota State Park. The project requires no change to existing utility or transportation systems.

The project's permanent impact area includes the entire alignment of both trail elements and their associated features (including retaining walls, culverts, etc.), the western parking and interpretive area, and the eastern interpretive area. These areas combined encompass 4.20 ha (10.37 ac). The project's temporary impact area includes construction staging areas and access routes. The combined temporary impact areas encompass 0.72 ha (1.77 ac).

Best Management Practices (BMPs)

Temporary BMPs for the project would include periodic spraying of construction areas with water to minimize dust, siltation fences and straw wattles to control the deposition of sediments into drainages and wetlands, and gravel surfacing of staging areas to prevent deposition of soil on roadways from construction vehicles. Permanent BMPs would include native revegetation of cut and fill areas, energy dissipaters at culvert outfalls, and rock infiltration trenches around hardscape plaza areas.

Alternative B (No Action)

Alternative B, or the "No Action" Alternative would leave existing recreational access in place without improving the park's compliance with the Americans with Disabilities Act guidelines, enhancing opportunities for bicyclists and equestrians, or improving public safety.

Alternatives Considered but Rejected

Alternative C

Several different alignment alternatives were considered during the scoping phase for this project. One alternate alignment for the trail corridor consisted of a route that avoided encroaching into the Caltrans right-of-way along its entire length. The western end of the alignment would have impacted a portion of an ACOE wetland and included two 45.72 meter (150 foot) bridges located very low in two drainages. This alternative

would require extensive grading to get both trail surfaces to the required elevation near the flow-line of the drainages. Between Cañada del Barro and Depot Road this corridor would have bisected a culturally sensitive site and then proceed directly through the monarch butterfly overwintering site in Cañada del Cementerio, with one of the bridges encroaching on the latter site. The proposed soft surface equestrian/pedestrian trail would have crossed the Union Pacific rail line with an at-grade condition in two locations. The soft surface equestrian/pedestrian surface would have been routed along the bluff edge, with additional potential impacts to cultural resources. East of the marine terminal the equestrian/pedestrian trail would have impacted sensitive Gaviota tarplant habitat. The proposed linear grades of this alternative exceeded those recommended.

Alternative D

In an attempt to avoid a large culturally sensitive area and wetland near Gaviota Beach Road this alternative would have connected to U.S. Route 101 east of the large North South to East/West curve of the highway. Accessible parking spaces and access to the trail would have been provided via Depot Road with proposed acceleration and deceleration lanes on U.S. Route 101. This alternative would have kept the paved and soft surface trails adjacent to one another along their entire length with the trail again connecting to U.S. Route 101 on the easterly end.

2.5 PROJECT IMPLEMENTATION

This project is not yet funded for construction so the exact timing of construction cannot be identified at this time. In order to avoid impacts to sensitive species, construction windows have been identified: Vegetation cutting and removal would take place between September 16 and January 31st, and any eucalyptus tree (*Eucalyptus* sp.) removal in the Cañada del Cementerio drainage would take place between September 16 and October 1

2.7 VISITATION TO GAVIOTA STATE PARK

The park unit receives an average of 55,247 visitors per year:

CALENDAR YEAR	PAID DAY USE	FREE DAY USE	PAID CAMPING	PAID BOAT LAUNCHES	TOTAL VISITATION
2004	35,926	18,029	24,914	297	78,869
2005	21,198	-	14,712	68	35,910
2006	32,619	-	18,344	345	50,963

This project is not expected to result in an increase or decrease in park visitation.

2.8 CONSISTENCY WITH LOCAL PLANS AND POLICIES

As noted above, the Gaviota Segment of the California Coastal Trail would implement the goals of the 1999 Santa Barbara County Comprehensive Plan, Recreational Element which identifies the Coastal Trail (De Anza Trail) in the county's Master Plan parks, recreation and trails maps. The Coastal Trail is specifically referenced in the County's 1982 Local Coastal Plan, with a proposed section connecting U.C. Santa Barbara to the state parks west of Goleta described as being of particular importance. The Coastal Trail is referenced in the Santa Barbara/Ventura Coastal State Park System General Plan, and a multi-use trail with equestrian staging is anticipated in the Gaviota SP General Plan dated May 1979. Construction of the proposed trail segment is consistent with the objectives of the California State Parks Recreational Trails Program. Additionally, the National Park Service, as part of the National Trails System Act, recognizes the Juan Bautista de Anza Historic Trail. The historic trail retraces the explorer's journey from Mexico, through Arizona to San Francisco. The De Anza trail through this coastal section is synonymous with the Coastal Trail.

2.9 DISCRETIONARY APPROVALS AND ENVIRONMENTAL COMPLIANCE REVIEW

As described in Chapter 1, DPR has notified local, state and federal regulatory agencies of the proposed undertaking and in consultation with Caltrans has determined that permits or approvals are needed from the following agencies:

US Army Corps of Engineers, US Fish and Wildlife Service, California Department of Fish and Game, California Coastal Commission, California Department of Transportation, Regional Water Quality Control Board, and Santa Barbara County.

Notice of Preparation, Gaviota State Park, California Coastal Trail – Gaviota Segment, Draft Environmental Impact Report (DPR, 3 September 2004):

California State Parks received 7 written responses to a CEQA Notice of Preparation published September 3, 2004 in the Santa Barbara News-Press and the Goleta Valley Voice Newspapers. The Notice was filed with the State Clearinghouse (SCH) and circulated for agency and public review between September 7 and October 6, 2004. In addition to ten state agencies receiving copies from the SCH, DPR provided the Notice to 5 federal agencies, the California Public Utilities Commission, the California Coastal Conservancy, 7 organizations of conservation and recreational advocates, and public libraries in Goleta and Santa Barbara. The County of Santa Barbara departments of Planning and Development, Parks, and Public Works, as well as the County Air Pollution Control District are also involved as interested parties in the development of the proposed project. The Union Pacific Railroad and ChevronTexaco Corporation are landholders in the project vicinity and received copies of the Notice of Preparation.

Respondents to the Notice include:

Santa Barbara Bicycle Coalition
County of Santa Barbara
Gaviota Coast Conservancy
Coastwalk
Native American Heritage Commission
California Department of Fish and Game
U.S. Department of Homeland Security, Federal Emergency Management Agency
Union Pacific Railroad Company

Union Pacific registered its opposition to the proposed project for two reasons. Wayne Horiuchi, Special Representative in the company's Government Affairs Office states, in a letter dated September 15, 2005, "The proximity of the project to our rail lines will expose citizens, as well as Union Pacific, to additional incidents of trespass/fatalities...Union Pacific opposes any project that could entice the public to cross our railroad tracks for any reason such as visit to the beach or to seek a better view of the Pacific Ocean." Mr. Horiuchi also anticipates citizen complaints about the trains' warning whistles which, "would certainly disrupt the outdoor experience for trail users."

All other responses to DPR's Notice of Preparation were in support of the project, and included a few questions along with information that will contribute to the overall quality of the environmental analysis and documentation.

Questions raised by respondents have been answered in this Draft Mitigated Negative Declaration, which DPR determined to be the appropriate CEQA compliance document (rather than an EIR) after additional project development and environmental studies reduced all potential impacts to a less-than-significant level after mitigation. This DMND will be circulated through the State Clearinghouse for a review period of 30 days. Any comment letters received during the CEQA DEIR review period will be shared with Caltrans, for its use in preparing documentation of the project's NEPA compliance in consultation with the FHWA. Substantive comments which require modification of the environmental documents will be addressed in coordination with Caltrans and the FHWA, and responses may be developed jointly.

2.10 RELATED PROJECTS

Santa Barbara County Public Works Department has proposed a separate project adjacent to the DPR project area. The County's Gaviota Beach Road and Bridge Improvement Project was evaluated in an EIR circulated through the State Clearinghouse June 2005 and March 2006. Although DPR and the County have conducted simultaneous environmental review, documentation and permitting processes, each proposal is a stand-alone project which could be implemented independently of the other. The Gaviota Beach Road Improvement Project proposes to elevate the majority of Gaviota Beach Road from U.S. Route 101 to the Gaviota State Park entrance station. It includes the construction of a new all-weather bridge

approximately 11 feet above the flow line elevation of Gaviota Creek. Coordination between the County Public Works Department and DPR will continue regarding the planned change of road elevation at the proposed trailhead parking area.

CHAPTER 3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: California Coastal Trail – Gaviota Segment
2. Lead Agency Name & Address: California Department of Parks and Recreation
3. Contact Person & Phone Number: Susan Wilcox (916) 445-8870
4. Project Location: Gaviota State Park
5. Project Sponsor Name & Address: California Department of Parks and Recreation
Acquisition and Development Division
Northern Service Center
One Capitol Mall, Suite 500
Sacramento, CA 95814
6. General Plan Designation: State Park: State Park and Recreation Commission, 1973
7. Zoning: Recreation: County of Santa Barbara
8. Description of Project:

The California Department of Parks and Recreation (DPR) proposes to construct a 4 km (2.5 mile) segment of the California Coastal Trail, in Gaviota State Park. This multi-use trail segment would extend east from the Gaviota State Park entrance road (Gaviota Beach Road) along the coastal terrace on the south side of US Route 101, and will terminate near Cañada de San Onofre at its eastern end. The trail would serve pedestrians with varied mobility impairments, bicyclists and equestrians. The trail route would include some areas within California Department of Transportation right-of-way for U.S. Route 101 as well as property currently owned by Shell Oil Company. The proposed project area is located in Santa Barbara County.

9. Surrounding Land Uses & Setting: Refer to Chapter 3 of this document (Section IX, Land Use Planning)
10. Approval Required from Other Public Agencies: Refer to Chapter 2, Section 2.9

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | <input checked="" type="checkbox"/> None |

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared.

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared.

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents.

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required.

Original signed by _____
Susan Wilcox
Environmental Coordinator

July 11, 2007 _____
Date

ENVIRONMENTAL ISSUES

I. AESTHETICS.

ENVIRONMENTAL SETTING

Gaviota State Park is located on the Santa Barbara County coast west of the City of Santa Barbara, and includes both coastal and inland mountain terrain, with 8,380 meters (27,500 ft) of shoreline. The proposed trail would run along the coastal portion of the park between U.S. Route 101 and the ocean. The prominent features of this area include a section of broad coastal terrace, rolling grass- and chaparral-covered hillsides, scenic coastal canyons and coastal promontories. Perennial streams flow through many of the canyons creating riparian habitats and sometimes forming small wetlands at their mouths.

Public opportunities to experience the scenic resources in the area are primarily gained by travelers driving along U.S. Route 101 or by guests experiencing the sights from within the Park. Public access points are limited by large private landholdings and the Marine Terminal. The only opportunity to experience the scenic resources of the entire area along the coast is through travel on the Amtrak Coast Starlight train. Passengers on this route experience some of the most spectacular views on the Southern California coast. Much of the rail corridor follows the historic route of the Juan Bautista de Anza National Historic Trail in areas that are otherwise off limits to visitors, including Hollister and Bixby Ranches and Vandenberg Air Force Base to the north.

According to the Santa Barbara County Coastal Plan, the scenic quality of the area from Gaviota State Park to the Guadalupe Dunes north of Point Sal is a visual resource of national significance. Santa Barbara County seeks to protect scenic resources through county zoning regulations. The Coastal Plan includes a View Corridor Overlay designation for the entire coastal zone. In addition, the Williamson Act and easements are tools that have protected scenic resources through limiting development.

The existing environment is coastal. Scenes from within the park include a view out onto the ocean, a view of the train trestle, mountains in the backdrop, coastal bluffs, beach, and areas of natural habitat including coastal sage, grasslands, and wetlands occupying marine terraces.

The main development area is the campground, which includes campsites, vehicle parking, a visitor kiosk, a shower/restroom building and a general store. Views from the highway to the west include coastal bluffs with native and non-native vegetation, utility lines, the trestle, and the ocean horizon. Mountains border the north side of the highway. Although Gaviota SP is only – miles from the nearest developed community, a visitor's primary experience is that of a natural setting.

The Gaviota Marine Terminal is the infrastructure of an oil processing plant with all the physical and visual elements associated with such an operation. The terminal is surrounded by cyclone fencing and contains many buildings and large storage tanks, which comprise the only significant intrusion on the natural landscape and the aesthetic quality of the Park.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Opportunities to experience scenic resources would continue at the park and beach access areas and along U.S. Route 101. The trail would provide additional access to enjoy scenic resources. Many scenic vistas would now be accessible to visitors traveling on foot, bicycle or horseback along the trail. Benches will be located along the trail to allow visitors to sit and relax and enjoy the views.
- b) The area’s scenic qualities continue to be very high. Some minor, negative, and temporary impacts on the quality of scenic resources within the area would result during the construction of the project. In the long term, the project would increase opportunities to enjoy the scenic resources.
- c) Most aspects of the proposed trail will be invisible from the highway and the beach, and its appearance will not be prominent from the water. Very little of the new trail and its associated elements will be seen from the campground within the park. What will be seen from the campground and day use area, but only from a distance, will be retaining walls (which will be designed to blend into the environment), and at points, railing. The retaining walls will not be visible from the highway, and will only be seen at a distance from limited locations in the park.

Cut and fill slopes will be revegetated for stability and over time the native vegetation will cover newly graded slopes. Retaining walls will also be screened using native vegetation. In June 2004, a fire swept through the area, denuding much of the park and local area vegetation. Plants are sprouting, but it will be some time before vegetation has reached a mature level. Over time, the areas replaced following trail construction will easily blend visually with those areas now recovering from impacts of the wildfire.

Trail head development is in a lower area and will most likely not be visible from the highway. The trail head area is surrounded by native vegetation which, after regrowth, will provide a visual screen.

Rest areas will be installed along the trail. They will be paved areas containing wood and stone benches, bicycle parking areas, and interpretive panels. Rest area elements will not be more than 3-4 feet high. Views from the highway to the coastline will be preserved, as the trail is set at ground level.

Some permanent vegetation clearing will occur in selected areas. These include an edge of the marine terminal where the trail will pass through a narrow berm area. The cleared areas are unlikely to be noticeable to trail users or travelers on the highway. Minimization measure **AESTH-1** includes planting of native vegetation which will enhance the scenic quality of the coastal bluff and replace vegetation removed for trail installation.

- d) No new sources of light or glare would be introduced into the project vicinity; the project would have no impact on the environment resulting from light or glare.

Avoidance, Minimization and/or Mitigation Measures

MINIMIZATION MEASURE AESTH-1

- ◆ Cut and fill slopes will be revegetated for stability and over time the native vegetation will cover newly graded slopes.
- ◆ Retaining walls will also be screened using native vegetation.
- ◆ Rest area elements will not be more than 3-4 feet high.

II. AGRICULTURAL RESOURCES.

ENVIRONMENTAL SETTING

Gaviota State Park is bordered by land zoned for agriculture; much of which is currently used for grazing livestock. The largest portion (70%) of Santa Barbara County's agricultural land protected under California's Williamson Act lies immediately west of the Park. Grazing is prohibited in the Park, none of which is zoned for agricultural uses.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
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) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The project will convert no prime or unique farmland, or land of statewide or local importance (as defined by the Farmland Protection Policy Act, USC 4201-4209), either directly or indirectly, to non-agricultural use.
- b) None of the lands within Gaviota State Park are zoned for agricultural uses. The project will have no effect on the Williamson Act status of agricultural lands near the park.
- c) The project will enhance recreational use of public parkland with no changes in zoning or existing uses. No conversion of farmland would result directly or indirectly from this project.

III. AIR QUALITY.

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃) and particulate matter that is 10 microns in diameter or smaller (PM₁₀).

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

Regional level conformity is concerned with how well the region is meeting the standards set for the pollutants listed above. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would result in a violation of the Clean Air Act. If no violations would occur, then the regional planning organization, such as the Santa Barbara County Air Pollution Control District and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in conformity with the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to be in conformity at the regional level.

Conformity at the project level is also required. Again the pollutants of concern are: carbon monoxide (CO), nitrous dioxide (NO₂), ozone (O₃) and particulate matter that is 10 microns in diameter or smaller (PM₁₀). If a region is meeting the standard for a given pollutant, then the region is said to be in “attainment” for that pollutant. If the region is not meeting the standard, then it is designated a “non-attainment” area for that pollutant. Areas that were previously designated as non-attainment areas but have recently met the standard are called “maintenance” areas. If a project is located in a non-attainment or maintenance area for a given pollutant, then additional air quality analysis and reduction measures in regard to that pollutant is required. This is most frequently done for CO and PM₁₀.

Ozone

Ozone is a gas composed of three oxygen atoms and is not usually emitted directly into the air, but is created at ground level when reactive organic gases (ROG) and nitrogen dioxides react in the presence of sunlight. ROG sources include motor vehicle exhaust and industrial emissions, gasoline vapors, chemical solvents, and pesticides. Sunlight and hot weather cause ground-level ozone to form in harmful concentrations in the air.

Ozone is a respiratory irritant and a powerful oxidant that can damage the respiratory tract, causing inflammation and irritation, and induces symptoms such as coughing, chest tightness, shortness of breath, and worsening of asthma symptoms leading to lung tissue damage and a reduction in the amount of air inhaled into the lungs. Ozone levels above the ambient air quality standards also lead to reduced crop and timber yields, damage to native plants, and damage to materials such as rubber, paints, fabric, and plastics (USEPA 2005a).

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter is the term used for extremely small particles found in the air, including dust, dirt, soot, smoke and liquid droplets. Particulate matter can be divided into two categories: PM₁₀ with an aerodynamic diameter of 10 microns or less and PM_{2.5} with an aerodynamic diameter of less than 2.5 microns. PM_{2.5} is a constituent of PM₁₀. PM₁₀ is a mixture of various substances occurring in the form of solid particles or liquid drops and can be emitted directly into the atmosphere. Particles emitted directly (also known as primary emissions) come from sources such as diesel engines, wood burning activities, construction sites, tilled fields, and unpaved roads.

PM_{2.5}, called “fine” particulate matter, can be emitted directly or formed secondarily in the atmosphere. Secondary particles are formed by reactions of gases in the atmosphere. They are indirectly formed when gases from burning fuels react with sunlight and water vapor.

Health concerns related to particulate matter focus on particles small enough to reach the lungs when inhaled. Studies have linked PM to a series of significant breathing problems, including: aggravated asthma; coughing and difficult breathing; chronic bronchitis; decreased lung function; and premature death. Fine particulate matter not only bypasses the body’s defense mechanisms and becomes embedded in the deepest areas of the lung, but can disrupt cellular processes as well (USEPA 2005b,c,d).

California Clean Air Act

The California Clean Air Act (CAAA) was signed into law in 1988 and clearly defined in statute California’s air quality goals, planning mechanisms, regulatory strategies, and standards of progress. The CAAA provides the state with a comprehensive framework for air quality planning regulation. Prior to passage of the Act, federal law contained the only comprehensive planning framework.

The CAAA requires attainment of state ambient air quality standards by the earliest practicable date. For air districts in violation of the state ozone, carbon monoxide, sulfur dioxide, or nitrogen dioxide standards, attainment plans were required by July 1991. Districts can, however, request extensions.

2001/2004 Clean Air Plan

The Santa Barbara County 2001 Clean Air Plan, updated 2004, establishes a comprehensive pollution control strategy to maintain attainment of the federal ozone standard. The Clean Air Plan includes control measures for all categories that contribute to ROC and NO_x emissions. These include controls on industrial processes, combustion sources, petroleum handling, solvent use, consumer products, waste burning, automobiles and other mobile sources as well

as transportation control plans to encourage less polluting modes of travel. Emissions forecasting based on the 1999 emission inventory was developed to determine whether pollution control measures proposed in the 2001 Clean Air Plan will reduce emissions. The forecasts estimate that ROC and NOx emissions from offshore vessels will increase, while all other mobile sources will decline. Offshore vessels currently produce emissions equal to the amount produced by cars and trucks and are projected to increase 67% by 2015. These emissions, largely uncontrolled, can impact onshore emissions under certain weather conditions (SBCAPCD 2005).

ENVIRONMENTAL SETTING

In recent years, the Santa Barbara County Air Pollution Control District reports that the County has met standards for attainment reducing unhealthful air quality by over 80% from 1990 to 2000 despite increases in vehicle miles traveled and population growth. Between 1997 and 1999 air quality complied with the federal 1-hour ambient air quality standard for ozone. The Santa Barbara County Air Pollution Control District recently updated the *2001 Clean Air Plan* to formally request that Santa Barbara County be designated as an attainment area for the federal 1- hour ozone standard. County figures in the *2001 Clean Air Plan* demonstrate a reduction in days exceeding ozone standards over the last ten years. Primary sources of air pollution that contribute to ozone formation in Santa Barbara County include cars, trucks and other vehicles that produce more than half of the on-shore smog forming pollution. The 1999 Santa Barbara County Planning Emission Inventory measured primary ozone precursors such as tons of reactive organic compounds (ROC) and nitrogen oxide (NOx), emitted per day. The majority of emissions for both types were from mobile sources (planes, trains, boats, farm equipment, cars, trucks, buses and motorcycles).

Santa Barbara County is part of the South Central Coast Air Basin (SCC Air Basin) and the U.S. Environmental Protection Agency Region IX. Ocean winds, moderate levels of highway traffic, and a small industrial base result in relatively clean air in the vicinity of the Gaviota State Park. According to the District, the entirety of the Basin has been designated as “attainment” or unclassified for all criteria pollutants. An area is designated in attainment if the state standard for the specified pollutant was not violated at any site during a three-year period.

Santa Barbara County is also considered in attainment of the federal one-hour ozone standard and the federal eight-hour ozone standard, but does not yet meet the state one-hour ozone standard or the standard for particulate matter less than ten microns in diameter (PM₁₀). There is not yet enough data to determine the county’s attainment status for either the federal standard for particulate matter less than 2.5 microns in diameter (PM_{2.5}) or the state PM_{2.5} standard (SBCAPCD 2005).

**Santa Barbara County
Attainment/Nonattainment Classification Summary 2007**

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	8 hour	0.070 ppm	N*	0.08 ppm	A
	1 hour	0.09 ppm (180 µg/m ³)	A	0.12 ppm (235 µg/m ³) <small>This standard was revoked in 2005.</small>	A
Carbon Monoxide	8 hour	9.0 ppm (10 mg/m ³)	A	9.0 ppm (10 m/m ³)	A
	1 hour	20.0 ppm (23 mg/m ³)	A	35.0 ppm (40 µg/m ³)	A
Nitrogen Dioxide***	annual average	0.030 ppm (56 µg/m ³)	A	0.053 ppm (100 µg/m ³)	A
	1 hour	0.18 ppm (338 µg/m ³)	A	--	--
Sulfur Dioxide	annual average	--	--	80 µg/m ³ (0.03 ppm)	A
	24 hour	0.04 ppm (105 µg/m ³)	A	0.14 ppm 365 µg/m ³	A
	1 hour	0.25 ppm (655 µg/m ³)	A	--	--
Particulate Matter (PM10)	annual arithmetic mean	20 µg/m ³	N	revoked	A
	24 hour	50 µg/m ³	N	150 µg/m ³	A
Particulate Matter - Fine (PM2.5)	annual arithmetic mean	12µg/m ³	U	15 µg/m ³	U/A
	24 hour	--	--	35 µg/m ^{3**}	U/A
Sulfates	24 hour	25 µg/m ³	A		
Lead	calendar	--	--	1.5 µg/m ³	A

	quarter				
	30 day average	1.5 $\mu\text{g}/\text{m}^3$	A	--	--
Hydrogen Sulfide	1 hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	A	--	--
Vinyl Chloride (chloroethene)	24 hour	0.010 ppm (26 $\mu\text{g}/\text{m}^3$)		--	--
Visibility Reducing Particles	8 hour (1000 to 1800 PST)		A	--	--

A=Attainment
N=Nonattainment
U=Unclassified
U/A=Unclassifiable/Attainment

mg/m^3 =milligrams per cubic meter
ppm=parts per million
 $\mu\text{g}/\text{m}^3$ =micrograms per cubic meter

NOTES:

* This standard went into effect in June, 2006. Official designations have not yet been announced; our data indicate we will be considered in nonattainment of this standard.

** Effective December 18, 2006, the USEPA revoked the annual PM10 standard and lowered the 24-hour PM2.5 standard, this change is reflected in the table above.

*** The state Nitrogen Dioxide ambient air quality standard was amended on February 22, 2007, to lower the 1-hour standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. These changes become effective after regulatory changes are submitted and approved by the Office of Administrative Law, expected later this year.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT*:				
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make these determinations.

DISCUSSION

- a) Work proposed by this project, and any associated emissions, would not conflict with or obstruct the implementation of any applicable air quality management plan for Santa Barbara County (SBCAPCD) or the SCC Air Basin.
- b,c) The proposed project would not emit air contaminants at a level that, by themselves, would violate any local, state, or federal ambient air quality standard, or contribute to a permanent or long-term increase in any air contaminant. However, project construction would generate short-term emissions of fugitive dust (PM₁₀) and involve the use of equipment that would emit ozone precursors (i.e., reactive organic gases [ROG] and nitrogen oxides, or NO_x). Increased emissions of PM₁₀, ROG, and NO_x could contribute to existing non-attainment conditions and interfere with achieving the projected attainment standards. Consequently, construction emissions would be considered a potentially significant short-term adverse impact. Implementation of Minimization Measure **AIR-1**, in accordance with the SBCAPCD guidelines, would reduce this potential impact to a less than significant level.
- d) As noted above, project construction would generate dust and equipment exhaust emissions for the duration of the project. Most of the project area is currently closed to the public and would remain closed throughout the rehabilitation process. The entire project site, including staging areas, would also be restricted to authorized personnel only. However, day use areas and a campground are located nearby. Park visitors with

conditions that make them sensitive to these emissions would have the option of avoiding the area altogether or remaining in portions of the park that would be upwind or protected from blowing dust or other emissions. These cautions, in conjunction with Minimization Measure **AIR-1**, would reduce the potential adverse impact to a less than significant level.

- e) The proposed work would not result in the long-term generation of odors. Construction-related emissions might result in a short-term generation of odors, including diesel exhaust, fuel vapors, and evaporative emissions from asphalt paving materials or wood preservatives. These odors might be considered objectionable by some park visitors and personnel. However, because construction activities would be short-term and odorous emissions would dissipate rapidly in the air, with increased distance from the source, and visitor exposure to these odors would be extremely limited, potential odor impacts would be considered less than significant.

Avoidance, Minimization and/or Mitigation Measures

MINIMIZATION MEASURE AIR-1

- ◆ All active construction areas will be watered to adequately control dust during dry, dusty conditions.
- ◆ All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- ◆ All equipment engines will be maintained in good mechanical condition, according to manufacturer's operating specifications, and in compliance with all State and federal requirements.
- ◆ Excavation and grading activities would be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or when dust from construction might obscure driver visibility on public roads.

IV. BIOLOGICAL RESOURCES

REGULATORY SETTING

Wildlife and Plant Species

The primary federal law pertaining to wildlife is the Endangered Species Act (FESA) of 1973. The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et. seq. See also 50 CFR Part 402. Section 9 of the FESA prohibits the take of threatened and endangered species. Section 3 defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

Migratory nongame native bird species are protected by international treaty, under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA fully protects these birds including any of their parts, and their nests and eggs.

The primary State law pertaining to wildlife is the California Endangered Species Act (CESA). CESA regulations can be found at California Fish and Game Code, Section 2050, et. seq. CESA prohibits the take of state-listed endangered and threatened species (California Fish and Game Code, Section 2080).

Projects undertaken by State agencies are also subject to the Native Plant Protection Act, found at Fish and Game Code Section 1900-1913, as well as the plant and wildlife provisions of CEQA.

Wetlands and Other Waters

Wetlands are defined as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (30 CFR 328.3). At the federal level, the Clean Water Act (CWA) (33 U.S.C. 1344) is the primary law regulating wetlands and other waters. The CWA regulates the discharge of dredged or fill material into Waters of the United States, including wetlands.

Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA. Other Waters of the US include seasonal or perennial waters, such as creeks, lakes, ponds, mudflats, and other types of habitats lacking one or more of the three criteria for wetlands (33 CFR 328.3).

Wetlands and other Waters of the US are areas of federal jurisdiction under Section 404 of the CWA. Section 404 establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less

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

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

At the state level, wetlands and waters are regulated primarily by the Department of Fish and Game (DFG) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the California Coastal Commission may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify DFG before beginning construction.

If DFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. DFG regulates activities that would alter the flow, bed, channel, or bank of streams and lakes (Section 1602 of the California Fish and Game Code). The outer edge of riparian vegetation is generally used to define the boundary between riparian and upland habitats, and is therefore used as the boundary for the lateral extent of a stream. In some areas with little or no riparian habitat present, the bank is used to mark the lateral extent of a stream. Because riparian habitats may not always support wetland hydrology, the DFG jurisdictional boundaries may encompass an area greater than under Section 404 of the Clean Water Act. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the DFG. Under Sections 1600-1616 of the Fish and Game Code, a Streambed Alteration Agreement from the California Department of Fish and Game is required for this project.

The California Coastal Act of 1976 defines wetlands to include all "lands which may be covered periodically or permanently with shallow water" (PRC Section 30121). This definition only requires the presence of any one of the three wetland attributes recognized by the USACE. All of the project area is within the coastal zone and therefore is subject to the Coastal Act's wetland definition.

Development within the coastal zone is regulated by the California Coastal Act. Section 30519 of the Public Resources Code delegates development review authority to a local government with a Coastal Commission certified local coastal program. The Santa Barbara County Coastal Plan is a partially certified local coastal program. This Coastal Plan designates environmentally sensitive habitat areas and associated habitat protection policies. Environmentally sensitive habitat areas identified in the plan include streams, wetlands, butterfly trees, native grasslands, and native plant communities. Under the California Coastal Act, this project requires a Coastal Development Permit from the County of Santa Barbara.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Under Section 401 of the Clean Water Act, this project requires Water Quality Certification from the State Water Resources Control Board. Please see Section VIII: Hydrology and Water Quality, for additional details.

Invasive Species

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

ENVIRONMENTAL SETTING

Gaviota State Park is located on the south central coast of Santa Barbara County, in the Southern California Floristic Region of the California Floristic province (Raven and Axelrod 1978), in the Gaviota Creek watershed. The area is influenced by a Mediterranean climate and coastal fog, and it supports a diversity of habitat types and species. In addition, the Gaviota coast is located in an important ecological zone that features the ecological transition between the northern and southern Mediterranean vegetative communities (National Park Service 2003).

To evaluate the environmental impacts of the proposed undertaking on natural resources, DPR resource ecologists and an engineering geologist completed archival and field research, consulted with Caltrans environmental specialists, the United States Army Corps of Engineers (USACE) and Fish and Wildlife Service (USFWS), and the California Department of Fish and Game, and prepared the following compliance documents:

- ◆ Biological Assessment, California Coastal Trail – Gaviota Segment (DPR 2004a);
- ◆ Addendum to Biological Assessment, California Coastal Trail – Gaviota Segment (DPR 2007);
- ◆ Natural Environmental Study, Discussions of Biological Assessment and Wetlands Study (DPR 2004b); and
- ◆ Final Report, Wetlands Delineation and Waters of the United States (DPR 2004c).

Methods

The tools used to determine the sensitive plant and animal species and natural communities that have the potential to occur within the project area include park species lists, the California Department of Fish and Game’s Natural Diversity Database (CNDDB) for the Gaviota, Santa Rosa Hills, Solvang, Santa Ynez, Sacate, and Tajiguas USGS 7.5 minute quadrangles (2003),

the CNPS Inventory of Rare and Endangered Plants of California (2004), and the U.S. Fish and Wildlife Service (USFWS) list of federally listed species that may occur in the vicinity of Gaviota State Park. See Appendix C for the CNDDDB list of sensitive species that occur in the region and were evaluated for their potential presence in the project area.

In addition to general biological surveys of the project area, several focused surveys/studies were also conducted, including a California red-legged frog (*Rana aurora draytonii*) site assessment, burrowing owl (*Athene cunicularia*) survey, Gaviota tarplant surveys, vegetation mapping, USACE wetland delineation, and wetland delineations according to CCC criteria. Additional studies, including a focused study of monarch butterfly overwintering sites were referenced.

General biological surveys included a complete reconnaissance of the project area to delineate areas of native vegetation and determine the presence or absence of sensitive plant and wildlife species. The California red-legged frog site assessment was conducted following the USFWS protocol (1997). The burrowing owl survey was conducted following protocol established by the California Burrowing Owl Consortium (1993). Gaviota tarplant and tarplant habitat surveys were conducted by DPR botanists in June and July of 2003 and spring 2007 following California Native Plant Society (2004) guidelines.

Wetlands were delineated in the field following the USACE 1987 Wetland Delineation Manual methodology. Field surveys were conducted to determine USACE jurisdictional wetlands and waters of the US, wetlands under CCC jurisdiction, and the boundaries of streams and associated riparian habitat under Department of Fish and Game (DFG) jurisdiction. The project area was assessed for the presence of wetland vegetation, topography, hydrology, and soils. In addition, aerial photographs and topographic maps were reviewed for indications of the presence of wetlands and Waters of the U.S. The project area was then surveyed for wetland indicators under the CCC wetland definition. Soil samples were collected where wetland vegetation and/or hydrology indicators were present. Field observations of surface waters and drainage patterns confirmed aerial photographic and topographic information. Potential jurisdictional waters of the US and wetlands under USACE jurisdiction, wetlands under CCC jurisdiction, and the limits of DFG jurisdiction were delineated within the project impact area and mapped using GIS technology (see Figures 6a-6c).

SPECIAL STATUS SPECIES

Special Status Plant Species

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (DFG) share regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). In this section of the document, all special-status plant species with potential habitat occurring in the project area are addressed.

Special status plant species include State or Federal threatened, endangered, or rare species; State or Federal candidate species; species considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered in California (Lists 1B and 2); and plants listed by CNPS about which more information is needed to determine their status (List 3) and plants of limited distribution (List 4).

Six special status plant species have the potential to occur within the project area. These include Gaviota tarplant (*Deinandra increscens* ssp. *villosa*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), seaside birds-beak (*Cordylanthus rigidus* ssp. *littoralis*), Contra Costa goldfields (*Lasthenia conjugens*), Gambel's watercress (*Rorippa gambellii*), and black-flowered figwort (*Scrophularia atrata*). Of these species, only Gaviota tarplant is found at the project site.

Gaviota Tarplant – Status: Federal Endangered, State Endangered

Gaviota tarplant (*Deinandra increscens* ssp. *villosa*) is a summer-flowering annual herb in the sunflower (Asteraceae) family. The plants branch widely and have small gray-green sticky leaves and heads with small yellow flowers. The inflorescence typically has 13 ray flowers and 18 to 31 disk flowers, usually sterile. Two other subspecies of *Deinandra increscens* (*D. increscens* ssp. *increscens* and *D. increscens* ssp. *foliosa*) differ from the Gaviota tarplant by their stiff –bristly and deep green foliage (USFWS 2000b).

This tarplant is endemic to western Santa Barbara County on its narrow coastal terraces. It extends from the coastal bluffs north to foothills at the base of the Santa Ynez Mountains. It occurs at elevations from sea level to nearly 200 feet above sea level. At Gaviota State Park, these areas are dominated by non-native annual and native perennial grasslands, which include purple needlegrass and scattered shrubs of the coastal sage scrub community. This plant is commonly found within purple needlegrass grasslands, which may be dominated by nonnative species such as wild oat (*Avena barbata*), soft chess, annual fescue and filaree. It is also common where native perennial grassland intergrades with coastal sage scrub and is dominated by California sagebrush, coyote brush, and sawtooth goldenbush. The tarplant is, however, found in open areas and rarely underneath shrubs. It is usually not found in areas dominated by weedy mustards and thistles (CNPS 2004, USFWS 2002b).

Gaviota tarplant is restricted to acidic, fine sandy loam soils of the Milpitas-Positas-Concepcion (CMP) series, particularly in areas that have a subsurface clay layer. The depth to the clay layer may be up to 36 inches. Weedy species were less common in these areas, and the clay layer is nearly impenetrable in the dry summer. This soil profile may favor summer –flowering annual species and discourage certain weedy competitors (Rindlaub 1995).

Gaviota tarplant was listed as endangered under the California Endangered Species Act in 1990, and was listed as federally endangered by the USFWS in 2000 (65 CFR 14888, Rindlaub 1995). There are 16 reported occurrences in the California Natural Diversity Database (CNDDB 2007) for Gaviota tarplant; it is completely restricted to the Gaviota coast, small populations on Hollister Ranch, and sites near Point Sal. U.S. Route 101, the Southern Pacific Railroad, and pipelines currently intersect the area. The majority of tarplants in the local area are found north of U.S. Route 101 on private land. Populations are threatened due

to habitat loss and fragmentation, local energy development, and competition from non-native weeds. Most habitat loss occurred before the plant was listed. Early mitigation programs were required by the County of Santa Barbara in the 1980s, before Gaviota tarplant was listed with state or federal agencies (Rindlaub 1995).

Gaviota tarplant is an annual species and its numbers may vary from year to year due to a number of conditions. Focused tarplant surveys were completed in 2003 within the project area. A survey was also conducted in 1995 (Rindlaub 1995). Approximately 35 acres to the north of U.S. Route 101 was established as the Gaviota Tarplant Ecological Reserve under the California Department of Fish and Game in 1995. These lands were conveyed to DFG by Chevron and the All American Pipeline Company (DFG 2000, Rindlaub 1995) as a preserve and mitigation bank.

Light disturbance may enhance seed germination and tarplant growth, and discourage some competition from other species. Beneficial disturbances would include light foot or livestock traffic, which could reduce some non-native weedy competitors. More intense disturbances would be likely to promote growth of competitive weeds. Weeds found in the project area that may detrimentally affect tarplant include Australian saltbush (*Atriplex semibaccata*) and perennial veldt grass (*Ehrharta calycina*). Each of these species forms dense colonies which would tend to exclude annual tarplants. Recent energy projects in the local area successfully performed mitigation through salvaging soil and conservation of the annual tarplant seed bank (Rindlaub 1995).

The California Native Plant Society Electronic Inventory (2003) and California Natural Diversity Database (2003) were queried for sensitive plant occurrences within the project area. The project area was surveyed for tarplant occurrences by walking transects through all project area grasslands in June and July of 2003. Gaviota tarplant was found in a number of locations, and a total of 3,146 plants were found during focused surveys in 2003. Some patches contained several hundred individuals; however, in other areas only one or two isolated plants were found. A DPR botanist returned to the project area in spring 2007 to delineate suitable Gaviota tarplant habitat. Areas with suitable habitat were added to project sensitivity maps along with known tarplant locations.

During 2003 surveys, tarplants were found most often where there was 10% or greater cover of purple needlegrass, usually associated with common nonnative grassland species. These included soft chess, filaree, wild oat and others. Scattered shrubs common in coastal sage scrub communities were often found in the grasslands. Tarplants were rarely found where there was dense thatch of weedy species. No tarplants were found where dense thatches of mustard, bristly ox-tongue or Italian thistle dominated. No obvious predation on Gaviota tarplant, such as gopher impacts, was observed at these sites.

Gaviota tarplant is an annual species and numbers of plants and specific locations may vary from year to year depending on a variety of microclimatic conditions. Conservation of this species would therefore include protection of quality habitat where the CMP soil series occurs, since the actual plant locations may change somewhat from year to year. In addition to documenting tarplant locations from 2003 surveys, high-quality potential habitat with ideal plant

and soil conditions were identified. These areas include locations of the Milpitas-Positas-Concepcion soil complex, and grasslands which contain a mix of annual grasses, purple needlegrass and native forbs. Much of the known Gaviota tarplant habitat in the project area is currently occupied by dense thatches of annual grass, and in small areas, noxious veldt grass is also encroaching.

The primary constituent elements of critical habitat for the Gaviota Tarplant are sandy soils associated with coastal terraces adjacent to the coast or uplifted marine sediments at interior sites up to 3.5 miles inland from the coast, and the plant communities that support associated species, including purple needlegrass grassland and coastal sage scrub communities (USFWS 2002b). Associated species may include: needlegrass species (*Nassella* spp.), California sagebrush, coyote brush, sawtooth golden bush (*Hazardia squarrosa*), and California buckwheat (*Eriogonum fasciculatum*).

All of Gaviota State Park and the entire project area is located within the Conception-Gaviota critical habitat unit for Gaviota Tarplant. Within this area, a total of 31.86 hectares (79.32 acres) contain the primary constituent elements of sandy soils and grassland and sage scrub communities. Within this area, 17.31 hectares (42.78 acres) are within coastal sage scrub, and 13.68 hectares (36.55 acres) are within grassland communities.

Other Special-status Plant Species

Several sensitive plant species have potential habitat in the project area, but were not found onsite and have little or no potential to be found onsite:

Davidson's saltscale is a CNPS list 1B species. This plant is an annual herb known from alkaline areas in coastal scrub and coastal bluff scrub. The plant was documented previously from a non-specific location on the Gaviota coast. No individuals have been documented in this area since 1947. No Davidson's saltscale was found during surveys in the project area. Some potential habitat exists, but there is low potential for its occurrence within the project area.

Seaside bird's-beak is state endangered and a CNPS List 1B species. This plant is a hemiparasitic annual herb that may be found in chaparral, closed-cone pine forest, cismontane woodland, coastal scrub, and coastal dunes. This plant is known only from a location in Lompoc, distant to Gaviota SP. The last documented occurrence was in 1972. No individuals were seen in the project area during 2003 surveys. Some potential habitat exists onsite, but there is very low potential that it would occur within the project area.

Contra Costa goldfields is a federally endangered, CNPS List 1B annual that is known to occur in valley and foothill grasslands, playas, vernal pools, and cismontane woodlands. Locally, the plant was known from only one location in Isla Vista in 1973, distant from Gaviota SP, and is now thought to have been extirpated from most of its range. While some potential habitat may exist for this plant within Gaviota SP, it has never been found in the vicinity, and there is almost no potential that it would be found there. No individuals were seen during plant surveys in 2003 in the project area

Gambel's watercress is a federally endangered, state threatened, CNPS List 1B plant that is typically found in marshes and swamps; freshwater and brackish marshes at the edges of lakes and streams at 5 to 330 m elevation. The plant is known from a location that is distant to Gaviota SP in Vandenberg AFB. No individuals were seen in surveys at the project area in 2003. There is little potential that this plant would be found in the project area.

Black-flowered figwort is a CNPS list 1B plant that is known from the area near Gaviota pass. The last documented sighting was in 1980. This plant may be found in closed cone pine forests, chaparral, dunes, and coastal and riparian scrub communities. It is found in sand, shales, and around swales and sand dunes. Some potential habitat exists within the project area. No plants were seen during 2003 surveys. There is little potential that it would occur within the vicinity of the project area.

Special Status Animal Species

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NOAA Fisheries) and the California Department of Fish and Game (DFG) are responsible for implementing these laws.

Special-status animal species include those species that are listed as threatened or endangered or are proposed for listing under the Federal Endangered Species Act (50 CRF 17.11) or the California Endangered Species Act (California Administrative Code, Title 14, Section 670.5); identified as species of concern by the USFWS or DFG; designated as fully protected by the DFG; or considered rare by the scientific community or scientific organizations.

Sixteen special status animal species either occur in the project area or have the potential to occur in the project area based upon the presence of suitable habitat: the monarch butterfly (*Danaus plexippus*), southern steelhead trout (*Oncorhynchus mykiss irideus*), tidewater goby (*Eucyclogobius newberryi*), coast range newt (*Taricha torosa torosa*), California red-legged frog (*Rana aurora draytonii*), southwestern pond turtle (*Clemmys marmorata pallida*), California horned lizard (*Phrynosoma coronatum frontale*), two-striped garter snake (*Thamnophis hammondi*), California brown pelican (*Pelecanus occidentalis californicus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophila alpestris actia*), yellow warbler (*Dendroica petechia*), and San Diego desert woodrat (*Neotoma lepida intermedia*).

THREATENED AND ENDANGERED SPECIES AND SPECIES OF SPECIAL CONCERN

Monarch Butterfly – Status: California's overwintering sites are restricted in range.

Although the monarch butterfly is not considered rare, threatened or endangered, its overwintering sites in California are considered to be rare and restricted in range. This butterfly has a wide distribution that includes most of the world between the latitudes of 45 degrees north and south (Urquhart 1987). The North American population of the monarch butterfly is the only known population to demonstrate a yearly migration (Munro 1999). To avoid the freezing winter temperatures of the northern and inland regions of North America,

each fall, millions of monarchs migrate to the coast of California or to the mountains of central Mexico where they aggregate in large numbers in groves of trees. The phenomenon of monarch aggregation is dependent upon protective groves that provide shelter from cold, rain, heat, wind, and predators.

Monarch butterflies overwinter along the coast of California from October through March. During this time, the butterflies will primarily live off of fat reserves that they accumulated as caterpillars, but they will also seek out nectar from a variety of fall and winter flowering plants, including eucalyptus trees (*Eucalyptus* spp.).

Monarch butterfly aggregation sites vary in use. A permanent overwintering site is a site that is occupied from October through late February or March, and an autumnal site is a site that is occupied from October through December and is then either abandoned or experiences a dramatic drop in population size.

Although specific monarch butterfly surveys were not conducted for this project, monarch butterflies were observed in flight in the coastal sage scrub habitat in the project area, and they are known to overwinter in the project area as well. Meade (1999) has documented 103 monarch butterfly aggregation sites in Santa Barbara County. One of these sites is within the project area and two are adjacent to it. The site within the project area is located along Cañada del Cementerio. The adjacent two sites are located just west of the project area and the Gaviota State Park campground and north of U.S. Route 101 along Cañada Alcatraz.

The Cañada del Cementerio site is a permanent overwintering site consisting of two blue gum eucalyptus groves that are separated by U.S. Route 101. The grove on the south side of the highway is located within the project area and within the Cañada del Cementerio drainage, between the highway and the Southern Pacific Railroad trestle in the Gaviota Marine Terminal. The second grove is located outside of the project area on the north side of U.S. Route 101. In the project area, all eucalyptus trees that are growing within the marine terminal and along its eastern border provide potential monarch aggregation sites.

Southern Steelhead Trout (Southern California Evolutionarily Significant Unit) – Status: Federal Endangered, California Special Concern

Steelhead are the anadromous form of rainbow trout (*Oncorhynchus mykiss*), which has both coastal and inland populations. California's steelhead belong to the coastal subspecies that is found from Alaska to California. Southern steelhead refers to the Southern California Evolutionarily Significant Unit, which includes all naturally occurring steelhead from the Santa Maria River south to the southern extent of its range.

Steelhead begin their lives in freshwater where they usually remain for a year or two before entering the ocean where much of their growth occurs. They then return to freshwater to spawn, usually returning to the ocean after spawning. Southern steelhead are winter-run steelhead (also called ocean-maturing steelhead), which typically begin their spawning migration in the fall and winter and spawn relatively soon after entry into fresh water. Invertebrates are steelhead's primary food source.

The freshwater habitats required by steelhead include cool, well-oxygenated stream reaches with gravel bottoms for spawning; riffles, runs, and deeper waters for feeding and refuge from predators; and coastal lagoons for acclimatizing to saltwater. Coastal lagoons provide important habitat for steelhead smolts. Not only do these lagoons provide an area where fresh and salt water mix, they are also generally rich in food, which can aid in smolt growth to increase its chances of survival in the ocean.

The southern steelhead was not observed during general surveys of the project area. This species has, however, been regularly observed in Gaviota Creek. It was also observed in Cañada San Onofre prior to 1991 and again during the wet years of 1995 and 1997 (National Marine Fisheries Service 2004). Other local steelhead occurrences include Arroyo Hondo, which is approximately 4.3 kilometers (2.7 miles) east of Cañada San Onofre, and the Santa Ynez River. The drainages that are crossed by the proposed trail are small, ephemeral drainages that do not provide steelhead habitat.

Tidewater Goby – Status: Federal Endangered, California Special Concern

The tidewater goby is a small, benthic fish that typically inhabits coastal lagoons, estuaries, and marshes with relatively low salinities of approximately 10 parts per thousand. It is endemic to California, occurring between the Smith River in northern California and Agua Hedionada Lagoon in southern California. Characteristic habitat includes brackish, shallow lagoons and lower stream reaches with still water. Calm backwaters are used as refuges from high storm flows.

The tidewater goby is primarily an annual species that feeds upon small invertebrates, including crustaceans, mollusks, and aquatic insects. There is a potential for year-round breeding, but with limitations including seasonally low temperatures and lagoon disruptions caused by winter storms, peaks in spawning usually occur in the spring and fall. Although dispersal between estuaries seems unlikely due to the absence of a marine phase of life, floods may facilitate dispersal by transporting individual gobies via coastal waters. (Lafferty *et al* 1999)

The tidewater goby was not observed during general surveys of the project area, but it is known to occur in Gaviota Creek from the mouth of the creek up to 2.4 kilometers (1.5 miles) upstream (CNDDDB 2003). The California Natural Diversity Database (2003) has 28 recorded occurrences for this species in Santa Barbara County, including one from Gaviota Creek. Additional local occurrences are from Jalama Creek, creeks in the Hollister Ranch area, Arroyo Hondo, Refugio Creek, and creeks at Vandenberg Air Force Base.

Other than Gaviota Creek, the tidewater goby does not occur in any of the drainages within the project area. Although gobies may have the ability to disperse via coastal waters, each of the other drainages lacks perennial lagoon or estuary habitat.

Coast Range Newt – Status: California Special Concern

The coast range newt is a subspecies of the California newt that occurs along the coast in coastal drainages from Mendocino County to northern San Diego County. This salamander is found primarily in valley foothill, coastal scrub, and mixed chaparral habitats. It frequents

terrestrial habitats for much of the year, but it breeds in ponds, lakes, and slow-moving streams. Its optimal habitat is considered to be in or near streams in valley foothill habitats (Zeiner *et al* 1988).

Coast range newts travel across upland habitats during or after rains to reach their aquatic breeding sites. Breeding occurs from January through May (Jennings and Hayes 1994). Egg masses are deposited on submerged rocks or vegetation, and larvae transform at the end of their first or second summer. Adult coast range newts feed on aquatic and terrestrial invertebrates, including earthworms, snails, beetles, and stoneflies.

The coast range newt was not observed during general surveys of the project area. The CNDDDB (2003) has only one recorded occurrence for this species in Santa Barbara County from Cañada de la Cuarta in the Hollister Ranch. Cañada de la Cuarta is approximately 5.8 kilometers (3.6 miles) east of Gaviota Creek.

The potential exists for the coast range newt to occur in the project area. Potential habitat is present in the coastal scrub habitat, Gaviota Creek, and the other drainages in the project area.

California Red-legged Frog – Status: Federal Threatened, California Special Concern

The California red-legged frog is a subspecies of the red-legged frog (*Rana aurora*) that occurs from northwestern Baja California north to Sonoma County on the coast and up to Butte County inland (U.S. Fish and Wildlife Service 2000). Characteristic California red legged frog habitat includes deep, still or slow-moving water associated with dense, shrubby riparian or emergent vegetation consisting of arroyo willow (*Salix lasiolepis*), cattails (*Typha* spp.), and/or bulrushes (*Scirpus* spp.) (Jennings and Hayes 1994), but this frog can be found in a variety of aquatic habitats. Streams, backwaters within streams, ponds, marshes, and lagoons all provide breeding habitat. Breeding takes place November through April. Eggs are usually attached to emergent vegetation, roots, or twigs, and they hatch in 6 to 14 days. Larvae metamorphosis typically occurs between July and September. Adult frogs have a variable diet, which includes invertebrates, frogs, and small mammals.

The California red-legged frog is rarely found far from water during dry periods, but if water is not available during dry summer months, adult frogs may seek summer habitat in such places as under rocks or logs, in agricultural drains, watering troughs, or small mammal burrows. In periods of wet weather, individual frogs may disperse across upland habitats. Dispersal across upland habitats to a distance of approximately 1.6 kilometers (1 mile) is possible in a wet season. Adult frogs are primarily nocturnal, and most of the overland movements occur at night (U.S. Fish and Wildlife Service 2000a).

The California red-legged frog was not observed during general surveys of the project area, but it is known to occur in Gaviota Creek. Of the 41 recorded occurrences in the CNDDDB (2003) for this species in Santa Barbara County, two are from Gaviota Creek: one from the vicinity of Gaviota Pass and another near the entrance to the Gaviota State Park campground.

There are no known records of the red-legged frog in the drainages in between Gaviota Creek and Cañada San Onofre, but there are records from Cañada San Onofre north of U.S. Route 101 (P. Collins, personal communication, May 3, 2004). The red-legged frog also occurs in Refugio Creek at Refugio State Beach and in Arroyo Hondo.

A site assessment was conducted to evaluate the project area for potential California red-legged frog habitat. Because red-legged frogs do disperse across upland habitats, the potential exists for their movement across all of the upland habitats in the project area. The only potential aquatic red-legged frog habitat within the project area other than Gaviota Creek is at Cañada Alcatraz. The presence of pools and emergent vegetation in this creek on 17 September 2003 after a dry summer, suggests that it supports some levels of water year-round. In addition, the patches of riparian and emergent vegetation that occur along the creek consist primarily of willows and cattails. This creek occurs within the Gaviota Marine Terminal, and has been subject to major development within and adjacent to its banks. After passing under U.S. Route 101, the creek passes through three more culverts where it is crossed by two paved roads and one dirt road before reaching the ocean. Portions of the creek have been channelized and the natural banks replaced by brick/cinderblock walls. In other portions of the creek, the riparian vegetation is bordered by asphalt. The development and operation of the Gaviota Marine Terminal have also likely altered the water quality of the creek, potentially decreasing its value as aquatic habitat.

The primary constituent elements for the California red-legged frog that are used to determine critical habitat consist of the following three components [from 69 CFR §19627 (13 April 2004)]:

- 1) *Aquatic habitat with a permanent water source with pools (i.e., water bodies) having a minimum depth of 0.5 m (20 in) for breeding and which can maintain water during the entire tadpole rearing season;*
- 2) *Upland areas up to 90 m (300 ft) from the water's edge associated with the above aquatic habitat that will provide shelter, forage, maintenance of the water quality of the aquatic habitat, and dispersal; and*
- 3) *Upland barrier-free dispersal habitat that is at least 90 m (300 ft) in width that connect at least two (or more) suitable breeding locations defined by the aquatic habitat above, all within 2 km (1.25 miles) of one another.*

Barriers to dispersal include heavily traveled roads without bridges or culverts, moderate to high density urban or industrial development, and large reservoirs [69 CFR §19627 (13 April 2004)]. The two potential dispersal barriers in the project area are U.S. Route 101 and the Gaviota Marine Terminal, but because the highway contains culverts where it crosses the coastal drainages and the marine terminal is an industrial development of relatively low density, both can be ruled out as barriers to dispersal.

Under the revised Critical Habitat for CRLF published in the Federal Register on 4/13/06 (50 CFR Part 17), the project does not fall within the boundaries of Unit STB-5, Gaviota Creek; therefore critical habitat for CRLF will not be affected by this project.

Southwestern Pond Turtle – Status: Federal Species of Concern, California Special Concern

A subspecies of the western pond turtle (*Clemmys marmorata*), the southwestern pond turtle occurs from the San Francisco Bay south to northern Baja California. It is found in association with permanent fresh water bodies, including ponds, lakes, streams, irrigation ditches, and permanent pools along intermittent streams. Specific habitat requirements include still or slow water, shallow water habitat with submergent or emergent vegetation for foraging, aerial and aquatic basking sites, and suitable upland oviposition sites (Jennings and Hayes 1994).

The southwestern pond turtle is omnivorous. The majority of its diet is comprised of aquatic invertebrates, carrion, and aquatic vegetation. Aerial and aquatic basking is used as a method of thermoregulation. Aerial basking sites include exposed logs, rocks, and open mud banks. Aquatic basking sites include mats of submergent vegetation. Oviposition usually occurs in May and June, and females can travel up to 400 meters or more from aquatic sites to a nest site. The thermal and hydric environment that is required for incubation is generally warm and relatively dry (Jennings and Hayes 1994).

Although specific turtle surveys were not conducted for this project, two southwestern pond turtles were observed in Gaviota Creek approximately 100 m (328 ft) upstream from Gaviota Beach Road on 28 March 2004. In addition, 37 occurrences are recorded in the CNDDDB (2003) for the southwestern pond turtle in Santa Barbara County, including two from Gaviota Creek. Other local occurrences are from Refugio State Beach, Hollister Ranch, Jalama Beach County Park, and Vandenberg AFB.

Other than Gaviota Creek, there are no drainages within the project area with potential southwestern pond turtle habitat. Most of the other drainages lack the permanent pools that pond turtles require. While Cañada Alcatraz appears to support permanent pools within the project area, the pond turtle is not expected to occur here. This creek is completely bordered by development (the Gaviota Marine Terminal), and does not provide suitable upland oviposition sites.

California Horned Lizard – Status: Federal Species of Concern, California Special Concern

A subspecies of the coast horned lizard (*Phrynosoma coronatum*), the California horned lizard is found in the Central Valley and along the coast from north of San Francisco Bay to the Los Angeles area. It occurs in several habitat types including grasslands, chaparral, and riparian areas. Open habitats are preferred, and optimal habitat features include sandy areas, washes, and flood plains (Zeiner *et al* 1988).

Burrowing into loose soil provides the California horned lizard with refuge from predators and extreme temperatures. It will also take refuge in mammal burrows, crevices, or under rocks or logs. Winter hibernation and periods of inactivity take place in burrows or other covered refuge. It is active between April and October. Its diet consists of ants and other insects including beetles, grasshoppers, wasps, and flies.

The California horned lizard was not observed during general surveys of the project area. Five occurrences are recorded in the CNDDDB (2003) for this species in Santa Barbara County, including one from Vandenberg Air Force Base and another from an area 7.24 kilometers (4.5 miles) north of Lompoc. The other three occurrences are from the northern portion of the county, two near the town of Sisquoc and one near the town of Orcutt.

There is the potential for the California horned lizard to occur in each of the habitats within the project area. Most of the project area is very densely vegetated and this species does prefer open areas, but microhabitats of relatively open areas and loose soil are potentially present throughout the project area.

Two-striped Garter Snake – Status: California Special Concern

The two-striped garter snake is a highly aquatic species that is found from Monterey County south to Baja California along the Coast, Transverse, and Peninsular ranges. It is typically associated with streams that are bordered by willow thickets or other dense riparian growth. It can also be found in association with ponds, lakes, and wetlands. Small mammal burrows are used for overwintering. This snake feeds primarily upon fish, fish eggs, amphibians, and amphibian larvae. Jennings and Hayes (1994) describe this species as being “rarely found far from water.”

The two-striped garter snake was not observed during general surveys of the project area, but it is known to occur in Gaviota Creek. Thirteen occurrences are recorded in the CNDDDB (2003) for this snake in Santa Barbara County, including one from Gaviota Creek in the vicinity of Gaviota Pass. Another local occurrence is from the San Antonio Creek on Vandenberg Air Force Base.

In addition to Gaviota Creek, all wetlands within the project area provide potential two-striped garter snake habitat. Cañada Alcatraz also contains potential habitat, but there is a low potential for the snake to occur here. Its aquatic habitat value is limited by the development at the Gaviota Marine Terminal.

California Brown Pelican – Status: Federal Endangered, State Endangered, Department of Fish and Game Fully Protected

A subspecies of the brown pelican (*Pelecanus occidentalis*), the California brown pelican is a subspecies breeds on islands along the coast from Baja California to West Anacapa and Santa Barbara Islands and islands in the Gulf of California. Nests are normally built on the ground on undisturbed islands where ground-dwelling predators are absent. Non-breeding California brown pelicans can be found along the Pacific Coast from the Gulf of California to southern British Columbia. Fish are the primary food source of the brown pelican. Important non-breeding habitat includes roosting and loafing sites, which provide resting habitat for breeding and non-breeding pelicans. Roosting and loafing sites can include offshore rocks, river mouths, mudflats, sandy beaches, wharfs, and jetties.

Several California brown pelicans were observed flying over the Gaviota State Park coastline in June of 2003. This species breeds on the Channel Islands off the coast of Santa Barbara County.

Although pelican nesting habitat is not present in the project area, the Gaviota Creek mouth provides potential roosting habitat. No other potential roosting and loafing sites are present in the project area.

Northern Harrier – Status: California Special Concern

The northern harrier is found in meadows, grasslands, rangelands, agricultural areas, desert sinks, and fresh and saltwater wetlands. It preys primarily upon voles and other small mammals, but it also takes small birds, reptiles, amphibians, and insects. Nests are built on the ground or in a low shrub often in emergent wetlands or along rivers or lakes, but they can also be located several miles from water. The nests are typically sited in dense, low vegetation that provides cover and a visual barrier. The northern harrier breeds from April through September (Zeiner *et al* 1990).

The northern harrier was not observed during general surveys of the project area. According to Lehman (1994), this species breeds along the northern coast of Santa Barbara County, but it is considered a transient and winter visitor along the coast south of Point Conception, where it is usually present between September and March. The grassland and coastal scrub habitats within the project area provide potential breeding habitat for the northern harrier.

White-tailed Kite – Status: Federal Species of Concern, Department of Fish and Game Fully Protected

The white-tailed kite is found in the herbaceous and open stages of many habitats. It breeds in lowland grasslands, agricultural areas, wetlands, oak-woodlands, and riparian areas associated with open areas. Voles and other small mammals are the kite's primary prey, and it also takes birds, amphibians, reptiles, and insects. Nests are built near the top of a tree, often in a dense tree stand that is located near an open foraging area. Breeding occurs from February to October (Zeiner *et al* 1990). During the non-breeding season, white-tailed kites use communal roost sites.

Although specific white-tailed kite surveys were not conducted for this project, a pair of white-tailed kites was observed in April 2004 foraging over the grassland just west of Cañada del Barro. The white-tailed kite is known to breed and to roost communally during the non-breeding season in the Goleta Valley. Kites have also been found regularly in the Santa Maria and Lompoc Valleys (Lehman 1994).

The potential exists for the white-tailed kite to breed in the eucalyptus and riparian habitats as well as any other tree stand within the project area.

Burrowing Owl – Status: Federal Species of Concern, California Special Concern

The burrowing owl primarily inhabits grasslands, but it is also found in agricultural areas and other areas that have been altered by human disturbance. It preys upon arthropods, small rodents, birds, amphibians, and reptiles. The owl's specific habitat features include short grass with only sparse taller vegetation or shrubs and the presence of burrows. Burrows are

used for roosting and nesting. Ground squirrel (*Spermophilus* sp.) and prairie dog (*Cynomys* sp.) burrows are commonly used, but coyote dens and man-made culverts and pipes can also be used. This species is semi-colonial, and breeding takes place from March through August (Zeiner *et al* 1990).

The burrowing owl was not observed during surveys of the project area. The first phase of the burrowing owl survey, a habitat assessment, determined that potential owl habitat existed in the grasslands of the project area. The second phase of the survey, a survey for burrows and owls, determined that owls, owl sign, and suitable burrows were all absent from the project area. Elsewhere in Santa Barbara County, Lehman (1994) documented this owl nesting in fields west of Santa Maria and at Vandenberg Air Force Base. He also noted that transient and wintering birds have been found at Vandenberg Air Force Base, Point Conception, the Hollister Ranch, the Santa Ynez Valley, Goleta, and east of Gaviota.

The grasslands in the project area provide potential burrowing owl habitat, but that potential is reduced by their dense, tall, and weedy nature. In addition, ground squirrels were not observed in the project area, and suitable burrows were absent.

Loggerhead Shrike – Status: Federal Species of Concern, California Special Concern

The loggerhead shrike inhabits shrublands or open woodlands including desert scrub, pinyon-juniper woodlands, chaparral, riparian areas, and oak savannahs. Tall shrubs, trees, fences, or other perch sites are required habitat features. The shrike hunts in open areas of short grasses, forbs, or bare ground; and it often impales prey on branches, thorns, or barbed-wire fences. It feeds upon arthropods, reptiles, amphibians, small rodents, and birds. Nests are built in shrubs or trees, and breeding occurs from March through August (Zeiner *et al* 1990).

The loggerhead shrike was not observed during general surveys of the project area. Lehman (1994) considered this shrike to be a rare breeder between Point Conception and Gaviota, and an uncommon to fairly common transient and winter visitor along the Santa Barbara County coast south of Point Conception.

There is the potential for the loggerhead shrike to breed in the coastal scrub and riparian habitats within the project area.

California Horned Lark – Status: California Special Concern

A subspecies of the horned lark (*Eremophila alpestris*), the California horned lark breeds along the coastal region of California and the San Joaquin Valley from Sonoma County south to Mexico. It breeds in grasslands, agricultural fields, sparse shrublands, and in areas of bare ground, including sand dunes. Seeds and insects comprise the majority of its diet. The horned lark nests on the ground in bare areas, and it breeds from March through July (Zeiner *et al* 1990).

Specific California horned lark surveys were not conducted for this project, but this species was observed in the project area in the grassland just west of the Gaviota Marine Terminal in April 2004. Lehman described this lark as local and declining as a breeder on the coast of Santa Barbara County south of Point Conception (1994). He did note however, that it was a

fairly common to common transient and winter visitor in this area, being most numerous in the area west of Gaviota. He documented its breeding in the Santa Maria, Lompoc, Santa Ynez, and Cuyama valleys, but found it to be uncommon during the breeding season along the coast east of Gaviota.

The grasslands within the project area provide potential habitat for breeding California horned larks.

Yellow Warbler – Status: California Special Concern

The yellow warbler predominantly breeds in riparian vegetation in close proximity to water, but it will also breed in more xeric shrub fields, including montane chaparral habitats. Nests are built in trees or shrubs, and breeding occurs from April through August (Zeiner *et al* 1990). Insects and spiders comprise the majority of its diet.

The yellow warbler was not observed during general surveys of the project area. In Santa Barbara County, Lehman (1994) noted that breeding yellow warblers primarily occupied riparian woodlands containing willow (*Salix* spp.), black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), fremont cottonwood (*Populus fremontii*), California bay (*Umbellularia californica*), big-leaf maple (*Acer macrophyllum*), California sycamore (*Platanus racemosa*), or white alder (*Alnus rhombifolia*). Small numbers were documented breeding in some of the foothill canyons and riparian areas along the coast south of Point Conception. The greatest numbers of breeding yellow warblers on the Santa Barbara County coast were found along the Santa Ynez River and at the Barka Slough (Lehman 1994).

There is the potential for the yellow warbler to breed in the riparian and coastal scrub habitats within the project area.

San Diego Desert Woodrat – Status: California Special Concern

A subspecies of the desert woodrat (*Neotoma lepida*), the San Diego desert woodrat occurs throughout southern California and Baja California. It is found in a variety of shrub and desert habitats, including coastal sage scrub, chaparral, and grassland, and it is often associated with rock outcroppings, boulders, or cacti. Twigs, sticks, rocks, and other materials are used to build dens or houses, which are used for nesting, food caching, and as a refuge from predators. It feeds upon plant leaves, buds, shoots, seeds, fruit, and bark.

The range and habitats of the desert woodrat overlap with that of the dusky-footed woodrat (*Neotoma fuscipes*). Although both species can be found in the same habitat, the dusky-footed woodrat is the dominant species in more mesic habitats, and the desert woodrat is the dominant species in drier habitats. While dusky-footed woodrats often build their houses above ground, the San Diego desert woodrat prefers to build its house in crevices or cracks in the ground or in rock outcrops (P. Collins, personal communication, February 9, 2004).

The San Diego desert woodrat was not observed during general surveys of the project area. Five occurrences are recorded in the CNDDDB (2003) for this woodrat in Santa Barbara County, all of them along the Gaviota Coast to the east of the project area. The closest occurrence to the project area is 1.4 kilometers (0.9 mile) east of Cañada San Onofre.

The grassland and coastal scrub habitats within the project area provide potential habitat for the San Diego desert woodrat.

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, fish passage, and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed above under the Special Status Species heading.

Within Gaviota State Park, the project area is occupied by a diversity of natural communities and habitats. The proposed trail begins in a willow riparian zone bordering Gaviota Creek. Continuing east, the upland habitats are composed of grassy terraces separated by drainages dense with coastal sage scrub. The grassy terraces support a diversity of vegetation dominated by nonnative annual grasses and forbs. Some large open patches of native perennial grassland, dominated by purple needlegrass (*Nassella pulchra*) are also present here. The large open grassland just east of Depot Road is the former site of a Texaco facility. This facility was removed and the area was restored with native vegetation in 1995. A large upland open area with deep clay soils just east of Gaviota creek is heavily dominated by dense ruderal vegetation, including black mustard (*Brassica nigra*), bristly ox-tongue (*Picris echioides*), and Italian thistle (*Carduus pycnocephalus*).

The majority of the Gaviota Marine Terminal is developed and paved. A dense eucalyptus grove is located on the west edge of the terminal within the Cañada del Cementerio drainage, and a smaller eucalyptus grove is located to the east of the terminal.

Natural Communities and Dominant Plant Species

The project area supports several natural communities, including nonnative annual grassland, native perennial grassland, coastal sage scrub, willow riparian (southern willow scrub), and southern coastal salt marsh. The area also supports wetlands, ruderal weedy fields, and eucalyptus groves. Of these communities, native perennial grassland and southern willow scrub are considered sensitive and worthy of consideration by the California Natural Diversity Database (CNDDDB 2003, Sawyer and Keeler-Wolf 1995). Native grassland and coastal sage scrub communities are protected within the Santa Barbara County Local Coastal Plan (1982).

Nonnative annual grasslands occupy most of the grassy fields in the project area. These grasslands are dominated by European annual grasses such as soft chess (*Bromus hordeaceus*), wild oats (*Avena barbata* and *A. fatua*) annual ryegrass (*Lolium multiflorum*), ripgut brome (*Bromus diandrus*), annual fescues (*Vulpia bromoides* and *V. myuros*), and occasional annual native and nonnative forbs. Common annual forbs found within this area

include filaree (*Erodium cicutarium*), blue-eyed grass (*Sisyrinchium bellum*), scarlet pimpernel (*Anagallis arvensis*), and others. The annual grasslands are also occupied by scattered encroaching shrubs and subshrubs in some areas, including coyote brush (*Baccharis pilularis* ssp. *consanguinea*), coast gumplant (*Grindelia camporum*), sawtooth goldenbush (*Hazardia squarrosa*), and California buckwheat (*Eriogonum fasciculatum*).

Native grasslands occupy patchy areas of the coastal terrace in the project area. These are dominated by the sole native perennial, purple needlegrass, with a scattering of wild oats, soft chess, annual fescues, and occasional riggut brome. Purple needlegrass is also found commonly near the edges of the coastal sage scrub. Common forbs such as filaree (*Erodium* spp.), blue-eyed grass, and scarlet pimpernel can also be found here. Where purple needlegrass is present, it is often dense, dominating up to 80% of a selected field. In more degraded grasslands, it was found to be nearer 10% or less of the total grassland cover.

Dense coastal sage scrub occupies most of the drainages in the project area. These areas are co-dominated by coyote bush and California sagebrush (*Artemisia californica*). A mix of associate species are scattered in the understory. These associates include golden yarrow (*Eriophyllum confertiflorum*), California bee plant (*Scrophularia californica*), California coffeeberry (*Rhamnus californica*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), and occasionally California buckwheat (*Eriogonum fasciculatum*).

The riparian zone that occupies the portion of the Gaviota Creek floodplain that is within the project area is described as willow riparian. The willow riparian vegetation is primarily composed of southern willow scrub, and it includes smaller patches that could be described as southern cottonwood-willow riparian forest. These natural communities intergrade in the Gaviota Creek floodplain. The riparian willow scrub zone is dominated by arroyo willow (*Salix lasiolepis*), with associated species including sandbar willow (*Salix exigua*), red willow (*S. laevigata*) and mule fat (*Baccharis salicifolia*). Scattered cottonwoods (*Populus* sp.) and sycamores (*Platanus racemosa*) are also found in this area. Understory shrubs and herbs include mugwort (*Artemisia douglasiana*), coyote brush, mule fat, wild cucumber (*Marah fabaceus*), and nettles (*Urtica holosericea*). There are also several large patches of hottentot fig (*Carpobrotus edulis*) within the Gaviota Creek floodplain.

Small wetland zones, described as southern coastal salt marsh, occupy the edges of Gaviota Creek. Adjacent to the Gaviota Creek lagoon, these wetlands are dominated by native halophytes, including fleshy jaumea (*Jaumea carnosa*), alkali heath (*Frankenia salina*), and saltgrass (*Distichlis spicata*). This area transitions to forested wetlands. Spiny rush (*Juncus acutus* ssp. *leopoldii*) and salt marsh baccharis (*Baccharis douglasii*) occur here, as well as exotic New Zealand spinach (*Tetragonia expansa*) (DPR 1991).

Several weedy (or ruderal) areas are also present within the Gaviota Creek floodplain. Scattered pepper trees (*Schinus molle*), tree tobacco (*Nicotiana glauca*), black mustard, and hottentot fig are found here in addition to coyote brush. This area has been disturbed by flood depositional events, a former campground leach field, and the former farming operation. Additional weedy areas in the project area include the ruderal field on the first terrace east of

Gaviota Creek. This field is extensively dominated by dense mustard (*Brassica nigra* and *B. geniculata*), Italian thistle, and bristly ox-tongue, along with scattered nonnative annual grasses, including wild oats, annual ryegrass, and soft chess.

Natural Communities of Special Concern

A natural community can be defined as a distinct and recurring assemblage of populations of plants, animals, fungi and microorganisms that are naturally associated with each other and their environment. Natural communities of special concern are communities that are naturally rare, have been substantially diminished by human activities, or are protected by state or federal laws and policies.

Vegetation communities or habitats may also be considered sensitive biological resources if they have limited distributions, have high wildlife value, support significant sensitive species, or are particularly susceptible to disturbance. Impacts to sensitive natural communities may have the potential to contribute to declines in the regional distribution and viability of species. They may also increase threats to populations of rare, threatened, or endangered species, or diminish populations of sensitive species to the point where they could become candidates for special-status listing.

The following communities are listed as sensitive in the California Natural Diversity Database (CNDDDB 2003) for the Santa Barbara region: Southern California Steelhead Stream, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Vernal Pool, Southern Willow Scrub, and Valley Needlegrass Grassland. These natural communities are considered sensitive and worthy of consideration by the California Natural Diversity Database (CNDDDB 2003, Sawyer and Keeler-Wolf 1995).

Of these communities, three are found in the project area: Southern California Steelhead Stream, Southern Willow Scrub, and Valley Needlegrass grassland. Native perennial grasslands and coastal sage scrub are additionally considered Environmentally Sensitive Habitat Areas under the Santa Barbara County LCP (1982), and should be conserved under CEQA and the California Coastal Act Thresholds of Significance.

The remaining sensitive natural communities listed for the region (Southern Coast Live Oak Riparian Forest and Southern Vernal Pool) do not occur within the project area. Southern Cottonwood Willow Riparian Forest occurs north of Gaviota Beach Road and will not be affected by this project.

Migration Corridors & Southern California Steelhead Stream

Gaviota Creek and its associated riparian area provide a potential migration corridor for anadromous fish and migratory birds. The creek's riparian corridor also provides a potential stopover area for migratory birds. The anadromous fish potentially using Gaviota Creek as a migration corridor is the southern steelhead trout. Southern California steelhead streams are streams that support southern steelhead and provide suitable spawning habitat.

The riparian vegetation associated with Gaviota Creek in the vicinity of the project area consists primarily of even-aged willows approximately 3.5 meters (11.5 feet) in height.

Understory vegetation is sparse and includes some mule fat and mugwort. Gaviota Creek and its tributaries are potential southern California steelhead streams. The southern steelhead is known to occur in Gaviota Creek.

Southern Willow Scrub

Southern willow scrub vegetation is found within the Gaviota Creek floodplain north of the Gaviota State Park Campground and east of Gaviota Beach Road. This vegetation community is influenced by its proximity to Gaviota Creek and by soils deposited during frequent flooding events. It provides cover for a number of wildlife species. This vegetation type is dominated by several willow species, primarily arroyo willow, with scattered emergent cottonwood and sycamores. Understory species consist of native shrubs and forbs such as mulefat, mugwort, and nettles.

Southern willow scrub habitat is present in the Gaviota creek floodplain. This area is dominated primarily by even-aged willows and an open understory of native shrubs and forbs such as mugwort and mulefat.

Purple Needlegrass Grassland

Purple needlegrass grassland (described as valley needlegrass grassland in the CNDDDB) is found scattered throughout the grasslands in the project area. These sites are heavily dominated by one native perennial grass species common to the area, purple needlegrass. In many areas, cover is greater than 80%. These sites are considered sensitive by the CNDDDB (2003) and the Santa Barbara County LCP (1982). The Santa Barbara County LCP designates areas of greater than 0.25 acre with greater than 10% of native perennial grass cover as Environmentally Sensitive Habitat Areas (ESHA).

A total of approximately 8.45 hectares/20.88 acres of purple needlegrass grassland (consisting of grassland with >10 % cover of purple needlegrass) is present within the vicinity of the project area.

Coastal Sage Scrub

Coastal sage scrub is found commonly along coastal bluffs and farther inland on the central coast. At Gaviota State Park, this vegetation is strongly dominated by coyote brush and California sagebrush. A number of common subshrubs and forbs are scattered throughout the understory. These include sawtooth goldenbush, poison oak, and coastal gum plant. Black sage is found on south-facing slopes. Other associates include California coffeeberry (*Rhamnus californica*), lemonade berry (*Rhus integrifolia*), sticky monkey flower and giant ryegrass (*Leymus condensatus*).

Coastal sage scrub vegetation is dense throughout all the intermittent drainages in the project area, and is also found near parts of Gaviota Creek. A total of approximately 27.59 hectares (68.15 acres) of coastal sage scrub is found in the vicinity of the project area.

Wildlife Habitats and Common Animal Species

Habitats are described here according to the California Wildlife-Habitat Relationship System (Mayer and Laudenslayer 1988). The project area includes annual grassland, coastal scrub,

eucalyptus, valley foothill riparian, estuarine, and barren habitats. Each habitat does not necessarily directly correspond to only one natural community. Natural communities that occur only as small pockets in the project area are considered a part of the larger habitat that borders them. The project area's habitat types correspond to the natural communities as follows: annual grassland habitat includes the non-native annual grassland, native perennial grassland, ruderal weedy field, and wetland communities; coastal scrub habitat consists of the coastal sage scrub community; eucalyptus habitat consists of the eucalyptus community; valley foothill riparian habitat consists of the willow riparian, wetland, and coastal salt marsh communities; barren habitat has no natural community analogue, but where it consists of roads and buildings it is described as disturbed; and estuarine habitat has no natural community analogue.

The annual grassland habitat at this location is actually a mix of annual, perennial, native, and exotic plant species. Native species include purple needlegrass, California cottonrose (*Filago californica*), and owl's clover (*Castilleja* sp.). The exotic species include veldt grass (*Ehrharta calycina*), slender wild oats (*Avena barbata*), soft chess, and mustard (*Brassica* sp.). The grasslands are densely vegetated, and they occur to some extent in between all of the drainages.

Annual grassland habitat provides breeding and foraging grounds for many wildlife species. Reptile species that are characteristic to this habitat type include the western fence lizard (*Sceloporus occidentalis*) and western rattlesnake (*Crotalus viridis*). Common bird species that either breed or forage in annual grasslands include the horned lark (*Eremophila alpestris*), western meadow lark (*Sturnella neglecta*), American kestrel (*Falco sparverius*), and white-tailed kite (*Elanus leucurus*). Typical mammal species include the California ground squirrel (*Spermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), and western harvest mouse (*Reithrodontomys megalotis*).

Coastal scrub habitat is found in association with most of the drainages in the project area. This habitat is very densely vegetated and is primarily dominated by coyote brush. Other typical plant species include California sagebrush, black sage (*Salvia mellifera*), poison oak, monkey flower (*Mimulus aurantiacus*), and giant wild rye (*Leymus cinereus*). Understory species are comprised of the common species from the neighboring grasslands.

Coastal scrub habitats generally support numbers of wildlife species comparable to surrounding habitats. Reptile species that can be found in this habitat type include the western fence lizard, side-blotched lizard (*Uta stansburiana*), and gopher snake (*Pituophis melanoleucus*). Common bird species include the wrentit (*Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), California quail (*Callipepla californica*), and bushtit (*Psaltriparus minimus*). Mammal species that can be found in coastal scrub habitat include dusky-footed woodrat (*Neotoma fuscipes*), California pocket mouse (*Perognathus californicus*), brush rabbit (*Sylvilagus bachmani*), and coyote (*Canis latrans*).

The eucalyptus habitat in the project area occurs primarily in and around the Gaviota Marine Terminal and is found primarily in association with one of the drainages (Cañada del Cementerio). This habitat is dominated by blue gum (*Eucalyptus globulus*), and it ranges from a dense eucalyptus grove with a closed canopy and very little to no understory species to more

widely spaced trees with understory species from the neighboring grasslands.

Eucalyptus habitat provides roost, perch, and nest sites for a number of bird species including American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), barn owl (*Tyto alba*), and red-tailed hawk (*Buteo jamaicensis*). Other species common to eucalyptus habitats include gopher snake, southern alligator lizard (*Elgaria multicarinata*), and dusky-footed woodrat.

The valley foothill riparian habitat in the project area is primarily found in association with Gaviota Creek. It is dominated by willows (*Salix* sp.) and has a sparse understory, which includes mulefat and mugwort.

Valley foothill riparian habitat provides food, water, cover, and movement corridors for many species of wildlife. Amphibian and reptile species that are common to this habitat type include the pacific chorus frog (*Pseudacris regilla*), common garter snake (*Thamnophis sirtalis*), and side-blotched lizard. Typical bird species include the song sparrow (*Melospiza melodia*), western scrub-jay (*Aphelocoma californica*), dark-eyed junco (*Junco hyemalis*), and bushtit. Mammal species common to this habitat type include the dusky-footed woodrat, raccoon (*Procyon lotor*), Virginia opossum (*Didelphis marsupialis*), and striped skunk (*Mephitis mephitis*).

Estuarine habitats are partly-enclosed coastal bodies of water where tidal seawater is diluted by fresh water from inland rivers and creeks. Estuarine habitat is found at the Gaviota Creek lagoon.

Bird species that are commonly found in estuarine habitats include the American coot (*Fulica americana*), ruddy duck (*Oxyura jamaicensis*), and double-crested cormorant (*Phalacrocorax auritus*). Common fish species include the Pacific lamprey (*Lampetra tridentate*), California killifish (*Fundulus parvipinnis*), threespine stickleback (*Gasterosteus aculaeatus*), prickly sculpin (*Cottus asper*), topsmelt (*Atherinops affinis*), shiner surfperch (*Cymatogaster aggregate*), staghorn sculpin (*Leptocottus armatus*), striped mullet (*Mugil cephalus*), and western mosquitofish (*Gambusia affinis*).

Barren habitat is identified by the absence of vegetation and can include paved and unpaved roads, trails, and parking lots as well as structures, cliff faces, and sandy beach. The narrow, bluff-backed beach, the bluffs, and the pavement and structures (most of which are located at the Gaviota Marine Terminal) in the project area can be described as barren habitat.

Barren sandy beaches offer a roosting site for shorebirds and seabirds including the sanderling (*Calidris alba*), black-bellied plover (*Pluvialis squatarola*), California gull (*Larus californicus*), western gull (*Larus occidentalis*), and brown pelican (*Pelecanus occidentalis*). Barren bluff faces provide nesting habitat for the cliff swallow (*Petrochelidon pyrrhonota*) and turkey vulture (*Cathartes aura*).

Migration Corridors

Creeks and their associated riparian corridors provide migration corridors for anadromous fish species, migratory songbirds, and other wildlife species. In addition to serving as migration corridors between coastal and inland mountain habitat, riparian corridors can also provide important stopover areas for migrating birds to rebuild energy and nutrient reserves. Gaviota Creek supports riparian habitat, which provides a potentially suitable migration corridor or stopover area for migratory songbirds. The creek also provides a potentially suitable migration corridor for anadromous fish. The other drainages in the project area do not support the aquatic or riparian habitats that might provide migration corridors.

U.S. Route 101 and the Southern Pacific Railroad bisect this section of the coast and cross each of the coastal drainages. Culverts can impede fish passage and block the migration of anadromous fish. Each of the drainages in the project area passes through a culvert under U.S. Route 101, and all except for Gaviota Creek have less than approximately 0.37 kilometer (0.23 mile) between their outlet and the highway. Gaviota Creek has approximately 2.3 kilometers (1.4 miles) between its outlet and U.S. Route 101, but this creek is also crossed by the Gaviota Beach Road approximately 0.5 kilometer (0.3) mile upstream from its mouth. Several of the project area's drainages also pass through a culvert under the railroad tracks (Cañada del Barro, an unnamed drainage, Cañada del Leon, and Cañada San Onofre), and Cañada Alcatraz passes through several culverts under three separate road crossings between the highway and its outlet.

Aquatic Resources

The drainages in the project area comprise its aquatic resources, but the majority of these drainages remain relatively dry for most of the year. The five drainages in between Gaviota Creek and Cañada San Onofre are crossed by the proposed trail. From west to east, these small ephemeral drainages are Cañada del Barro, an unnamed drainage, Cañada del Cementerio, Cañada Alcatraz, Cañada del Leon. Pools were present in Cañada Alcatraz in September of 2003 after a dry summer, which suggests that this drainage also supports some levels of water year-round. The largest of these pools was approximately 6 meters by 1.5 meters (20 feet by 5 feet) and 0.5 meters (1.5 feet) deep. Gaviota Creek is a much larger drainage than those that are crossed by the proposed trail. Gaviota Creek comprises the only substantial aquatic habitat in the project area. It is not crossed by the proposed trail.

The Gaviota Creek estuary is a seasonally open tidal lagoon. The upstream boundary of the lagoon can generally be delineated by the Gaviota Beach Road crossing. This lagoon is essentially mixosaline, and it ranges from freshwater during and immediately after floods to mesosaline conditions after extended periods of closure. Even when the lagoon is open to the tide, tidal exchange is limited by the elevation of the majority of the lagoon volume (DPR 1991). The lagoon substrate is primarily sand, but cobbles, boulders and some bedrock are also found in the upper approximate one-half of the lagoon. Beds of ditchgrass (*Ruppia* sp.) comprise the lagoon's aquatic vegetation. The lagoon's depth and width vary seasonally.

WETLANDS AND WATERS OF THE UNITED STATES

Several drainages occur in the project area that meet the criteria for jurisdictional Waters of the U.S. and are, therefore, regulated by the USACE. There will be permanent impacts to waters of the U.S. under USACE jurisdiction and State jurisdictional wetlands within the project area.

The DFG regulates lake, river, and stream beds and banks in addition to the habitat associated with those water bodies in California. Riparian habitat along Gaviota Creek was mapped in the general project area, and consists primarily of willow scrub vegetation. These areas are dominated by arroyo willow, and there are patches of riparian woodland vegetation dominated by sycamores and black cottonwood. This area overlaps the previously mentioned “Southern willow scrub” natural community. This natural community may support a number of sensitive wildlife species.

Wetlands which are under the CCC jurisdiction were present in some of the coastal terraces in the project area. Wetland hydrology and hydric soils were found in these areas which were found in wet meadows, swales, and some ruderal zones. Vegetation primarily consisted of wet meadow grasses and forbs, and weedy vegetation in some areas. Vegetation found in these areas may be “facultative” species which are tolerant of wetland conditions but can also survive in non-wetland upland zones.

INVASIVE SPECIES

Parts of Gaviota State Park were disturbed historically due to past sheep and cattle grazing, the construction and realignment of U.S. Route 101, and the developments of the Gaviota Marine Terminal and the former Texaco Oil and Gas plant. The various levels of disturbance have contributed to the presence of weedy species in selected areas.

Exotic trees are found scattered in the project area, primarily near the Gaviota Creek floodplain, in some of the drainages, and near the Gaviota Marine Terminal, and the former Texaco plant site. These species include myoporum (*Myoporum laetum*), Brazilian pepper tree, and tree tobacco and were planted in conjunction with development. In the field just east of Gaviota creek, clay soils may have additionally contributed to an extensive dense thatch of black mustard (*Brassica nigra* and *B. geniculata*), bristly ox-tongue, and Italian thistle, which dominate the entire field. Weeds are common throughout the project area. These include telegraph weed (*Heterotheca grandiflora*), English plantain (*Plantago lanceolata*), and Italian thistle. Many grasslands are dominated by European annual grasses, including wild oats, soft chess and ripgut brome. There are occasional patches of fountain grass (*Pennisetum villosum*) near developed roads and trail edges. Isolated patches of hottentot fig are present in the Gaviota Creek floodplain, and towards the southern extent of the trail. Poison hemlock (*Conium maculatum*) is also found within the Gaviota creek floodplain. Common weedy forbs found throughout the project area in grasslands include Australian saltbush (*Atriplex semibaccata*), Fascicled tarweed (*Hemizonia fasciculata*), tocalote (*Centaurea melitensis*), and sweet fennel (*Foeniculum vulgare*). Finally, there are dense thickets of invasive veldt grass (*Erharta calycina*) found to the south of the marine terminal.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the 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, or regulations, or by the California Department of Fish and Game or the U.S. 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 §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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

a) Gaviota tarplant

The entire project is within critical habitat for Gaviota tarplant, as described in Section IV: Biological Resources. The Biological Assessment (BA) prepared for this project (Hubert and Palkovic 2004) identified three categories of impacts to the Gaviota tarplant: permanent, temporary, and indirect. Indirect impacts are defined as potential effects occurring from horse, bicycle, or foot traffic, runoff, and erosion in areas between the two parallel trail elements. Indirect impacts are likely to be ongoing during the life of the trail, and measures are proposed to minimize these to the maximum extent possible.

A total of 3.29 acres of permanent impacts, 5.12 acres of temporary impacts, and 1.77 acres of indirect impacts would occur within USFWS-designated Critical Habitat from project implementation. Within areas identified as occupied Gaviota tarplant habitat 3.87 acres would be affected, including 1.15 acres of permanent impacts, 2.10 acres of temporary impacts, and 0.61 acres of indirect impacts.

Additional areas capable of supporting Gaviota tarplant have been identified and mapped during surveys conducted in May 2007. With adoption of a minor design change and more refined and accurate mapping techniques, the project's anticipated permanent impacts in tarplant habitat now total 0.81 acres; temporary impacts, 0.85 acres; and indirect impacts, 1.0 acres. However, as stated in the Biological Assessment, most of the area affected by the project consists of vegetation types incapable of or unlikely to support Gaviota tarplant, such as willow riparian, dense coastal sage scrub, ruderal vegetation, and eucalyptus stands.

DPR will perform compensatory mitigation for impacts to Gaviota tarplant habitat from project activities. "Gaviota tarplant habitat" includes known occurrences and areas with a potential to support tarplant. The proposed trail was designed to avoid occupied Gaviota tarplant habitat with the highest concentrations of individual plants. However, the Gaviota tarplant is an annual plant and its locations may vary from one year to the next.

b) Riparian Habitat and Wildlife Corridor

Approximately 0.19 ha (0.48 ac) of Gaviota Creek's riparian vegetation, consisting primarily of willows, will be permanently removed as a result of this project. In addition, although the proposed trail will not cross Gaviota Creek and the creek channel and creek banks will not be disturbed, staging and construction activities will come within approximately 18.5 m (60 ft) and 32 m (105 ft) of Gaviota Creek respectively. The proximity of construction to the creek could potentially impact water quality from hazardous material spills and/or increased sedimentation caused by erosion or during trail construction.

Southern Willow Scrub

0.19 ha (0.48 ac) of willow scrub habitat will be permanently impacted by the proposed trail construction. Impacts to willow scrub will be compensated through enhancement or restoration of existing weedy or degraded willow scrub habitat near Gaviota Beach Road and Gaviota SP campground. The primary goal of mitigation will be to ensure that no permanent loss of habitat value occurs as a result of the project.

Purple Needlegrass Grassland

0.30 hectares (0.74 acres) of purple needlegrass grassland will be permanently impacted by this project. 0.27 hectares (0.68 acres) of purple needlegrass grassland will be temporarily impacted by project activities including staging areas and temporary access roads. Up to 0.15 hectares (0.37 acres) of native grassland habitat could be affected by indirect impacts. The potential indirect impact area is located between the proposed horse and bicycle trail. Indirect impacts could potentially result from foot traffic, erosion, and runoff.

Coastal Sage Scrub

1.32 ha (3.27 acres) of coastal sage scrub will be permanently removed as a result of this project. 0.91 ha (2.24 ac) of coastal sage scrub will be temporarily impacted from project construction. 1.01 ha (2.49 ac) of coastal sage scrub could be indirectly impacted as a

result of the proposed coastal trail. These impacts may result from foot traffic, erosion, and/or runoff in the area between the horse trail and the bicycle trail.

c) Jurisdictional Waters and Wetlands

This project will permanently impact potential waters of the United States, and these impacts are listed in Table 1 below. No permanent or temporary impacts will occur in wetlands under U.S. Army Corps of Engineers jurisdiction.

Permanent and indirect impacts will occur in wetlands under CCC jurisdiction. These impacts are summarized in Table 2. This project will result in the permanent loss of 0.47 ha (1.18 ac) of wetlands within state jurisdiction, and it may potentially result in 0.47 ha (1.18 ac) of indirect impacts to wetlands.

Indirect impact to wetlands may result from foot, bicycle or horse traffic between the bicycle and horse recreational trails. Indirect impacts to wetlands may also result from the potential interruption or alteration of hydrologic conditions or the fragmentation of wetlands, which could disrupt gene flow and seed dispersal.

Table 1 Permanent and Temporary Trail Construction Impacts to Waters of the U.S. U. S. Army Corps of Engineers Jurisdiction.

Waters of the United States									
				Permanent impacts					
				ha	(acres)				
Total cut/fill				0.11	0.28				

Table 2 Permanent and Temporary Trail Construction Impacts to Wetlands under California Coastal Commission and Riparian Habitat under Department of Fish and Game Jurisdiction

Vegetation type									
		Permanent impacts		Indirect impacts		Temporary impacts			
		Ha	(acres)	ha	(acres)	ha	(acres)		
Willow riparian		0.19	0.48	0.03	0.08	0.04	0.09		
Wet meadow/swale		0.08	0.20	0.02	0.05	0.12	0.31		
Ruderal/wet		0.20	0.50	0.42	1.05	0.35	0.87		
Southern coastal salt marsh		No impacts		no impacts		no impacts			
Total impacts		0.47	1.18	0.47	1.18	0.51	1.27		

d) Implementation of Measures Bio-1 through Bio-5, Bio-11 and Bio-13 will ensure avoidance of significant impacts on resident or migratory fish or wildlife species, their migratory corridors, or nursery sites.

e,f) Monarch Butterfly

Thirty blue gum eucalyptus trees will be removed from the Cementerio overwintering site on the northern edge of the grove that is located on the south side of U.S. Route 101. These 30 trees are of various sizes: 3 have a 61 cm (24 in) dbh, 2 have a 45.7 cm (18 in) dbh, 1 has a 40.6 cm (16 in) dbh, 9 have a 30.5 cm (12 in) dbh, 3 have a 25.4 cm (10 in) dbh, 1 has a 22.9 cm (9 in) dbh, 2 have a 20.3 cm (8 in) dbh, 1 has a 12.7 cm (5 in) dbh, 1 has a 10.2 cm (4 in) dbh, and 7 have a 7.6 cm (3 in) dbh. One-hundred and nineteen additional eucalyptus trees that provide potential monarch aggregation sites within the Gaviota Marine Terminal but outside of the Cementerio overwintering site will be also be removed. Implementation of Minimization Measure **Bio-3** will minimize project-related impacts on the monarch butterfly by replacing trees removed in its overwintering site.

MINIMIZATION MEASURE BIO-1

- ◆ During construction activities all trash will be properly contained, removed from the worksite, and disposed of regularly. Following construction, all trash and construction debris will be removed from the site.
- ◆ Project boundaries and routes of travel will be clearly marked. Construction activities will be limited to the minimum area necessary for successful project completion.
- ◆ The location of construction access routes and staging areas will be limited to developed areas (including existing roads and parking areas) to the greatest extent possible.
- ◆ Excavated soil will only be deposited at designated sites; disposal sites will be separated from sensitive habitats by approved containment and erosion control methods.
- ◆ Prior to construction activities, a qualified biologist will conduct a training session for all construction personnel. This training will inform workers how to identify and avoid sensitive species and habitats, identify proper disposal of staff and construction debris, and proper response to fluid spill. Workers will be required to complete the training before they would be authorized to work in the project area.

MINIMIZATION MEASURE BIO-2

- ◆ A biological monitor qualified to identify California horned lizards, will walk in front of all ground disturbing equipment to search for California horned lizards. If horned lizards are found, they will be safely cleared from the path of the equipment.

MINIMIZATION MEASURE BIO-3

- ◆ The blue gum eucalyptus trees that will be removed from the Cementerio overwintering site will be replaced on-site (within the Cementerio grove) at a 1:1 ratio.
- ◆ Any eucalyptus tree removal from within the Cañada del Cementerio drainage will take place between September 16 and October 1 to avoid the monarch overwintering period and the breeding bird season.

MINIMIZATION MEASURE BIO-4

- ◆ The cutting and removal of native and non-native vegetation and man-made nesting substrates will occur between September 16 and January 31 to avoid the breeding bird season (this window for vegetation cutting and removal may be shortened due to seasonal restrictions established for the avoidance and minimization of impacts to other species). If subsequent construction activities are delayed for a period of 1 month following initial vegetation cutting and removal, weekly bird nest surveys will be conducted beginning 30 days prior to any planned disturbance of suitable nesting habitat (e.g. additional cutting and removal of vegetation) with the last survey being conducted no more than three days prior to the resumption of work affecting nesting habitat. If an active raptor nest is located, clearing and construction within 76 m (250 ft) will be postponed until the nest is vacated and juveniles have fledged. If an active nest of another native bird species is located, clearing and construction within 46 m (150 ft) will be postponed until the nest is vacated and juveniles have fledged.

MINIMIZATION MEASURE BIO-5

- ◆ Weekly white-tailed kite nest surveys will be conducted beginning at least 30 days prior to any tree removal that is scheduled to take place outside the planned period of September 15 and October 31. If an active nest is located, clearing and construction within 152 m (500 ft) will be postponed until the nest is vacated and juveniles have fledged.
- ◆ Limits of construction to avoid a nest will be established in the field with flagging and stakes or construction fencing. Construction personnel will be instructed on the sensitivity of the area.

MITIGATION MEASURE BIO-6

DPR will prepare and implement a comprehensive vegetation management plan that addresses impacts to the following sensitive plants and vegetation types:

- ◆ Gaviota tarplant
- ◆ Willow scrub riparian habitat
- ◆ Purple needlegrass grassland
- ◆ Coastal sage scrub

This plan will include mitigation and monitoring appropriate to each species or vegetation type and identify suitable plant materials, weed control, maintenance methods, a timeline, success criteria and contingency actions, and specific methods for monitoring and reporting. Post-construction monitoring will be conducted for a period of three years. Criteria specific to the sensitive plants and vegetation types listed above are described in Mitigation Measures Bio-7, Bio-8, Bio-9, and Bio-10.

MITIGATION MEASURE BIO-7

- ◆ Gaviota tarplant habitat will be re-established and enhanced onsite within Gaviota SP, at a ratio of 3 acres enhanced for each 1 acre permanently or temporarily impacted. Soils will be conserved, kept covered, and replaced in temporary impact zones after project activities. Indirect impact areas will be mitigated at a ratio of 1:1.
- ◆ In trail construction areas where fine sandy loam topsoil (of the Milpitas-Positas-Concepcion series) is present, topsoil will be salvaged, kept in a covered stockpile, and used to restore impacted areas, as approved by DFG and USFWS. Seed bank and soil salvage and replacement will occur on a 1:1 basis, and will be followed by weed control.
- ◆ Native grassland species typical to the local grasslands will be used for revegetation. Noxious weeds including exotic veldt grass will be aggressively controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan, which is described in Mitigation Measure Bio-6. Habitat restoration or replacement will be performed using methods acceptable to regulatory agencies. Mitigation sites will focus on areas where native perennial grassland is impacted by weeds or thatch, and areas of non-native annual grassland. All mitigation sites will be within Milpitas-Concepcion-Positas soil types.
- ◆ Mitigation and monitoring for Gaviota tarplant will be prepared and implemented according to the Vegetation Management Plan. Native grassland species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ The Vegetation Management Plan will outline the future management methods to be employed by DPR in tarplant habitat traversed by the proposed recreational trails. This would include enhancing high quality tarplant habitat, encouraging native grasses and forbs, and controlling non-native weeds such as veldt grass.

MITIGATION MEASURE BIO-8

- ◆ All trees that are removed from within 30 m (100 ft) of the Gaviota Creek riparian corridor will be replaced with native riparian species at a 3:1 ratio within the Gaviota Creek riparian corridor.
- ◆ Willow scrub habitat will be re-established and enhanced within Gaviota SP, at a ratio of 3 acres of willow scrub habitat enhanced for each 1 acre permanently impacted. Habitat restoration or replacement would be performed using methods acceptable to regulatory agencies. Vegetation will be re-established and enhanced onsite using native plant species appropriate to the local site. Restoration will include planting native willow trees and understory species which comprise the willow scrub vegetative community. Restoration efforts will focus on removing weedy and marginal habitat now present near Gaviota Beach Road and the campground, and replacing with appropriate native willow scrub species.
- ◆ Mitigation and monitoring for willow scrub will be prepared and implemented according

to the Vegetation Management Plan. Native riparian species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.

- ◆ Non-native weeds will be controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan that is described in Mitigation Measure Bio-6.

MITIGATION MEASURE BIO-9

- ◆ Purple needlegrass grassland will be restored and enhanced onsite within Gaviota SP, at a ratio of 3 acres created for each 1 acre permanently impacted. Vegetation will be restored and enhanced onsite using native plant species appropriate to the site. For purple needlegrass grassland that occurs within Gaviota tarplant habitat, habitat will be restored to the specifications described in the Gaviota tarplant mitigation section.
- ◆ Mitigation and monitoring for purple needlegrass grassland will be prepared and implemented according to the Vegetation Management Plan. Native grassland species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ Non-native weeds will be controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan, which is described in Mitigation Measure Bio-6.
- ◆ Native vegetation barriers will be planted where appropriate on trail edges to discourage off- trail use and future impacts.

MITIGATION MEASURE BIO-10

- ◆ Coastal sage scrub will be restored and enhanced onsite within Gaviota SP, at a ratio of 1 acre for each 1 acre permanently impacted.
- ◆ Mitigation and monitoring for coastal sage scrub will be prepared and implemented according to the Vegetation Management Plan. Native coastal scrub species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ Non-native weeds will be controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan, which is described in Mitigation Measure Bio-6.
- ◆ Native vegetation barriers will be planted where appropriate on trail edges to discourage off-trail use and future impacts.

AVOIDANCE MEASURE BIO-11

- ◆ Prior to construction, environmentally sensitive areas (ESA) will be delineated on project plans and specifications. No construction activities will occur within ESA zones outside of the project boundary.
- ◆ ESA zones will include willow scrub, purple needlegrass grassland, coastal sage scrub, wetlands, and Gaviota tarplant habitat. These communities and habitats will be

separated from project construction activities by safety fencing. The fenced area around willow scrub vegetation and wetlands will include a buffer zone sufficient to avoid both direct and indirect impacts.

AVOIDANCE MEASURE BIO-12

- ◆ DPR will provide informational signage at the trailhead parking lot on Gaviota Beach Road identifying the sensitivity of natural resources bordering the California Coastal Trail – Gaviota Segment. The sensitivity of Gaviota Creek, which is habitat for endangered species such as tidewater goby and southern steelhead, will be emphasized. All visitors, including hikers, cyclists, and horseback riders will be informed of the need to stay on the trail to avoid harm to these sensitive areas and species.
- ◆ Areas along the trail identified as sensitive habitat, including the Gaviota Creek riparian zone and Gaviota tarplant habitat, will be protected by cable-and-post or other fencing measures after construction is complete.

MITIGATION MEASURE BIO-13

- ◆ State jurisdictional wetlands and riparian habitat will be re-established onsite within Gaviota SP. Wetland vegetation types and mitigation ratios are listed in Tables 3 and 4. Each vegetation type listed will be re-established using native plant species appropriate to the site.
- ◆ A wetland mitigation and monitoring plan will be prepared and implemented. This plan will include: plant materials, weed control, maintenance methods, a timeline, success criteria and contingency actions, and specific methods for monitoring and reporting. The mitigation and monitoring plan will include post-construction monitoring for the listed wetland types for a period of three years.
- ◆ Native vegetation barriers will be created where appropriate on trail edges to discourage off- trail use and future impacts.
- ◆ Mitigation sites will consist of areas within wetlands that are presently dominated by exotic plant species and where native vegetation is sparse or absent.
- ◆ Exotic vegetation will be removed from mitigation sites, as defined in the wetland mitigation and monitoring plan.

Table 3 Mitigation Area for Wetlands under California Coastal Commission and Department of Fish and Game Jurisdiction

<u>Vegetation type</u>	Permanent impacts		Indirect impacts		Mitigation ratios	Total mitigation area	
	Ha	(acres)	ha	(acres)		ha	(acres)
Willow riparian	0.19	0.48	0.03	0.08	3:1	0.57	1.44
Wet meadow/swale	0.08	0.20	0.02	0.05	3:1	0.24	0.60
Ruderal/wet	0.20	0.50	0.42	1.05	1:1	0.20	0.50
Southern coastal salt marsh	no impacts		no impacts				
Total	0.47	1.18	0.47	1.18		1.01	2.54

Table 4 Mitigation Area for Temporary Impacts to Wetlands under California Coastal Commission and Department of Fish and Game Jurisdiction

<u>Vegetation type</u>	Temporary impacts		Mitigation ratios	Total mitigation area	
	ha	(acres)		ha	(acres)
Willow riparian	0.04	0.09	1:1	0.04	0.09
Wet meadow/swale	0.12	0.31	1:1	0.12	0.31
Ruderal/wet	0.35	0.87	1:1	0.35	0.87
Southern coastal salt marsh	no impacts			no impacts	
Total	0.51	1.27		0.51	1.27

MINIMIZATION MEASURE BIO-14

- ◆ The cutting and removal of native and non-native vegetation and man-made nesting substrates will occur between September 16 and January 31 to avoid the breeding bird season (this window for vegetation cutting and removal may be shortened due to seasonal restrictions established for the avoidance and minimization of impacts to other species). If subsequent construction activities are delayed for a period of 1 month following initial vegetation cutting and removal, weekly bird nest surveys will be conducted beginning 30 days prior to the disturbance of suitable nesting habitat with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If an active raptor nest is located, clearing and construction within 76 m (250 ft) will be postponed until the nest is vacated and juveniles have fledged. If an active nest of another native bird species is located, clearing and construction within 46 m (150 ft) will be postponed until the nest is vacated and juveniles have fledged.
- ◆ Weekly white-tailed kite nest surveys will be conducted beginning at least 30 days prior to any tree removal that is scheduled to take place between September 15 and October 31. If an active nest is located, clearing and construction within 152 m (500 ft) will be postponed until the nest is vacated and juveniles have fledged.
- ◆ Limits of construction to avoid a nest will be established in the field with flagging and stakes or construction fencing. Construction personnel will be instructed on the sensitivity of the area.

V. CULTURAL RESOURCES.

REGULATORY SETTING

The term “cultural resources” as used in this document refers to historic and archaeological resources. In addition to the cultural resource provisions of CEQA, two primary federal laws guide the evaluation and preservation of historic and archaeological resources and traditional cultural properties:

The National Historic Preservation Act, as amended, (NHPA) sets forth national policy and procedures regarding "historic properties" – that is, districts, sites, buildings, structures and objects included on or eligible for the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on such properties, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). Because of the Federal Highway Administration’s involvement in the proposed project (through TEA grant funding), its potential effects on historic properties have been evaluated according to Section 106.

The Native American Graves Protection and Repatriation Act (NAGPRA) addresses the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to Native American human remains and certain cultural items with which they are affiliated, and directs federal agencies and federally assisted museums to identify and repatriate according to cultural affiliation, Native American human remains and related cultural items in holdings or collections under their possession or control.

Not all information about cultural resources can be fully disclosed to the public. This document includes discussion of resources that are important because of their potential to yield information about history or prehistory. Public disclosure of the locations of such resources is prohibited by law. This is to protect such sites from looters. The locations can be disclosed to qualified researchers and Native American representatives only.

ENVIRONMENTAL SETTING

The proposed project’s Area of Potential Effects (APE) as defined under Section 106 includes the trail alignment, the parking lot, culverts, retaining walls, access roads, and biological mitigation areas. The APE also includes staging areas for use during trail construction, as well as trailhead and trail termination areas with recreation amenities such as bicycle racks, hitching posts, benches and interpretive panels. Additionally, where the APE overlaps archaeological sites, the APE is delineated to encompass the entirety of each site. The APE was submitted to Caltrans for review and approval and is included in the Historic Property Survey Report prepared for this undertaking.

The project’s Area of Direct Impact (ADI) is about 20 feet wide. The depth of disturbance varies with the location of the trail and the topography. Seven archaeological sites have been documented in or near the project’s APE, and were evaluated relative to the proposed undertaking. These sites and their cultural context are described in detail in the technical reports cited in this section. The trail has been designed to avoid most of the sites entirely.

Where this is not possible, the trail will be located in areas within the site boundaries that DPR archaeologists have determined lack intact archaeological deposits.

Cultural Resource Studies

Following the Section 106 guidelines and Caltrans procedures, DPR completed archival research, consultation with Native American representatives, and an inventory of cultural resources in the APE. These are described in a Phase I archaeological inventory report (Bischoff and Dallas 2004) and a report on Extended Phase I subsurface archaeological testing conducted by DPR cultural resource specialists (Bischoff and Dallas 2005). DPR evaluated the qualities and significance of the archaeological and historical resources in the APE in a Phase II testing program conducted in 2005 and 2007 (Dallas, Bischoff and Sampson 2007).

Background Research

Research results compiled for this project come from a variety of primary and secondary sources. Numerous scholars and cultural resource management professionals have conducted studies for work at or near the cultural resources in Gaviota State Park. The most pertinent studies related to the proposed project come from two major oil pipeline investigations conducted in the 1980s in the project area and vicinity: the Chevron-Point Arguello Project and the Celeron/All American Pipeline Project.

These two projects are significant due to the number of sites examined in the park and within the vicinity of the current project area. The Celeron project suffers from a lack of comprehensive work conducted at the sites and the final report omitted many of the sites examined. The key reports include Erlandson *et al* (1993), Wylde (1986), Cooley and Santoro (1989), Cooley, Carrico, and Santoro (1987), and Lathrop (1951). One of the DPR cultural resource specialists for the current project was present for much of the aforementioned work and had primary knowledge of the methods, procedures, and conclusions of many of the listed studies.

DPR researchers obtained primary and secondary source material from a wide variety of archaeological data repositories and published reference material. These included the National Register of Historic Places (1974 and current updates); the California Inventory of Historic Resources (1976); *California Historic Landmarks* (DPR 1990); the Central Coast Information Center at University of California, Santa Barbara; *California Place Names* (Gudde *et al* 1998); Index to Historic and Archaeological Resources Owned by the California Department of Parks and Recreation (1998 and 2003 update); the Native American Heritage Commission (NAHC) and its Sacred Lands Inventory; El Presidio de Santa Barbara State Historic Park; and the Santa Barbara Museum of Natural History.

The project historian completed archival research at numerous repositories, to establish an historic context for the project vicinity and determine specific land-use activities occurring over time in the project area. These included: the Caltrans District 5 office in San Luis Obispo; the Caltrans Library in Sacramento; the California State Railroad Museum; the Santa Barbara County Surveyor Division office; Library of the Santa Barbara Historical Society; the Bancroft and Earth Sciences Libraries at the University of California (UC), Berkeley; the UC Santa Barbara Map-Imagery Laboratory and Special Collections Library; and the Central Coast

Information Center of the California Historical Resources Information System.

As a part of ongoing Native American consultation under Section 106, input was sought from the Santa Ynez Band of Mission Indians. This is the only federally recognized Chumash group in the area. In compliance with CEQA requirements for coordination with interested Native Americans, DPR obtained a list of Most Likely Descendants (MLDs) for the project vicinity from the NAHC. The individuals and groups identified on that list were contacted for input on the current project. Native American consultation was initiated during the project's Phase I archaeological research, and continued throughout the project's environmental analysis, including on-site monitoring of Phase I and II testing. Several individuals expressed interest in consultation. Respondents included the Santa Ynez Band of Mission Indians, Charles Parra, and Patrick Tumamait. Eleven notification letters were sent to the MLDs on the NAHC list. Extended Phase I testing was monitored by Mark Lopez, representing members of the Santa Ynez band of Mission Indians under contract with DPR (contract #A03E0110).

Cultural History

Human history in Santa Barbara County and the nearby Channel Islands extends from the earliest known occupations of approximately 9,000 years ago, through the Spanish, Mexican, and American cultural time periods (Raab 1994; Johnson 2003). This area of the Santa Barbara Channel mainland has one of the best documented cultural histories in California (Glassow 1991; Erlandson 1994; Moratto 1984). Several of the sites in Gaviota State park date to the "Millingstone Culture," the earliest clearly defined cultural period evident on the mainland. The APE for the proposed trail segment crosses a portion of site CA-SBA-96, which is believed to be a representative site of the Millingstone Culture (Dallas and Bischoff 2004).

A myriad of other studies conducted along the Santa Barbara Channel have helped outline and document the status of our knowledge on the occupation of the coast in aboriginal times. These include work by Glassow (1991b), Erlandson (1996), Carrico (1993), Cooley (1992), Brown (1967), Applegate (1974), John Johnson (numerous), and Gamble (2002), to name a few.

Ethnographic Background

The project area is in the Chumash cultural area and further divided into the Barbareño linguistic/geographic dialect areas. The Barbareño occupied the coastal strip from Point Conception to Punta Gorda in Ventura County (Grant 1978). The word Chumash was chosen in 1891 by early California linguist John W. Powell, from the word used by the Coastal Chumash for Santa Cruz Island and its inhabitants or the Santa Rosa Indians. The Barbareño word for themselves was Wal-wa-ren-na (Grant 1978:507). This word is not used today.

Early Chumash culture and lifestyle has been pieced together from archeological evidence, mission records, and early interviews with surviving Chumash descendants. The Chumash were hunters and gatherers, but they also relied heavily on fishing and other aquatic/marine resources (Dallas 2001; Erlandson 1994, 1996; Glassow 1991). Recent data from the Malibu and Santa Barbara areas indicate that the early inhabitants were a maritime people depending largely on aquatic/marine resources and traveling by boats (Dallas 2001).

One of the most distinctive aspects of Chumash culture are the stylized rock art paintings. Believed to have been painted by the *Antap* cult of Shamans, the paintings represent symbols of mythic figures, natural phenomena, and abstract concepts. While the specific meaning is unknown, they are multi-colored and are multi-layered. Some believe they represent shrines or sacred spots due to their location. It is believed that they are associated with the *toloache* ceremonies (Grant 1978). One of the best of these rock art sites is the Chumash Painted Cave in the San Marcos Pass. The rock art colors are vivid and when viewed in bright light, they appear to almost come alive.

Spanish Exploration

The project area was first explored by Euro-Americans in October 1542, when Juan Cabrillo and his expedition journeyed through the Santa Barbara Channel region by sea. Due to treacherous conditions, the party was forced northward to Point Conception. While in the Channel, however, the party spent several days in the Refugio Beach area where they were received by friendly Native Americans. Another expedition, this one led by Sebastian Vizcaíno passed through the channel in 1602, and provided names for many of the area's landmarks (including Santa Barbara). Centuries would pass before the first overland expedition would penetrate the project area.

Between July 14, 1769 and January 24, 1770, Governor of Baja California, Gaspar de Portola led an expedition from San Diego north into Alta California. The expedition's goal was to establish a settlement on Monterey Bay. Although the expedition bypassed its goal, the members discovered the San Francisco Bay. While in Santa Barbara County, the party met many Native Americans from numerous villages along the coast and interacted with them extensively. At the mouth of Gaviota Creek, the expedition encountered a Native American village known as *Onomyo* on August 24, 1769. The village reportedly was inhabited by 300 people, and was located on the west side of the creek. Portola named the village *San Luis Rey de Francia*, but the area became known as *Gaviota*, Spanish for seagull. The route followed by Portola and his expedition would be used to link the various Spanish missions in California in the ensuing years, and became known as El Camino Real.

In 1774, Portola's route was followed by Juan Bautista de Anza, the commander of the Royal Presidio of San Ignacio de Tubac in what is today southern Arizona, who was sent north to establish an overland route to Alta California. Anza traveled from Tubac to the Monterey Bay, and then returned in May of the same year, following roughly the same path used on the way north.

East of Gaviota, the Anza expedition encountered a deserted village with only a cemetery remaining. The village had apparently been deserted as a result of attack, and the Spanish named it El Cementerio. Upon reaching the San Francisco Bay Area, Anza and much of the rest of the expedition returned home.

Spanish Period

The current project area was encompassed by what was known as the Nuestra Señora del Refugio rancho. The land was granted to José Francisco de Ortega, who had served as an expedition scout for the Portola expedition in 1769. Ortega also played an important role in the establishment of the Santa Barbara presidio. The grant stretched from Cojo Canyon to the eastern ridge of Cañada del Refugio, and was the only Spanish grant within present-day Santa Barbara County. Upon Ortega's retirement, the land was granted to him in 1786. The grant was technically only a permit to graze animals at first. Ortega established a ranch in Refugio Canyon in 1794, constructing an adobe there. Settlements were also established in Taliguas Canyon, Arroyo Hondo, and Cañada del Corral (National Park Service 2003). The ranch, which contained over 26,529 acres, would not be officially granted until many years later, and to Ortega's heirs. Eventually, much of the ranch became the property of the Hollister and Dibblee Company, who used it for grazing sheep.

Transportation remained primitive during this period, with no formal roads being constructed. For the most part, travel followed paths used by Native Americans. Prior to 1804, the main route of travel followed the coast through northern Santa Barbara County. At that time, the Royal Highway, or El Camino del Real was shifted to follow an inland route to the Santa Ynez River. Over the ensuing decades mountain passes, particularly Gaviota Pass, became the main route of travel into and out of the area.

Mexican Period

Following Mexican Independence from Spain in 1821 little changed for most of the residents of Santa Barbara County. It was not until the secularization of mission lands in 1834 that the picture began to change. Large tracts of lands were granted to individuals as rewards for their various services. Most of these ranchos were immense in size, and cattle ranching became the economic mainstay for much of California during this period. Foreign trade, due to high embargoes, was scant. For the most part, trade was carried on illegally in the various coves along the coastline, including Refugio, Gaviota, and Cojo. Foreign goods were exchanged for hides, tallow, and sea otter pelts.

Title to the Nuestra Señora Refugio Rancho was finally granted to the Ortega heirs in 1834. During much of the Mexican period, the Ortega Rancho was headquartered at the site established approximately one mile up Refugio Canyon. As the rancho became more affluent and expanded, new structures were constructed in other locations. One such was an adobe in Gaviota Canyon. Josef Manuel Ortega's widow, Andrea Cota, and her second husband, Mariano Olivera, owned land encompassing much of the Gaviota region between 1858 and 1865. They apparently lived in an elaborate adobe on their property, and owned 275 head of cattle, 50 sheep, and 75 horses.

Early American Period

Following the end of the Mexican War, California became part of the United States in 1848. The discovery of gold in the Sierra Nevada foothills that same year changed California forever. An influx of Euroamericans from all parts of the country changed the face of California. Their presence also created new demands for products, and new pressures upon the land. California was admitted to the union as a state in 1850, and American emigrants continued to

settle in the region in larger numbers. Spanish and Mexican land grants increasingly fell into the hands of these newcomers, and were often subdivided into smaller tracts. A land act was passed in 1851, which required the rancho land grants to be confirmed by American courts. As a result, many of the Hispanic landowners ended up losing their lands, being unable to produce sufficient documentation. The Ortega's Nuestra Señora Del Refugio Rancho, however, was confirmed to the family, and they received title to it in 1854. The ranch was sold to Andrea de Olivera in 1858.

Because of the rugged and isolated nature of the countryside, banditry became rather common. The narrow Gaviota Pass was one of several locations where travelers were robbed. The famed bandit, Joaquin Murrieta apparently established one of his hideouts in Arroyo Hondo, near Gaviota. Several other notorious bandits operated in the lawless region surrounding Gaviota.

A period of ecological disaster beginning in the early 1860s permanently altered California's landscape and rural industry. Heavy rains in the years 1861 to 1862 caused flooding, landslides, and the washing away of vegetation in many places across the state. This flooding was followed upon by two years of unprecedented drought between 1863 and 1864. As a result of the drought, the massive cattle herds that characterized Spanish and Mexican-period California starved by the thousands. The estimated 300,000 head of cattle in Santa Barbara County dwindled to somewhere around 5,000 as a result. Rancho owners were unable to pay taxes and other bills, and many of the large ranches were subdivided to pay off the debts. Ownership of land throughout much of California changed drastically.

Hollister and Dibblee

In the late 1850s, William W. Hollister arrived in Santa Barbara, destined to make a distinctive mark upon the region. Hollister began purchasing land in the area soon after arriving. Hollister, with substantial financial backing from his wife's family, drove a large herd of Merino sheep to California in 1853. He arrived in Monterey County a few months later, and joined with the Flint & Bixby Company in purchasing the San Justo Ranch. After several profitable years, Hollister sold out his portion and moved to southern California.

Albert Dibblee and his brother Thomas also arrived in Santa Barbara County in the 1850s; having come from San Francisco. In 1855, the Hollisters and Dibblees formed a partnership to raise sheep. By 1866, most of the Nuestra Señora Del Refugio had been purchased by Thomas Dibblee. As a part of the partnership, one third interests were granted to his brother Albert, and to Hollister. Over the next 15 years, the Hollister and Dibblee partnership acquired vast tracts of land surrounding the Gaviota region, totaling over 125,000 acres in all. Although Hollister himself lived in Santa Barbara, the ranch operations were headquartered at the San Julian Rancho (Chesnut 1993). The partnership grazed huge herds of sheep across all of their various ranches. In order to better move the products from their cattle and sheep, the Hollister and Dibblee needed a wharf.

Gaviota Wharf

Because of the rugged nature of the coastline throughout much of the Santa Barbara Channel, wharves and landings were constructed in many places to facilitate the loading and unloading

of goods onto ships for transport. Although a wharf was constructed in Santa Barbara in 1872, the Dibblee brothers realized the need for one closer to their ranch operations. They convinced their partner Hollister, and had a wharf constructed in 1875 at the mouth of Gaviota Creek, which became known as Gaviota Wharf or Gaviota Landing. The actual design and construction of the wharf was completed by Thomas Bard. A warehouse and a passenger warming hut were constructed as a part of the wharf complex (beneath the area now occupied by the railroad trestle). A tract of land set aside from the Nuestra Señora Del Refugio Rancho specifically for the wharf, was known as the Gaviota Wharf Tract by the ranch owners. The area was also referred to as Port Orford.

A variety of products were hauled to the 1,000-foot wharf at Gaviota, primarily those produced by the surrounding ranches. From the 1870s through the 1890s, goods were shipped to Santa Barbara and Los Angeles, as well as other ports from this wharf. The wool was primarily shipped to San Francisco, and steamers from that city stopped at the wharf weekly for passengers and freight. The most common items shipped from the wharf were livestock, wool, general merchandise, grain, lumber, and farm and ranch produce. Steamship service was provided by the Pacific Coast Steamship Company. Miguel F. Burke was hired by Hollister and Dibblee to manage the wharf. Burke lived in an adobe house at the landing and farmed approximately 100 acres of hay and owned 700 sheep, 100 head of cattle, and 30 horses (Mason 1964:294). Eventually, the landing was expanded to include a stage station, inn, post office, and store. The wharf was quite successful, and stage lines served the passenger and mail traffic from the wharf to Lompoc and Santa Ynez. The wharf, in fact, served as the primary embarkation point for the agricultural products of the Santa Ynez Valley.

A house and several buildings (including a barn and outbuildings) appear on maps from this period, further north than the wharf itself. It appears that Burke, and later McNeilly (also spelled McNealy), lived in this developed area, east of Gaviota Creek. Under McNeilly, a hotel was established near the landing to serve passengers from ships, as well as those from stagecoaches (Dibblee 1991). A building located on the east site of Gaviota Creek is labeled "McNealy" on at least two maps from the 1880s.

Land-based transportation routes also developed into and through the region. Many of these routes followed trails used by Native Americans for centuries. Eventually, stage routes replaced trails dating from the Spanish period. Gaviota Pass became a critical route through the area, with the first stage passing through in 1861. A county road extended from Los Angeles through Santa Barbara up the coast to Gaviota, through the pass to Las Cruces, and then through Santa Ynez and Santa Maria, eventually reaching the San Luis Obispo County line. Los Angeles and Santa Barbara Counties were contiguous, and both contributed to improve the road. Dynamite was used in the pass area to widen the frequently impassable road. A small wooden bridge was built over the creek. This road was known as the Gaviota Pass Road.

Adobes along these stage routes were critical to their viability. The Las Cruces Adobe and the Ortega Adobe in Arroyo Hondo were two of the more prominent in the area. The Las Cruces Adobe was built sometime during the 1850s, and served as a stagecoach stop, hotel, store, saloon and restaurant, and eventually a post office. It remained in place, serving automobile

traffic, until 1967. An adobe in the Gaviota area was also apparently used as a stage stop as early as 1861. This may have been the adobe owned by Andrea and Mariano Olivera. An adobe owned by Miguel Burke was also used as a stage stop beginning in 1875 (see description of CA-SBA-2485H). Burke's facility was known as the Gaviota Store and Hotel, and served as a stage stop for the line from Las Cruces to Santa Barbara. According to an advertisement, the store contained: *...dry goods, groceries, provisions, boots, shoes, cigars, tobaccos, wines, liquors, hardware, tinware, willow goods, glass and crockeryware, etc...* (as quoted in Chesnut 1993).

Intense competition for the lucrative stage traffic emerged between various routes. The Santa Ynez Turnpike Road, which followed the San Marcos Pass, began to compete for stage traffic from the Gaviota Pass route in 1868 when the road was completed. For many years, most traffic followed the San Marcos route instead of Gaviota Pass. Gaviota Pass, although reportedly easier than the San Marcos Pass, was frequently washed out for long periods of time. By 1889, however, Gaviota Pass became dominant again when the Overland Mail Company began to use it for their route. The massive sheep and later cattle herds owned by the Hollister-Dibblee partnership were driven to Gaviota Wharf by way of Gaviota Pass. This practice continued until the 1920s, with livestock often sharing the road with automobiles.

Railroads

Due to difficult topography, the railroad came relatively late to the Gaviota Coast region. In addition to physical barriers, the railroad also faced several uncooperative landowners along the route who resisted granting rights-of-way to Southern Pacific. The most prominent landowner in the area was the Hollister Family, who objected primarily to the railroad's construction of huge ramparts by filling in the canyons along the route for level track beds.

The importance of the Gaviota Wharf declined by the 1880s as the Pacific Coast Railway, a narrow gauge railroad, had been constructed to Los Olivos from Avila Bay near San Luis Obispo in 1882. Also early in the 1880s, the Hollister-Dibblee partnership was dissolved and the property was divided. Hollister retained much of the Gaviota area, while the Dibblees' land was divided following the brothers' deaths in 1895. In 1888, the wharf was sold to the Pacific Coast Steamship Company. The completion of the Southern Pacific Railroad through Gaviota in 1901 made the wharf almost completely obsolete.

Although the Southern Pacific had completed routes through the state many years prior, the area that became known as "The Gap" was left isolated without direct rail service. The Gap consisted of that portion of coastline between Santa Margarita and Ellwood near Santa Barbara. Although the railroad initially considered building their line through Gaviota Pass, it was determined that the land was too rugged, and too many tunnels would be required. Instead, the Southern Pacific decided to follow the more gradual, although longer coastline route. During construction, depots were established all along the route (including one at Gaviota). By 1889, the line, building from north to south, had reached Gaviota Creek. Because of the many creeks flowing into the ocean in the area, numerous trestles had to be constructed. In many places, the trestles were filled in with soil to bolster their strength. The largest trestle, 811 feet long, was constructed at the mouth of Gaviota Creek in November 1900. A siding and depot were constructed at the east end of the trestle.

As it had done at many other locations along the line, the Southern Pacific constructed what was known as a common standard type #22 depot at Gaviota. Meanwhile, tracks were constructed north from Ellwood, and the two met at Cementerio Creek in December 1900. The first train ran on March 31, 1901. Following the closure of "The Gap," direct service was now available from Los Angeles to San Francisco via the Southern Pacific, and was far cheaper and faster than steamship transportation. This portion of the Southern Pacific became known as the Coast Division.

The Southern Pacific Railroad established stations at frequent intervals to service the engines and tracks. Large section gangs were needed to maintain sections of track, and the men were housed at or near the stations. A station was established at Gaviota during the construction of the trestle at Gaviota in November 1900. The railroad constructed a station house, operator's quarters, bath and laundry, switching units, water tank, and stock corrals. The station house, or depot was two-stories, with the station agent's living quarters upstairs and a waiting room for passengers downstairs. The station was expanded to include a mail crane, tool house, a section headquarters building, and maintenance headquarters building. Water was stored at the station in one 4,000-gallon wood tank, and one 65,000-gallon steel tank, supplied from the Naples Station via rail cars. The tanks were connected to a pump house by 3" and 4" lines, and water was pumped from there to the station house (Southern Pacific Railroad Company 1918).

The Gaviota Wharf was eventually sold to the Honolulu Consolidated Oil Company in 1915, although most of the original wharf was destroyed in a storm prior to that time (ca. 1912). The Gaviota Wharf Tract was eventually deeded to the county for a park, which in turn formed the core of Gaviota State Park (see below).

The rugged coastline did take its toll upon many vessels over a wide span of time. So many shipwrecks occurred that light stations were constructed at Point Conception as well as Point Arguello (established in 1901).

Turn-of-the-Century to Present

By the turn-of-the-century, there were three small communities in the project area. Port Orford was located at the mouth of Gaviota Creek, in what is now Gaviota State Park. It consisted of a pier as well as several buildings in the general area of the current campground. A railroad siding known as Gaviota was also in place, with several buildings and facilities serving the Southern Pacific Railroad. Finally, a community known as Alcatraz existed in what is now the Marine Terminal, near the mouth of Cañada Cementerio and Cañada Alcatraz (USGS 1905).

The land now encompassing Gaviota State Park had been divided three ways following the dissolution of the Hollister-Dibblee partnership. The wharf and landing were owned by the Honolulu Consolidated Oil Company; most of the land north of the beach and south of the bend in Gaviota Creek was owned by the Dibblee heirs; and the parcels north and east of the creek were owned by the Hollister heirs. This latter tract became known as the Hollister Ranch. William Hollister died in 1886, and his property was held in his estate until 1910 when his son, Jim, took over operation of the ranch.

Gaviota Store

The Hollister Ranch constructed a store on the coast, which became known as the Gaviota Store in 1901. The operation of the store was leased out to Frank Newland beginning in 1916. He was replaced by brothers Otto and Walter Buhn in the 1920s, who remained through World War II. The store served as a kind of headquarters for the Hollister Ranch and supplied many of the nearby residents. It supplied food, clothing, gasoline, and other groceries. The store was first located adjacent to the Gaviota Station, along the old road (Thompkins, *n.d.*). When the road was moved during the 1930s, the store moved to follow the road. A small house was built behind the store for the manager, and several auto courts were also established for travelers. The store served as a post office for the area, and contained one of the only telephones. In 1949, when the highway was improved and expanded, the store changed its entrance from the front to the side. The store operated into the 1950s, and was finally demolished in 1970 by the Macco Corporation, which planned to construct a new development to be known as "Gaviota Seacoast Village." A new store was built to replace the original, further up the hill (Fitzgerald 1983).

Gaviota Marine Terminal

The Gaviota Marine (Oil) Terminal is owned and operated by Shell Pipeline Company, LP. The facility consists of 36 acres including a tank farm of six storage tanks (three of which are in use and three are idle), and one 24-inch diameter onshore oil pipeline. Several other support buildings and structures are also in place.

The parcel has a rich history, and was at one time the site of the town of Alcatraz. The parcel was originally a part of the Rancho Nuestra Señora del Refugio. In 1854, the rancho was split, and the eastern portion became known as the Gaviota Rancho. This ranch was subsequently purchased by Thomas Dibblee in 1866. Later, Dibblee's partners, the Hollister family, acquired the Gaviota Rancho. In 1896, the Hollisters sold a 127-acre parcel of the ranch to the Alcatraz Company (WESTEC 1989). William Crocker, of the "Big Four," was the major financial backer of this project, but soon sold his interests to the Alcatraz Asphalt Company. In 1897, the Alcatraz Asphalt Company constructed an asphalt processing plant and deep water wharf at the site. The plant was used to transport and refine asphalt mined from the Sisquoc River near Santa Maria. Two pipelines were constructed from the mine to the refinery. One of the pipes carried the liquid asphalt to the refinery, while a second pipeline carried naphtha (used to liquefy the asphaltum) to the mine. From there, processed asphalt was transported by railroad and ship to other markets.

By 1901, the plant employed 70 men. The plant had by this time converted to a refinery for crude oil, primarily to handle oil from newly discovered fields in the Santa Maria area. At its height, the facility handled 3,000 barrels per day. The plant also soon handled crude oil from tankers, and served as a major storage facility. As a result, the community of Alcatraz developed immediately adjacent to the plant. The property was known as the Alcatraz Landing Tract by the turn of the century. Numerous buildings were constructed by this time, including a school and post office. Small houses and a boarding house existed on the east side of Alcatraz Creek, on top of the bluff. Other buildings existed across the road from the plant. The Southern Pacific Railroad included it as one of their stops. The railroad had a boiler house,

pump house, garage, dehydrator, reservoir, and storage tanks at the stop. Several houses existed in the area south of the railroad tracks, and east of the wharf (ERT 1985; Erlandson *et al* 1984).

At some point it appears that the Pacific Oil Transportation Company gained control of the facility, although the Alcatraz Company still technically owned it. In 1904, Crocker acquired the property, then turned it over to the Associated Oil Company in 1905. The discovery of asphalt in Carpinteria in 1905, however, made the asphalt mine and the Alcatraz facility unprofitable. In 1905, the facility was purchased by the Associated Oil Company which operated it into the 1920s (ERT 1985; Erlandson *et al* 1984:69). The facility witnessed an increase in activities during an oil boom between 1917 and 1918, including the re-construction of a 55,000-barrel tank. By 1923, the Associated Oil Company had constructed a large machine shop, bunkhouses, sheds, corrals, and several additional storage tanks at Alcatraz. Associated Oil merged with Tide Water Oil Company in 1936, and the site was used to transport crude oil to their refinery in San Francisco (WESTEC 1989).

During the 1930s, the plant was utilized solely for oil storage, and far fewer employees were needed. As a result, the small collection of houses was abandoned, and gone by this time (apparently destroyed in a fire). Associated Oil still maintained offices, wells, and bunkhouses, and its septic tanks remained.

In 1950, the facility in place at that time was completely dismantled, including the wharf. In its place, a marine terminal was constructed, including dual 12-inch pipelines to a distance of 2,400 feet from the shore. These pipelines were used to unload crude oil from tankers. The parcel was also used as a transportation route for offshore oil and gas wells during the 1960s and 1970s. In 1963, flow lines were constructed on the parcel to transport gas, and to service offshore wells. In 1987, the existing facility was reconstructed as the current Gaviota Oil Terminal, which began operation in 1991 as an interim marine terminal. The lines were abandoned beginning in 1997, and were removed in 2000. The Gaviota Terminal is currently a pipeline terminal, and no longer receives marine vessels.

20th Century Transportation Changes

Despite the completion of the railroad, stage traffic continued through the Gaviota Pass until well into the 1910s. It remained the most direct route to Santa Barbara and points south for those living in the northern part of the county. In 1910, the County gained control over the road and completed small repairs and upgrades to it, particularly for benefit of the automobile. Prior to this time, the ranch owners maintained the road. For the most part, however, the road remained primitive. Repairs would not begin until the State Division of Highways took over its maintenance.

The road through the project area was far more sinuous than at present, extending closer to the foothills in the Gaviota area, and closer to the water in the Alcatraz area (USGS 1905). The situation did not appear to materially change for many years (ACSC 1929). The road was owned by the County until 1913 when the State Division of Highways assumed responsibility. Following this change, several new bridges were constructed along the route to replace older wooden ones. The new state highway was graded for most of its length west of Santa Barbara

and, in 1919, a 15-foot wide Portland cement concrete pavement was installed. Later, an asphalt concrete surface was applied, and the road was widened with Portland cement borders in 1922.

In 1926, the County of Santa Barbara purchased 8.8 acres of land around the beach at Gaviota Pier for a county park. The dirt road leading to the park (now the state park road) was granted to the County by the Hollister Estate Company. The County purchased the land from the Honolulu Consolidated Oil Company, constructing a campground and caretaker's cottage soon thereafter.

By the 1930s, the automobile began to replace the railroad as the prime mover of goods and people. In summer 1934, a major road improvement project, financed by the National Industrial Recovery Act was completed on U.S. Route 101 in the Gaviota area. Because it was a Federal Emergency Relief Project, hand labor was used wherever possible in order to employ the greatest number of workers. The project consisted of constructing a 20-foot wide, reinforced concrete road surface on a 36-foot wide graded roadbed, for a total of 4.9 miles. The surface was Portland cement concrete, reinforced with heavy wire mesh. In addition, concrete box culverts, corrugated metal pipes, metal spillway assemblies, slope drains, paved gutters, spillway inlet aprons, property fences, guard rails, and guide posts were installed in several places (Pearson 1934). The work also succeeded in straightening much of the road between Gaviota and Alcatraz. A large bend in the road to the north was eliminated and the road straightened in the area where the highway made its broad turn to the east near Gaviota (Gibson 1934).

World War II

By the outbreak of World War II, the road had been straightened from its sinuous beginnings (ACSC 1941). The State desired to convert U.S. Route 101, known as the Coast Highway, into a four-lane, divided highway from Los Angeles to San Francisco.

World War II brought great changes to California, in the form of increased military activities. The Japanese Navy launched two of their few attacks upon the west coast of the U.S. in the Santa Barbara vicinity. Shortly after the U.S. entered the war, a Japanese submarine attacked the cargo ship *Emidio* off the coast of Point Arguello. On February 23, 1942, another Japanese submarine shelled the Ellwood oilfields in Goleta. Although the attacks created little physical damage, the psychological effects were great. As a result, the American military presence was stepped up all along the California coast. An Army Signal Corps detachment was stationed at the Associated Oil Company's facility. Coastal guns were set up in several locations as well.

By World War II, Port Orford was gone, as was the community of Alcatraz. The siding of Gaviota was also greatly reduced in size, as the railroad relied less upon sidings for support by this time. The small ranch at the western end of the project area was also in place. The road through the area, now known as U.S. Route 101 was roughly in its present alignment, although narrow and undivided (USACE 1942).

Post War

Following the end of World War II, California changed rapidly, particularly along the coast. In the current project area, Gaviota Beach Park had been established, encompassing the site of Port Orford. The house near the beach (site CA-SBA-2484H, described below) was still in place, as was the Gaviota siding, although likely still curtailed in its service to the railroad. The site of Alcatraz had been replaced by a marine terminal complete with oil tanks, roads, and several structures. U.S. Route 101 had been divided into a four-lane freeway in the western part of the project area by this time (USGS 1953a).

By 1951, the County constructed a new wharf to replace that which had been destroyed several decades earlier. The new wharf was constructed a short distance to the west of the original. In 1952, the County deeded its beach park at Gaviota to the State. The County maintained control of the park, maintaining the campground under a lease until 1969. In 1964, as a result of a bond initiative, the State acquired several thousand acres of land surrounding Gaviota Beach. In 1967, the State was able to acquire additional parcels of land encompassing the original wharf property from the Hollister Company, and land along the coastline east of Gaviota. To round out the property, the State conducted eminent domain procedures against the Dibblee heirs for additional parcels in the beach area. In 1969, as a part of the settlement, the Dibblee heirs were paid \$148,532 for the land. At that time, the park became known as Gaviota State Park.

Beginning in 1951, an 8-mile section of U.S. Route 101 underwent an upgrade between Gaviota Station and Gaviota Pass (*California Highways and Public Works* 1951). In 1956, the highway between Gaviota and Arroyo Hondo had been upgraded to a four-lane highway. By the late 1950s, U.S. Route 101 was a divided highway across the entire project area (*California Highways and Public Works* 1957; ACSC 1964), following the completion of the tunnel through Gaviota Pass. In addition, by the early 1970s, a facility had been constructed immediately south of the highway, east of Gaviota Station (USGS 1953b). This facility was operated by the Texaco Company, and contained large storage tanks as well as roads and ancillary features. In addition, land to the west of the leased parcel was used for two helicopter landing pads and an associated parking lot.

Investigations and Results: Cultural Resources in the Area of Potential Effects

An archaeological survey was conducted by DPR Archaeologists in 13 field days between December 2003 and August 2004 along the Area of Potential Effects for the Gaviota California Coastal Trail - Gaviota Segment. In June 2004, the project area was burned in a wildfire. After the fire, portions of the APE were re-surveyed, taking advantage of the increase in surface visibility.

The survey resulted in the documentation of five prehistoric sites, CA-SBA-96, CA-SBA-2028, CA-SBA-2646, CA-SBA-2647, and CA-SBA-3727, three historic-period sites, CA-SBA-1555H, CA-SBA-2484H, and the site of Gaviota Station. Site CA-SBA-96 was defined as an occupation location with a diversity of cultural remains observed. A portion of the site has been destroyed by highway construction, while another portion shows significant damage from oil pipeline construction and road construction. No tangible evidence of sites CA-SBA-2028,

2646, and 2647 were observed during the survey. The remnants of CA-SBA-2028 are apparently buried under highway fill, while sites CA-SBA-2646 and CA-SBA-2647 appear to have been destroyed by modern-day industrial activities. Site CA-SBA-3727, identified as a low-density lithic scatter, showed the effects of modern-day oil industry disturbances. Site CA-SBA-1555H (the Gaviota Marine Terminal Site), dating back to 1897, has been rebuilt twice to suit current industrial purposes; most of this site is paved or built-upon. Site CA-SBA-2484 represents the former location of a 1920s era house and outbuildings; none are standing today. Highway construction activities affected a portion of this location. The site of Gaviota Station, located outside State Parks land, served as a railroad worker residential area and a railroad stop.

The proposed trail alignment and support facilities have been largely routed away from the latter archaeological sites, except, CA-SBA-96 and CA-SBA-1555H. The proposed alignment as it traverses CA-SBA-96 will follow the previously disturbed oil pipeline right-of-way. The trail alignment, as it passes through the Gaviota Marine Terminal, stays on previously disturbed terrain.

Extended Phase I archaeological investigations were conducted by DPR staff in an effort to more definitively identify the presence or absence of cultural remains within the trail project area. Subsurface test excavations, both excavation units and auger test holes, were employed at five prehistoric sites and two historic-period sites within the Gaviota Coastal Trail project area. Site CA-SBA-1555H was not tested due to its highly disturbed condition. The results of the Extended Phase I demonstrated that cultural remains at the latter sites were outside the Area of Direct Impact for the trail project, except, at CA-SBA-96. No evidence of sites CA-SBA-2028, 2646, or 2647 were recovered during the Extended Phase I testing. During this phase of work, two units were excavated within CA-SBA-96 at places adjacent to, but outside of, the trail alignment and found to yield intact and potentially significant cultural materials. A recommendation was made to conduct additional test units directly in the proposed trail alignment where it traverses CA-SBA-96. A new archaeological site ("GCT-1") was discovered during the Extended Phase I project; this site lies outside the Area of Direct Impact.

An Archaeological Evaluation Phase (Phase II) excavation project was conducted from September 19-23, 2005 at prehistoric site CA-SBA-96 within Gaviota State Park, Santa Barbara County by archaeological staff from the DPR office in San Diego. Site SBA-96, located on a terrace between Cañada de La Gaviota and Cañada del Barro and contiguous to State Highway 1, was the only prehistoric site situated within the Area of Potential Effect for the proposed Gaviota Coastal Trail Project determined to hold significant cultural remains. That is, the cultural materials of the site possess the potential to address important regional research questions. Previous research at SBA-96 indicated that highway construction activities and oil pipelines had occurred in an east-west alignment across the site, and thus, created an ideal corridor for the proposed trail alignment.

Two one-meter-square excavation units were placed directly within the proposed Gaviota Coastal Trail alignment, or, Area of Direct Impact, where it traverses SBA-96. The recovery from the latter two units was contrasted with the results from the excavation of two units within a portion of SBA-96 unaffected by prior disturbance. The total number and variety of artifacts

recovered during the Archaeological Evaluation Phase fieldwork at SBA-96 is markedly lower than previous work on-site, and only one finished item, a steatite bead, was found in the two units. In addition, one piece of shell and no bone were recovered during the Archaeological Evaluation Phase work. The surface of SBA-96 within the Area of Direct Impact was determined to lie one meter lower than the unaffected ground surface during the 2005 fieldwork. The appreciably low yields of the two units and the evidence for historic disturbances along the proposed trail alignment demonstrate that the research potential of this site area is negligible. Therefore, the Area of Direct Impact for the Gaviota Coastal Trail where it passes through SBA-96 lacks contextual integrity and significance under Section 106 of the National Historic Preservation Act and the California Environmental Quality Act.

Historic-Period Sites

Gaviota Station

The Southern Pacific Railroad constructed what was known as a common standard, type #22 depot at Gaviota. Soon thereafter (by 1904), a water tank was constructed at the west end of the station, along with a pump house and corrals. The first buildings at the station were all located on the south side of the tracks except for a set of corrals at the northeast portion of the station (Southern Pacific Railroad Company 1904). Later, residences and other facilities were constructed on the north side of the tracks.

By the 1910s, buildings in place at the station included quarters for railroad employees such as one for a warehouseman, two operator's houses, two bunkhouses for section men, and a house for the oil gauger. The bunkhouses for the section men appear to have been converted railcars. These residences were all located on the north side of the railroad tracks, adjacent to the current project area. In addition, there appear to have been four privies in this area, serving the several residences. Across the tracks from these residences were the maintenance headquarters and section house. A 9' tank on top of a 36' steel tower was in place between the section men's bunkhouse and the operator's residence (Southern Pacific Railroad Company 1918).

Corrals were established at the east end of the station grounds, where stock could be loaded onto the trains. Following the predominance of trucking in the 1930s, cattle were no longer transported by rail (Chesnut 1993). A store was located adjacent to the station, on the access road leading from the highway. The station remained in service until 1961. The water tank remained in place well into the 1970s. The concrete foundations for the water tank remain on the property, although they are no longer *in situ*.

CA-SBA-2484H

This site consists of several features representing a small house and associated structures. Today, the remaining features consist of a water tank, a small fence, and a variety of exotic vegetation (palm, pepper, and eucalyptus trees, cacti).

According to one source, the small house was built by the Hollister Estate for their employee Luis Ochoa (Chesnut 1993:176). It appears that this building was constructed sometime in the late 1920s. According to the same source, Ochoa and his son, Tony, lived in the house until 1938. The palm tree marking the site today was reportedly planted by Ochoa. He also planted a small garden. The house itself was L-shaped facing the ocean, and contained two bedrooms, one bathroom, a large kitchen, a combination living/dining room, and a large tack room. The house also had a wooden porch with railing on two sides. In addition, a barn and garage, outhouse, and chicken coop were also constructed. All of the buildings were constructed off of the ground for protection from the periodic flooding of Gaviota Creek. Over ensuing years, the house was expanded from four to six bedrooms, and it took on a U-shape.

The large house was occupied by Frank and Catherine Pacheco and their four sons, along with Arnold and Della Avila and their 8 children. The Larry Cota Family, with 9 children lived in the house after the Avilas departed, living there from 1961 to 1962 (Chesnut 1993:177). The parcel was owned by the Hollister Company up into the late 1960s, when it was acquired by the State of California as a part of the expansion of Gaviota State Beach. A photograph of the site taken in 1941 differs significantly from maps drawn in the early 1960s. The house and most other buildings appear to have been removed shortly thereafter, under state ownership (California Division of Beaches and Parks 1966). Maps drawn in the late 1960s depict the building still in place. It appears that they were removed sometime in the early 1970s, by the State. Today, no buildings remain, although a few features relating to the site still exist. The site may be eligible for the NRHP for its information potential (Criterion D); however, no intact archaeological materials are present in the ADI for the proposed trail project.

CA-SBA-2484H

This site represents the location of a small house and associated ancillary structures in existence from roughly the early 1920s until the late 1960s. A parking lot for the Gaviota Coastal Trail is proposed on a portion of the site. As described above, prior to the commencement of the excavation, a large fire burned through the Gaviota Pass, and over much of the site. At that point the site was re-surveyed, re-recorded and photo-documented. Some historic-era and modern debris was noted scattered on the surface; however the Extended Phase I archaeological test recovered no evidence of an intact subsurface deposit in the ADI.

Gaviota Station

The proposed route of the trail adjacent to the Gaviota Station is in an area of recent disturbance. Several oil companies have leased land in this area for various activities, and as late as the 1960s, there were helicopter landing pads, parking areas and roads in the immediate vicinity. It appears that modern dumping activities have been occurring in this area as well. The proposed trail follows an abandoned dirt road immediately north of the Gaviota Station property. This area has also been subjected to recent disturbances, including road grading, building demolition, and bulldozing of soil and foundations. This has obviously impacted the surface of the area, as well as any cultural material on or near the surface. The results of the excavation of the three units indicate that there are no intact deposits within this portion of the ADI related to Gaviota Station. Subsurface deposits may be present on the railroad station property, outside the project study area. No intact deposits within the ADI.

CA-SBA-96

There are intact aboriginal deposits at CA-SBA-96 within the APE and previously-disturbed deposits within the ADI. DPR archaeologists conducted Phase II excavations at SBA-96 to formally evaluate the site’s National Register eligibility and to determine if the proposed project would have any adverse effects on this resource. The results of the Phase II study have been provided to Caltrans for its use in documenting Section 106 compliance. The site was determined eligible for the National Register for its potential to yield information important in prehistory. Measures Cult-1 through Cult-3 have been incorporated into the project to avoid, reduce, or mitigate potential adverse effects to CA-SBA-96; therefore the project will have a less than significant effect with these measures incorporated.

Intergovernmental Consultation

DPR has submitted its cultural resources survey results, including an “Extended Phase I” and “Phase II” test reports, to the Caltrans District 5 Environmental Branch for review and coordination with FHWA. State Park archaeologists have also met with Chumash representatives to discuss the potential effects of the proposed trail project on archaeological sites with which they may be culturally affiliated. Caltrans and FHWA will continue in their regulatory role, and tribal representatives have indicated a desire to continue as consulting parties throughout project development and implementation.

DPR’s findings on historic properties in the APE will be submitted to the State Historic Preservation Officer (SHPO) for concurrence when consultation with Caltrans is complete. DPR (or Caltrans) will also seek SHPO concurrence on any additional steps taken or findings made in compliance with Section 106.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

a) The historic setting of the Gaviota Station property has been altered significantly, with oil company activities, helicopter landing pads, parking areas, roads, and modern dumping activities in its immediately vicinity. The proposed project will not alter the remaining

historic qualities of the Station property, and any subsurface historic deposits on the property are outside the project's Area of Direct Impact and would remain unaffected by the project.

- b) As a result of fieldwork conducted during the winter of 2004-2005, DPR archaeologists determined that one site in the APE, CA-SBA-96, is eligible for inclusion on the National Register of Historic Places. The alignment of the proposed trail has been adjusted to minimize potentially adverse impacts on CA-SBA-96. Specifically, it would cross the site in an area already disturbed by the installation of utility lines in the mid-1960s (Spanne 2003, *p.c.*). This Area of Direct impact was the subject of additional archaeological testing by DPR archaeologists (Dallas *et al* 2007), who determined that limiting the trail construction to within the earlier utility corridor would minimize project effects to a level of No Adverse Effect.
- c) No cemeteries or individual interments are documented in the APE for this project. DPR has incorporated Mitigation Measure Cult-3 into the project to reduce the potential for adverse effects on human remains.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

AVOIDANCE MEASURE CULT-1

- ◆ A DPR-qualified cultural resource specialist will consult with the project manager, contractor(s), and/or State Representative to develop a site avoidance plan that will ensure avoidance of impacts to all identified archaeological sites within the project's Area of Potential Effects.
- ◆ Archaeological sites CA-SBA-96 and CA-SBA-2484H would be designated Environmentally Sensitive Areas (ESAs), depicted as such on the construction plans, and marked with flagging prior to the start of construction. Activities within the ESAs would be restricted to elements identified within the scope of this project and subject to strict implementation of all avoidance and mitigation measures included in this document. The area would be off-limits to all personnel not actively involved in approved activities.
- ◆ All earthmoving activities, including the operation of heavy equipment within the ESA would be prohibited without the approval of the project archaeologist.
- ◆ A State Archaeologist or his/her designee will monitor all construction activities in the vicinity of sites CA-SBA-96 and CA-SBA-2484H. If potentially significant resources are unearthed, work in the immediate area of the find would be temporarily halted or diverted until identification and proper treatment are determined and implemented. The DPR Service Center or District Cultural Resource Section will be notified a minimum of three weeks prior to the start of ground-disturbing work to schedule monitoring, unless other arrangements are made in advance.

MINIMIZATION MEASURE CULT-2

- ◆ In the event that previously-undocumented cultural resources are encountered by anyone during project-related activities, including, but not limited to, dark soil containing shellfish, bone, flaked stone artifacts [e.g. arrow points, scraping tools and others], groundstone tools [e.g. metates, mortars, and others], deposits of historic trash, or historic structures, work within the immediate vicinity of the find will be temporarily halted or diverted until a State Archaeologist or his/her qualified designee has evaluated the find and implemented appropriate treatment and disposition of the artifacts(s).
- ◆ Once any significant cultural resources are found in a project location, a qualified historian, archaeologist, and/or Tribal representative would monitor any ground-disturbing work in that area from that point forward.

MITIGATION MEASURE CULT-3

- ◆ In the event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place. The DPR Sector Superintendent (or authorized representative) will notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (NAHC) will be notified within 24 hours of the discovery if the Coroner determines that the remains are Native American. The NAHC will designate the “Most Likely Descendent” (MLD) of the deceased Native American. The MLD will recommend an appropriate disposition of the remains. If a Native American monitor is on-site at the time of the discovery and that person has been designated the MLD by the NAHC, the monitor will make the recommendation of the appropriate disposition.
- ◆ DPR staff will work closely with Caltrans and FHWA to ensure that its response to such a discovery is also compliant with federal requirements including the Native American Graves Protection and Repatriation Act.

VI. GEOLOGY AND SOILS

This section contains a description of the existing geologic conditions, including seismic and soil conditions in the project area, and evaluates the potential geologic, seismic, and soil related impacts associated with the trail project. This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures.

REGULATORY SETTING

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

The state legislation regarding earthquake fault zones is the Alquist-Priolo Earthquake Fault Zoning Act. In 1972, the State of California began delineating Earthquake Fault Zones (called Special Studies Zones prior to 1994) approximately 500 feet wide on either side of active and potentially active faults to reduce fault-rupture risks to structures for human occupancy. The Act has resulted in the preparation of maps delineating Earthquake Fault Zones to include, among others, recently active segments of the San Jacinto and Raymond Hill fault systems. The Act provides for special seismic design considerations if developments are planned in areas adjacent to active or potentially active faults. No structures for human occupancy may be built across an identified active fault trace. Proposed construction within the Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

In compliance with the State of California Seismic Hazard Zones Mapping Act (Chapter 7.8, Division 2 of the California Public Resources Code) the California Geological Survey (CGS) provides guidance with regard to seismic hazards. Under CGS’s Seismic Hazards Mapping Act, seismic hazard zones are identified and mapped to assist local governments in land use planning. The intent of this Act is to protect the public from the effects of strong groundshaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. If a project falls within a hazard zone, then a geotechnical investigation and appropriate remediation are required by Public Resources Code Section 2693(c) for any construction project in this zone.

ENVIRONMENTAL SETTING

Topography

Gaviota State Park is located within the Transverse Range Geomorphic Province, along the Central California Coast. The Park includes a long strip of coastline south of U.S. Route 101 and an inland zone. The inland zone is a steeply rising ridge of the Santa Inez Mountains, through which Gaviota Creek has cut a gorge.

The linear project site is located on a marine coastal terrace overlooking the Pacific Ocean. The coastal terrace is bisected by coastal drainages or canyons. Between the canyons, the terrace ends in coastal bluffs that are approximately 12 to 24 m (40 to 80 ft) in height and overlook a narrow strip of beach. The elevation of the coastal strip ranges from 0 meters (0 feet) msl (mean sea level) on the beach up to approximately 40 meters (130 ft) msl near U.S. Route 101. The slopes along the trail alignment generally range from 5% to 8 % (vertical to horizontal), with some steep areas (up to 45%) where the trail crosses drainages or where cut slopes have been excavated for roads, oil tanks and other structures. The grade of the pedestrian trail, in order to meet ADA accessibility requirements, will be no greater than 12% and will average 8%.

Regional Geology

The Santa Inez Range includes 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 the Park boundaries. These rocks include, from oldest to youngest, Anita Shale, Cozy Dell Shale, Sacate Formation, Gaviota Formation, Alegria Formation, Sespe Formation, Vaqueros Sandstone, Rincon Shale, and Monterey Formation (Shale). Younger materials include Quaternary (1.6 million years old to recent) alluvial sediments along creek channels and on the coastal bluff (Dibblee 1988).

Dominating the structure of the Santa Ynez Mountains is the east-west-trending left-lateral Santa Ynez Fault (Holtz and Grannell, 2004). The South Branch of the Santa Ynez Fault cuts diagonally through the inland portion of the Park. It is marked by a zone of fault gouge (finely ground rock) and crushed rock, often over 100 meters wide (DPR 1979). This fault is considered active, with movement occurring in the Late Quaternary (SCEDC 2004). The Santa Ynez Fault was responsible for much of the uplift of the Santa Ynez Mountains, which most likely originated approximately 5 million years ago during Pliocene time (Holtz & Grannell 2004).

Project-Specific Geology

The project area for the Gaviota Coastal Trail follows the narrow coastal strip south of U.S. Route 101. According to Dibblee (1988) the surficial geology includes Monterey Formation and Rincon Shale, overlain with marine terrace deposits and recent alluvium in the stream channels. The Monterey Formation rocks consist of the upper shale unit, described as a white-weathering, thin-bedded, hard, brittle, siliceous shale, containing calcareous strata. The lower shale is described as a white-weathering, fissile to platy, semi-siliceous shale, locally cherty. The Rincon Shale outcrops mainly north of U.S. Route 101, and is described as a poorly-bedded, gray clay shale or claystone.

The majority of the trail alignment is located on Pleistocene-age (1.6 million years to 11,000 years) dissected surficial sediments, described as weakly consolidated stream terrace and alluvial fan deposits of silt, sand, and gravel. Recent stream-deposited alluvium (silt, sand, and gravel) are present in the stream channels (Dibblee 1988).

GEOTECHNICAL INVESTIGATION RESULTS

As part of this project, a geotechnical investigation of underlying soils was conducted which included borings near the proposed retaining wall locations. The following conclusions were made by Ninyo and Moore (2005) as a result of their geotechnical investigation:

- Oversteepened fill and steep natural slopes with out-of-slope bedding along the proposed alignment will require special consideration regarding safety and slope stability during construction activities.
- No deep-seated landslides were observed during the geologic reconnaissance or are mapped underlying the project alignment.
- No active faults are reported underlying, or immediately adjacent to the site. The active Santa Ynez Fault (west segment) is located approximately 1.3 miles to the northwest.
- The project area is located in a Near-Source Zone and Seismic Zone 4 according to the 2001 California Building Code. Accordingly, the potential for seismic accelerations will need to be considered in the design of the proposed structural improvements and new structures.
- In general, the on-site materials are suitable for re-use as compacted fill in accordance with the recommendations in the Geotechnical Report. The on-site soils are anticipated to be generally excavatable with conventional, heavy-duty earth moving construction equipment to the depth explored.

Site Specific Soil and Rock Descriptions

The investigation included the drilling and lithologic logging of eight soil borings and two manually excavated test pits. Soils encountered include: artificial fill (silty clay to clayey silt and silty to clayey fine sand), up to 40 feet below ground surface (bgs) (Caltrans fill material from Highway 101); alluvium to 24 feet bgs consisting of fine to medium sandy clay and silty fine sand; and Terrace Deposits up to 18 feet bgs consisting of fine sand, silty to clayey sand, and silty clay. Bedrock (Monterey Shale and Rincon Shale) was encountered in five borings at depths ranging from 4 up to 40 feet bgs. The Monterey Shale (Monterey Formation) encountered consists of light to dark yellow, weakly to moderately cemented, fine-grained sandy siltstone and dark gray-brown weakly to moderately indurated silty claystone. The Rincon Shale consists of light and dark gray weakly to moderately indurated clayey siltstone.

Faults and Seismicity

California, especially its coastal areas, is seismically active. Santa Barbara County experiences a damaging earthquake about every fifteen years on average (NPS 2003). The relatively young San Andreas Fault System (the main San Andreas Fault and numerous related faults) governs the faulting that occurs along the central coast. Faults are fractures or zones of fracture along which displacement of one side occurs relative to the other side. This displacement can take a number of forms, including vertical, horizontal, or a combination of displacement directions. The horizontal movement of adjacent landmasses, such as occurs along the San Andreas Fault Zone, are known as strike-slip faults.

The Santa Inez Fault is an active, left-lateral strike slip fault that traverses the upland area of the Park. This fault is capable of generating an earthquake with a Maximum Moment Magnitude of 6.9-7.0 (Petersen *et al* 1996). The closest branch of the fault is located approximately 1.5 miles northwest of the beginning of the trail alignment. According to Petersen *et al* (1999), the project area has a 10% probability in the next 50 years of experiencing low to moderate ground shaking exceeding 0.3g to 0.4g (peak ground acceleration).

In addition to the Santa Ynez Fault, other nearby faults include the Arroyo Parida and the Rincon Creek faults, located to the east along the coast, parallel to the Santa Ynez Fault. To the north of the Santa Ynez Fault are the Los Alamos and the Little Pine faults, both of which terminate against the Santa Ynez. Earthquake on these faults can potentially cause damage at the Park. The recent strong 1978 Santa Barbara earthquake of magnitude 5.7 caused some small rockfalls and soilfalls along U.S. Route 101 in the Gaviota Pass area. All failures were observed in manmade roadcuts, not in natural slopes (Harp *et al* 1980).

SEISMICALLY-INDUCED EFFECTS

Liquefaction

Seismic-induced ground motion can cause liquefaction. Liquefaction occurs when water-saturated sediments are subjected to extended periods of shaking, causing increases in the water pressure of soil pores and a temporary alteration of the soil from a solid to a liquid state. The result is a loss of soil strength, which causes the failure of adjacent infrastructure, such as bridges and buildings. The degree of resistance to liquefaction depends on a number of factors, including soil grain-size, degree of compaction and cementation, depth of the saturated zone, characteristics of the vibration, and the occurrence of past liquefaction. Granular, unconsolidated, saturated sediments are the most likely to liquefy, while dry, dense, or cohesive soils tend to resist liquefaction. Liquefaction is generally considered to be a hazard where the groundwater is within 40 to 30 feet of the surface. Where the soil drainage is good, the pore pressure that builds up when ground motion shakes unconsolidated soil is more easily dissipated; thus, those soils with good drainage are less likely to liquefy.

The portions of the Park that are underlain by beach sands and Recent alluvium may be susceptible to liquefaction. Along the trail alignment, these areas would occur where the trail crosses the various stream channels, and the trailhead area adjacent to Gaviota Creek.

Lateral Spreading

Lateral spreading is the lateral displacement of sediments as a result of subsurface liquefaction. It is most likely to occur where loose, sandy, water-saturated sediments are located near a free face, such as a cutbank, cliff face, or stream channel bank.

Tsunamis and Mudflows

A tsunami is a series of waves of extremely long wave length and long period generated in a body of water by a disturbance that displaces the water. Tsunamis are primarily associated with earthquakes in oceanic and coastal regions. Landslides, volcanic eruptions, nuclear

explosions, and even impacts of objects from outer space (such as meteorites, asteroids, and comets) can also generate tsunamis. As the tsunami crosses the deep ocean, its length from crest to crest may be a hundred miles or more, and its height from crest to trough will only be a few feet or less. In the deepest oceans, the waves will reach speeds exceeding 600 miles per hour (970 km/hr). When the tsunami enters the shoaling (shallowing) water of coastlines in its path, the velocity of its waves diminishes and the wave height increases. It is in these shallow waters that a large tsunami can crest to heights exceeding 100 feet (30 m) and strike with devastating force (NOAA 2004).

Two earthquakes, 15 minutes apart, occurred in the Santa Barbara area on December 21, 1812. According to eye witness accounts, the tsunami runup at Gaviota was 50 feet (15 meters) (Weber and Kiessling, 1978). The tsunami reportedly traveled up the canyons a mile from the shore (Pararas-Carayannis, 2004).

Inundation due to a tsunami is possible in the event of a large offshore earthquake. The areas of the proposed trail that may be susceptible to inundation from a tsunami are from the trailhead area to the intersection with the pipeline easement.

Mudflows/Debris Flows occur frequently in the drainage of Gaviota Creek (Curry 2004 *p.c.*), and are monitored by Park officials. The potential for mudflows in the other, smaller drainages is not documented. Wildfires increase the potential for mudflows/debris flows.

SUBSIDENCE

Subsidence is a gradual settling or sudden sinking of the Earth's surface. Common causes of land subsidence from human activity are pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils (hydrocompaction).

The project site is not within an area of known ground subsidence associated with the offshore oil production in the Gaviota oil field, nor from groundwater extraction.

SOILS AND EROSION

Due to the variety of parent rock types, the steep topography, and the variety of vegetation, many soil types occur within the Park. They have been divided into the following categories: soils of alluvial fans and wind-deposited materials; soils of older alluvial fans; terrace soils; upland soils; and miscellaneous land types (DPR 1979). Descriptions of the soil types along the trail alignment are provided below. Soil parameters are from the DPR *General Plan* (1979), the US Department of Agriculture (USDA 1972), and the National Resource Conservation Service (NRCS 2004).

- *Ayar silty clay*: derived from alkaline shale and sandstone parent rock, is well-drained, with high runoff and slow permeability when moist. This soil is moderately plastic and has a high shrink-swell potential.
- *Camarillo fine sandy loam*: a deep soil developed on alluvium (floodplain deposits) from sandstone parent rock. This soil is slightly plastic, poorly drained, has very slow runoff, no to slight erosion hazard, and moderate permeability.

- *Concepcion fine sandy loam*: this deep soil is derived from weakly consolidated alluvial or eolian (wind) deposits on terraces. It is slightly plastic, moderately drained, has slow to very rapid runoff, slight to high erosion hazard (increases with steeper slopes), and very slow permeability.
- *Cortina stony loam*: described as a very gravelly sandy loam developed on alluvial fans and floodplains, and derived from mixed parent rock types. This soil is very deep, excessively drained, and non-plastic, with negligible to slow runoff and rapid permeability.
- *Diablo Clay*: this silty clay is derived from weathered calcareous shale or mudstone and sandstone parent rocks, is well drained, highly plastic, and has slow permeability. Runoff is slow when the soil is dry, and becomes moderate to rapid as the soil becomes saturated. Erosion hazard also ranges from moderate to high with increasing slope.
- *Milpitas stony fine sandy loam*: a soil derived from older alluvium on terraces (sandstone parent rock), moderately drained, slightly plastic, with medium runoff and very slow permeability.
- *Positas fine sandy loam*: this very deep to deep soil is developed on alluvium derived from mixed parent rock types. The soil is non-plastic in the upper foot to very plastic below a foot. The drainage is moderate, runoff is moderate to very high, and permeability is slow to very slow. Erosion hazard is slight to moderate, but can be high on steeper slopes and in strongly dissected terraces.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 (1997), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste 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"/>
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a) Seismic Hazards

- (i) As discussed above, the project site is subject to potential low to moderate seismic ground shaking resulting from a number of local and regional faults, particularly the Santa Ynez Fault Zone and the Los Alamos Fault. Although a number of faults exist in the region, the project site itself is not located within an identified Alquist-Priolo Special Study Zone and would not be subject to ground rupture. Furthermore, as discussed above, no known active faults have been identified under the project site.
- (ii) A moderate (M6.0 to 6.9) to strong (7.0 to 7.9) earthquake on a fault in the project vicinity

would generate moderate ground motion at the site, on the order of 0.3 to 0.4 g ground acceleration. For example, a major earthquake on the Santa Ynez Fault could result in an extended period of ground shaking or high ground accelerations near the project site. Either of these conditions could cause extensive damage to engineered structures. The project does not involve the construction of any habitable structures or bridges; however the existing and proposed culverts and retaining walls would be subjected to shaking during an earthquake. Designing engineered structures to withstand any impacts from shaking, liquefaction, or lateral spreading will reduce this potential hazard to a less than significant level (see Minimization Measure **GEO-1**).

(iii) Some areas of the trail, where it crosses the stream channels, may experience localized liquefaction. Some slumping of steep, unstable slopes may also occur due to seismic shaking. Seismic hazards are an ongoing impact in this area and will not become more significant due to the project. Designing engineered structures to withstand any impacts from shaking, liquefaction, or lateral spreading will reduce this potential hazard to a less than significant level (see Minimization Measure **GEO-1**).

Mudflows/Debris Flows occur frequently in the drainage of Gaviota Creek (Curry 2004 *p.c.*). The potential for mudflows in the other, smaller drainages is not documented. Wildfires, such as the June 2004 fire that burned most of the Park and the watershed north of U.S. Route 101, can increase the risk of local mudflows/debris flows in subsequent storm events. Implementation of Minimization Measure **Haz-2** will reduce the risk of project-associated wildfire to a less than significant level (see Section VII: Hazards and Hazardous Material).

(iv) Landslides include a wide range of ground movement, such as rock falls, deep slope failures, and shallow debris flows. Although gravity acting on an oversteepened slope is the primary cause, other contributing factors include: erosion and undercutting of the landslide toe; saturation with water; earthquakes, effects from recent wildfires, and excess weight accumulation from snow or manmade soil stockpiles (USGS 2004). Fast moving, and therefore dangerous, debris flows (also called mudslides, mudflows, or debris avalanches) generally occur during intense rainfall events when the soil is already saturated.

Areas prone to landsliding within the project area are the steep coastal bluffs seaward of the trail alignment. No known landslides have occurred within the project area and no evidence of deep-seated landslides were observed during the geotechnical investigation (Ninyo & Moore 2005).

Fires contribute to landslides by removing vegetation, thereby increasing soil erosion, and by creating a water-repellent layer in the subsoil. Infiltrating rainfall cannot penetrate below this layer, so the upper layer becomes saturated and then fails. Post-fire landslide hazards include fast-moving, highly destructive debris flows that can occur in the years immediately after wildfires in response to high intensity rainfall events, and those flows that are generated over longer time periods accompanied by root decay and loss of soil strength. Post-fire debris flows are particularly hazardous because they can occur with little warning, can exert great impulsive loads on objects in their paths, can strip vegetation, block

drainage ways, damage structures, and endanger human life. Wildfires could potentially result in the destabilization of pre-existing deep-seated landslides over long time periods (USGS, 2004). Implementation of Minimization Measure **HAZ-2** will reduce the risk of project-associated wildfire to a less than significant level (see Section VII: Hazards and Hazardous Material).

b) Soil and Erosion Impacts

Standard construction and engineering practices would ensure that slope stability issues are appropriately addressed in areas of cut and fill along the trail alignment. In several areas, retaining walls will be installed to meet acceptable slope stability safety factor criteria.

Another component of the project involves grading, cut and fill of the site's natural topography. Potential short- and long-term impacts could result from creation of new slopes that are not properly contoured or revegetated, thus increasing or exacerbating erosion on site. The potential short-term impacts would be addressed through incorporation of construction Best Management Practices (BMPs). Long-term impacts associated with erosion in this area would be addressed through incorporation of permanent BMPs, including implementation of a revegetation plan. Implementation of the Minimization Measure **GEO-2** discussed below would reduce impacts from erosion and soil loss to less than significant.

- c) Suitability of the soils for trail development is rated as slight, moderate, or severe. Slight means that only normal site inspection and precautions are needed during planning and construction. A moderate rating means that careful site inspections and more than normal precautions are required to overcome limitations. A severe rating means that development costs are high and that another site may be more suitable. Soils rated slight are Ayar, Concepcion, and Milpitas. Cortina and Diablo are rated moderate. Milpitas ranges from moderate to severe and Milpitas-Posita complex is rated from slight to severe (see Maps 4a-4c).

Areas of artificial fill resulting from surface grading activities are found at various locations on site along road alignments and the oil terminals. Some areas of the trail will require retaining walls near or within the fill materials. Site-specific geotechnical investigations were conducted to evaluate the depth and nature of these fill materials and to inform appropriate retaining wall design (Ninyo & Moore 2005).

The proposed reconstruction of the site's natural topography would involve the cut and fill in areas along the trail route. This could result in unstable areas/slopes if proper engineering techniques are not administered and if the new slopes are not properly revegetated. Implementation of Measure **GEO-2** would reduce potential impacts to a less than significant level.

- d) Expansive soils are found in floodplains and low-lying regions, occurring naturally across much of the western United States. If allowed to become wet, the soils will expand, shrinking as water is removed. While there is no site specific information on the expansion

index of site soils, those soils (Ayar, Concepcion, Diablo, Milpitas, and Positas) rated as severe for shrink-swell can be considered expansive.

Expansive soils can damage walls, foundations, driveways, and other constructed features. These features may crack and heave as soils expand, possibly returning to their original position as the soil dries. As discussed above, some native soils do have high shrink-swell potential and may be classified as expansive soils according to Table 18-1-B of the 2001 California Building Code. This project does not involve the construction of buildings or bridges, but does involve construction of retaining walls and culvert installation. Potential impacts from expansive soils at these locations have been reduced to a less than significant level by adherence to the recommendations derived from geotechnical testing at potential retaining wall locations. Engineering designs have been modified in accordance with these recommendations to ensure that the potential effects of expansive soil have been reduced to a less than significant level.

- e) The project does not include provision of water or sewer services. Construction of the trail segment will have negligible or no effect on existing systems.
- f) The Monterey Formation is known to contain vertebrate fossils. At the Park, the Monterey Formation has documented occurrences of large halibut fish and seal bones, dating to 7-11 million years ago (NPS 2003). There are no known occurrences along the trail alignment.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

MINIMIZATION MEASURE GEO-1

- ◆ The project area is within Seismic Zone 4 (CBC 2001). The retaining walls will be designed in accordance with any applicable requirements in the California Building Code (CBC 2001) or most recent accepted edition, in order to withstand any anticipated seismic affects. The seismic design parameters for the site are included in Table 1, below. Implementation of measure **GEO-1** will reduce impacts resulting from the project to less than significant.

Table 1 – Seismic Design Parameters

Parameter	Value	2001 CBC Reference
Seismic Zone Factor, Z	0.40	Table 16 - I
Soil Profile Type	S _D	Table 16 - J
Seismic Coefficient C _a	0.57	Table 16 - Q
Seismic Coefficient C _v	1.02	Table 16 - R
Near-Source Factor, N _a	1.3	Table 16 - S
Near-Source Factor, N _v	1.6	Table 16 - T
Seismic Source Type	B	Table 16 - U

Source: Ninyo & Moore, 2005

MINIMIZATION MEASURE GEO-2

- ◆ A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented by the State's contractor. The SWPPP will describe the Best Management Practices (BMPs) to be used in all areas to control soil and surface water runoff during any further geotechnical investigations and during excavation, grading and filling activities. Grading and excavation activities should not be planned during the rainy season (October 15 to April 15), but if storms are anticipated during construction or if construction must occur during winter months, "winterizing" will occur, including the covering (tarping) of any stockpiled soils and the use of temporary erosion control methods to protect disturbed soil.
- ◆ Temporary erosion control measures will be installed along the perimeter of the construction site and around areas where ditches or culverts could channel site runoff into nearby wetlands or sensitive biological communities. Temporary erosion control measures must be used during all soil disturbing activities and until all disturbed soil has been stabilized (recompacted, revegetated, etc.) These BMPs may include, but will not be limited to, the use of silt fences, geotextile mats or blankets, hydroseeding, weed free straw bales, or rice straw or coir wattles or fiber rolls, to prevent soil loss and siltation into nearby water bodies. The proper use and installation of these devices are available in the California Stormwater Quality Association's Stormwater Best Management Practice Handbook for Construction (CSQA 2003), at cabmphanthbooks.com. The project would comply with all applicable water quality standards as specified in the CCRWQCB Basin Plan.
- ◆ Permanent BMPs for erosion control will consist of properly engineered structures to prevent erosion and landsliding, compacting disturbed areas, and revegetation of appropriate disturbed soil areas with native species using seed collected locally (Gaviota Coast). Final design plans will include specific BMPs to be incorporated into the project. The BMPs established for post-construction erosion control will be assessed annually and maintained as needed for a period of three years following construction.

VII. HAZARDS AND HAZARDOUS MATERIALS.

REGULATORY SETTING

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

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

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

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

Hazardous waste in California is regulated primarily under the authority of RCRA and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

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

This section contains a description of the existing potential hazards in the area, including hazardous materials and wildfires, and evaluates the potential impacts associated with the trail project.

ENVIRONMENTAL SETTING

Gaviota State Park is located in the Santa Ynez Mountains along U.S. Route 101. The project site (trail alignment) is located on the coastal strip south of U.S. Route 101, between the highway and the Pacific Ocean. The trail alignment passes through a decommissioned marine oil terminal and the inactive Shell-Gaviota Marine Terminal. A refinery is located adjacent to the project area, north of U.S. Route 101.

Hazardous Materials

The project site is not listed on a local, state, or federal hazardous materials database. The regulatory search identified one Cortese List (Government Code §65962.5) Leaking Underground Storage Tank (LUST) property within a one-mile search radius. This site is located north of Highway 101 at Nick's Place (17340 Calle Real) and, based on the groundwater contaminants, appears to be a leaking gasoline tank. The Department of Toxic Substances Control (DTSC) Calsites database has identified one site, Shell Western/Hercules Gas Plant, located approximately three miles east of the east end of the trail project. This project has been cleaned up to an acceptable level and received DTSC certification. Neither of these sites should impact the project area.

ChevronTexaco Current Equipment Removal Project

In June of 2002 the Santa Barbara County Planning Commission approved a joint application by Arguello, Inc. and ChevronTexaco to remove excess equipment at the Gaviota Processing Facility. The equipment is no longer necessary because the operator processes the crude oil and gas offshore. The equipment removal project is being conducted in three phases: (1) The tallest pieces of equipment and infrastructure were torn down, reducing the visual profile of the plant; (2) The applicant will sell as much of the excess equipment as possible (the project is currently in this phase); and (3) The applicant will remove the remaining excess equipment for scrap.

ARCO Alegria Current Clean-up Activity

The former tank site is currently undergoing site assessment and characterization to determine the extent of contamination. Several revisions were made to the 2003 Remedial Action Work Plan, with the latest submitted in June of 2004. ARCO initiated remediation efforts in 2004, planning to excavate approximately 6,650 cubic feet of soil down to 17 feet, vacuuming and disposing of contaminated groundwater, and adding oxygenating compounds at depth prior to backfilling (Santa Barbara County 2004). Prior to use of any bioremediated soil from this or any other site, DPR will require testing and documentation that it has been remediated to a level suitable for use as fill material.

Airport Safety Hazards

The project site is not located within an airport land use zone, or within 2 mile of an airport. The Santa Ynez Valley Airport is located 13 miles northeast of the project area and the Santa Barbara Municipal Airport is located approximately 30 miles to the east. Aircraft from either of these airports could fly over the project site. Vandenberg Air Force Base (VAFB) is located approximately 25 miles northwest of the project site. It is estimated that 93 percent of the aircraft operations approach the Vandenberg airfield from the southeast over Lompoc and depart to the northwest over the Pacific Ocean (City of Lompoc 2003); therefore, occasional flights from VAFB could occur over the project area.

Missile Launching Accidents

Missiles are regularly launched from VAFB. Missile silos and other launch facilities are located near the coast, northwest of the project site. Missile trajectories are over the Pacific Ocean. In the event of an aborted launch, debris would fall into the ocean and not over land (City of Lompoc 2003).

Schools

There are no schools in the immediate project vicinity. The nearest school is Vista Las Cruces Elementary School, situated approximately 3 miles north, in Las Cruces.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 §65962.5, and, as a result, create a significant hazard to the public or environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be 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? If so, 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) Be located in the vicinity of a private airstrip? If so, 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 checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

- a) Construction activities will require the use of certain hazardous materials, such as fuels, oils, or other fluids associated with the operation and maintenance of vehicles and equipment. These materials are generally contained within vessels engineered for safe storage. Large quantities of these materials will not be stored at or transported to the construction site. Spills, upsets, or other construction-related accidents could result in a release of fuel or other hazardous substances into the environment. Implementation of a spill prevention plan as part of the SWPPP, Measure **Haz-1**, will reduce the potential for adverse impacts from these incidents to a less than significant level. Use of bioremediated soils as fill will require documentation that the soils have contamination levels that are acceptable for use as fill. This soil is from the decommissioned tank farm/refinery areas and was contaminated with petroleum hydrocarbons and possibly heavy metals due to spills, leaks, or improper housekeeping measures at the facility.
- b) Implementation of Minimization Measure **Haz-1** will avoid or minimize impacts to water quality from possible pollutants (fuels and other vehicle fluids released from vehicles and heavy equipment during construction).
- c) As noted in the Environmental Setting, there are no schools within three miles of the proposed project site. Therefore, there will be no impact from this project.
- d) No part of the Park is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 (Cortese List). No area within the project site is currently restricted or known to have hazardous materials present; however, one geotechnical test boring (B-6) near a proposed retaining wall location encountered a gasoline odor at 5-6 feet below grade (just above the groundwater elevation). Boring B-8 in the in the marine terminal encountered a strong gasoline odor and green stained soil at 14 feet below grade. The boring was terminated at that depth due to the encountered contamination (Ninyo & Moore 2005). DPR will work with the marine terminal property owner to insure no exposure to hazardous materials will occur as a result of project construction or related activities.
- e,f) The Park is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private air strip. The closest airport is the Santa Ynez Valley Airport located 13 miles to the northeast.
- g) All construction activities associated with the proposed project would occur within the boundaries of the Park and work would not restrict access to, cause delays, or block any public road outside the immediate construction area. The traffic on U.S. Route 101 and its offramps may be impacted only for short periods of time for delivery of construction materials or construction equipment. Therefore, the impact of this project would be less than significant.

- h) The project area is located in an area with flammable coastal scrub vegetation. The project site was burned in a wildfire that occurred in June 2004, so most of the heavy scrub was burned off. However, the possibility of another wildfire is possible, as the area becomes revegetated. Heavy equipment can get very hot with extended use; this equipment would sometimes be in close proximity to this vegetation. Improperly outfitted exhaust systems or friction between metal parts and/or rocks could generate sparks, resulting in a fire. Implementation of Minimization Measure **HAZ-2** (below) would reduce the potential for adverse construction impacts from this project to a less than significant level.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

MINIMIZATION MEASURE HAZ-1

- ◆ All equipment will be inspected by the contractor for leaks immediately prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises. The contractor(s) will include a Spill Prevention and Response BMP as part of the SWPPP prior to the start of construction and will maintain a spill kit on-site throughout the life of the project. The SWPPP will include a map that delineates construction staging areas, where refueling, lubrication, and maintenance of equipment may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be at least 30 m (100 feet) feet from any water body or riparian habitat. Fueling and maintenance will be conducted on pavement unless designated otherwise. In the event of any spill or release of any chemical in any physical form at the project site or within the boundaries of the Park during construction, the contractor would immediately notify the appropriate DPR staff (e.g., project manager, supervisor, or State Representative).
- ◆ Equipment will be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds will be disposed of outside park boundaries, at a lawfully permitted or authorized destination. The details will be provided in the SWPPP.
- ◆ If bioremediated soil is used for fill, then the soil will be tested for the expected constituents of concern (petroleum compounds, heavy metals) and documentation provided that the levels of COCs are acceptable for use as fill material. The previous land owner/operator of the tank farm/facility will provide this testing and documentation.

MINIMIZATION MEASURE HAZ-2

- ◆ A Fire Safety Plan will be developed by the contractor and approved by DPR prior to the start of construction. This plan will include the emergency calling procedures for both the California Department of Forestry and Fire Protection and the Santa Barbara County Fire Department Station 18, at Gaviota.

- ◆ Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, concrete, or aggregate base to reduce the chance of fire. The contractor shall ensure that fire suppression equipment is readily available on park grounds throughout the duration of the construction period.

VIII. HYDROLOGY AND WATER QUALITY

REGULATORY SETTING

Water Quality and Storm Water Runoff

The primary federal law regulating Water Quality is the Clean Water Act. Section 401 of the Act requires a water quality certification from the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (RWQCB) when a project: (1) requires a federal license or permit (a Section 404 permit is the most common federal permit for Department projects); and (2) will result in a discharge to waters of the United States.

Additional laws regulating water quality in California include the Porter-Cologne Water Quality Act, Safe Drinking Water Act and Pollution Prevention Act. State water quality laws are codified in the California Water Code.

Porter-Cologne Water Quality Control Act

This Act, passed in 1969, established California's SWRCB and the nine Regional Water Quality Control Boards (RWQCBs), which are responsible for protection of the State's surface water and groundwater supply. The Park is with the Central Coast RWQCB jurisdiction. The SWRCB is required under section 303 of the Clean Water Act, and the California Water Code (§13240) to adopt water quality standards. In response to these requirements the RWQCBs have prepared Water Quality Control Plans (Basin Plans) that designate the beneficial uses of waters to be protected, establish water quality objectives for the reasonable protection of the beneficial uses, and establish a program of implementation for achieving the water quality objectives. These standards and objectives are listed in the Central Coast RWQCB Basin Plan (CCRWQCB 1994).

The Central Coast Basin Plan identifies the following beneficial uses for the streams listed in the table. All tributary streams have the same applicable beneficial uses as the main stream.

Beneficial Uses:

	Gaviota Creek	Cañada San Onofre	Coastal Waters ¹
Beneficial Use			
MUN	X	X	
AGR	X		
GWR	X		
IND			X
REC1	X	X	X
REC2	X	X	X
MAR			
WILD	X	X	
COLD	X	X	
WARM	X	X	
MIGR	X	X	
SPWN	X	X	
BIOL	X		
SHELL			X
RARE	X	X	
EST	X	X	
FRSH	X	X	
NAV			X
COMM	X	X	X

¹ Coastal Waters from Point Arguello to Coal Oil Point

Beneficial Use Definitions:

MUN – Municipal Supply: Uses of water for community, military, or individual water supply systems, including, but not limited to, drinking water supply.

AGR - Agricultural Supply: Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation (including leaching of salts), stock watering, or support of vegetation for range grazing.

GWR - Ground Water Recharge: Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.

IND – Industrial Service Supply: Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well pressurization.

REC-1 - Water Contact Recreation: Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing, or use of natural hot springs.

REC-2 - Noncontact Water Recreation: Uses of water for recreational activities involving proximity to water, but where there is generally no body contact with water, nor any likelihood of ingestion of water. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

MAR – Marine Habitat: Uses of water that support marine ecosystems including, but not limited to, preservation and enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).

WILD - Wildlife Habitat: Uses of water that support terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

COLD - Cold Freshwater Habitat: Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

WARM – Warm Freshwater Habitat: Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

MIGR - Migration of Aquatic Organisms: Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.

SPWN - Spawning, Reproduction, and/or Early Development: Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

SHELL – Shellfish Harvesting; Uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g. clams, oysters, and mussels) for human consumption, commercial, or sport purposes. This includes waters that have in the past, or may in the future, contain significant shellfisheries.

BIOL – Preservation of Biological Habitats of Special Significance: Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.

RARE – Rare, Threatened, or Endangered Species: Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.

EST – Estuarine Habitat: Uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds). An estuary is generally described as a semi-enclosed body of water having a free connection with the open sea, at least part of the year and within which the seawater is diluted at least seasonally with fresh water drained from the land.

FRSH - Freshwater Replenishment: Uses of water for natural or artificial maintenance of surface water quantity or quality.

NAV – Navigation: uses of water for shipping, travel, or other transportation by private, military, or commercial vessels. This Board interprets NAV as “Any stream, lake, arm of the sea, or other natural body of water that is actually navigable and that, by itself, or by its connections with other waters, for a period of time long enough to be of commercial value, is of sufficient capacity to float watercraft for the purposes of commerce, trade, transportation, and including pleasure; or any waters that have been declared navigable by the Congress of the United States “ and/or the California State Lands Commission.

COMM – Commercial and Sport Fishing: Uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.

1601 Streambed Alteration Agreement

Under Section 1601 of the Fish and Game Code, before any state or local governmental agency or public utility begins a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake (2) use materials from a streambed or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, it must first notify the DFG of the proposed project. Generally speaking, the notification requirement applies to any work undertaken within the annual highwater mark of a wash, stream, or lake, which contains or once contained fish and wildlife or supports or once supported riparian vegetation.

Based on the information contained in the notification form and a possible field inspection, the DFG may propose reasonable modifications in the proposed construction as would allow for the protection of the fish and wildlife resources. Upon request, the parties may meet to discuss these modifications. If the parties cannot agree and execute a Lake or Streambed Alteration Agreement, then the matter may be referred to arbitration. This and other information regarding the DFG's Lake and Streambed Alteration Program is available on the Internet at <http://www.dfg.ca.gov/legal/index.html>.

Section 402 of the Act establishes the National Pollutant Discharge Elimination System (NPDES) permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. The SWRCB has issued a construction general permit for most construction activities covering greater than 1 acre (0.40 hectare), that are part of a Common Plan of Development exceeding 5 acres (2.02 hectare) or that have the potential to significantly impair water quality. Some construction activities may require an individual construction permit. State projects that are subject to the construction general permit require a Storm Water Pollution Prevention Plan (SWPPP), while all other projects require a Water Pollution Control Program (WPCP). Subject to Lead Agency review and approval, the contractor prepares the SWPPP or WPCP. The WPCP and SWPPP identify construction activities that may cause pollutants in storm water and measures to control these pollutants.

Hydrology and Floodplain

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650(a).

In order to comply, the following must be analyzed:

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

The 100-year floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the 100-year floodplain.”

ENVIRONMENTAL SETTING

Watershed

The inland portion of Gaviota State Park and the trail head area are within the Gaviota Creek drainage, with a watershed area 19 square miles (12,160 acres). The Gaviota Creek drainage is fairly narrow along its lower reaches between the mouth and Las Cruces, but the headwaters broaden to the west, north, and east (DPR 1979). The coastal strip that includes the trail alignment passes through eight small watersheds, ending in the next largest watershed (123 acres) of Cañada de San Onofre.

Water Supply

Water for the park is supplied by a spring located to the north in Gaviota Pass. The spring feeds into Las Cruces Creek, a tributary to Gaviota Creek.

Flooding

The Gaviota Creek drainage is fan-shaped above Las Cruces and then narrows along its lower reaches. Because of the fan-shaped configuration of the upper drainage area, peak flows at and below Las Cruces can be excessive, resulting in downstream flooding. During periods of extremely heavy rainfall, Gaviota Creek overflows its banks and inundates much of the lower floodplain. The area where Gaviota Beach Road crosses the creek near its mouth is often flooded and closed for several days (DPR 1979).

The Federal Emergency Management Agency (FEMA) floodplain maps for this area (FEMA, 1979) show that the lower reaches of both Gaviota Creek and Cañada de San Onofre are in Zone A. Zone A is defined as: *Areas of 100-year flood; base flood elevations and flood hazard factors not determined*. Portions of the trail project are located in the 100-year floodplain of Gaviota Creek (see Figure 7).

Hydrology

Surface water runoff in the project area starts north of U.S. Route 101 in the Santa Ynez Mountains, flows in 8 small watersheds and Gaviota Creek until it reaches Highway 101. Then, it is directed under the highway via culverts and continues south to the Pacific Ocean. The Gaviota Creek drainage, owing to its fan-like configuration in the upper reaches, can have excessive peak flows at and below Las Cruces, resulting in downstream flooding. Lower Gaviota Creek meanders through a low floodplain that extends about 2,950 to 3,940 feet above the mouth (DPR 1979).

Groundwater

The project site is not within a groundwater basin as defined by DWR (2003). According to DWR, water bearing formations in the area (Goleta Basin) consist of Pleistocene Santa Barbara Formation and Holocene to Pleistocene alluvial deposits. The Santa Barbara Formation is not found at the project site. Groundwater is present in the Quaternary Terrace Deposits and stream channel alluvium. The quantity of groundwater in the water-bearing

materials beneath the site is unknown, but is most likely of limited quantity.

During the geotechnical investigation (Ninyo & Moore 2005), shallow groundwater was encountered in only one boring, at a depth below ground surface of 8 feet.

Impacts

The Avoidance, Minimization and/or Mitigation Measures discussed in this section would require implementation of a Stormwater Pollution Prevention Plan that includes short- and long-term Best Management Practices (BMPs). Short-term (construction) BMPs will be provided in the SWPPP. Long-term BMPs will be incorporated into the project’s plans and specifications. Engineering design will provide properly sized culverts, drop inlets, and properly configured stormwater runoff pathways to prevent erosion and flooding. Implementation of these measures would reduce impacts to a less than significant level; therefore, no additional measures will be required. Overall, impacts to hydrology and water quality will be less than significant after mitigation.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that 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 alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	<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 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 on- or off-site flooding?	<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) 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"/>

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

a) During grading, trenching, and excavation operations associated with the trail construction, impacts to surface waters and violations of water quality standards can occur due to releases of sediments. Other impacts to water quality can result from releases of fuels or other fluids from vehicles and equipment during the construction process. These activities could result in a violation of water quality standards and waste discharge requirements. Implementation of Minimization Measure **HYDRO-1** will control releases of pollutants in storm (or other) water runoff.

Implementation of Minimization Measure **HAZ-1** will avoid or minimize impacts to water quality from possible pollutants (fuels and other vehicle fluids released from vehicles and heavy equipment during construction). The geotechnical investigation conducted for this project avoided water quality impacts by utilizing BMPs and a spill prevention plan to manage drilling fluids.

b) The proposed project does not include any facilities that would draw on existing sources of potable water. It will not cause a depletion of groundwater supplies or affect groundwater recharge in the area.

c,d) The increase in impervious surface area will not significantly alter drainage patterns, nor would it significantly increase polluted runoff originating from the site. Properly engineered trails, parking areas, and a properly sized stormwater drainage system will be designed and installed to prevent on- or off-site flooding.

The project will require a Stormwater Pollution Prevention Plan (SWPPP) and implementation of standard Best Management Practices (BMPs) to prevent soil erosion and runoff into nearby surface water bodies (see Minimization Measure **HYDRO-1**). In addition, the project will include natural landscape restoration and enhancement measures for revegetating disturbed areas (see Measures **Bio-6** through **Bio-9**).

- e) The project site along the trail will remain as undeveloped open space. The total amount of new impervious surface areas (the asphalt hike-and-bike trail) will cover approximately 13,668 square meters (approximately 147,121 square feet or 3.37 acres). The new parking lot at the trail head will be paved with either conventional asphalt or with porous concrete.

The trail will be outsloped so that stormwater runoff will be conducted off the trail as sheetflow. Stream crossings will require either new culverts or, in one or two cases, an extension of an existing culvert, to route the water coming from above the new Coastal Trail segment and U.S. Route 101.

- f) As described above, watersheds and receiving waters potentially affected by the project include Gaviota, San Onofre, and 7 other small coastal creeks, and coastal waters.

The increase in impervious surface area will not significantly alter drainage patterns, nor would it significantly increase polluted runoff originating from the site. Properly engineered trails, parking areas, and a properly sized stormwater drainage system will be designed and installed to prevent on- or off-site flooding.

The project will require a Stormwater Pollution Prevention Plan (SWPPP) and implementation of standard Best Management Practices (BMPs) to prevent soil erosion and runoff into nearby surface water bodies. In addition, the project will include a landscaping plan to revegetate disturbed areas.

During grading, trenching, and excavation operations associated with the trail construction, impacts to surface waters and violations of water quality standards can occur due to releases of sediments.

Other impacts to water quality could result from releases of fuels or other fluids from vehicles and equipment during the construction process. These activities could result in a violation of water quality standards and waste discharge requirements. Implementation of Minimization Measure **HYDRO-1** will control releases of pollutants in storm (or other) water runoff. The SWPPP will include BMPs for the prevention, containment, and clean up of any spills to avoid or minimize any impacts to water quality.

Implementation of Minimization Measure **HAZ-1** (see Hazardous Materials, Section VII) will avoid or minimize impacts to water quality from possible pollutants (fuels and other vehicle fluids released from vehicles and heavy equipment during construction). The geotechnical investigation conducted for this project avoided water quality impacts by utilizing BMPs and a spill prevention plan to manage drilling fluids.

- g) The project has no housing component. No effect.

h,i) The Gaviota Creek drainage is fan-shaped above Las Cruces and then narrows along its lower reaches. Because of the fan-shaped configuration of the upper drainage area, peak flows at and below Las Cruces can be excessive, resulting in downstream flooding. During periods of extremely heavy rainfall, Gaviota Creek overflows its banks and inundates much of the lower floodplain. The area where Gaviota Beach Road crosses the creek near its mouth is often flooded and closed for several days (DPR 1979). Gaviota Beach Road will provide access to the proposed new trailhead; however, the trailhead will be situated more than 200 meters upstream of the Gaviota Creek crossing.

This project does not involve structures in any 100-year floodplain that would impede or redirect flood flows; however, the trailhead is situated within the 100-year floodplain of Gaviota Creek. Incorporation of Minimization Measure **HYDRO-1** (see below) will ensure that the project will not result in any significant encroachment into the floodplain.

j) Inundation due to a tsunami is possible in the event of a large offshore earthquake. The areas of the proposed trail that may be susceptible to inundation from a tsunami are from the trailhead area to the intersection with the pipeline easement. Incorporation of Minimization Measure **HYDRO -2** will reduce the risk of tsunami inundation on humans to a less than significant level.

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

MINIMIZATION MEASURE HYDRO-1

- ◆ The amount of increased runoff due to the paved trail and the parking lot will be determined and an appropriately sized and designed stormwater drainage system will be installed to prevent any on- or off-site flooding.
- ◆ As part of the grading and landscaping design, surface water runoff will be directed into existing or new stormwater drains or allowed to sheetflow off the trail.
- ◆ A Storm Water Pollution Prevention Plan and associated erosion control plan, as required by the State Water Resources Control Board, would also include BMPs for control of runoff and erosion (See Minimization Measure **GEO-2**).
- ◆ The SWPPP will identify all pollutant and sediment sources that may affect storm water discharges from the construction site, identify and implement BMPs to reduce or eliminate these pollutants and sediments during construction and post-construction, and develop a maintenance schedule for post-construction BMPs.

MINIMIZATION MEASURE HYDRO-2

- ◆ A tsunami warning sign will be posted at the trailhead that describes the warning signs and gives directions to move to higher ground, either farther east along the trail or upslope to the north.

LAND USE AND PLANNING

Consistency with State, Regional and Local Plans

As noted above, the Gaviota Segment of the California Coastal Trail would implement the goals of the Santa Barbara County Comprehensive Plan, Recreational Element (1999 and current updates) which identifies the Coastal Trail (De Anza Trail) in the county's Master Plan parks, recreation and trails maps. The Coastal Trail is specifically referenced in the county's 1982 Coastal Plan, with a proposed section connecting U.C. Santa Barbara to the state parks west of Goleta described as being of particular importance. The Coastal Trail is referenced in the Santa Barbara/Ventura Coastal State Park System General Plan, and a multi-use trail with equestrian staging is anticipated in the Gaviota State Park (SP) General Plan dated May 1979. Construction of the proposed trail segment is consistent with the objectives of the California State Parks Recreational Trails Program. Additionally, the National Park Service, as part of the National Trails System Act, recognizes the Juan Bautista de Anza Historic Trail. The historic trail retraces the explorer's journey from Mexico, through Arizona to San Francisco. The de Anza trail through this coastal section is synonymous with the Coastal Trail.

Coastal Zone

The Coastal Zone Management Act of 1972 (CZMA) is the primary federal law enacted to preserve and protect coastal resources. The CZMA 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 CZMA; they include the protection and expansion of public access and recreation, the protection, enhancement and restoration of environmentally sensitive areas, 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 CZMA 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 (LCPs). LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals. The County of Santa Barbara is one such entity, with its own LCP. DPR is working with the County to ensure project compliance with the California Coastal Act, and will seek a Coastal Development Permit from the County for the proposed project.

Section 4(f) of the National Transportation Act – Parks and Recreation Facilities

As noted above, the project area lies wholly within Gaviota SP and its immediate environs. Gaviota SP is public parkland owned by the State of California, and is a unit of the California State Park System. No land will be acquired for the trail segment. The proposed project will further non-motorized transportation objectives and will expand recreational opportunities for visitors with mobility impairments as well as equestrians and cyclists. Visitors may employ a variety of transportation modes within a shared corridor designed for safety and compatibility

with other users. As the Park is a public recreational area and the trail would serve largely for low-impact recreation and an alternative for cyclists currently riding the shoulder of a dangerous highway, the project would not create any proximity impact that would substantially impair the purpose of the land.

The project is not a 4(f) use because: (1) the proposed trail segment will be constructed in a park where the trail will be under DPR jurisdiction, and (2) parkland will not be permanently incorporated into a transportation facility, but will continue to function as parkland. Therefore, the provisions of Section 4(f) are not triggered.

Growth

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

ENVIRONMENTAL SETTING

Gaviota State Park is public parkland owned by the State of California, and is a unit of the California State Park System. The proposed project area includes an easement through the Gaviota Marine Terminal; however, no land will be acquired for the trail segment. Current land uses in the project area will remain unchanged.

Hollister Ranch, the Park's immediate western neighbor, is a 14,000-acre rural residential area comprised of 100-acre parcels. Zoning and CCRs at Hollister Ranch allow no subdivision, and limit construction on each parcel to no more than 3 homes.

Development is very limited in the project vicinity due to the nature of these two large adjacent landholdings; therefore land use is expected to remain constant in the foreseeable future.

Gaviota Marine Terminal

The ChevronTexaco Gaviota Oil and Gas Processing Facility is located in and immediately adjacent (to the south) the proposed trail corridor just east of Cañada Alcatraz. It receives oil and gas from the Point Arguello field west of Point Conception. Three offshore platforms (Hermosa, Harvest and Hidalgo) produce and process oil and gas from the Point Arguello Offshore field. Pipelines transport the produced oil and gas to onshore terminal facilities. These facilities use the sales-quality gas to generate electricity and steam for use onsite. Excess electricity can be sold to the public utility grid. The processed crude oil is pumped into the All American pipeline.

The former ARCO Alegria oil and gas plant occupies approximately one acre of land within the Gaviota Marine Terminal on the western side of Alcatraz Creek. This site once housed oil and gas processing equipment, including two 1000-barrel crude oil processing tanks. The tanks were removed in 2003 and site cleanup and restoration is ongoing.

Construction of the Gaviota Segment of the California Coastal Trail is neither a response to planned or unplanned growth in the community, an action which facilitates growth, nor will it induce unplanned growth. No element of the project will contribute to the local infrastructure and thereby support growth. The project will be limited to improvements in accessibility and bicycle safety, and will enhance existing recreational opportunities within the Park.

IMPACTS

	<u>LESS THAN POTENTIALLY SIGNIFICANT IMPACT</u>	<u>SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
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 the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a 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"/>

DISCUSSION

- a) The proposed project site is wholly within the boundaries of Gaviota State Park. The site does not contain or define an established community and no project activities would disrupt or divide any community functions. Project activities would not prevent access to adjacent parcels. No impact.
- b,c) As noted above, the proposed site for the Gaviota Segment of the California Coastal Trail is within Gaviota State Park and is subject to land use restrictions contained in the park’s General Plan, the Santa Barbara County Comprehensive Plan and LCP, and regulatory agency requirements. No project elements are in conflict with the zoning, regulatory policies, land use plans, conservation plans or ordinances for this area. All appropriate consultation and permits would be acquired, in compliance with all applicable local, state, and federal requirements. No impact.

X. MINERAL RESOURCES.

ENVIRONMENTAL SETTING

Rock units along the trail alignment include the Tertiary-age Monterey Formation and Rincon Shale, and younger Quaternary alluvial deposits. The Monterey Formation is a source rock for petroleum (oil and gas). Off shore oil fields are developed and producing oil and gas that is processed north of the Park and U.S. Route 101 and stored at the Shell Marine Terminal. The trail alignment passes through the marine terminal property. No oil wells are actively producing onshore in the vicinity of the Park.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in the loss of availability of a known mineral resource that is or 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"/>

DISCUSSION

- a) There are no known mineral deposits of economic importance directly underlying the project site. Construction of the trail and parking areas would not result in the loss of availability of any known mineral resource.
- b) Mineral resource extraction is not permitted under the Resource Management Directives of the Department of Parks and Recreation.

XI. NOISE

Nature of Noise

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with zero decibels roughly corresponding to the threshold of hearing. Most sounds heard in the environment do not consist of a single frequency but, rather, a broad band of frequencies with each frequency differing in sound level. The intensities of each frequency combine to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting, which reflects the fact that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). On this scale, the sound level of normal talking is about 60 to 65 dBA.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources, which creates a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. They are the A-weighted noise levels equaled or exceeded during ten, 50, and 90 percent of a stated time period. A single number descriptor called the Leq is also widely used. The Leq is the average A-weighted noise level during a stated period of time. In determining the daily level of environmental noise, it is important to account for the different responses of people to daytime and nighttime noises. At night, exterior background noises generally are lower than the daytime levels. However, most household noise also decreases at night, and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, Ldn (day /night average sound level), was developed. The Ldn divides the 24-hour day into daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) periods. The nighttime noise level is weighted ten decibels (10 dB) higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average, which includes both an evening and nighttime weighting.

Health Effects of Noise

Excessive noise is undesirable and may cause physical and/or psychological damage. The amount of annoyance or damage caused by noise is dependent primarily upon three factors: the amount and nature of the noise, the amount of ambient noise present before the intruding noise, and the activity of the person working or living in the noise source area. The amount of noise is measured by the indices described above. Noise ranges from constant background noise to more individualized noise events. The amount of ambient noise present before the project is also important; a relatively low level of noise will have a much greater impact on a quiet, rural environment than an urban environment.

Health effects of noise can be characterized as auditory or non-auditory. Auditory effects include interference with communication and, in extreme circumstances, hearing loss. Non-auditory effects include physiological reactions such as change in blood pressure or breathing rate, interference with sleep, adverse affects in human performance, and annoyance.

Representative Outdoor and Indoor Noise Levels (in units of dBA)

At a Given Distance from Noise Source	A-Weighted Sound Level in Decibels (dB)	Noise Environments	Subjective Impression
	140		
Civil Defense Siren (100')	130		Pain Threshold
	120		
Jet Takeoff (200')	110	Rock Music Concert	Very Loud
	100		
Diesel Pile Driver (100')	90	Boiler Room Printing Press Plant	
	80		
Freight Cars (50')	70	In Kitchen with Garbage Disposal Running	Moderately Loud
Pneumatic Drill (50')	60	Data Processing Center	
Freeway (100')	50		
Vacuum Cleaner (10')	40	Department Store Private Business Office	Quiet
Light Traffic (100')	30		
Large Transformer (200')	20	Quiet Bedroom Recording Studio	
	10		Threshold of Hearing
Light Whisper (5')	0		

Source: Illingworth & Rodkin, Inc. 2002

REGULATORY SETTING

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment.

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

Activity Category	NAC, Hourly A-Weighted Noise Level, dBA $L_{eq}(h)$	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
D	--	Undeveloped lands.
E	52 Interior	Residence, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

In accordance with Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects* (1998), a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

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

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

ENVIRONMENTAL SETTING

Recent noise measurements conducted on behalf of the County for its proposed bridge replacement project identified the attended short-term sound levels within the Park. Measured noise levels during daytime hours at the Park varied from 44 to 66 dBA. The major noise sources at the Park include low-level background noise from U.S. Route 101, birds, ocean waves, and the sounds of recreation in the campground and day-use areas. The lowest sound levels were recorded in the campground; the highest on the beach and pier. Noise levels are substantially elevated when trains pass over the bridge.

Based on previous environmental documents prepared for the City of Santa Barbara, construction equipment generates noise levels between 70 and 90 dB(A) at a distance of 50 feet and the shorter impulsive noises from other construction equipment (such as jackhammers and drills) could be even higher, up to and over 100 dB(A). The City Noise Ordinance provides limitations to construction hours.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Generate or expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Be 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? If so, 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) Be in the vicinity of a private airstrip? If so, 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"/>

DISCUSSION

- a) In keeping with Department of Recreation policy and local (City of Santa Barbara) noise standards, noise-generating project activities will be limited to daylight hours, Monday through Friday. With the implementation of Minimization Measure Noise-1, construction-related noise effects will be less than significant.
- b) Construction activity will not involve the use of explosives, pile driving, or other intensive construction techniques that could generate significant ground vibration or noise. Minor vibration immediately adjacent to excavating equipment would only be generated on a short-term basis. Therefore, groundborne vibration or noise generated by the project would have a less than significant impact.
- c) Once the proposed project is completed, all related construction noise would disappear. Nothing within the scope of the proposed project would result in a substantial permanent increase in ambient noise levels. Noise abatement measures are not required for this project.
- d) Construction noise levels at and near the project area would fluctuate, depending on the type and number of construction equipment operating at any given time, and would exceed ambient noise standards in the immediate vicinity of the work for brief periods of time. The distance from lodging accommodations, residences, and small commercial ventures in the vicinity of the proposed work site is sufficient to prevent an objectionable level of noise. However, depending on the specific construction activities being performed, short-term increases in ambient noise levels could result in speech interference at the work site and a potential increase in annoyance to visitors using the Park campground and day-use facilities. As a result, construction-generated noise would be considered to have a potentially significant short-term impact. Implementation of Noise Attenuation Measure **NOISE-1** would reduce those potential impacts to a less than significant level.
- e,f) The nearest private airport, the Santa Ynez Valley Airport, is located approximately 13 miles from the entrance road to Gaviota State Park. The nearest public airport, Santa Barbara Municipal Airport, is located 30 miles east. Noise levels in the project area will not be affected by public or private airports or airstrips.

Avoidance, Minimization and/or Mitigation Measures

MINIMIZATION (NOISE ATTENUATION) MEASURE NOISE-1

- ◆ Construction activities would generally be limited to the daylight hours, Monday - Friday. If work during weekends or holidays is required, no work would occur on those days before 7:30 am or after 8 p.m.
- ◆ Internal combustion engines used for any purpose at the job site would be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction would utilize the best available noise control techniques (e.g., engine enclosures, acoustically-attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.
- ◆ Stationary noise sources and staging areas would be located as far from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources would be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.

XII. POPULATION AND HOUSING

REGULATORY SETTING

Growth

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

Community Character and Cohesion

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

Environmental Justice

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the United States Department of Health and Human Services poverty guidelines (USHHS 2005). For 2005, this is \$19,350 for a family of four. In 1999, the US Census Bureau (2005) reports the median household income in Santa Barbara County was \$46,677.

ENVIRONMENTAL SETTING

There are no permanent residences in Gaviota State Park. The residential community nearest the project site is Hollister Ranch, which encompasses 14,000 acres divided into 100-acre parcels (no subdivision permitted). One of the undeveloped parcels is currently listed for sale at \$2,975,00. The current list prices for modest 2-3 bedroom homes for sale with 1/3-interest on Hollister Ranch parcels fall between \$1,950,00 and \$3,850,000 (Hollister Ranch website 2005).

No minority or low-income populations have been identified that would be adversely affected by the proposed project as determined by the above criteria (United States Census Bureau 2005). Therefore, this project is not subject to the provisions of E.O. 12898.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
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"/>

DISCUSSION

- a) Construction of the Gaviota Segment of the California Coastal Trail is neither a response to planned or unplanned growth in the community, an action which facilitates growth, nor will it induce unplanned growth. No element of the project will contribute to the local infrastructure and thereby support growth. The project will be limited to improvements in accessibility and bicycle safety, and will enhance existing recreational opportunities within the Park.
- b,c) The project has no housing component and will neither add to nor reduce the availability of housing within the project area or elsewhere.

XIII. PUBLIC SERVICES.

ENVIRONMENTAL SETTING

Housing

As noted in previous sections, no permanent residences exist within the project area. The proposed project will neither affect housing in the project vicinity nor will it result in housing relocation.

Emergency Services

The trail will be constructed outside the path-of-travel for vehicle traffic, including fire, police, and ambulance service. The trail will not affect the provision of emergency services in the Park or neighboring community.

Airports

The nearest two airports are the Santa Ynez Airport, located 13 miles northeast in the Santa Ynez Valley, and the Santa Barbara Municipal Airport, next to the University of California, Santa Barbara (in Goleta), approximately 30 miles north. The project will have no effect on air transportation or airport access.

Schools

There are no schools located in the immediate project vicinity. The nearest school to the project location is Vista de Las Cruces Elementary School, located approximately three miles north in Las Cruces.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in significant environmental impacts from construction associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) No permanent impacts to Public Services would result from construction of the California Coastal Trail – Gaviota Segment. The potential for construction-related demand on fire protection services will be reduced to a less than significant level through implementation of the Fire Safety Plan described in Avoidance Measure **Haz-3**.

XIV. RECREATION.

REGULATORY SETTING

Consistency with State, Regional and Local Plans

As noted above, the Gaviota Segment of the California Coastal Trail would implement the goals of the Santa Barbara County Comprehensive Plan, Recreational Element (1999 and current updates) which identifies the Coastal Trail (De Anza Trail) in the county's Master Plan parks, recreation and trails maps. The Coastal Trail is specifically referenced in the county's 1982 Coastal Plan, with a proposed section connecting U.C. Santa Barbara to the state parks west of Goleta described as being of particular importance. The Coastal Trail is referenced in the Santa Barbara/Ventura Coastal State Park System General Plan, and a multi-use trail with equestrian staging is anticipated in the Gaviota State Park (SP) General Plan dated May 1979. Construction of the proposed trail segment is consistent with the objectives of the California State Parks Recreational Trails Program. Additionally, the National Park Service, as part of the National Trails System Act, recognizes the Juan Bautista de Anza Historic Trail. The historic trail retraces the explorer's journey from Mexico, through Arizona to San Francisco. The de Anza trail through this coastal section is synonymous with the Coastal Trail.

Coastal Zone

The Coastal Zone Management Act of 1972 (CZMA) is the primary federal law enacted to preserve and protect coastal resources. The CZMA 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 CZMA; they include the protection and expansion of public access and recreation, the protection, enhancement and restoration of environmentally sensitive areas, 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 CZMA 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 (LCPs). LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals. The County of Santa Barbara is one such entity, with its own LCP. DPR is working with the County to ensure project compliance with the California Coastal Act, and will seek a Coastal Development Permit from the County for the proposed project.

ENVIRONMENTAL SETTING

Gaviota State Park

Gaviota State Park is public parkland owned by the State of California, and is a unit of the California State Park System. The proposed project area includes an easement through the Gaviota Marine Terminal; however, no land will be acquired for the trail segment. The Park provides a self-service boat hoist and 41 developed campsites available to visitors with tents, trailers up to 25 feet and recreational vehicles up to 27 feet. Current land uses in the project area will remain unchanged.

Gaviota Marine Terminal

The ChevronTexaco Gaviota Oil and Gas Processing Facility is located in and immediately adjacent (to the south) the proposed trail corridor just east of Cañada Alcatraz. It receives oil and gas from the Point Arguello field west of Point Conception. Three offshore platforms (Hermosa, Harvest and Hidalgo) produce and process oil and gas from the Point Arguello Offshore field. Pipelines transport the produced oil and gas to onshore terminal facilities. These facilities use the sales-quality gas to generate electricity and steam for use onsite. Excess electricity can be sold to the public utility grid. The processed crude oil is pumped into the All American pipeline.

The former ARCO Alegria oil and gas plant occupies approximately one acre of land within the Gaviota Marine Terminal on the western side of Alcatraz Creek. This site once housed oil and gas processing equipment, including two 1000-barrel crude oil processing tanks. The tanks were removed in 2003 and site cleanup and restoration is ongoing.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

- a) As noted above, the project area lies wholly within Gaviota SP and its immediate environs. Gaviota SP is public parkland owned by the State of California, and is a unit of the California State Park System. No land will be acquired for the trail segment. The proposed project will further non-motorized transportation objectives and will expand recreational opportunities for visitors with mobility impairments as well as equestrians and cyclists. Visitors may employ a variety of transportation modes within a shared corridor designed for safety and compatibility with other users. As the Park is a public recreational area and the trail would serve largely for low-impact recreation and an alternative for cyclists currently riding the shoulder of a dangerous highway, the project would not create any proximity impact that would substantially impair the purpose of the land.
- b) The proposed California Coastal Trail – Gaviota Segment is a recreational facility that has been designed and modified in response to the particular environmental setting and sensitive resources present in Gaviota State Park. Chapter 5 provides a summary of measures included in the project to avoid, reduce or mitigate potential adverse environmental effects to a less than significant level.

XV. TRANSPORTATION/TRAFFIC

REGULATORY SETTING

The Federal Highway Administration (FHWA) directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans and FHWA are committed to carrying out the 1990 Americans with Disabilities Act (ADA) by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

ENVIRONMENTAL SETTING

As described under Purpose and Need in Chapter 1 of this document, the proposed Gaviota segment of the Santa Barbara Coastal Trail is an important link in connecting the intermodal system between Goleta and Gaviota where gaps exist in pedestrian and bicycle routes. In addition to providing a 4 km alternative which would take the bicyclist off the U.S. Route 101 shoulder, this segment of the Coastal Trail would provide off-highway pedestrian and equestrian access from the campground at the western end of Gaviota State Park to popular and heavily used areas of the park. By providing bicycling and hiking access to these other park areas, visitor vehicle trips on U.S. Route 101 would be somewhat reduced.

Bicyclists, pedestrians and equestrians using the new trail would gain access via a trailhead near the Park entrance from Gaviota Beach Road. This road provides access to the Park and Hollister Ranch. Hollister Ranch Road intersects Gaviota Beach Road immediately north of the Park entrance. This road is owned and maintained by Santa Barbara County from the Park to the entrance gate at Hollister Ranch. At that point, Hollister Ranch Road is a private road. In 2006, park attendance totaled 50,963, with day use visitors totaling 32,619. As of August 2002, Santa Barbara County records document that Park visitors comprised the majority of trips on Gaviota Beach Road, with 467 (about 41% of that month's total) continuing on to Hollister Ranch Road (Santa Barbara County Public Works Department 2005). This mix of residential and recreational use of Gaviota Beach Road would be unaffected by construction of the project as proposed.

Accessible Trails

DPR intends to design and construct the paved multi-use trail to meet the requirements of the *Federal Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas; Final Report*, dated September 30, 1999.

Based on a current court ruling subsequent to a lawsuit filed against DPR by Disability Rights Advocates, DPR must increase accessibility compliance within the Department's statewide trail system. This additional accessible trail segment would complement the statewide *Transition*

Plan for Accessibility in State Parks and Trail Plan for Accessibility in California wherein all DPR units will ultimately meet the lawsuit/court ruling requirements or make a good faith effort to do so (DPR 2001a & 2001b).

Within the broader context of trail development in Santa Barbara County, the Goleta-Gaviota Coastal Trail has long been recognized as critical in linking the urbanized areas of the South County to the State Park recreation destinations and the rural areas of the North County. With the support of DPR, the State Coastal Conservancy and the Santa Barbara Trails Council in the early 1980s, Santa Barbara County's Public Works Department sponsored an Environmental Impact Report reviewing potential trail alignments between the University of California at Santa Barbara and Gaviota State Park. The proposed first phase of the project, located in Goleta, was deferred due to prohibitive property acquisition costs. The Gaviota segment is a particularly high priority and most cost-effective because it is located on existing public lands or easements.

Successful implementation of this project proposal may enable the County and the State to obtain additional funding for future links in the California Coastal Trail in Santa Barbara County. The Gaviota Coastal Trail segment was designed to ultimately link with the proposed Refugio-El Capitan segment and the El Capitan Ranch segment. Completion of the proposed segment would also provide a unique interpretive opportunity within a segment of the 1200-mile Juan Bautista de Anza National Historic Trail (1775-1776), designated by Congress in 1990.

In summary, funding construction of the proposed Gaviota Segment of the California Coastal Trail would further the following transportation objectives:

- Provide link in intermodal system to include the Coastal Trail
- Reduce hazards to bicyclists and motorists posed by shared corridor on U.S. Route 101 through a windy and steep area with cross traffic and numerous curves.
- Reduce vehicle trips by providing pedestrian, bicyclist and equestrian access to the beach within Gaviota State Park.

IMPACTS

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial increase in traffic, in relation to existing traffic and the capacity of the street system (i.e., a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a) All construction activities associated with the project would occur within the boundaries of Gaviota SP. None of the activities proposed as part of this project would have the potential to cause traffic delays on a public road. U.S. Route 101 would be the primary access road leading to the project site, with a turn onto Gaviota Beach Road or the Gaviota Marine Terminal. U.S. Route 101 in the project vicinity experiences traffic volumes averaging 23,200 vehicles daily (Caltrans Traffic Volumes, 2006). The addition of an estimated 15-20 additional vehicles (crew pickups, delivery trucks, and equipment haulers) making 1-2 trips daily would not constitute a substantial increase in traffic volume for this road or result in additional congestion. Minimal delays may occur when vehicles arriving from the south wait to turn left into the park, but no more than the regular daily traffic flow. In addition, work crews and equipment would typically arrive or leave the site outside normal periods of congestion. Less than significant impact.

- b) U.S. Route 101 is the primary access route for this project location and generally operates at a level of service equivalent to LOS-B with occasional periods of LOS-C level congestion, although neither Caltrans nor Santa Barbara County have officially established the highway standard for this area. As noted above the limited number of construction-related vehicles visiting the site daily would not substantially increase traffic volume or congestion on U.S. Route 101 in the project vicinity. Less than significant impact.
- c) The project site is not located within an airport land use plan, within two miles of a public airport nor in the vicinity of a private air strip, and does not serve as a normal reporting point for air traffic in the area. Nothing in the proposed project would in any way affect existing air traffic patterns in this area. Therefore, no impact would occur as a result of this project.
- d) No portion of the project design or implementation would alter existing traffic conditions or add any element that would increase hazards to traffic or other forms of transportation. The project would add a recreational trail that is not part of any existing traffic system. All proposed project elements and uses are consistent with the Gaviota SP General Plan, and would result in no significant impact.
- e) All construction activities associated with the project would occur within the boundaries of Gaviota SP and work would not restrict access to nor block any public road. All areas within the park other than the project's area of direct impact would remain open to the public during construction. Minimum access requirements for emergency vehicles would be maintained at all times. Therefore, the impact of this project on emergency access or response would be less than significant.
- f) No construction staging (including equipment or crew parking) will take place on Gaviota Beach Road, nor will traffic delays or detours be necessary. A small, new parking lot for trail users will be provided near the trailhead.
- g) This important segment of the Coastal Trail is called for by the County's certified Local Coastal Plan (County of Santa Barbara 1982) and the 1979 *Santa Barbara/Ventura Coastal Park System General Plan*, and is consistent with the goals of the State Parks Recreational Trails Program (DPR 2005). This segment is located along a highly scenic corridor that is heavily used by bicyclists and is linked to back-country areas popular with hikers and equestrians. Construction of this segment of the Coastal Trail would enhance the intermodal transportation system by facilitating and enhancing non-motorized use.

XVI. UTILITIES AND SERVICE SYSTEMS.

REGULATORY SETTING

Gaviota SP is within the jurisdiction of the Central Coast Regional Water Quality Control Board and the California Department of Health Services’ Drinking Water Field Operations Branch, District 6 – Santa Barbara. These agencies regulate wastewater and drinking water treatment systems, respectively.

ENVIRONMENTAL SETTING

Amenities in the park include showers and restrooms; however, no drinking water is provided. The California Coastal Trail – Gaviota Segment is designed for day use only and does not include lighting or electricity service, restrooms, showers, or potable water. The project will have a less than significant effect on utilities within the park.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination, by the wastewater treatment provider that serves or may serve the project, that it has adequate capacity to service the project’s anticipated demand, in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations as they relate to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a,b) The project does not include provision of water or sewer services. Construction of the trail segment will have negligible or no effect on existing systems.

The project does not include provision of electrical or telecommunications services. Construction of the trail segment will have negligible or no effect on existing systems.

The project will have no effect on Park utilities.

As the trail will not incorporate amenities such as drinking fountains, restrooms, or trash receptacles, impacts to Park operations and facilities maintenance will be negligible.

c) Trail construction will require the extension of a few existing culverts and additions of 19 new culverts for stormwater drainage. Implementation of Measure **Hydro-1** (See Section VIII of Chapter 3) will ensure that these project elements will result in a less than significant impact on stormwater facilities.

d,e) The project does not include provision of water or sewer services. Construction of the trail segment will have negligible or no effect on existing systems.

f,g) No trash or recycling receptacles will be provided along the trail. The trail will have negligible or no effect on Park waste removal or recycling operations.

CHAPTER 4

MANDATORY FINDINGS OF SIGNIFICANCE

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probably future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

- a) The proposed project was evaluated for potential significant adverse effects to the natural environment and its plant and animal communities. The project site supports certain special status plants and may support certain special status animals. DPR determined that the project as originally defined had the potential to degrade the quality of habitat for red-legged the monarch butterfly, and to reduce the number or restrict the range of the Gaviota tarplant and certain plants in the Gaviota Creek riparian corridor, willow scrub habitat, coastal sage scrub, purple needlegrass grassland, and state jurisdictional wetlands. However, full implementation of all mitigation measures incorporated into this project will reduce those impacts, both individually and cumulatively, to a less than significant level.
- b) The proposed project was evaluated for potential significant adverse impacts to the cultural resources of Gaviota State Park. Measures Cult-1 through Cult-3 have been incorporated into project plans to ensure avoidance of significant impacts on important archaeological and historical resources.

- c) Santa Barbara County Public Works Department has proposed a separate project adjacent to the DPR project area, that has been evaluated in an Environmental Impact Report in compliance with CEQA. Each proposal is a stand-alone project which could be fully implemented independently of the other. Coordination between the County Public Works Department and DPR will continue regarding the planned change of road elevation at the proposed trailhead parking area. The County's project will not increase the significance of the effects of the proposed DPR trail project.

- d) Most project-related environmental effects have been determined to pose a less than significant effect on humans. However, possible impacts from construction emissions (Air Quality), exposure to risks related to earthquakes, and unstable soils (Geology and Soils), construction accidents, fire, and tsunamis (Hazards and Hazardous Waste), Flooding (Hydrology and Water Quality) and Noise, though temporary in nature, have the potential to result in significant adverse effects on humans. Measures Aesth-1, Air-1, Geo-1, Haz-1, Haz-2, and Haz-3, and Noise-1 have been incorporated into project plans to ensure avoidance of significant adverse effects.

CHAPTER 5

SUMMARY OF AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The following measures will be implemented by DPR to avoid, reduce, or mitigate adverse environmental effects of the California Coastal Trail – Gaviota Segment Project:

Aesthetics

MINIMIZATION MEASURE AESTH-1

- ◆ Cut and fill slopes will be revegetated for stability and over time the native vegetation will cover newly graded slopes.
- ◆ Retaining walls will also be screened using native vegetation.
- ◆ Rest area elements will not be more than 3-4 feet high.

Air Quality

MINIMIZATION MEASURE AIR-1

- ◆ All active construction areas would be watered to adequately control dust during dry, dusty conditions.
- ◆ All trucks hauling soil, sand, or other loose materials on public roads would be covered or required to maintain at least two feet of freeboard.
- ◆ All equipment engines would be maintained in good mechanical condition, according to manufacturer's operating specifications, and in compliance with all State and federal requirements.
- ◆ Excavation and grading activities would be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or when dust from construction might obscure driver visibility on public roads.

Biological Resources

MINIMIZATION MEASURE BIO-1

- ◆ During construction activities all trash will be properly contained, removed from the worksite, and disposed of regularly. Following construction, all trash and construction debris will be removed from the site.
- ◆ Project boundaries and routes of travel will be clearly marked. Construction activities will be limited to the minimum area necessary for successful project completion.
- ◆ The location of construction access routes and staging areas will be limited to developed areas (including existing roads and parking areas) to the greatest extent possible.
- ◆ Excavated soil will only be deposited at designated sites; disposal sites will be separated from sensitive habitats by approved containment and erosion control methods.

- ◆ Prior to construction activities, a qualified biologist will conduct a training session for all construction personnel. This training will inform workers how to identify and avoid sensitive species and habitats, identify proper disposal of staff and construction debris, and proper response to fluid spill. Workers will be required to complete the training before they would be authorized to work in the project area.

MINIMIZATION MEASURE BIO-2

- ◆ A biological monitor qualified to identify California horned lizards, will walk in front of all ground disturbing equipment to search for California horned lizards. If horned lizards are found, they will be safely cleared from the path of the equipment.

MINIMIZATION MEASURE BIO-3

- ◆ The blue gum eucalyptus trees that will be removed from the Cementerio overwintering site will be replaced on-site (within the Cementerio grove) at a 1:1 ratio.
- ◆ Any eucalyptus tree removal from within the Cañada del Cementerio drainage will take place between September 16 and October 1 to avoid the monarch overwintering period and the breeding bird season.

MINIMIZATION MEASURE BIO-4

- ◆ The cutting and removal of native and non-native vegetation and man-made nesting substrates will occur between September 16 and January 31 to avoid the breeding bird season (this window for vegetation cutting and removal may be shortened due to seasonal restrictions established for the avoidance and minimization of impacts to other species). If subsequent construction activities are delayed for a period of 1 month following initial vegetation cutting and removal, weekly bird nest surveys will be conducted beginning 30 days prior to any planned disturbance of suitable nesting habitat (e.g. additional cutting and removal of vegetation) with the last survey being conducted no more than three days prior to the resumption of work affecting nesting habitat. If an active raptor nest is located, clearing and construction within 76 m (250 ft) will be postponed until the nest is vacated and juveniles have fledged. If an active nest of another native bird species is located, clearing and construction within 46 m (150 ft) will be postponed until the nest is vacated and juveniles have fledged.

MINIMIZATION MEASURE BIO-5

- ◆ Weekly white-tailed kite nest surveys will be conducted beginning at least 30 days prior to any tree removal that is scheduled to take place between September 15 and October 31. If an active nest is located, clearing and construction within 152 m (500 ft) will be postponed until the nest is vacated and juveniles have fledged.
- ◆ Limits of construction to avoid a nest will be established in the field with flagging and stakes or construction fencing. Construction personnel will be instructed on the sensitivity of the area.

MITIGATION MEASURE BIO-6

DPR will prepare and implement a comprehensive vegetation management plan that addresses impacts to the following sensitive plants and vegetation types:

- ◆ Gaviota tarplant
- ◆ Willow scrub riparian habitat
- ◆ Purple needlegrass grassland
- ◆ Coastal sage scrub

This plan will include mitigation and monitoring appropriate to each species or vegetation type and identify suitable plant materials, weed control, maintenance methods, a timeline, success criteria and contingency actions, and specific methods for monitoring and reporting. Post-construction monitoring will be conducted for a period of three years. Criteria specific to the sensitive plants and vegetation types listed above are described in Mitigation Measures Bio-7, Bio-8, Bio-9, and Bio-10.

MITIGATION MEASURE BIO-7

- ◆ Gaviota tarplant habitat will be re-established and enhanced onsite within Gaviota SP, at a ratio of 3 acres enhanced for each 1 acre permanently or temporarily impacted. Soils will be conserved, kept covered, and replaced in temporary impact zones after project activities. Indirect impact areas will be mitigated at a ratio of 1:1.
- ◆ In trail construction areas where fine sandy loam topsoil (of the Milpitas-Positas-Concepcion series) is present, topsoil will be salvaged, kept in a covered stockpile, and used to restore impacted areas, as approved by CDFG and USFWS. Seedbank and soil salvage and replacement will occur on a 1:1 basis, and will be followed by weed control.
- ◆ Native grassland species typical to the local grasslands will be used for revegetation. Noxious weeds including exotic veldt grass will be aggressively controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan, which is described in Mitigation Measure Bio-6. Habitat restoration or replacement will be performed using methods acceptable to regulatory agencies. Mitigation sites will focus on areas where native perennial grassland is impacted by weeds or thatch, and areas of non-native annual grassland. All mitigation sites will be within Milpitas-Concepcion-Positas soil types.
- ◆ Mitigation and monitoring for Gaviota tarplant will be prepared and implemented according to the Vegetation Management Plan. Native grassland species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ The Vegetation Management Plan will outline the future management methods to be employed by DPR in tarplant habitat traversed by the proposed recreational trails. This would include enhancing high quality tarplant habitat, encouraging native grasses and forbs, and controlling non-native weeds such as veldt grass.

MITIGATION MEASURE BIO-8

- ◆ All trees that are removed from within 30 m (100 ft) of the Gaviota Creek riparian corridor will be replaced with native riparian species at a 3:1 ratio within the Gaviota Creek riparian corridor.
- ◆ Willow scrub habitat will be re-established and enhanced within Gaviota SP, at a ratio of 3 acres of willow scrub habitat enhanced for each 1 acre permanently impacted. Habitat restoration or replacement would be performed using methods acceptable to regulatory agencies. Vegetation will be re-established and enhanced onsite using native plant species appropriate to the local site. Restoration will include planting native willow trees and understory species which comprise the willow scrub vegetative community. Restoration efforts will focus on removing weedy and marginal habitat now present near Gaviota Beach Road and the campground, and replacing with appropriate native willow scrub species.
- ◆ Mitigation and monitoring for willow scrub will be prepared and implemented according to the Vegetation Management Plan. Native riparian species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ Non-native weeds will be controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan that is described in Mitigation Measure Bio-6.

MITIGATION MEASURE BIO-9

- ◆ Purple needlegrass grassland will be restored and enhanced onsite within Gaviota SP, at a ratio of 3 acres created for each 1 acre permanently impacted. Vegetation will be restored and enhanced onsite using native plant species appropriate to the site. For purple needlegrass grassland that occurs within Gaviota tarplant habitat, habitat will be restored to the specifications described in the Gaviota tarplant mitigation section.
- ◆ Mitigation and monitoring for purple needlegrass grassland will be prepared and implemented according to the Vegetation Management Plan. Native grassland species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ Non-native weeds will be controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan, which is described in Mitigation Measure Bio-6.
- ◆ Native vegetation barriers will be planted where appropriate on trail edges to discourage off-trail use and future impacts.

MITIGATION MEASURE BIO-10

- ◆ Coastal sage scrub will be restored and enhanced onsite within Gaviota SP, at a ratio of 1 acre for each 1 acre permanently impacted.
- ◆ Mitigation and monitoring for coastal sage scrub will be prepared and implemented according to the Vegetation Management Plan. Native coastal scrub species will be employed for revegetation, and local (Gaviota coast) seed sources will be used.
- ◆ Non-native weeds will be controlled at all disturbed sites within the project footprint as defined in the Vegetation Management Plan, which is described in Mitigation Measure Bio-6.

- ◆ Native vegetation barriers will be created where appropriate on trail edges to discourage off- trail use and future impacts.

AVOIDANCE MEASURE BIO-11

- ◆ Prior to construction, environmentally sensitive areas (ESA) will be delineated on project plans and specifications. No construction activities will occur within ESA zones outside of the project boundary.
- ◆ ESA zones will include willow scrub, purple needlegrass grassland, coastal sage scrub, wetlands, and Gaviota tarplant habitat. These communities and habitats will be separated from project construction activities by safety fencing. The fenced area around willow scrub vegetation and wetlands will include a buffer zone sufficient to avoid both direct and indirect impacts.

AVOIDANCE MEASURE BIO-12

- ◆ DPR will provide informational signage at the trailhead parking lot on Gaviota Beach Road identifying the sensitivity of natural resources bordering the California Coastal Trail – Gaviota Segment. The sensitivity of Gaviota Creek, which is habitat for endangered species such as tidewater goby and southern steelhead, will be emphasized. All visitors, including hikers, cyclists, and horseback riders will be informed of the need to stay on the trail to avoid harm to these sensitive areas and species.
- ◆ Areas along the trail identified as sensitive habitat, including the Gaviota Creek riparian zone and Gaviota tarplant habitat, will be protected by cable-and-post or other fencing measures after construction is complete.

MITIGATION MEASURE BIO-13

- ◆ State jurisdictional wetlands and riparian habitat will be re-established onsite within Gaviota SP. Wetland vegetation types and mitigation ratios are listed in Tables 3 and 4. Each vegetation type listed will be re-established using native plant species appropriate to the site.
- ◆ A wetland mitigation and monitoring plan will be prepared and implemented. This plan will include: plant materials, weed control, maintenance methods, a timeline, success criteria and contingency actions, and specific methods for monitoring and reporting. The mitigation and monitoring plan will include post-construction monitoring for the listed wetland types for a period of three years.
- ◆ Native vegetation barriers will be created where appropriate on trail edges to discourage off- trail use and future impacts.
- ◆ Mitigation sites will consist of areas within wetlands that are presently dominated by exotic plant species and where native vegetation is sparse or absent.
- ◆ Exotic vegetation will be removed from mitigation sites, as defined in the wetland mitigation and monitoring plan.

Table 3 Mitigation Area for Wetlands under California Coastal Commission and Department of Fish and Game Jurisdiction

<u>Vegetation type</u>	Permanent impacts		Indirect impacts		Mitigation ratios	Total mitigation area	
	Ha	(acres)	ha	(acres)		ha	(acres)
Willow riparian	0.19	0.48	0.03	0.08	3:1	0.57	1.44
Wet meadow/swale	0.08	0.20	0.02	0.05	3:1	0.24	0.60
Ruderal/wet	0.20	0.50	0.42	1.05	1:1	0.20	0.50
Southern coastal salt marsh	no impacts		no impacts				
Total	0.47	1.18	0.47	1.18		1.01	2.54

Table 4 Mitigation Area for Temporary Impacts to Wetlands under California Coastal Commission and Department of Fish and Game Jurisdiction

<u>Vegetation type</u>	Temporary impacts		Mitigation ratios	Total mitigation area	
	ha	(acres)		ha	(acres)
Willow riparian	0.04	0.09	1:1	0.04	0.09
Wet meadow/swale	0.12	0.31	1:1	0.12	0.31
Ruderal/wet	0.35	0.87	1:1	0.35	0.87
Southern coastal salt marsh	no impacts			no impacts	
Total	0.51	1.27		0.51	1.27

MINIMIZATION MEASURE BIO-14

- ◆ The cutting and removal of native and non-native vegetation and man-made nesting substrates will occur between September 16 and January 31 to avoid the breeding bird season (this window for vegetation cutting and removal may be shortened due to seasonal restrictions established for the avoidance and minimization of impacts to other species). If subsequent construction activities are delayed for a period of 1 month following initial vegetation cutting and removal, weekly bird nest surveys will be conducted beginning 30 days prior to the disturbance of suitable nesting habitat with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If an active raptor nest is located, clearing and construction within 76 m (250 ft) will be postponed until the nest is vacated and juveniles have fledged. If an active nest of another native bird species is located, clearing and construction within 46 m (150 ft) will be postponed until the nest is vacated and juveniles have fledged.
- ◆ Weekly white-tailed kite nest surveys will be conducted beginning at least 30 days prior to any tree removal that is scheduled to take place between September 15 and October 31. If an active nest is located, clearing and construction within 152 m (500 ft) will be postponed until the nest is vacated and juveniles have fledged.
- ◆ Limits of construction to avoid a nest will be established in the field with flagging and stakes or construction fencing. Construction personnel will be instructed on the sensitivity of the area.

Cultural Resources

AVOIDANCE MEASURE CULT-1

- ◆ A DPR-qualified cultural resource specialist will consult with the project manager, contractor(s), and/or State Representative to develop a site avoidance plan that will ensure avoidance of impacts to all identified archaeological sites within the project's Area of Potential Effects.
- ◆ Archaeological sites CA-SBA-96 and CA-SBA-2484H would be designated Environmentally Sensitive Areas (ESAs), depicted as such on the construction plans, and marked with flagging prior to the start of construction. Activities within the ESAs would be restricted to elements identified within the scope of this project and subject to strict implementation of all avoidance and mitigation measures included in this document. The area would be off-limits to all personnel not actively involved in approved activities.
- ◆ All earthmoving activities, including the operation of heavy equipment within ESA would be prohibited without the approval of the project archaeologist.
- ◆ A State Archaeologist or his/her designee will monitor all construction activities in the vicinity of sites CA-SBA-96 and CA-SBA-2484H. If potentially significant resources are unearthed, work in the immediate area of the find would be temporarily halted or diverted until identification and proper treatment are determined and implemented. The DPR Service Center or District Cultural Resource Section will be notified a minimum of three weeks prior to the start of ground-disturbing work to schedule monitoring, unless other arrangements are made in advance.

MINIMIZATION MEASURE CULT-2

- ◆ In the event that previously undocumented cultural resources are encountered by anyone during project-related activities, including, but not limited to, dark soil containing shellfish, bone, flaked stone artifacts [e.g., arrow points, scraping tools and others], groundstone tools [e.g., metates, mortars, and others], deposits of historic trash, or historic structures, work within the immediate vicinity of the find will be temporarily halted or diverted until a State Archaeologist or his/her qualified designee has evaluated the find and implemented appropriate treatment and disposition of the artifact(s).
- ◆ Once any significant cultural resources are found in a project location, a qualified historian, archaeologist, and/or Tribal representative would monitor any ground-disturbing work in that area from that point forward.

MITIGATION MEASURE CULT-3

- ◆ In the event that human remains are discovered, work will cease immediately in the area of the find and the State’s Representative will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place. The DPR Sector Superintendent (or authorized representative) will notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (NAHC) will be notified within 24 hours of the discovery if the Coroner determines that the remains are Native American. The NAHC will designate the “Most Likely Descendent” (MLD) of the deceased Native American. The MLD will recommend an appropriate disposition of the remains. If a Native American monitor is on-site at the time of the discovery and that person has been designated the MLD by the NAHC, the monitor will make the recommendation of the appropriate disposition.
- ◆ DPR staff will work closely with Caltrans and FHWA to ensure that its response to such a discovery is also compliant with federal requirements including the Native American Graves Protection and Repatriation Act.

Geology and Soils

MINIMIZATION MEASURE GEO-1

- ◆ The project area is within Seismic Zone 4 (CBC 2001). The retaining walls will be designed in accordance with any applicable requirements in the California Building Code (CBC 2001) or most recent accepted edition, in order to withstand any anticipated seismic affects. The seismic design parameters for the site are included in Table 1, below. Implementation of measure **GEO-1** will reduce impacts resulting from the project to less than significant.

Table 5- – Seismic Design Parameters

Parameter	Value	2001 CBC Reference
Seismic Zone Factor, Z	0.40	Table 16 - I
Soil Profile Type	S_D	Table 16 - J
Seismic Coefficient C_a	0.57	Table 16 - Q
Seismic Coefficient C_v	1.02	Table 16 - R
Near-Source Factor, N_a	1.3	Table 16 - S
Near-Source Factor, N_v	1.6	Table 16 - T
Seismic Source Type	B	Table 16 - U

Source: Ninyo & Moore, 2005

MINIMIZATION MEASURE GEO-2

- ◆ A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented by the State's contractor. The SWPPP will describe the Best Management Practices (BMPs) to be used in all areas to control soil and surface water runoff during any further geotechnical investigations and during excavation, grading and filling activities. Grading and excavation activities should not be planned during the rainy season (October 15 to April 15), but if storms are anticipated during construction or if construction must occur during winter months, "winterizing" will occur, including the covering (tarping) of any stockpiled soils and the use of temporary erosion control methods to protect disturbed soil.
- ◆ Temporary erosion control measures will be installed along the perimeter of the construction site and around areas where ditches or culverts could channel site runoff into nearby wetlands or sensitive biological communities. Temporary erosion control measures must be used during all soil disturbing activities and until all disturbed soil has been stabilized (recompacted, revegetated, etc.) These BMPs may include, but will not be limited to, the use of silt fences, geotextile mats or blankets, hydroseeding, weed free straw bales, or rice straw or coir wattles or fiber rolls, to prevent soil loss and siltation into nearby water bodies. The proper use and installation of these devices are available in the California Stormwater Quality Association's Stormwater Best Management Practice Handbook for Construction (CSQA 2003), at cabmphandbooks.com. The project would comply with all applicable water quality standards as specified in the CCRWQCB Basin Plan.
- ◆ Permanent BMPs for erosion control will consist of properly engineered structures to prevent erosion and landsliding, compacting disturbed areas, and revegetation of appropriate disturbed soil areas with native species using seed collected locally (Gaviota Coast). Final design plans will include specific BMPs to be incorporated into the project. The BMPs established for post-construction erosion control will be assessed annually and maintained as needed for a period of three years following construction.

Hazards and Hazardous Materials

MINIMIZATION MEASURE HAZ-1

- ◆ All equipment will be inspected by the contractor for leaks immediately prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises. The contractor(s) will include a Spill Prevention and Response BMP as part of the SWPPP prior to the start of construction and will maintain a spill kit on-site throughout the life of the project. The SWPPP will include a map that delineates construction staging areas, where refueling, lubrication, and maintenance of equipment may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be at least 30 m (100 feet) feet from any water body or riparian habitat. Fueling and maintenance will be conducted on pavement unless designated otherwise. In the event of any spill or release of any chemical in any physical form at the project site or within the boundaries of the Park during construction, the contractor would immediately notify the appropriate DPR staff (e.g., project manager, supervisor, or State Representative).

- ◆ Equipment will be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds will be disposed of outside park boundaries, at a lawfully permitted or authorized destination. The details will be provided in the SWPPP.
- ◆ If bioremediated soil is used for fill, then the soil will be tested for the expected constituents of concern (petroleum compounds, heavy metals) and documentation provided that the levels of COCs are acceptable for use as fill material. The previous land owner/operator of the tank farm/facility will provide this testing and documentation.

MINIMIZATION MEASURE HAZ-2

- ◆ A Fire Safety Plan will be developed by the contractor and approved by DPR prior to the start of construction. This plan will include the emergency calling procedures for both the California Department of Forestry and Fire Protection and the Santa Barbara County Fire Department Station 18, at Gaviota.
- ◆ Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, concrete, or aggregate base to reduce the chance of fire. The contractor shall ensure that fire suppression equipment is readily available on park grounds throughout the duration of the construction period.

Hydrology and Water Quality

MINIMIZATION MEASURE HYDRO-1

- ◆ The amount of increased runoff due to the paved trail and the parking lot will be determined and an appropriately sized and designed stormwater drainage system will be installed to prevent any on- or off-site flooding.
- ◆ As part of the grading and landscaping design, surface water runoff will be directed into existing or new stormwater drains or allowed to sheetflow off the trail.
- ◆ A Storm Water Pollution Prevention Plan and associated erosion control plan, as required by the State Water Resources Control Board, would also include BMPs for control of runoff and erosion (See Minimization Measure **GEO-2**).
- ◆ The SWPPP will identify all pollutant and sediment sources that may affect storm water discharges from the construction site, identify and implement BMPs to reduce or eliminate these pollutants and sediments during construction and post-construction, and develop a maintenance schedule for post-construction BMPs.

NOISE

MINIMIZATION (NOISE ATTENUATION) MEASURE NOISE-1

- ◆ Construction activities would generally be limited to the daylight hours, Monday - Friday. If work during weekends or holidays is required, no work would occur on those days before 7:30 am or after 8 p.m.
- ◆ Internal combustion engines used for any purpose at the job site would be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction would utilize the best available noise control techniques (e.g., engine enclosures, acoustically-attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.
- ◆ Stationary noise sources and staging areas would be located as far from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources would be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.

CHAPTER 6 REFERENCES AND PERSONS CONSULTED

Applegate, Richard

- 1974 Chumash Placenames. *The Journal of California Anthropology*, Winter 1974. Malki Museum, Banning, California.

Archambault, Laurie

- 2004 *Final Report, Wetlands Delineation and Waters of the United States, Subject to the Approval of the U.S. Army Corps of Engineers, California Department of Parks and Recreation, Gaviota State Park, New Bike Trail Project*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.

Automobile Club of Southern California (ACSC)

- 1929 Principal Automobile Routes of Santa Barbara County, California. Prepared by the Route and Map Service Department of the Automobile Club of Southern California, Los Angeles. Map #1373, on file, Automobile Club of Southern California Archives, Los Angeles.
- 1941 *Road Map of Santa Barbara County*. Automobile Club of Southern California, Los Angeles. Map #1067, on file, Automobile Club of Southern California Archives, Los Angeles.
- 1964 Santa Barbara County and City [Map]. Automobile Club of Southern California, Los Angeles. Map #1075, on file, Automobile Club of Southern California Archives, Los Angeles.

Bischoff, Matt and Herb Dallas, Jr., with a contribution by Leslie Steidl

- 2004 *Archaeological Survey Report for the Proposed Gaviota Bike Trail in Gaviota State Park*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.

Bischoff, Matt and Herb Dallas, Jr.

- 2005 *Extended Phase I Archeological Report: CA-SBA-96, CA-SBA-2028, CA-SBA-2484H, CA-SBA-3727, Gaviota Station, CA-SBA-2646, CA-SBA-2647, GCT-1*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.

Brown, Alan K.

- 1967 The Aboriginal Population of the Santa Barbara Channel. *University of California Archaeological Survey Reports* 69:1-99. Berkeley.

CBC--California Building Code

- 2001 California Code of Regulations, Title 24, Part 2, Volume 2.

California Burrowing Owl Consortium

- 1993 Burrowing owl survey protocol and mitigation guidelines.

California Department of Fish and Game (DFG)

2000 All American Pipeline Company, Plan Prepared for the California Department of Fish and Game, Non-game Natural Heritage Division.

2003 California Natural Diversity Database (CNDDDB), Rarefind2. Version August 2003
California Department of Fish and Game, Natural Heritage Division. Electronic search.

California Department of Parks and Recreation (DPR)

1979 Santa Barbara/Ventura Coastal State Park System General Plan, Gaviota.

1995 *California Historic Landmarks*. Office of Historic Preservation, Sacramento

1991 Gaviota State Park Mtigation Plan for Campground Rehabilitation.

2001 *The Seventh Generation, the Strategic Vision for California State Parks*.
Website: <http://www.parks.ca.gov/pages/23071/files/seven01.pdf>

2001a Transition Plan for Accessibility in State Parks

Website: <http://www.parks.ca.gov/pages/21944/files/transitionplan.pdf>

2001b Trail Plan for Accessibility in California

Website: <http://www.parks.ca.gov/pages/21944/files/trailplan.pdf>

2003 *Department of Parks and Recreation Operations Manual*, July 2003 Revision.

2005 State Parks Recreational Trails Program (website: http://www.parks.ca.gov/default.asp?page_id=21362)

California Department of Transportation (Caltrans)

1998 Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction
Projects

California Department of Water Resources (DWR)

2003 *California's Groundwater, Bulletin 118, Update 2003*.

California Division of Beaches and Parks

1966 Gaviota State Beach Acquisition Plan. Resources Agency of California, Division of Beaches and Parks, Department of Parks and Recreation. Drawing Number 8160, on file, Northern Service Center, California Department of Parks and Recreation, Sacramento.

California Highways and Public Works [Sacramento, California]

1951 *Gaviota Pass: Historical Landmark will be Preserved by Highway Engineers. California Highways and Public Works.* March-April.

1957 Progress on Coast Highway Improvement: San Luis Obispo & Santa Barbara Counties. *California Highways and Public Works.* January-February.

Central Coast Regional Water Quality Control Board [CCRWQCB]

1994 Water Quality Control Plan for the Central Coast Basin (Basin Plan), RWQCB, District 3

CNDDDB -- see California Natural Diversity Database, Rarefind2. August 2003 California Department of Fish and Game, Natural Heritage Division.

CNPS--California Native Plant Society

2004 Inventory of Rare and Endangered Plants (online edition, v6-04b). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Jun 2004 from <http://www.cnps.org/inventory>

Council on Environmental Quality

2005 <http://ceq.eh.doe.gov/nepa/regs/ceq/1508.htm>

County of Santa Barbara

1982 Santa Barbara County Coastal Plan. Includes text amendments through June 1998 and updated pages done March 1999. Santa Barbara.

1999 Santa Barbara County Comprehensive Plan, Recreational Element

2000 Draft Gaviota Coastal Trail Study. John V. Stahl and Associates, Los Olivos, CA.

2004 *Prevention First 2004, Onshore Decommissioning Projects*, report by Luis Perez

SBCAPCD--Santa Barbara County Air Pollution Control District

2005 Santa Barbara County Clean Air Plan <http://www.sbcapcd.org/sbc/download01.htm>

County of Santa Barbara Public Works Department

2005 (Administrative) Draft Environmental Impact Report/Environmental Assessment, Gaviota Bridge Replacement Project, State Clearinghouse No. 2003031022

CSQA--California Stormwater Quality Association

2003 Stormwater Best Management Practices Handbook for Construction, available at <http://www.cabmphandbooks.com>

Curry, Michael

2004 State Park Maintenance Chief, La Purisima Mission State Historic Park: *personal communication.*

Dallas, Herb, Matt Bischoff and Michael Sampson

2007 Draft Results of Archaeological Evaluation Testing for the Gaviota Coastal Trail at CA-SBA-96 (P-42-000096), Gaviota State Park, Santa Barbara County, California. Project: Gaviota Coastal Trail STPLE-6081(007). January 2006, revised May 2007.

Dibblee, Thomas W., Jr.

1988 Geologic Map of the Solvang and Gaviota Quadrangles, Santa Barbara County, California

Dibblee, A. Poett

1991 *Rancho San Julian: The Story of a California Ranch and its People*. Fithian Press, Santa Barbara, California.

ERT--Environmental Research & Technology

1985 Proposed Getty Gaviota Consolidated Coastal Facility at Gaviota, California: Final Impact Report. Prepared for County of Santa Barbara, California State Lands Commission, California Coastal Commission.

Erlandson, Jon M.

1994 *Early Hunter/Gatherers of the California Coast*. Plenum Press. N.Y. and London.

1996 Problems in Paradigms: Cultural "Complexity" in Coastal California. IN proceedings for the Society for California Archaeology, Vol. 12. Fresno, California.

Erlandson, Jon M., Pandora E. Snethkamp, Rochelle Bookspan, John Johnson, Thomas Rockwell, and Faith Duncan

1984 *Archaeological Investigations in Support of the Proposed Chevron/Texaco Onshore Developments: Point Conception to Gaviota Areas, Santa Barbara County, California*. Office of Public Archaeology, Social Process Research Institute, University of California, Santa Barbara.

1993 *Archaeology of the Western Santa Barbara Coast: Results of the Chevron Point Arguello Project Cultural Resources Program*. Report on file with DPR. Ogden International. San Diego.

Federal Emergency Management Agency

1979 Flood Insurance Rate Map, Santa Barbara County (unincorporated areas), Panel 700 of 975, Community Panel # 060331 0700 B.

Fitzgerald, James

1983 Notes on the Gaviota Store. Unpublished manuscript, Walker Tompkins Collection #SBHC MSS 19, on file, Special Collections Library, University of California, Santa Barbara.

- Gamble, Lynn H.
2002 Archaeological Evidence for the Origin of the Plank Canoe in North America, in *American Antiquity*, 67: 301-315. Washington D.C.
- Gibson, Lester V.
1934 Curves and Dips Eliminated on Coast Highway Link North of Santa Barbara. *California Highways and Public Works*. September-October: 10-11, 13
- Glassow, Michael
1991 Early Holocene Adaptations on Vandenberg Air Force Base, Santa Barbara County. *Perspectives in California Archaeology*, Vol. 1. Institute of Archaeology, University of California, Los Angeles.
- Grant, Campbell
1978 Chumash: Introduction. In *California*, edited by Robert F. Heizer, pp 505-508. Handbook of North American Indians. Volume 8. Smithsonian Institution. Washington D.C. pages 505-508.
- Gudde, Erwin G. and William Bright
1998 *California Place Names: The Origin and Etymology of Current Geographical Names*; University of California Press; 4th Revision
- Harp, E. L., Keefer, D. K., and Wilson, R. C.
1980 A Comparison of Artificial and Natural Slope Failures, The Santa Barbara Earthquake of August 13, 1978, in *California Geology*, May 1980, Vol. 33, No. 5
- Hollister Ranch
2005 website: <http://www.hollister-ranch.com/info.html>
- Holtz, K. and Grannell, R. B.
2004 Geological Overview of the Santa Ynez, Topatopa, and Santa Susanna Mountains, website:
http://seis.natsci.csulb.edu/deptweb/SkinnyCalSites/TrnsverseRng/SantYnezTopa/santa_ynezmtn.html
- Hubert, Elizabeth and Amy Palkovic
2004a *Biological Assessment, California Coastal Trail – Gaviota Segment, Gaviota State Park in Santa Barbara County*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.
- 2004b *Natural Environmental Study – Discussions of Biological Assessment and Wetlands Study for Gaviota State Park in Santa Barbara County*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.

Jennings, M.R. and M.P. Hayes

1994 Amphibian and reptile species of special concern in California. Final report to Inland Fisheries Division, California Department of Fish and Game, Rancho Cordova, California.

Lafferty, K.D., C.C. Swift, R.F. Ambrose

1999 Extirpation and recolonization in a metapopulation of an endangered fish, the tidewater goby. *Conservation Biology* 13:1447-1453.

Lathrop, Donald and Norman Gabel

1951 Unpublished field notes from SBA-96. An excavation of SBA-96 by Norman Gabel and Donald Lathrop in 1951. Notes on file at the Lowie Museum.

Lehman, Paul E.

1994 The Birds of Santa Barbara County, California. Vertebrate Museum University of California Santa Barbara: Santa Barbara.

Martin, Roy W.

2007 *Addendum to the Biological Assessment, California Coastal Trail – Gaviota Segment, Gaviota State Park in Santa Barbara County*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.

Mason, Jesse David

1964 Production of Thompson and West's *History of Santa Barbara & Ventura Counties, California, with Illustrations and Biographical Sketches of Its Prominent Men and Pioneers*. Howell-North, Berkeley, California.

Mayer, K.E., and W.F. Laudenslayer Jr.

1988 A guide to wildlife habitats of California. California Department of Forestry and Fire Protection, Sacramento, CA.

Meade, D.E.

1999 Monarch butterfly overwintering sites in Santa Barbara County California. Althouse and Meade Biological and Environmental Services: Paso Robles, CA.

Moratto, Michael J.

1984 *California Archaeology*. Academic Press. New York.

Munro, David

1999 The biogeography of the monarch butterfly (*Danaus plexippus*)
<http://bss.sfsu.edu/geog/bholzman/courses/fall99projects/Monarch/monarch.htm> visited 12/9/03.

National Marine Fisheries Service

2004 Southern California steelhead ESU current stream habitat distribution table
<http://swr.ucsd.edu/hcd/SoCalDistrib.htm> visited 3/5/04.

- Ninyo & Moore, Geotechnical and Environmental Services Consultants
 2005 *Geotechnical Evaluation, Gaviota Coastal Trail, Gaviota Segment Project, Gaviota State Park, Santa Barbara County, California*. Unpublished report; on file at Northern Service Center, California Department of Parks and Recreation, Sacramento.
- NOAA—National Oceanic and Atmospheric Administration
 2004 The Physics of Tsunamis, from website: <http://www.wcatwc.gov/main.htm>
- NPS—National Park Service
 2002 *Gaviota Coast Feasibility Study & Environmental Assessment (Draft)*. April. Produced by the Pacific Great Basin Support Office, National Park Service, Oakland, California.
- 2003 *Gaviota Coast Feasibility Study and Environmental Assessment*. U.S. Department of the Interior.
- Natural Resource Conservation Service (NRCS)
 2004 Soil Series Information at website:
<http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdnamequery.cgi>
- Pararas-Carayannis, G.
 2004 The Tsunami Page, The Santa Barbara, California, Earthquakes and Tsunami(s) of December 1812, website: <http://www.drgeorgepc.com/Tsunami1812SantaBarbara.html>
- Pearson, V. E.
 1934 *Final Report for the Construction of a Primary State Highway in Santa Barbara County Between Arroyo Hondo and Gaviota from Station 394+50 "F" to 103+00 "K" Road V-SB-2-E-F Contract 65VC3 F.A.P. NRH-58G*. State of California Department of Public Works, Division of Highways, District V, San Luis Obispo California, October 11, 1934. On file, California Department of Transportation Library, Sacramento.
- Petersen, M. D., Bryant, W. A., Cramer, C. H., Cao, T., Reichle, M.S., Frankel, A. D., Lienkaemper, J. J., McCrory, P. A., and Schwartz, D. P.
 1996 Probabilistic Seismic Hazard Assessment for the State of California, Division of Mines and Geology (now the California Geological Survey) Open File Report 96-08; fault parameters on-line at: <http://www.consrv.ca.gov/cgs/rghm/psha/ofr9608/>
- Petersen, M., Beeby, D., Bryant, W., Cao, C., Cramer, C., Davis, J., Reichle, M., Saucedo, G., Tan, S., Taylor, G., Topozada, T., Treiman, J., Wills, C.
 1999 Seismic Shaking Hazard Maps of California, Map Sheet 48.

Raab, L. Mark

1999 *Trouble in Paradise: Myth-making and the Discovery of California Prehistory*.
University of Utah Press.

Rindlaub, K.

1995 *Gaviota tarplant (*Hemizonia increscens villosa*) Ecological Reserve*. Gaviota, Santa Barbara County, California. Mitigation and Management

Rogers, David Banks

1929 *Prehistoric man of the Santa Barbara Coast, California*. Santa Barbara Museum of Natural history Special Publications 1. Santa Barbara, Calif.

Sawyer, John O., and Todd Keeler-Wolf

1995 *A Manual of California Vegetation*. California Native Plant Society. Sacramento.

SCEDC--Southern California Earthquake Data Center

2004 *Santa Ynez Fault*, website: http://www.data.scec.org/fault_index/ynez.html

Southern Pacific Railroad Company

1918 *Description of Water Station at Gaviota*. Form 3087-A. Manuscript Collection #10, Southern Pacific Railroad Company Collection. On file, California Railroad Museum Library, Sacramento.

Thompkins, Walker A.

n.d. notes on Gaviota Store. Unpublished manuscript, Walker Tompkins Collection #SBHC MSS 19, on file, Special Collections Library, University of California, Santa Barbara.

Urquhart, Fred A.

1987 *The Monarch Butterfly: International Traveler*. University of Toronto Press. Toronto, Canada.

U.S. Army Corps of Engineers (USACE)

1942 *Gaviota Quadrangle*, 1:62,500 scale topographic map. U.S. Army, Corps of Engineers, War Department. On file, USGS Library, Menlo Park, California.

USDA--U. S. Department of Agriculture

1972 *Soil survey of Northern Santa Barbara County*

United States Census Bureau

website: <http://quickfacts.census.gov/qfd/states/06/06083.html>

USHHS--United States Department of Health and Human Services

2005 "Poverty Guidelines, Research, and Measurement" on USHHS website at <http://aspe.hhs.gov/poverty/poverty.shtml>

United States Environmental Protection Agency (USEPA)

2005a <http://www.epa.gov/air/urbanair/ozone/hlth.html>

2005b <http://www.epa.gov/air/urbanair/pm/hlth1.html>;

2005c <http://www.epa.gov/air/urbanair/co/what1.html>;

2005d http://www.epa.gov/pmdesignations/documents/pm_desig_fs.pdf

United States Fish and Wildlife Service (USFWS)

1997 Guidance on site assessment and field surveys for California red-legged frogs (*Rana aurora draytonii*).

2000a Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon.

2000b Federal Register. Final rule for Endangered status for Four Plants from South Central Coastal California. (65 FR 14888).

2002a News release, Nov. 7, 2002. U.S. Fish and Wildlife Designates Critical Habitat for Two Plant Species from Central California Coast.

2002b Federal Register. Designation of Critical Habitat for *Eriodictyon capitatum* (Lompoc yerba santa) and *Deinandra increscens* spp. *villosa* (Gaviota tarplant). (67 FR 67967).

U.S. Geological Survey (USGS)

1905 Lompoc, 1:125,000 scale topographic map, edition of August, 1905, surveyed in 1903. On file, USGS Library, Menlo Park, California.

1953a Gaviota quadrangle, 1:24,000 scale topographic map. On file, USGS Library, Menlo Park, California.

1953b Gaviota quadrangle, 1:24,000 scale topographic map, photo-revised 1974. On file, USGS Library, Menlo Park, California.

2004 National Landslide Information Center website:
http://landslides.usgs.gov/html_files/nlicsun.html

USHHS (see United States Department of Health and Human Services)

Weber, F. H., Jr., and Kiessling, E. W.

1978 Historic Earthquakes, Effects in Ventura County, in California Geology, May 1978, Vol. 31, No. 5

WESTEC

1989 *Final Cultural Resources Report: Gaviota Interim Marine Terminal*. WESTEC Services, Inc., Santa Barbara, California. Prepared for Texaco Trading and Transportation Inc., Santa Barbara, California.

Wylde, Joyce

1986 Preliminary Report To the California Department of Parks and Recreation on CA-SBA-2067/H. Ms. On file with DPR in San Diego.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds.

1988 *California's Wildlife*. Volume I: Amphibians and Reptiles. California Wildlife Habitat Relationships System. California Department of Fish and Game, Sacramento, CA.

Chapter 7

Report Preparation

Laurie Archambault – Senior Environmental Scientist

Matt Bischoff – State Historian II

Kathleen Considine – Engineering Geologist

Herb Dallas, Jr. – Associate State Archeologist

Virginia Gardner – Associate State Park Resource Ecologist

Elizabeth Hubert – Associate State Park Resource Ecologist

Roy Martin – Environmental Scientist III

Steve Musillami – Associate Landscape Architect

Amy Palkovic – Associate State Park Resource Ecologist

Sheri Rain – Associate Landscape Architect

Joe Ramos – Research Analyst II (GIS)

Mohammed Reaz Shahid – Civil Engineering Associate

Michael Sampson – Associate State Archaeologist

Jason Spann – Associate Landscape Architect

Roland Shield – Research Analyst II (GIS)

Leslie Steidl – Associate State Archeologist

Susan Wilcox – Associate Park and Recreation Specialist
(Environmental Coordinator)