

2.0 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one "Potentially Significant Impact," prior to mitigation, as indicated and discussed in the checklists on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology / Soils |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input checked="" type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation / Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

2.2 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 proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. 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 is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Eric Gillies
Printed Name

California State Lands Commission
For

2.3 EVALUATION OF ENVIRONMENTAL IMPACTS:

This section provides an analysis of the potential environmental impacts associated with the proposed project. The analysis is organized by environmental issue area, aesthetics, agricultural resources, air quality, etc. Each issue area identifies criteria that have been used to assess the significance or insignificance of each potential impact. The checklists used were developed by the State of California, and are provided as Appendix G of the State CEQA Guidelines. The checklist also indicates the conclusions made regarding the potential significance of each impact. Explanations of each conclusion are provided. In some cases, setting descriptions and recommended mitigation measures are also provided.

Impact classifications used in the checklists are the following:

- **Potentially Significant Impact:** an impact that may be significant based on substantial evidence, and that requires further study in an EIR.
- **Less than Significant Impact with Mitigation Incorporation:** an impact that is “Potentially Significant” but that can feasibly be mitigated to a “Less than Significant Impact” with the incorporation of mitigation measures.
- **Less than Significant Impact:** an impact that would not be significantly adverse.
- **No Impact:** applied when the project would not result in any impact to a specific issue area.

2.3.1 Aesthetics

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

The project sites are generally located along the coastline of Santa Barbara and Ventura Counties. This coastline is world-renowned for its beauty and diversity. Important visual features along the coast include views of the Pacific Ocean and Channel Islands, sandy beaches, bluffs, and coastal terraces to the south, and the Santa Ynez Mountain Range to the north. Specifically, each project site is aesthetically diverse, containing a variety of notable visual features as described below.

Site No. 1- Site No. 1 is located along the shoreline west of Tajiguas Creek. This area is characterized by steep bluffs and narrow rocky beaches. The Union Pacific Railroad and US Highway 101 run parallel to the coastline; however, the site is not visible from any public roadway. A small residual community is located immediately east of the site.

Site No. 2- Site No. 2 is located within El Capitan State Beach. A portion of the beach near the picnic area contains a rocky-intertidal zone. Canada del Corral creek transects the parks and flows southward towards the ocean. The Union Pacific Railroad, Highway 101, and scattered residential development can be seen approximately 1.5 miles north of the site.

Site Nos. 4 and 5- These sites are located to the east and west of Ellwood Pier. Access to the sites is through a eucalyptus grove and grassland bluff that leads down to Haskell Beach. Notable visual features include steep-rising cliffs located above the site, and the Ellwood pier, PRC-421 (Bird Island), and offshore oil platforms extending seaward. In addition, the Sandpiper Golf Course occupies the coastal terrace directly north of project site No. 5. Below this terrace

is the Bell Creek Estuary. Adjacent to the Sandpiper Golf Course is the Bacara Resort and Spa which occupies over 78 beachfront acres, and is a dominant visual feature to the northeast of Site No. 5.

Site Nos. 6 and 7- These hazards are located south of the Santa Barbara Shores residential development community. Access to these sites is through a eucalyptus grove and down the bluff located above. Views from these sites are predominantly coastline, including Devereaux Point.

Site Nos. 8, 9 and 10- These sites are located along the shoreline of Coal Oil Point. The most notable visual feature from these sites is the Devereaux Slough, an important ecological habitat area.

Site No. 13- This hazard is located immediately south of the Biltmore Hotel. This narrow sandy beach is backed by a short coastal bluff and residential development.

Site Nos. 14, 15, and 22- These hazard sites are located in several areas in front of coastal residential development along Fernald Point in Santa Barbara. Viewsheds in this area consist of dense upscale residential development in north, east, and westerly directions along the coastline, and the Santa Barbara Channel to the south.

Site No. 16- The Union Pacific Railroad and U.S. 101 overpass can be seen north of the site. In addition, notable visual features within this area include stands of eucalyptus trees east and west, and offshore oil wells to the south.

Site No. 17- This site is located immediately south of the Union Pacific Railroad right-of-way approximately 100 yards east of Santa Claus Lane and the U.S. 101 Freeway exit overpass. The area is dominated by a sandy beach backed by rock rip-rap and the Union Pacific Railroad. The western end of the hazard site is characterized by residential development while the eastern end is commercial use.

Site No. 18- This hazard is located near the mouth of Carpinteria Creek within the Carpinteria State Beach. This area is characterized by a broad sandy beach backed by a public campground.

Site No. 19- Site No. 19 is located adjacent to the VENOCO Carpinteria oil and gas processing facility immediately east of the Casitas pier. The site sits adjacent to the Carpinteria harbor seal rookery which is a popular public viewing area.

Site No. 20- Site No. 20 is located just seaward of 6766 Breakers Way at Mussel Rock of Punta Gorda. This area is characterized by coastal development and flat sandy beaches. Adjacent to the north of the project area is the Mussel Shoals residential tract that is fronted by a riprap wall and offshore is the Rincon Island drilling facility.

Site No. 21- This site is located along the shoreline of San Buenaventura Beach at the outfall of the Ventura River. Surrounding views from this area include Seaside Park/Ventura

County Fairgrounds, the Union Pacific Railroad crossing over the Ventura River, and the Ventura River estuary. The coastline west of the Ventura County Fairgrounds is dominated by San Buenaventura State Beach. The Ventura Pier is located within San Buenaventura State Beach and extends southwest from the coastline.

Site No. 23- This hazard site is located at Rincon Point. The most notable visual feature from this area is the luxury beachfront using and rocky intertidal areas located east of the site.

Site No. 24- Site No. 24 is located offshore of the coast of Gaviota. Views to the north include the Santa Barbara County coastline and beaches as well as the Santa Ynez Mountain range. Views southward include the Channel Islands.

Impact Discussion:

a-b, d) Removal of the hazards at the proposed project sites would consist of short-term decommissioning activities that would range from approximately 8 to 100 hours in duration, depending on the site conditions present at the time of removal. This decommissioning work could create short-term visual impacts to public and private viewsheds along the south coast due to the use of heavy equipment/vehicles and personnel in these areas. In addition, providing access to the project sites may result in minor alteration of the natural and man-made features near the project area. Impacts to aesthetic resources at the project sites are considered less than significant because of their short term nature.

The removal of these hazards would ultimately result in net aesthetic benefits to the coastline. Any areas disturbed by removal activities would be regraded and revegetated as part of the project to restore the project sites to their original, pre-development condition.

c) There is no introduction of new structures to the project sites that would be a new source of substantial light or glare. In addition, the project would only take place during daylight hours.

Mitigation:

1. No significant impacts would result; therefore, no mitigation is necessary.

2.3.2 Agricultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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"/>

Setting:

Soils at the sites are generally associated with BE-beaches. According to the Soil surveys of Santa Barbara and Ventura Counties done by the U.S. Department of Agriculture in 1970 and 1981, respectively. Beaches (BE) are narrow sandy and stony areas along the Pacific Ocean that are partly or completely covered by water during high tide and exposed during low tide. Further, beaches are not stable, and may change from sandy to stony or vice-versa during storms. In addition, the soil survey indicates that these soils have a capability unit of VIIIw-1, which means that these soils have limited commercial value. These soils are not considered to be of prime or statewide importance. Soils at the staging areas may be considered suitable for agricultural purposes; however, no active agricultural operations or uses were observed at the project sites during recent visits.

Impact Discussion:

a-c) The proposed project would have no significant impacts to agricultural resources because no permanent structures are being constructed and the areas of disturbance are very small in total acreage, such disturbances are temporary in nature, and would not result in any changes in existing uses.

Mitigation:

1. No significant impact would results; therefore, no mitigation is necessary.

2.3.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Setting:

General Climate and Meteorology. The project area is located in the coastal portion of the South Central Coast Air Basin. Coastal portions of the Air Basin are characterized by cool winters and warm, dry summers tempered by cooling sea breezes. Summer, spring and fall weather is generally a result of the movement and intensity of the semi-permanent high pressure area located several hundred miles to the west. Marine influences generally predominate during this period and cause afternoon onshore flow and evening off-shore flow. Winter weather is generally a result of the size and location of low pressure weather systems originating in the north Pacific Ocean. As a result, winds are predominantly from the west-northwest, increasing in intensity during the passage of storm fronts.

Southern Santa Barbara and coastal Ventura County winds are dominated by a diurnal land-sea breeze cycle. This cycle is broken only by occasional winter storms and infrequent strong Santa Ana winds from the northeast or sundowner winds from the north. The sea breeze is generally stronger than the land breeze and results in a net flow from west to east. Westerly sea breezes carry pollutants generated in the coastal areas into the inland valleys where dispersion is restricted. Poor air quality is often associated with air stagnation during periods of thermal stability and light winds. Based on the dramatic annual variation in the number of

recorded ozone standard exceedances, meteorology appears to play the primary role in the production of high ozone concentrations.

Air Monitoring Network. The air quality of the project region is monitored by a network of air monitoring stations operated by the California Environmental Protection Agency, Air Resources Board (ARB), the Santa Barbara County Air Pollution Control District (APCD), Ventura County APCD and permittees.

Air Quality Standards. Air quality standards are specific concentrations of pollutants that are used as thresholds to protect public health and the public welfare. The U.S. Environmental Protection Agency (EPA) has developed two sets of standards; one to provide an adequate margin of safety to protect human health and the second to protect the public welfare from any known or anticipated adverse effects. At this time, sulfur dioxide is the only pollutant for which the two standards differ.

ARB developed air quality standards for California, which are generally lower in concentration than the Federal standards. California standards exist for ozone, carbon monoxide, PM₁₀, visibility, sulfates, lead, hydrogen sulfide and vinyl chloride.

In July 1997, EPA finalized new health-based ozone and particulate matter (PM) standards. However, due to several lawsuits, the standards were not fully implemented until February 2001. The new Federal ozone standard is based on a longer averaging period (8-hour vs. 1-hour), recognizing that prolonged exposure is more damaging. The new Federal PM standard is based on finer particles (2.5 microns and smaller vs. 10 microns and smaller), recognizing that finer particles may have a higher residence time in the lungs and cause greater respiratory illness. Table 2.3.3-1 lists the applicable State and Federal air quality standards.

Health Risk Issues. The combustion of diesel fuel in truck engines (as well as other internal combustion engines) produces exhaust containing a number of compounds that have been identified as hazardous air pollutants by EPA and toxic air contaminants by the State Air Resources Board (ARB). Particulate matter (PM) from diesel exhaust has recently been identified as a toxic air contaminant, which has prompted ARB to develop a Final Risk Reduction Plan (released October 2000) for exposure to diesel PM. Based on ARB Resolution 00-30, full implementation of emission reduction measures recommended in the Final Risk Reduction Plan would result in a 75 percent reduction in the diesel PM Statewide inventory and the associated cancer risk by 2010, and an 85 percent reduction by 2020 in the diesel PM inventory and potential cancer risk.

Table 2.3.3-1. Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard	Federal Standard
Ozone	1-Hour 8-Hour	0.09 ppm --	0.12 ppm 0.08 ppm
Carbon Monoxide (CO)	1-Hour 8-Hour	20 ppm 9.0 ppm	35 ppm 9.0 ppm
Nitrogen Dioxide (NO ₂)	1-Hour	0.25 ppm	---
Inhalable Particulate Matter (PM _{2.5})	24-Hour Annual Arithmetic Mean	-- --	65 ug/m3 15 ug/m3
Inhalable Particulate Matter (PM ₁₀)	24-Hour	50 ug/m3	150 ug/m3
	Annual Geometric Mean	30 ug/m3	--
	Annual Arithmetic Mean	---	50 ug/m3
Sulfur Dioxide (SO ₂)	24-Hour	0.04 ppm	0.14 ppm

Effects of Air Pollution. The primary chemical compounds that are considered pollutants emitted into or formed in the atmosphere include ozone, oxides of nitrogen, sulfur dioxide, hydrocarbons, carbon monoxide, and particulate matter.

Ozone is formed in the atmosphere through a complex series of chemical reactions generally requiring light as an energy source. Ozone is a pungent, colorless gas that is a strong irritant and attacks the respiratory system. Respiratory and cardiovascular diseases are aggravated by exposure to ozone. A healthy person exposed to high concentrations of ozone may experience nausea, dizziness, and burning in the chest. Ozone also damages crops and other vegetation.

Oxides of nitrogen (NO_x), which are considered pollutants, include nitric oxide (NO) and nitrogen dioxide (NO₂). NO is colorless and odorless and is generally formed by combustion processes combining atmospheric oxygen and nitrogen. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen in the atmosphere or at the emission source. Both NO and NO₂ are considered ozone precursors because they react with hydrocarbons and oxygen to produce ozone. Exposure to NO₂ may increase the potential for respiratory infections in children and cause difficulty in breathing even among healthy persons and especially among asthmatics.

Sulfur dioxide (SO₂) is a colorless, pungent, irritating gas that affects the upper respiratory tract. Sulfur dioxide may combine with particulate matter and settle in the lungs, causing damage to lung tissues. Sulfur dioxide may combine with water in the atmosphere to form sulfuric acid that may fall as acid rain, damaging vegetation.

Hydrocarbons include a wide variety of compounds containing hydrogen and carbon. Many hydrocarbons (known as reactive organic compounds [ROC]) react with NO and NO₂ to form ozone. Generally, ambient hydrocarbon concentrations do not cause adverse health effects directly, but result in ozone formation.

Carbon monoxide (CO) is a colorless, odorless gas generally formed by incomplete combustion of hydrocarbon-containing fuels. Carbon monoxide does not irritate the respiratory tract, but does interfere with the ability of blood to carry oxygen to vital tissues.

Particulate matter consists of a wide variety of particle sizes and composition. Generally, particles less than 10 microns (PM₁₀) are considered to be pollutants because they accumulate in the lung tissues and may contain toxic materials which can be absorbed into the system.

General Air Quality Trends. Two pollutants (ozone and PM₁₀) are of particular interest because State air quality standards for these pollutants are exceeded in the project region. Table 2.3.3-2 lists the number of exceedances of State air quality standards for the years 1999 through 2001 at the nearest air quality monitoring station for each of the sites.

Ozone concentrations monitored at these stations rarely exceed the State 1-hour standard (0.09 ppm) and 8-hour standard (0.08 ppm), and do not exceed the Federal 1-hour standard. PM₁₀ concentrations monitored at these stations occasionally exceed the State 24-hour standard, but do not exceed the State or Federal annual standards.

Attainment Status.

Santa Barbara County. All but Sites 20 and 21 are located within the Santa Barbara County portion of the South Central Coast Air Basin. Santa Barbara County is classified as a moderate non-attainment area for the Federal ozone standard because ambient ozone concentrations have historically exceeded the 1-hour standard. However, more recent monitoring data (1997-2000) indicate that the County complies with the Federal 1-hour ozone standard. The Santa Barbara County APCD finalized the 2001 Clean Air Plan in November 2001 as a strategy to request re-classification as attainment. Based on recommendations developed by the ARB, Santa Barbara County will be classified as an attainment area for the Federal 8-hour ozone standard.

Table 2.3.3-2. Air Quality Standard Exceedances

Site	Nearest Monitoring Station	Ozone 1-hour Exceedances (1999/2000/2001)	Ozone 8-hour Exceedances (1999/2000/2001)	PM10 24-hour Exceedances (1999/2000/2001)
1	Las Flores Canyon #1	1/4/1	2/0/1	0/0/0
2	El Capitan Beach	0/0/0	0/0/0	1/0/0
4	Fairview	1/0/0	0/0/0	Not monitored
5	Fairview	1/0/0	0/0/0	Not monitored
6	Fairview	1/0/0	0/0/0	Not monitored
7	Fairview	1/0/0	0/0/0	Not monitored
8	Fairview	1/0/0	0/0/0	Not monitored
9	Fairview	1/0/0	0/0/0	Not monitored
10	Fairview	1/0/0	0/0/0	Not monitored
13	Santa Barbara	1/0/no data	0/0/no data	1/0/no data
14	Santa Barbara	1/0/no data	0/0/no data	1/0/no data
15	Santa Barbara	1/0/no data	0/0/no data	1/0/no data
16	Santa Barbara	1/0/no data	0/0/no data	1/0/no data
17	Carpinteria	1/1/1	1/0/0	Not monitored
18	Carpinteria	1/1/1	1/0/0	Not monitored
19	Carpinteria	1/1/1	1/0/0	Not monitored
20	Carpinteria	1/1/1	1/0/0	Not monitored
21	Emma Wood State Beach	0/0/0	0/0/0	Not monitored
22	Santa Barbara	1/0/no data	0/0/no data	1/0/no data
23	Carpinteria	1/1/1	1/0/0	Not monitored
24	Gaviota- GTC Site B	0/1/0	0/0/0	Not monitored

The Santa Barbara County portion of the South Central Coast Air Basin has been classified as a moderate non-attainment area for the State ozone standard. The South Central Coast Air Basin has been classified as in attainment for CO. Santa Barbara County is also classified as a non-attainment area for the State PM₁₀ standards.

Ventura County. Ventura County is classified as a Severe-15 non-attainment area for the Federal ozone standard, meaning the County must reduce ozone concentrations below the standard within 15 years. Based on recommendations developed by the ARB, Ventura County will be classified as an attainment area for the Federal 8-hour ozone standard.

The Ventura County portion of the South Central Coast Air Basin has been classified as a severe non-attainment area for the State ozone standard. The South Central Coast Air Basin has been classified as in attainment for CO. Ventura County is also classified as a non-attainment area for the State PM₁₀ standards.

Impact Discussion:

Impact Analysis Methodology and Significance Thresholds:

Short-Term. No quantitative thresholds have been established for fugitive dust (PM₁₀) generated by short-term construction activities. However, fugitive dust is generally considered a significant impact and dust control measures are required. Such measures include watering of the site to reduce dust, soil stabilization, and vehicle speed limits. These measures have been incorporated into the project and will be outlined in the grading and erosion control plans to be prepared for each project site.

The Santa Barbara County Planning and Development Department (1995) and Ventura County APCD generally consider short-term (typically less than one year) construction impacts as insignificant due their short-term nature and small proportion of these emissions in comparison to county-wide emissions inventories.

Long-Term. The Santa Barbara County Planning and Development Department (1995) and the Ventura County APCD have developed a threshold to determine the significance of air emissions under the California Environmental Quality Act. This threshold is 25 pounds per day of reactive organic compounds (ROC) or oxides of nitrogen (NOx).

In November 2000, the Ventura County APCD adopted the Ventura County Air Quality Assessment Guidelines (Guidelines), which include project-specific thresholds to determine significance of air quality impacts under CEQA:

- Conflict with or obstruct implementation of the Air Quality Management Plan (AQMP);
- Violate any air quality standard or contribute to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria non-attainment pollutant;
- Expose the public (especially schools, day care centers, hospitals, retirement homes, convalescent facilities and residences) to substantial pollutant concentrations; and
- Create objectionable odors affecting a substantial number of people.

Project-Specific Impacts:

- a) Conflict with or Obstruct Implementation of the Applicable Air Quality Plan. Projects that cause local populations to exceed population forecasts in the Santa Barbara County 2001 Clean Air Plan (CAP) or Ventura County Air Quality Management Plan (AQMP) are considered inconsistent, as exceeding population forecasts can result in the generation of emissions beyond those which have been projected in the CAP or AQMP. The proposed project would not directly or indirectly result in population growth, and therefore would not cause population forecasts in the CAP or AQMP to

be exceeded. As such, the project would be consistent with the applicable air quality plans.

- b) Violate any Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation. As shown in Table 2.3.3-2, the vicinity of the project sites exceeds air quality standards only once every few years. These exceedances are generally due to climatic conditions conducive to ozone formation (clear skies, high temperatures and low wind speed). Hazard removal work and associated emissions would occur at the 21 project sites over an undefined period of time; however, such emissions would be limited on any one day (see Table 2.3.3-3). The small amount and duration of emissions associated with the project will not cause or substantially contribute to violations of air quality standards.
- c) Result in a Cumulatively Considerable Net Increase of any Criteria Pollutant for which the Project Region is Non-attainment. Both Santa Barbara and Ventura County are presently classified as non-attainment for the State and Federal ozone standard. The project sites are located in established residential, commercial or recreational areas such that emissions would be limited to that generated by the proposed project and existing motor vehicle trips. NO_x and ROC are criteria pollutants that are considered precursors of ozone.

Air pollutant emissions generated by hazard removal activities would include exhaust emissions and wind-blown (fugitive) dust. Project NO_x, ROC, PM₁₀ and CO emissions estimates are provided for a peak day scenario and total emissions scenario for each project site (see Tables 2.3.3-3 and 2.3.3-4). Exhaust emissions from onshore equipment were calculated using load factors and emission factors from *Nonroad Engine and Vehicle Emissions Study* (EPA, 1991). Exhaust emissions from marine vessels were calculated using load factors and emission factors from *Marine Exhaust Emissions Research Programme* (Lloyds Register, 1995). Mobilization of vessels from Port Hueneme to the project sites was included in the emissions estimates.

Motor vehicle emissions were estimated using the Motor Vehicle Emissions Inventory (MVEI7G) model developed by the ARB, and assuming that hazard removal work would begin in 2003. Motor vehicle emissions included worker transportation to the project site (beach spreads) or to the port of origin (Port Hueneme) for offshore spreads.

Emissions from the project qualify as short term emissions even though Table 2.3.3-3 indicates that NO_x and ROC emissions generated at each site would exceed the long term 25 pound per day threshold of significance. The proposed project is limited to one-time hazards removal and would have no long-term emissions. Therefore, project emissions are considered a less than significant impact to air quality.

- d) Expose Sensitive Receptors to Substantial Pollutant Concentrations. Residences, schools, hospitals, and child day-care facilities are generally considered sensitive receptors. Project sites (or staging areas) 1, 8, 9, 10, 14, 15, 20 and 22 are located adjacent to residences or a school (Devereaux School). However, the magnitude (see Table 2.3.3-3) and duration (a few days) of project emissions at these sites are small. In addition, these sites are located on the beach where winds are generally sufficient to disperse emissions and prevent substantial pollutant concentrations. Therefore, impacts to sensitive receptors are considered less than significant.
- e) Create Objectionable Odors affecting a Substantial Number of People. Hazard removal activities would utilize diesel-powered equipment, and the odor of diesel exhaust may be considered objectionable to a portion of the population. However, the use of diesel-powered equipment in proximity to the public would be limited to a small backhoe or skid loader for a few days. Due to the small amount of equipment activity and wind-induced dispersion, the amount of odor generated by these activities would be minimal and affect only a small number of people. Therefore, odor impacts are considered less than significant.

Table 2.3.3-3. Peak Day Emissions

Site	Scenario	Pollutant Emission Rate (lbs/day)			
		NOx	ROC	PM10	CO
1	Beach hazard removal	33.8	53.7	2.1	535.5
2	Beach hazard removal	33.8	53.7	2.1	535.5
4	Beach hazard removal	33.8	53.7	2.1	535.5
5	Shallow hazard removal	57.1	8.2	3.4	37.8
6	Shallow hazard removal	57.1	8.2	3.4	37.8
7	Beach hazard removal	33.8	53.7	2.1	535.5
8	Beach hazard removal	33.8	53.7	2.1	535.5
9	Beach hazard removal	33.8	53.7	2.1	535.5
10	Beach hazard removal	33.8	53.7	2.1	535.5
13	Beach hazard removal	33.8	53.7	2.1	535.5
14	Beach hazard removal	33.8	53.7	2.1	535.5
15	Beach hazard removal	33.8	53.7	2.1	535.5
16	Shallow hazard removal	57.1	8.2	3.4	37.8
17	Beach hazard removal	33.8	53.7	2.1	535.5
18	Beach hazard removal	33.8	53.7	2.1	535.5
19	Beach hazard removal	33.8	53.7	2.1	535.5
20	Beach hazard removal	33.8	53.7	2.1	535.5
21	Beach hazard removal	33.8	53.7	2.1	535.5
22	Beach hazard removal	33.8	53.7	2.1	535.5
23	Beach hazard removal	33.8	53.7	2.1	535.5
24	Vessel mobilization	144.8	5.9	2.2	19.1

Table 2.3.3-4. Total Emissions per Site

Site	Pollutant Emissions (tons)			
	NOx	ROC	PM10	CO
1	0.034	0.053	0.002	0.531
2	0.127	0.200	0.007	1.991
4	0.034	0.053	0.002	0.531
5	0.510	0.336	0.029	3.093
6	0.299	0.209	0.016	1.947
7	0.127	0.200	0.007	1.991
8	0.034	0.053	0.002	0.531
9	0.017	0.027	0.001	0.265
10	0.068	0.107	0.004	1.062
13	0.017	0.027	0.001	0.265
14	0.017	0.027	0.001	0.265
15	0.034	0.053	0.002	0.531
16	0.455	0.354	0.026	3.323
17	0.118	0.186	0.007	1.858
18	0.017	0.027	0.001	0.265
19	0.017	0.027	0.001	0.265
20	0.034	0.053	0.002	0.531
21	0.034	0.053	0.002	0.531
22	0.034	0.053	0.002	0.531
23	0.017	0.027	0.001	0.265
24	0.303	0.026	0.011	0.113

Mitigation:

No significant impacts would result; therefore, no mitigation is necessary.

2.3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regional Setting:

The individual project sites are situated along the coastline of the Santa Barbara Channel (SBC) and span from the Gaviota Coast of Santa Barbara County to northern Ventura County. Due to geographical characteristics and associated weather and oceanic current patterns, this area forms a biogeographical transition zone between marine and terrestrial biological communities associated with Southern California and those associated with Central

California. This transition area supports species from both regions, resulting in high species diversity.

The SBC lies along important migration routes for marine mammals, fishes, and seabirds and also contains a rich, diverse assemblage of resident marine life. These abundant marine resources support a number of important commercial fisheries, mariculture, and kelp harvesting. Recreational activities dependent on SBC marine life include sport fishing, SCUBA diving and snorkeling, bird watching, whale watching, and tide pooling. The SBC's wealth of marine life also provides a resource for teaching and for scientific research. The following provides a discussion of marine invertebrates, fishes, marine mammals, and terrestrial biological resources that occur in the project area.

In support of this biological resources section, Padre personnel, accompanied by Ray de Wit Consultant, conducted surveys of the terrestrial and intertidal portions of representative project sites on July 2, 2002. Information gathered during these surveys was used to characterize the existing conditions and to evaluate the potential impacts associated with proposed hazard removal activities throughout the project areas. This information was also utilized to develop appropriate mitigation measures to reduce the potential impacts to biological resources.

Flora

1. **Terrestrial Flora.** Based on site visits and existing plant communities, it is evident that the majority of the project areas have been impacted by past land use activities, specifically, an historically relatively high level of disturbance associated with oil production, ranching, and coastal development. However, considering the relatively pristine nature of surrounding areas and the wildlife diversity present in these areas, a variety of wildlife species occur or are expected to occur throughout the sites. In addition, a review of the California Department of Fish and Game's (CDFG) California Natural Diversity Data Base (CNDDDB) was conducted to identify known and reported occurrences of special-status plant and animal species and sensitive habitats within the vicinity of the proposed work areas (CNDDDB, 2002). This information, coupled with the review of other environmental documents, indicates that the project areas have the potential to support a variety of special-status wildlife species. Table 2.3.4-1 lists definitions of special-status plant species, while Table 2.3.4-2 lists special-status terrestrial plant species that were identified on the project sites during the surveys, and/or that have the potential to occur at the project sites.

Vegetation types observed within the project sites include eleven major plant communities/habitat types: freshwater marsh, southern coastal salt marsh, southern foredune, riparian scrub, Venturan coastal sage scrub, southern coastal bluff scrub, annual grassland, eucalyptus woodland, riparian forest, oak woodland, and ruderal habitat. The majority of the Vegetation/habitat types were classified based on *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986).

Three of the habitat types observed within the study area, including riparian scrub, southern coastal salt marsh, and freshwater marsh, qualify as jurisdictional waters of the United States (U.S.) pursuant to Section 404 of the Clean Water Act. All activities causing the fill of waters of the U.S. are regulated by the U.S. Army Corps of Engineers (Corps). Corps-defined wetlands are determined to be present if evidence of each of three criteria is observed (hydrophytic vegetation, hydric soils, and wetland hydrology). However, the Santa Barbara County, USFWS, CDFG and California Coastal Commission wetland definition requires that only one of these criteria need be present to define a wetland. The occurrence and composition of each of the major habitat types observed within the proposed work areas are discussed below and summarized in Table 2.3.4-3.

Table 2.3.4-1. Definitions of Special-Status Plant Species

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register Vol. 62, No. 182, pp. 49397-49411, September 19, 1997).
- Plants that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines*, Section 15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in Skinner and Pavlik, 1994).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in Skinner and Pavlik, 1994).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies or jurisdictions.
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (*State CEQA Guidelines*, Appendix G).
- Plants listed as "local concern" or "endemic" in Wiskowski (1988).

Table 2.3.4-2. Special-Status Plant Species of the Project Area

<u>Common Name</u> <u>(Scientific Name)</u>	<u>Status</u>	<u>Nearest Known Location</u>
Aphanisma (<i>Aphanisma blitoides</i>)	List 1B	Ventura: about 1.5 miles west of the Ventura River (Pollard, 1963)
Black-flowered figwort (<i>Scrophularia atrata</i>)	List 1B	Gaviota: roadside rest area along Highway 101, south of Gaviota pass (Swenney, 1981)
Cliff aster (<i>Malacothrix saxatilis</i> var. <i>saxatilis</i>)	E	Ellwood: East of Ellwood pier. Personal observation (Padre Associates, Inc., 2002)
Contra costa goldfields (<i>Lasthenia conjugens</i>)	FE, List 1B	Goleta: Isla Vista Tract (Smith, 1976)
Coulter's saltbush (<i>Atriplex coulteri</i>)	List 1B	Oak Park: non-specific (Smith, 1976)
Davidson's saltscale (<i>Atriplex serenana</i> var. <i>davidsonii</i>)	List 1B	Santa Barbara: Hendry's Beach aka Burro Beach (Smith, 1947)
Gaviota tarplant (<i>Hemizonia increscens</i> ssp. <i>villosa</i>)	E, FE, SE, List 1B	Gaviota: From Gaviota east for 2.1 miles along Highway 101. (Trask, 1991)
Late-flowered mariposa lily (<i>Calochortus weedii</i> var. <i>vestus</i>)	List 1B	Santa Barbara: 2 miles west of La Cumbre Peak (Ownbey, 1940)
Nuttall's scrub oak (<i>Quercus dumosa</i>)	List 1B	Carpinteria: west of Toro Canyon Road about 1 mile north of Highway 101 (Carroll, 1992)
Refugio manzanita (<i>Arctostaphylos refugioensis</i>)	E, List 1B	Goleta: non-specific (Philbrick, 1974)
Salt marsh bird's-beak (<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>)	FE, SE, List 1B	Carpinteria: Carpinteria salt marsh, along Apple Road near center of marsh (Patman, 1984)
Sand verbena (<i>Abronia maritima</i>)	List 4	Santa Barbara: located at several project sites. Personal observation (Padre Associates, Inc., 2002)
Santa Barbara morning glory (<i>Calystegia sepim</i> ssp. <i>binghamiae</i>)	List 1A	Buton Mound: near the foot of De La Vina Street (Smith, 1976)
Santa Ynez false lupine (<i>Thermopsis Macrophylla</i>)	SR	Santa Ynez Mountains: Junction of Camino Cielo Rd and road to La Cumbre lookout (Emery, 1955)
Sonoran maiden fern (<i>Thelypteris puberula</i> var. <i>sonorensis</i>)	List 2	Santa Ynez Mountains: Arroyo Hondo Canyon (Smith, 1976)
Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>)	List 1B	Goleta: 6.5 miles west of Goleta along south side of Highway 101 (Bowland, 1991)
Ventura marsh milk-vetch (<i>Astragalus pycnostachyus</i>)	FE, SE, List 1B	Ventura: non-specific (Essig, 1911)

Status Codes:	E	Endemic (Wiskowski, 1988)
	FE	Federal Endangered (USFWS)
	FPE	Federal Proposed Endangered (USFWS)
	LC	Local Concern (Wiskowski, 1988)
	List 1B	Plants rare, threatened, or endangered in California and elsewhere (CNPS)
	List 4	Plants of limited distribution (CNPS)
	SE	State Endangered (CDFG)
	SR	State Rare (CDFG)

Table 2.3.4-3. Project Site Habitat Types

Sites	1	2	4	5	6	7	8	9	10	13	14	15	16	17	18	19	20	21	22	23	24
HABITAT																					
TERRESTRIAL																					
FM	X	X	X	X														X			
SCSM			X				X	X	X											X	
SFD			X	X	X	X	X	X	X		X	X		X	X						
RS	X	X	X	X	X	X															
VCSS	X	X	X	X	X	X	X	X	X				X			X	X		X	X	
SCBS			X	X	X	X	X	X	X				X			X	X		X	X	
AG					X	X				X											
EW			X		X	X									X						
RF	X	X											X		X						
OW	X	X																			
R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INTERTIDAL																					
RS		X	X		X	X		X			X							X	X	X	
SB	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
SG	X		X					X								X					
SUBTIDAL																					
RS	X	X	X		X	X		X								X					X
EG																					
K	X		X	X	X	X		X					X					X			

- | | | | |
|-------------|------------------------------|------------|----------------|
| Terrestrial | | Intertidal | |
| FM | Freshwater Marsh | RS | Rock Substrate |
| SCSM | Southern Coastal Salt Marsh | SB | Sandy Beach |
| SFD | Southern Foredune | SG | Surfgrass |
| RS | Riparian Scrub | | |
| VCSS | Venturan Coastal Sage Scrub | Subtidal | |
| SCBS | Southern Coastal Bluff Scrub | RS | Rock Substrate |
| AG | Annual Grassland | EG | Eel Grass |
| EW | Eucalyptus Woodland | K | Kelp |
| RF | Riparian Forest | | |
| OW | Oak Woodland | | |
| R | Ruderal | | |

Freshwater Marsh. Freshwater marsh habitat usually occurs in nutrient-rich mineral soils that are saturated on a seasonal basis. These communities can occur in areas of slow-moving or stagnant shallow water along streams, or in areas where the low permeability of existing soils results in the prolonged presence of surface water or saturated soils. These habitat types also occur along the persistent, moist areas of existing drainages, around the perimeters of ponds, and in low topographic areas that contain standing water or moist soils due to retention of rainfall/runoff. Freshwater marsh is typically dominated by perennial, emergent monocots such as cattail (*Thypha* spp.) and bulrush (*Scirpus* spp.). Freshwater marsh habitat was observed in association with Canada del Capitan Creek (Site No. 2), and Eagle Canyon drainage (Site No. 4) and Bell Creek (Site No. 5) located within the Ellwood East and West project areas.

Southern Coastal Salt Marsh. Estuarine habitat areas are supported by seasonal, surface water flow and occasional input of tidal waters from the Pacific Ocean. Salt tolerant grasses and herbaceous plants typically dominate this habitat type. Typical plant species often include pickleweed (*Salicornia virginica*), saltbush (*Atriplex watsonii*), and alkali heath (*Frankenia* sp.). Estuarine habitat is particularly important as rearing grounds for marine fishes

including special status species such as the tidewater goby (*Eucyclogobius newberryi*) and southern steelhead (*Oncorhynchus mykiss*). Estuarine habitat is identified as occurring within the Sands Beach at Devereaux Slough (Site No. 8) and at Goleta Beach.

Southern Foredune. Coastal foredune habitats are distinct and sensitive habitat areas. Plants within this habitat type are subjected to harsh natural conditions such as extremely high tides, wind, and availability of fresh water. Adaptations to these conditions result in plant species that are characterized as very low growing, wind and drought tolerant with deep taproots, and fleshy roots, stems and leaves.

Vegetation identified at project sites such as Ellwood West (Site No. 4) and Sands Beach at Devereaux Slough (Site No. 8) consist of an assemblage of coastal foredune species intermingled with non-native vegetation. Native species occurring within these project sites included beach evening primrose (*Camissonia cheiranthifolia*), sand-verbena (*Abronia sp.*), beach saltbush (*Atriplex leucophylla*), and beach-bur (*Ambrosia chamissonis*). Non-native plants associated with coastal foredune habitat include sea rocket (*Cakile maritima*) and iceplant (*Carpobrotus spp.*).

Riparian Scrub. Riparian scrub occurs in scattered locations adjacent to existing flowing stream channels or along seasonally flooded arroyos, or in topographic depressions located close to ground water. These communities consist of scrubby streamside thickets, varying from open to closed canopies (Holland, 1986). The overstory of riparian scrub is typically dominated by a variety of willows (*Salix spp.*). Vegetation associated with riparian scrub communities also provide important nesting, roosting, and foraging habitat for a variety of migratory songbirds, as well as various raptors. Many wildlife species utilize riparian corridors as a protective corridor for movement allowing animals to move through their natural range. This habitat type occurs in association with several project areas, such as Tajiguas Creek (Site No. 1) and El Capitan State Beach in association with Canada del Capitan Creek (Site No. 2).

Venturan Coastal Sage Scrub. Coastal sage scrub is a common habitat type characterized by plants such as California Sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), morning-glory (*Calystegia macrostegia*), poison oak (*Toxicodendron diversilobum*), and bush monkey-flower (*Mimulus spp.*). This habitat type provides important nesting and foraging habitat for a wide variety of migratory songbirds, in addition to protective cover and foraging habitat for small mammals. Coastal sage scrub occurs throughout the project area, and was observed at Ellwood West (Site No. 4), Santa Barbara Shores (A) and (B) (Sites No. 6 and No. 7) and El Capitan State Beach in association with Canada del Capitan Creek (Site No. 2).

Southern Coastal Bluff Scrub. Southern coastal bluff scrub consists of plants adapted to a confined narrow corridor located along the bluff tops of coastal areas. These communities typically integrate into Coastal Sage Scrub away from the coast. Plant species such as cliff aster (*Malacothrix saxatilis*), dune buckwheat (*Eriogonum parvifolium*), golden yarrow (*Eriophyllum staechadifolium*), and California sagebrush are characteristic of this habitat type. Southern coastal bluff scrub was observed at several project sites, including Ellwood West (Site

No. 4) and along the bluffs associated with Santa Barbara Shores (A) and (B) (Sites No. 6 and 7).

Annual Grassland. Annual grassland habitat occurs intermingled with various other habitat types including coastal sage scrub, eucalyptus woodland and disturbed habitats throughout the project area. Cattle grazing and other agriculturally based land use practices contribute to the presence of annual grassland. Non-native grasses and weedy annual forbs primarily dominate this plant community. A variety of common plant species that characterize annual grasslands include wild oat (*Avena spp.*), brome (*Bromus spp.*), filaree (*Erodium spp.*), plantain (*Plantago spp.*), barley (*Hordeum spp.*), mustard (*Brassica spp.*), and vetch (*Vicia spp.*). Grasslands often provide important habitat features for a variety of wildlife species that commonly use open grassland areas for foraging and nesting purposes. Annual grassland is known to occur throughout the project area and was observed along the coastal terraces at Santa Barbara Shores (A) and (B) (Sites No.s 6 and 7).

Eucalyptus Woodland. Eucalyptus woodland, consisting of stands of eucalyptus (*Eucalyptus spp.*), occurs in scattered locations throughout the project area, often forming a mosaic with annual grassland and coastal sage scrub habitats. In areas where eucalyptus forms dense stands, growth of native plants within the immediate vicinity is inhibited. Stands of eucalyptus provide over-wintering habitat for monarch butterflies (*Danaus plexippus*) throughout Santa Barbara County. Eucalyptus stands are associated with access roads at project sites such as Ellwood Pier West (Site No. 4) and Santa Barbara Shores (Sites No.s 6 and 7).

Riparian Forest. Riparian forest communities are characterized as tall, open, broad-leaved, winter-deciduous riparian forests that occur along frequently inundated lands located along rivers and streams, or in areas where the water table is at or near the ground surface. The dominant species within these communities require moist, bare mineral soil for germination and establishment (Holland, 1986). The structure and composition of riparian forest can vary substantially throughout the length of a given drainage. Riparian forests are typically dominated by California sycamore (*Platanus racemosa*) and cottonwood (*Populus spp.*) with a variety of willows (*Salix spp.*) comprising the primary vegetative cover in the understory. However, the structure and density of the understory can be highly variable and may include blue elderberry (*Sambucus mexicana*), California blackberry (*Rubus ursinus*), goldenrod (*Solidago sp.*), and nettle (*Urtica sp.*). These riparian habitats provide important nesting, roosting, and foraging habitat for a variety of migratory songbirds, as well as various raptors. This community is present at El Capitan State Beach (Site No. 2) in association with Canada del Capitan Creek.

Oak Woodland. Oak woodland habitat varies substantially in structure and composition, and is dependent on local environmental conditions such as slope, aspect, soils, moisture conditions, and microclimatic features (Holland, 1986). Understory of oak woodland can be highly variable. Characteristic species that may occur as part of the shrub layer include scrub oak (*Quercus dumosa*), coffeeberry (*Rhamnus californica*), poison oak (*Toxicodendron diversilobum*), and elderberry (*Sambucus mexicana*). Oak woodland vegetation is important for animal cover, providing nesting sites for birds, and shelter for numerous mammals. Woodland areas also support numerous insects and small mammals that are important food sources for

other vertebrates in the area. Snags provide excellent roosts for raptors and nesting cavities for a variety of birds. This habitat type was observed throughout El Capitan State Beach (Site No. 2) which is dominated entirely by coast live oak (*Quercus agrifolia*).

Ruderal. Disturbed habitats occur in various locations throughout the study sites, particularly along roadsides and around the perimeters of developed areas. Within several project sites, these habitats integrate with annual grassland and several other plant communities. Characteristic species observed within disturbed habitats include mustards, sweet fennel (*Foeniculum vulgare*), milk thistle (*Silybum marianum*), castor bean (*Ricinus communis*), and various species of grass. Disturbed habitats were observed in association with the majority of the hazard removal sites throughout the project area.

Marine Flora. The following provides an overview of the marine habitats and associated flora that typically occurs throughout the SCB and are expected to be encountered during proposed project operations.

Intertidal. Aspen Environmental Group, 1992, reported that sandy beaches comprise approximately 70% of the intertidal habitat within the SCB while rocky intertidal (23%) and boulders (7%) are less common. Although specific percent composition of the intertidal habitats at all hazard removal sites is not known, the habitats within the project area comprise all three “types” listed above. The sensitive habitats associated with the intertidal portions of the project area include:

Rock Substrate: Because of the preponderance of sand and cobble beaches along the mainland coastline of the SBC, rock-reef and –bench habitats are relatively rare within the project area. However, rock areas within the project region provide suitable substrate for several species of algae and invertebrates and tide pools that are utilized by some fish species. As such, rocky intertidal substrates generally support a diverse biological community.

Surfgrass: Surf grass, *Phyllospadix torreyi*, is one of two species of surf grass, a flowering marine plant that attaches to low intertidal and shallow subtidal rock substrate, that occurs within the SBC. Surf grass beds provide nursery habitat for some commercially important species, *i.e.* lobster, and is adapted to the open coastal areas where it is exposed to wave action. Surf grass is relatively slow-growing and, since it attaches directly to the rock substrate with exposed rhizomes, is easily cut; damaged rhizomes increase the likelihood of additional surf grass being lost by waves washing against the flat areas where the cut occurred.

Subtidal. The nearshore (to approximately –40 ft. [12 m.]) and deeper water subtidal habitat on the northern (mainland side) portion of SBC is predominantly sedimentary, interspersed with isolated offshore rocky features. The following sensitive habitats are associated with the subtidal portions of the project area:

Rock substrate: Similar to the intertidal areas, offshore rocky features are relatively uncommon within the SBC. Supporting organisms that are generally slow growing,

relatively long-lived, and require solid substrate, nearshore and deep-water rocky reefs and boulders fields are considered sensitive. Nearshore rocky reefs, most of which support kelp (see below), and offshore solid substrate have been documented at several of the proposed hazard removal sites.

Eel grass: Although historically documented as an introduced species, offshore eelgrass (*Zostera cf. asiatica*) forms relatively dense beds on sedimentary seafloor habitats in water depths of from 15 to approximately 40 ft (4.5 to 12 m) within the project area. While not specifically identified as a sensitive species in existing regulations, offshore eelgrass beds do provide some nursery habitat for fish and invertebrates and tend to consolidate the fine sediments. Patchy offshore eelgrass beds have been documented from Las Flores Canyon to San Diego (de Wit, pers. ob.).

Kelp: Kelp, *Macrocystis pyrifera*, forms “forests” (beds) in water depths of up to 100 ft (30 m) along the California coast (CSA, 1995a). Along the SBC mainland, reduced water clarity and the paucity of solid substrate usually limits kelp beds to –60 ft (18m) or less. Kelp beds provide food and shelter for a diverse assemblage of plants and animals and kelp is harvested for algin that is used in several commercial products. Other large brown algal species are found within, inshore, and offshore of *Macrocystis* and provide similar habitat value.

WILDLIFE

Terrestrial Wildlife. Although historic oil production, agriculture, cattle grazing, transportation and coastal development have extensively disturbed the project area, surrounding portions of the Santa Ynez Mountains and coastal bluffs support several wildlife habitats. These include coastal sage scrub, coastal bluff scrub, annual grassland, oak woodland, estuary, freshwater marsh, and riparian forest. The wildlife habitat value of the terrestrial areas in the vicinity of the project sites is considered low to moderate, due to the dominance of disturbance-tolerant non-native vegetation, e.g., iceplant, annual grasses, etc. However, considering the relatively pristine nature of surrounding areas, a variety of wildlife species are expected to occur onsite. In addition, as determined by review of sight records from other environmental documents and range maps including Zeiner et al, (1998, 1990a, 1990b), and Lehman (1994), the project area has the potential to support a variety of special-status wildlife species.

The project area is along the southern slopes of the Santa Ynez Mountains, including numerous small canyons draining south to the Pacific Ocean. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient wildlife passages, including drainages and ridgelines. Culverts have been installed in the majority of the drainages throughout the project area, e.g., U.S. Highway 101, Union Pacific Railroad, etc., allowing for limited, but efficient wildlife access to the individual project sites. Table 2.3.4-4 lists the definitions of special-status wildlife species and Table 2.3.4-5 provides a listing of terrestrial species that may occur within the project area.

Vertebrates. Vertebrate species observed include those seen or detected by track, scat, burrows or voice during field surveys conducted on July 2, 2002. Accurate assessment of wildlife populations would require extended periods of site research, trapping, and censusing. It is particularly difficult to detect nocturnal, rare or reclusive species to obtain accurate estimates of population size and geographical distribution. Other complications in the quantitative assessment of terrestrial vertebrate (and terrestrial invertebrate) populations include:

- many species may occur in the area only for short periods during migrations;
- many species of amphibians and reptiles become inactive during one or more seasons; and
- seasonal or annual fluctuations in climate or weather patterns may confound observations.

Table 2.3.4-4. Definitions of Special-Status Wildlife Species

- | |
|--|
| <ul style="list-style-type: none">➤ Animals listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).➤ Animals that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register Vol. 62, No. 182, pp. 49397-49411, September 19, 1997).➤ Animals that meet the definitions of rare or endangered species under the CEQA (<i>State CEQA Guidelines</i>, Section 15380).➤ Animals listed or proposed for listing by the State of California as threatened and endangered under the California Endangered Species Act (14 CCR 670.5).➤ Animal species of special concern to the CDFG (Remsen, 1978 for birds; Williams, 1986 for mammals).➤ Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).➤ Animal species protected under the Marine Mammal Protection Act (as amended in 1994). |
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Table 2.3.4-5. Special-Status Terrestrial/Aquatic Wildlife and Fish Species of the Project Area

<u>Common Name</u> <u>(Scientific Name)</u>	<u>Status</u>	<u>Potential to Occur On or Near the Project Sites</u>
Monarch butterfly (<i>Danaus plexippus</i>)	SA	High, over-wintering habitat (eucalyptus) present
Southern steelhead (<i>Oncorhynchus mykiss</i>)	FE, CSC	High, may occur within Canada Del Capitan
Light-Footed Clapper Rail (<i>Rallus longirostris levipes</i>)	FE, SE	Low, could occur in salt marshes traversed by tidal sloughs
Tidewater goby (<i>Eucyclogobius newberryi</i>)	FE, CSC	High, observed in Canada Del Capitan (Padre Associates, Inc. 2002)
California red-legged frog (<i>Rana aurora draytonii</i>)	FT, CSC, FP	Moderate, may occur in the along Canada Del Capitan.
Coast horned lizard (<i>Phrynosoma coronatum frontale</i>)	CSC, FSC, P	Moderate, could occur in California sagebrush, yellow bush lupine and coyote brush scrub
California newt (<i>Taricha torosa torosa</i>)	CSC	Low, may occur in riparian areas at several project sites
Southwestern pond turtle (<i>Clemmys marmorata pallida</i>)	CSC, FSC, P	Low, may occur in wetlands within various project sites
Belding's Savannah Sparrow (<i>Passerculus sandwichensis beldingi</i>)	SE	Low, known to occur in Goleta Slough (USFWS, 1987)
Silvery legless lizard (<i>Anniella pulchra pulchra</i>)	CSC, FSC	Moderate, could occur in California sagebrush, yellow bush lupine and coyote brush scrub
Two-striped garter snake (<i>Thamnophis hammondi</i>)	CSC, FSC, P	Low, may occur several areas
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT, CSC	High, known breeding habitat at mouth of Devereaux Slough
Golden eagle (<i>Aquila chrysaetos</i>)	CSC, FP	Moderate, breeding habitat present and may forage on-site
White-tailed kite (<i>Elanus caeruleus</i>)	FP	Moderate, suitable breeding and foraging habitat present at project sites.
Bell's sage sparrow (<i>Amphispiza belli belli</i>)	CSC, FSC	Moderate, may occur in California sagebrush or coyote brush scrub
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	CSC, ABL	Moderate, may occur in California sagebrush or coyote brush scrub
Least Bell's vireo (<i>Vireo belli pusillus</i>)	FE, SE, CSC, ABL	Low, suitable breeding habitat on-site
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSC, FSC, ABL	Moderate, suitable breeding habitat in California sagebrush and coyote brush scrub
Cooper's hawk (<i>Accipiter cooperi</i>)	CSC, ABL	Moderate, suitable breeding habitat within project sites

Common Name (Scientific Name)	Status	Potential to Occur On or Near the Project Sites
Northern harrier (<i>Circus cyaneus</i>)	CSC	Moderate, suitable breeding habitat within project sites
Bank Swallow (<i>Riparia Riparia</i>)	ST	Low, suitable breeding habitat in vertical banks/cliffs with fine-textured/sandy soils near water resources
Arroyo Toad (<i>Bufo californicus</i>)	FE, CSC	Low, suitable breeding habitat in semi-arid regions near washes or intermittent streams
Tri-colored blackbird (<i>Agelaius tricolor</i>)	SC	Moderate, requires open water, protected nesting substrate, and foraging area with insect prey within few km of colony.
Pallid bat (<i>Antrozous pallidus</i>)	CSC, FSC	Low, breeding habitat present and may forage on-site
American badger (<i>Taxidea taxus</i>)	CSC, FSC	Low, may forage on-site, but no burrows were found during field surveys
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	SA	Moderate, may occur in California sagebrush or coyote brush scrub
White abalone (<i>Haliotis sorenseni</i>)	FE	Low, found in water depths of from 60 to 200 ft on low-relief rock ridges

Status Codes:	ABL	Blue list (Audubon Society)
	ALC	Local concern (Audubon Society)
	ASC	Special concern (Audubon Society)
	CSC	California Species of Special Concern (CDFG)
	FSC	Federal Species of Concern (USFWS)
	FE	Federal Endangered (USFWS)
	FP	Fully protected under Fish and Game Code (CDFG)
	FT	Federal Threatened (USFWS)
	P	Protected under California Code of Regulations (CDFG)
	SA	Special Animal (CDFG)
	SE	State Endangered (CDFG)
	ST	State Threatened (CDFG)

Amphibians: Amphibians observed during the site visits were limited to several Pacific treefrog tadpoles (*Hyla regilla*), which were identified within the mouth of the Canada del Capitan Creek at Site No. 2. The Pacific tree frog and the Western toad can be assumed to occupy the majority of the work sites containing year-round source of water. The California red-legged frog (*Rana aurora draytonni*), a federally threatened species, has also been recorded in several streams along the Gaviota coast, and as such is discussed in further detail below.

Reptiles: Reptiles observed during the field survey were limited to western fence lizard (*Sceloporus occidentalis*), which occurred at the majority of the project sites. The southwestern pond turtle (*Clemmys marmorata pallida*) and two-striped garter snake (*Thamnophis hammondi*), both considered sensitive, are also known to occur within the waterways throughout the project area and are discussed below in further detail. Marine Turtles occasionally occur within southern California waters, and as such, have the potential to occur within the nearshore portions of the project sites. Marine turtles are discussed in greater detail in Marine Turtles, below.

Avifauna: The SCB, in general, and the SBC, in particular, has been characterized as exhibiting a diverse and abundant marine avifauna. As a consequence of its location within a portion of the Pacific Flyway and due to the variability of its mainland and insular coastal terrain, the SBC Region provides foraging and breeding habitat for over 250 species of birds (Webster,

et al., 1980). Among those taxa, three species, the western snowy plover (*Charadrius alexandrinus*), California brown pelican (*Pelecanus occidentalis*), and the California least tern (*Sterna antillarum*), are threatened or endangered (USFWS) and could occur within the project area. The clapper rail (*Rallus longirostris*), a coastal inshore-endangered species (USFWS), could also be present within the dune vegetation areas in the estuarine portions of the project area.

Marine Birds. The sandy beach habitats and coastal cliff and nearshore rock habitats of the Channel are characterized by the presence of migrating and wintering populations of sandpipers (*Erolia spp.*), plovers (*Charadrius spp.*), and gulls (*Larus spp.*), as well as resident species of plovers, black oystercatchers (*Haematopus bachmani*), and gulls. Species characteristic of the offshore areas of the SBC include three species of gulls (Heermann's [*L. heermanni*], western [*L. occidentalis*], and Bonaparte's [*L. philadelphia*]), two species of cormorant (Brandt's [*Phalacrocorax penicillatus*] and double-crested [*P. auritus*]), the western grebe (*Aechmophorus occidentalis*), and the endangered brown pelican.

Marine birds observed on the project site during the field surveys of the individual project sites include: western gull, willet (*Catoptrophorus semipalmatus*), western grebe, killdeer (*Charadrius vociferus*), whimbrel (*Numenius phaeopus*), Heerman's gull, double-crested cormorant, brown pelican, Forster's tern (*Sterna forsteri*), and great blue heron (*Ardea herodias*). These birds were observed primarily feeding within intertidal and estuarine habitat areas.

Terrestrial Birds. Terrestrial birds observed during the field surveys include: turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), western scrub jay (*Aphelocoma californica*), black phoebe (*Sayornis nigricans*), Nuttall's woodpecker (*Picoides nuttallii*), spotted towhee (*Pipilo maculatus*), brewer's blackbird (*Euphagus cyanocephalus*), California towhee (*Pipilo crissalis*), house finch (*Carpodacus mexicanus*), bushtit (*Psaltriparus minimus*), western kingbird (*Tyrannus verticalis*), hooded oriole (*Icterus cucullatus*), American black crow (*Corvus brachyrhynchos*), cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), song sparrow (*Melospiza melodia*), band-tailed pigeon (*Columba fasciata*), mourning dove (*Zenaida macroura*), northern mocking bird (*Mimus polyglottos*), rock dove (*Columba livia*), and belted kingfisher (*Ceryle alcyon*). Most terrestrial bird activity was focused on the beach and adjacent inshore area, grasslands, and coastal sage scrub habitats.

Western Snowy Plover, Brown Pelican, Least Tern. The western snowy plover utilizes sand spits, dune-backed beaches, unvegetated beach strands, open areas around estuaries, and beaches at river mouths for nesting from mid-March to mid-September (U.S. Fish and Wildlife Service, 1995). Areas utilized by the plover, including two within the project area (Devereaux Beach and Carpinteria Beach), are usually closed from March 1st through September 14th. A third site, located approximately 0.5 mile (0.8 km) south of the Ventura River mouth, is outside the furthest south hazard site. Brown

pelicans use sandy beaches or rocky promontories for roosting and rookeries on the Channel Islands. No critical habitat for the least tern is known within the project area (B. Fahey, pers. comm.).

Mammals: Terrestrial mammals observed during the field surveys were California ground squirrel (*Spermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonni*). Coyote (*Canis latrans*) scat was also very common along several of the access routes to the work sites. In addition to the terrestrial mammals observed within the project site, harbor seal (*Phoca vitulina*), coastal bottlenose dolphin (*Tursiops truncatus*) and one sea otter (*Enhydra lutris*, dead on beach) were observed within the shoreline of the project area. Marine mammals that have the potential to occur in the SBC and within the nearshore portion of project sites are discussed below in further detail.

Marine Wildlife: The project area is located along the landward boundary of the SBC, which is bordered on its seaward margin by the northern Channel Islands. In addition to protecting the coastline from significant waves, the islands support unique and important marine communities. Point Conception at the western end of the SBC and the east-west orientation of the coast provides additional protection from prevailing northwest swells. This, combined with the location of the project area within the aforementioned transition zone between southern and central California, results in an area of high marine species diversity.

All marine mammals are protected under the 1972 Federal Marine Mammal Protection Act (MMPA). In addition, many are listed as threatened or endangered by the federal and/or state governments. Within the project area, baleen and toothed whales, dolphins, sealions, seals, and sea otters could be expected and several coastal sites along the mainland have been identified as rookery or haul out areas for seals. Disturbing, harassing, injuring, or killing a protected species is prohibited by the MMPA. Table 2.3.4-6 provides a list of marine mammal and turtle species that could occur in the SBC, and their periods of occurrence are discussed below.

Marine Mammals: Thirty-four of the 111 marine mammal species known worldwide have been recorded off the Southern California coast. Twenty-seven of these mammals are cetaceans (whales, dolphins, and porpoises). The remaining seven marine mammal species are represented by six species of pinnipeds and the California sea otter. The following discusses these groups and their potential for occurrence within the marine portion of the project area.

Cetaceans: Many cetaceans are transient and move through the Southern California waters regularly. Species of cetaceans that are found in the SBC that could be encountered during the offshore operations are listed in Table 2.3.4-6. In nearshore waters the most common cetaceans to occur are represented by three species of odontoceti, the toothed whales: common dolphin, Pacific white-sided dolphin, bottlenose dolphin and one species of mysteceti, baleen whale, the California gray whale). With the exception of these four cetacean species, which are described in greater detail in the following paragraphs, the cetacean species identified in Table 2.3.4-6 are more likely to be encountered in waters further from the shore, i.e., middle of the SBC, at the Channel

Islands, etc., than where project-related activities would occur. However, the potential does exist for these species to occur within the project area, or to be encountered by marine vessels traveling to or within the project area.

Odontoceti: Pacific coast common dolphin populations are stable at a minimum population size of 184,821 with about 25,000 occurring in the SCB (Leatherwood et al., 1987). Common dolphins are found in pods in the SBC. While Pacific coast white-sided dolphin (distributed along the coasts of California, Oregon and Washington) populations are at a minimum population size of 17,475 (NOAA, 2000). The bottlenose dolphin population has been tentatively separated into a coastal form and offshore form. The coastal form is found primarily within 0.6 miles (1 km) of shore and often enters the surf zone, bays, inlets and river mouths (Leatherwood et al., 1987). The coastal bottlenose dolphin minimum population has been estimated to be 154 (NOAA, 2000). This species was observed during site surveys and is the most likely cetacean to occur in the vicinity of the project area during operations.

Mysteceti: Minke whales favor shallow water and venture close to the shoreline more often than other baleen whales (Watson, 1981). The minimum population estimate for Minke whales is approximately 440 (NOAA, 2000). The eastern North Pacific gray whale minimum population size is about 24,477 (NOAA, 2000), exceeding historic (1846) population estimates of 15,000 to 20,000 (NOAA; 1993, 1996). The gray whale population growth rate was about 3.3 percent per year between 1968 and 1988 (NOAA, 1993), and following three years of review, was removed from the endangered species list on June 15, 1994. Gray whales migrate through the SCB from February to May (northbound) and December to February (southbound) (Bonnell et. al., 1980). The inshore migration corridor includes the area around the Pauley Well (Site No. 24) and within 2 miles (3.5 km) of the shoreline. Cow-calf pairs frequently occur within the kelp beds and less than 50 ft (15 m) from the beach (CSA, 1995a).

Pinnipeds: Six of the 36 species of pinnipeds known worldwide occur off the Southern California coast. Four are eared seals (family Otariidae) and two are earless seals (family Phocidae). California sea lion, harbor seal, and northern elephant seal are the most likely to occur within the project area. Of these three species, California sea lions and harbor seals are the most likely to occur due to the close proximity of consistent harbor seal haul out sites. The remaining three pinniped species (Guadalupe fur seal, northern fur seal, Steller sea lion) are more likely to be encountered in waters further from the shore, i.e., middle of the SBC, at the Channel Islands, etc., than where project activities would occur. The Channel Islands, especially San Miguel, serve as rookeries for all of the above-mentioned pinnipeds except the Guadalupe fur seal. During the July 2, 2002 field survey, several harbor seals were observed on the beach near directly east the Casitas Pier (Site No. 19, known harbor seal rookery).

Table 2.3.4-6. Marine Mammal/Turtle Species and Periods of Occurrence

<u>Species</u>	<u>Month of Occurrence</u>
Southern sea otter ^{(1) 1}	South of Point Conception present mostly during November - May.
California gray whale ⁽¹⁾	<u>mid-November- mid-June</u>
Pacific harbor seal* ⁽¹⁾	All year
California sea lion ⁽¹⁾	All year
Common dolphin (both spp.)* ⁽¹⁾	All year
Pacific white-sided dolphin ⁽¹⁾	All year
Bottlenose dolphin ⁽¹⁾	All year
Northern elephant seal ^{(1) (3)}	All year
Minke whale ^{(R) (1)}	March - December
Fin whale ^{(E) (2)}	March-October
Blue whale ^{(E) (2)}	June - October
Humpback whale ^{(E,R) (2)}	May – June, September - December
Short-finned pilot whale ⁽²⁾	All year
Northern right-whale dolphin ⁽²⁾	December - March
Risso's dolphin ⁽²⁾	All year
Dall's porpoise ⁽²⁾	All year
Northern fur seal ^{(4) (2)}	All year
Guadalupe fur seal ^{(T) (5) (2)}	All year
Northern (Steller) sea lion ^{(5) (2) (T)}	All year
Green Sea Turtle ^{(2) (E)}	All year
Pacific Ridley Sea Turtle ^{(2) (E)}	All year
Leatherback Sea Turtle ^{(2) (E)}	All year
Loggerhead Sea Turtle ^{(2) (T)}	All year

* Spotted within offshore work area during project biological surveys
 (1) Most likely species to occur within project work area.
 (2) More likely to be located further offshore (mid Santa Barbara Channel, Channel Islands) than project work site.
 (3) Common near land during winter breeding season and spring molting season.
 (4) Only a small % occurs over continental shelf (except near San Miguel rookery, May-November).
 (5) Now very rare in area.
 (E) Federally listed Endangered species.
 (R) Rare in project area.
 (T) Federally listed Threatened species.
 Sources: Bonnell and Dailey (1993), NOAA (2000).

Otariidae: The species of Otariidae that occur within the SCB are: Guadalupe fur seal (*Arctocephalus townsendi*), northern fur seal (*Callorhinus ursinus*), Steller sea lion (*Eumetopias jubatus*), and California sea lion (*Zalophus californianus*). The California sea lion minimum population size on the Pacific coast is 109,854 (NOAA, 2000).

Phocidae: Both of the species of Phocidae that are known to occur within the southern and central California coast live and breed within the SCB. The northern elephant seal minimum population estimate is about 51,625 and is increasing (NOAA, 2000). Northern elephant seal maintain haulout sites along the central and northern California coast, as well as on the Northern Channel Islands. The Pacific harbor seal minimum population size in California is about 27,962 and is increasing (NOAA, 2000). Like all the other pinnipeds occurring off Southern California, Pacific harbor seal maintain haul-out sites on the mainland and the Channel Islands on which they pup and breed (NOAA, 2002).

These seals are commonly observed on and along the mainland coast, harbor seal rookeries have been documented at or near at least two of the proposed hazard removal sites (on the beach immediately east of Casitas Pier [Site No. 19] and east of Ellwood East [Site No. 5]). As such, harbor seals are common throughout the project area and are likely to occur in the vicinity of hazard removal operations.

Sea otters: Historically, sea otters ranged in the Pacific Ocean from Japan and along North America to Baja California (Dailey, et al 1993). The sea otter was nearly extirpated by the fur trade of during the 18th and 19th centuries and the current range is restricted to the nearshore waters of Alaska and California. Currently, the population size off the coast of California is approximately 2,139 animals, and is experiencing a slight decline from past years (USGS, 2002). The primary range is along the coast of central California. Otters utilize the kelp beds as feeding areas and have been observed as far south as Santa Barbara. Otters are most abundant south of Pt. Conception from December through May; the majority of the population moves north of Pt. Conception from June through October (Harris, pers. comm.). A large group of sea otters was observed in Cojo Bay in May 1998, and as many as 200 otters have been counted in this area during peak times of the year. In November 2000, 29 individuals were identified south of Pt. Conception, with most located in the Cojo Bay area (USGS, 2002, Biological Resource Division, Brian Hatfield, as cited at www.seaotter.org.2002). The lowest numbers of otters occurs during the fall months. During the site surveys, one sea otter carcass was observed on the beach at Santa Barbara Shores near project Site No. 6.

Marine Turtles: Although rarely encountered, marine turtles occur within waters off the southern California coast, and as such, could potentially occur within the project area. Populations of marine turtles have been greatly reduced due to over harvesting and loss of nesting sites in coastal areas. Sea turtles breed at sea and the females return to their natal beaches to lay their eggs. After being laid in the sand, the eggs hatch in about two months; and the young instinctively head for the sea (MFS Globenet Corp./WorldCom Network Services, 2000). The four listed sea turtles that may occur within the project area include: Endangered: Green sea turtle, Pacific Ridley sea turtle, Leatherback sea turtle; Threatened: Loggerhead sea turtle. However, the likelihood of their occurrence in the project area is considered low because these species primarily occur farther offshore in the mid- SBC and waters around the Channel Islands and do not breed in the project area..

Marine Invertebrates: The following provides an overview of the marine invertebrates that are expected to be encountered during proposed project operations. This will include discussions on following two marine habitat types: intertidal and subtidal.

Intertidal. Continental Shelf Associates (CSA), 1995a, provides an overview of the typical intertidal and subtidal/offshore biota associated with the various habitats and Figure 2.3.4-1 summarizes the characteristic biota associated with southern California rocky and sandy intertidal habitats. Gravel/cobble substrates are relatively unstable with few epibiota or infauna able to live within and/or among them (CSA, 1995b).

Subtidal. The nearshore (to approximately –40 ft. [12 m.]) subtidal habitat on the northern (mainland side) portion of SBC is predominantly sedimentary; interspersed with isolated offshore rocky features. The epifauna of the shallower sedimentary habitats is characterized by several species including the tube-building worm, *Diopatra ornata*, sand stars, *Astropecten* spp., while the infauna is usually dominated by polychaete worms and mollusks. The rocky substrata support a generally more diverse epibiota, comprising macrophytic algae, urchins, sea stars, and cnidarians (anemones and solitary and colonial soft corals). Figure 2.3.4-2 provides a general overview of the characteristic biota associated with rocky features within the water depths in which most of the offshore hazards are located.

Deeper water sedimentary habitats tend to comprise finer-grain silts and clays and support a macroepifauna that includes sea stars (*Luidia foliolata* and *Mediaster aequalis*), sea pens including *Stylatula elongata*, *Acanthoptilum gracile*, and *Ptilosarcus gurneyi*, urchins (*Lytechinus anamesus*), and mollusks, including octopuses and nudibranchs (CSA, 1995a).

Figure 2.3.4-2 shows the location and distribution of hard-bottom substrate found within PRC 2920, within which Hazard No. 24 (Pauley Well) is located. CSA, 1995b, indicates that the substrate comprises low-relief rock reef that is located in the southern (offshore) and southeastern portion of the lease. ROV surveys of the lease found that the hard substrate supported some partially buried corals indicating that some sediment movement occurs within the area (CSA, 1995b). A total of 18 hard bottom-associated species were observed during those surveys with a solitary coral *Paracyathus stearnsii* being most common; the hard bottom habitat there did not support the more diverse epifaunal community found on other deep-water, higher relief hard bottom habitats within the SBC (CSA, 1995a). CSA, 1995b indicated that the well structures observed within that area was “densely covered by the plumose anemone, *Metridium giganteum*.” The most commonly-observed sediment-associated species within PRC 2920 was the urchin *Lytechinus pictus*.

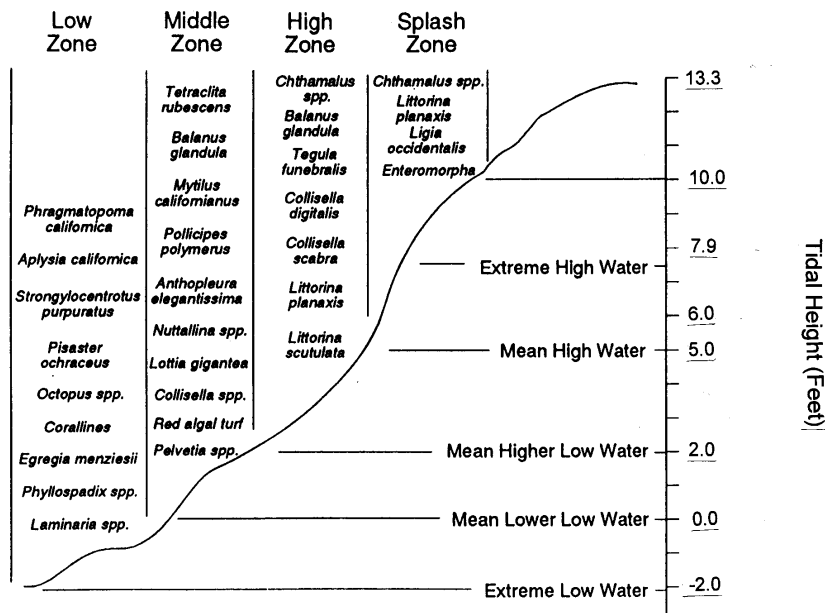


Figure 1
Typical Southern California Rocky Intertidal Zonation

Source: CSA, 1995a (adapted from Thompson, *et al.*, 1993)

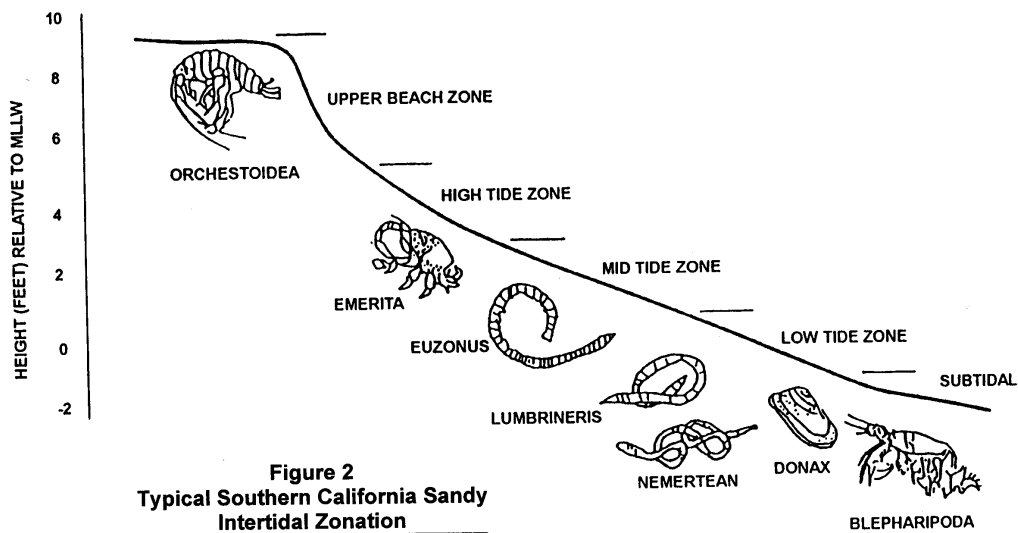
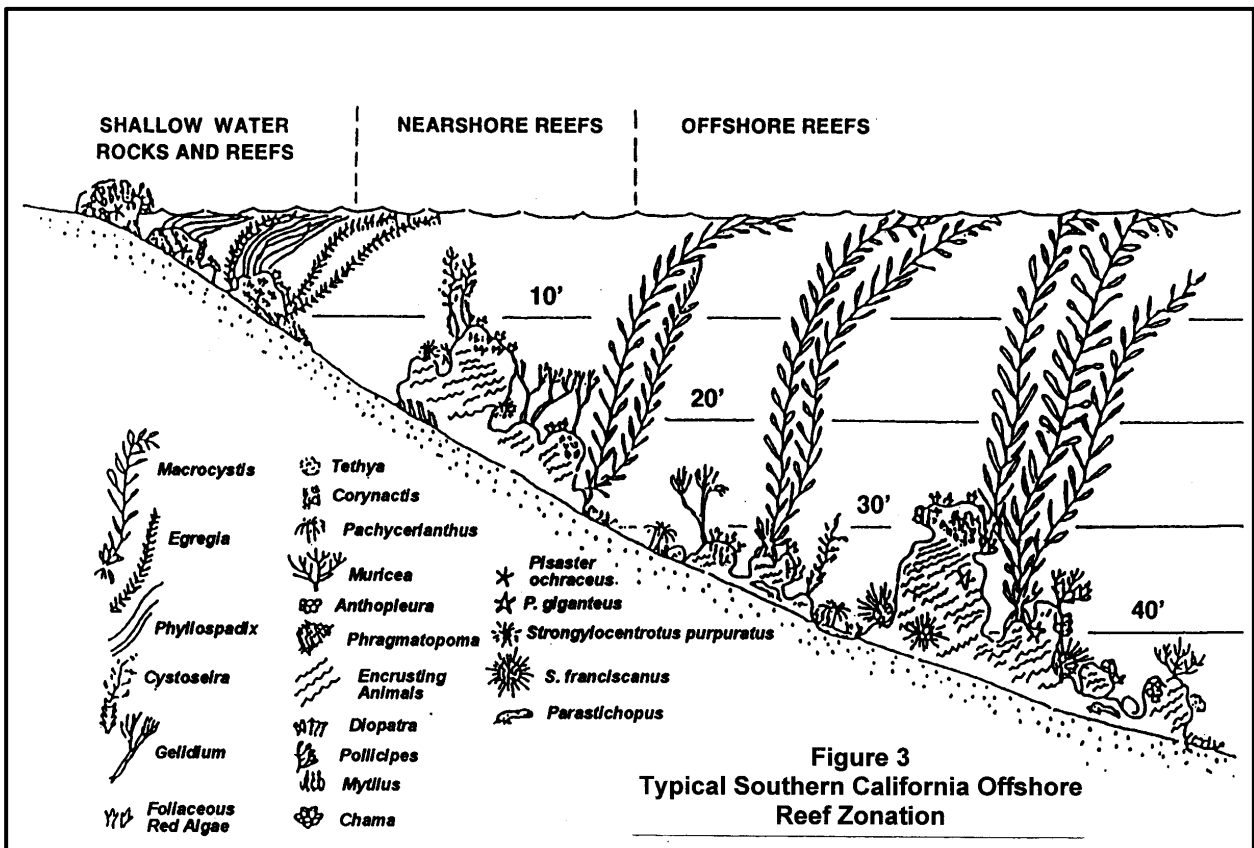
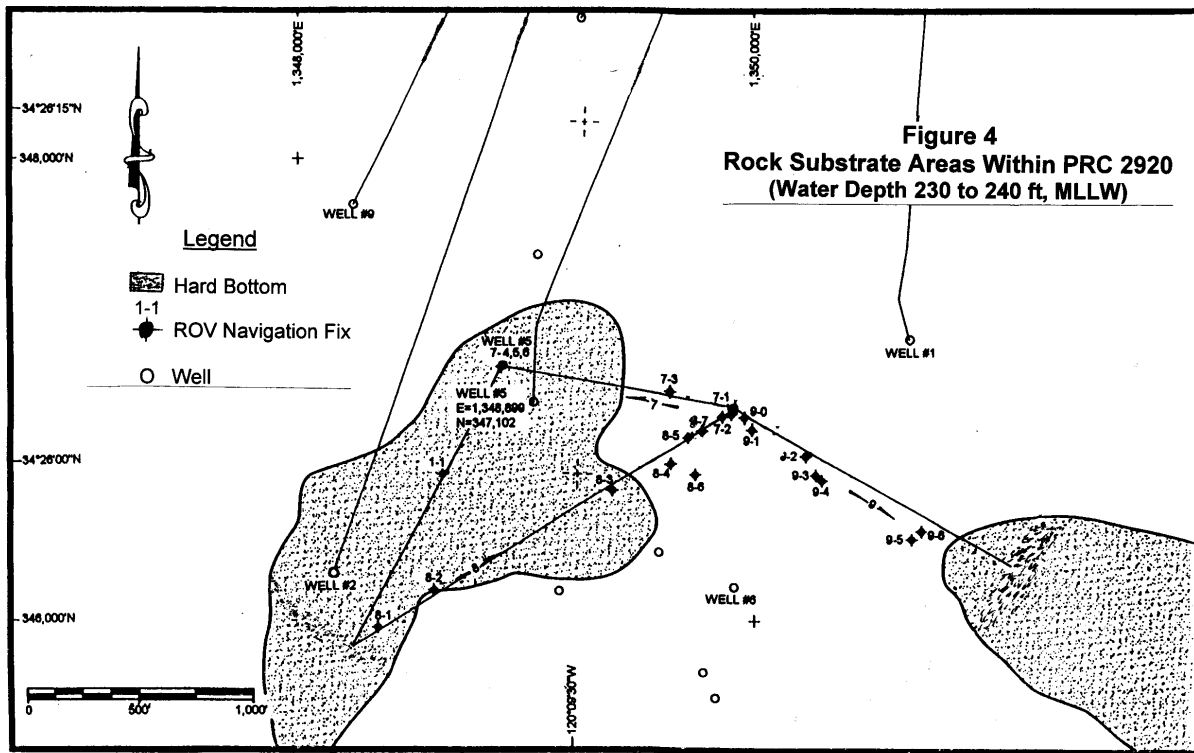


Figure 2
Typical Southern California Sandy Intertidal Zonation

Source: CSA, 1995a (from MMS, 1983)



Source: CSA, 1995a (from: Morin and Harrington, 1978)



Source: CSA, 1995b (from KLI, 1994)

Abalone: Five species of abalone, genus *Haliotis*, have been documented within southern California marine waters (McLean, 1978). Due to low numbers, commercial fishing for all species ceased in the 1990s and in 2001, the white abalone, *H. sorenseni*, was listed as a federally endangered species. Requiring rocky substrates and found from the intertidal (black abalone) to depths of up to 195 [60 m] (white abalone), these species feed on drift algae and attached coralline algae. Hobday and Tegner, 2000 report that white abalone are found in water depths in excess of 60 ft (18 m); however, de Wit, 2002, reports finding a single individual in 28 ft (8.5 m) of water off Las Flores Canyon. Historically, white abalone were found in shallower water throughout southern California (S. Anderson, pers. comm.). The California Department of Fish & Game considers all species of abalone “sensitive”; however, impacts to individual white abalone or their habitat could be considered significant.

Marine Fishes: By virtue of the diversity of habitats it encompasses and its proximity to a major biogeographical boundary (at Point Conception), the SBC supports a diverse fish fauna. Of the 554 species (144 families) of coastal marine fishes found in California waters, 481 species (129 families) are found off Southern California (between Point Conception and the Mexican border) (Miller and Lea, 1972). Most of these Southern California species occur in the SBC.

Fish surveys conducted in the SBC between Naples and Santa Barbara indicate common species in areas of reef and kelp include kelp bass (*Paralabrax clathratus*), blacksmith (*Chromis punctipinnis*), garibaldi (*Hypsypops rubicundus*), opaleye (*Girella nigricans*), kelp rockfish (*Sebastes atrovirens*), olive rockfish (*Sebastes serranoides*), seniorita (*Oxyjulis californica*), black surfperch (*Embiotoca jacksoni*), kelp surfperch (*Brachyistius frenatus*) and striped surfperch (*Embiotoca lateralis*) (Ebeling et al., 1980).

Grunion: The grunion, *Leuresthes tenuis*, utilizes the sandy beaches from Morro Bay (Mericeca and Miller, 1969) or Monterey Bay (Muench, 1977) to Central Baja California for spawning. Twice a month, at new and full moon between February/March and August or early September, grunion come ashore during the two or three nights following the highest tide. Spawning reaches a peak in April and May and occurs in less than one minute (May, 1971). Mericeca and Miller, 1969, report that grunion bury their eggs four to five inches below the surface, with maturation occurring in 10 days at which time the next spring high tide reaches the young and carry them offshore where they tend to congregate in water depths of from 15 to 40 feet (4.5 to 12 m).

Tidewater Goby: Found in brackish shallow lagoons and lower stream reaches, the tidewater goby, *Eucyclogobius newberryi*, is a federally-endangered fish and has been documented to live in waters with salinity levels from 0 to 40 parts per thousand and in temperatures of from 8 to 23⁰ C (U.S. Fish & Wildlife Service, 1997). That report indicates that the species reproduces year-around, with distinct peaks often occurring in March and April; larvae utilize vegetated areas within the lagoon. This

species could be expected in many of the coastal lagoons within the project area and could be affected by habitat loss (filling of water areas) or alteration (degradation of water quality from increased sedimentation or oil spill) of the water areas.

Southern steelhead. There are records of southern steelhead occurring to the west of the project area in Santa Anita, Gaviota, and Arroyo Hondo Creeks (CNDDDB, 2002). Within the project area, southern steelhead have the potential to be present in existing intermittent streams, i.e., Canada del Capitan Creek. Adults may access these streams for spawning purposes during periods of high water flow, i.e., periods of connectivity with ocean, but existing railroad and ranch road culverts located upstream may act as fish barriers.

Impact Discussion:

Flora

- a-f) **Terrestrial Flora:** Special-status plant species are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare (but not formally listed) by resource agencies, professional organizations (California Native Plant Society), and the scientific community.

A literature search conducted for this Expanded Initial Study resulted in information that indicates that sixteen special-status plant species have the potential to occur within 10 miles (16 km) of the project area.

During the field surveys, sand verbena and cliff aster were the only special status plant species observed within the work sites. Sand Verbena is considered by the California Native Plant Society (CNPS) as a plant of limited distribution (Watch List – List 4) and cliff aster is considered endemic to Santa Barbara County, i.e., regionally important. These species are not considered rare by CNPS (List 1B) and do not meet the criteria to be considered endangered (survival and reproduction is not in immediate jeopardy) or rare (likely to become endangered in the foreseeable future) under Section 15380 of the State CEQA Guidelines. Sand verbena commonly occurs within pristine coastal foredune communities throughout the project area and was observed west of Devereaux Slough. Cliff aster was observed along the coastal bluffs at Santa Barbara Shores in association with southern coastal bluff scrub. Temporary impacts to these plant communities and associated sensitive plant species due to proposed project activities would primarily occur during equipment transport to and from the individual project sites and removal of project hazards. Additionally, equipment staging areas have the potential to impact these sensitive plant species and associated communities. Impacts would consist of trampling (workers and equipment), and compaction of habitat due to vehicle transport along the access routes. However, project activities would be concentrated along existing access routes, i.e., unimproved roads, and pre-disturbed habitat areas. As such, sand verbena and cliff aster

would not be adversely affected by these operations. Areas where temporary access routes to the beach must be constructed to allow vehicle access will be recontoured and restored per the mitigation measures listed in the following section. With incorporation of the proposed mitigation measures listed below, the potential impacts to sand verbena and cliff aster would be less than significant.

A number of other sensitive species such as Gaviota tarplant, Coulter's saltbrush, Contra Costa goldfields, black-flowered figwort, and mariposa lilly (listed in Table 2.3.4-2) were not identified within the actual work sites, but are known to exist in proximity to them. The work sites contain suitable habitat for these species; therefore, the potential for these species to exist within the work sites is moderate. Should these sensitive species exist within the work areas, potentially significant impacts to the plants could occur due to vehicle access, and removal of hazards.

However, as discussed above, the project activities would be concentrated along existing access routes and disturbed areas. As such, all access routes and staging areas would be located to avoid sensitive plant communities. In order to further mitigate any potential impacts to these species, pre-removal surveys of the access routes and staging areas will be conducted prior to hazard removal activities to document the presence of any existing sensitive plant species. Should sensitive plant be discovered during the surveys, the subject access route and/or staging area would be modified or relocated to avoid and/or minimize such impacts. Additionally, the equipment access route would be delineated with flagging and restricted to one area. Implementation of these mitigation measures would reduce potential impacts to sensitive plant species to less than significant.

The project area contains oak woodland, riparian scrub, riparian forest, freshwater marsh, coastal salt marsh, coastal foredune, coastal sage scrub, and southern bluff scrub. These plant communities are considered important resources by CDFG and are a priority for inventory in the CNDDDB. Additionally, eucalyptus woodland provides the monarch butterfly with roosting habitat within several portions of the project area and is considered a sensitive resource. No loss of these plant communities would occur as a result of the project. As discussed above, limited disturbance and removal of individual plants within the southern coastal bluff scrub and southern foredune may occur during transport of equipment and personnel to from individual sites and staging of equipment. This may also result in short-term impacts to portions of the coastal sage scrub occurring in portions of the project area. However, no permanent loss of these communities would occur. In addition, the implementation of the proposed mitigation measures discussed below would reduce potential impacts of these plant communities to a less than significant level.

Wetlands are considered an important resource by the California Coastal Commission, CDFG, and the Corps. To avoid impacts to federally-protected wetlands as defined by Section 404 of the Clean Water Act, all potential impacts to wetlands associated with the SBC Coastal Hazards Removal Program have been identified and would be avoided to the extent feasible. Wetlands identified among

project sites include, estuaries, creeks, ephemeral drainages, and freshwater marshes. To avoid impacts to federally-protected wetlands, a pre-construction survey would be conducted to identify the most feasible project-specific access routes and staging area locations. However, Project Site No. 8 will involve a removal activity that will result in an overall impact to Devereaux Slough. This hazard site includes (30) 2.5" pipe frames, (2) 6" well casings, and (1) 12-inch steel beam. Prior to removal activity at this site, consultation with appropriate agencies (ACOE and CDFG) and acquisition of permits would be completed (404 Permit and 1601 Streambed Alteration Agreement). Most impacts would occur due to trampling and/or compaction by vehicles, foot traffic, and removal activity. Such impacts shall be mitigated through the implementation of proposed mitigation measures. With implementation of mitigations, impacts to federally-protected wetlands are expected to be less than significant.

Upon completion of each hazard removal, all disturbed areas, i.e., temporary beach access ramps, etc., would be restored to pre-project conditions and revegetated with native flora. Specifically, this would involve regrading and revegetating all disturbed areas to match the surrounding natural contours and site conditions. Coupled with the removal of the subject hazards, this would result in a net to the individual sites. With mitigation implementation, impacts to native vegetation associated with the hazards removal project would be less than significant.

Marine Flora

- a-f) Although there are no listed special status marine plant species, marine plant species such as giant kelp (*Macrocystis pyrifera*), feather boa kelp (*Egregia laevigata*) and surf grass (*Phyllospadix torreyi*) are considered sensitive due to their integral role in providing habitat and food for numerous animal species within the marine environment. In addition, the giant kelp plant community is classified as Environmentally Sensitive Habitat by the County of Santa Barbara, and the California Coastal Commission has classified kelp beds as environmentally sensitive areas. Finally, the California Department of Fish and Game regulations, Title 14 chapter 4 section 30.10, prohibit the cutting or disturbance of eel grass (*Zostera*), surf grass (*Phyllospadix*), or sea palm (*Postelsia*; *Eiseia arborea*; *Pterygophora*) for non-commercial uses.

The potential for project-related impacts to the species associated with the intertidal habitat could occur from crushing action from vehicular and human traffic, burial from sediment removed from around the hazard and habitat alteration by breaking the substrate or overturning large, stable boulders. Subtidal impacts resulting from project related activities could result from direct hazard removal from substrate or impacts associated with project vessels as discussed.

Mitigation measures have been proposed to reduce potential impacts to marine plants resulting from work activities associated with removal of the hazards. These include measures

that would avoid anchoring on hard substrate and within concentrations of marine plants. Specifically, pre-anchoring surveys would be conducted and information gathered during these surveys would be used to relocate anchors to avoid impacts to hard substrate areas. Also, all anchors will be "flown" to the pre-located anchor sites by an anchor-handling vessel and placed in soft-bottom habitat areas. This will avoid impacts to kelp and hard bottom. Finally, during all hazard removal activities, a biological monitor specializing in marine plants and animals, would be on board the vessel or in the work area to ensure no impact to marine plant species occurs. The implementation of the above mitigation measures would reduce the potentially significant impact to marine plants to a less than significant level.

The risk of significant hydrocarbon spills in the ocean during hazard removal is low. However, hydrocarbon spills could occur during refueling of onshore equipment and from accidental spills from offshore vessels. To mitigate potential impacts to marine plants from hydrocarbon spills, an Oil Spill Contingency Plan (OSCP) will be implemented. The plan includes measures that require sorbent pads and other oil spill collection equipment on board of all vessels. Onshore oil spill mitigation measures are discussed below. These mitigation measures prevent and/or reduce potentially significant oil spill impacts to marine plants.

Fauna

Terrestrial and Aquatic Fauna. The project work area contains a number of sensitive, threatened, and endangered wildlife species such as the snowy plover, tidewater goby, brown pelican, monarch butterfly, and southern sea otter. The work sites also support suitable habitat for a number of sensitive, threatened, and endangered wildlife species such as, but not limited to, California newt, white-tailed kite, light-footed clapper rail, San Diego wood rat, California red-legged frog, two-striped garter snake, Southern steelhead trout, southwestern willow flycatcher, yellow warbler, and Southern California rufous-crowned sparrow.

The potential for these species to occur in the vicinity of the project sites was determined by review of sighting records from other environmental documents and range maps including Zeiner et al. (1988, 1990a, 1990b), and Lehman (1994). Table 2.3.4-5 lists special-status terrestrial wildlife species that have the potential to occur on or near the project sites for at least a portion of their life cycle, and provides a discussion of the potential for each special-status species to occur on or near the project sites.

Potentially significant impacts could occur to special status wildlife species within several of the work sites due to the proposed project activities. California red-legged frogs are known to inhabit Arroyo Hondo Creek directly west of Site No. 1 and have the potential to be present within Canada del Capitan. As previously indicated, tidewater goby was observed by Padre staff in the existing estuary at Bell Canyon Creek and is also known to occur in other coastal lagoons along the Gaviota coast, such as Arroyo Hondo Creek. Although California newt, Southwestern pond turtles, Southern steelhead, and two-striped garter snake were not observed during surveys but may occur within the creeks and drainages existing in proximity to the work sites. All access routes and equipment staging areas would be located to avoid the riparian and estuarine habitat areas where these species would be most likely to occur. In addition, implementation of the proposed mitigation measures (such as biological pre-

construction surveys, biological project monitoring, and revegetation) would prevent inadvertent impacts to the creeks, drainages, and/or estuaries (sloughs) supporting these special-status species. Therefore, potential impacts to tidewater goby, California red-legged frog, California newt, two-striped garter snake, Southern steelhead, and Southwestern pond turtle would be avoided to the maximum extent feasible or mitigated to less than significant.

During site surveys, amphibians observed were limited to Pacific treefrog tadpoles (*Hyla regilla*), located at the mouth of the Canada del Capitan Creek and reptiles observed were limited to western fence lizard (*Sceloporus occidentalis*). Although not observed during the surveys, coast horned lizard and silvery legless lizard may occur within coastal sage scrub and southern foredune habitat areas and have the potential to be trampled or permanently displaced by proposed removal activities. Therefore, special-status amphibians and reptiles may be present within the work sites, but were not detected during surveys. However, only impacts are considered potentially significant. The proposed mitigation measures would include pre-construction biological surveys and biological monitoring during hazard removal operations to ensure special-status species (if present) are avoided and relocated as necessary during project operations. The impacts would be reduced to a less than significant level through implementation of the proposed mitigation measures.

Brown pelicans have been observed roosting within the intertidal zone throughout the project area and have the potential to be present during removal operations. In addition, designated critical habitat for western snowy plover is located at Sands Beach (Devereaux Slough) and Carpinteria State Beach. These areas are documented breeding habitat for this sensitive species. No snowy plover adults or nests were observed on July 2, 2002, but snowy plovers were observed during a previous survey conducted by a Padre biologist on May 29, 2002. Brown pelicans and western snowy plovers are also highly opportunistic marine birds, which roost and forage within numerous intertidal habitat areas for brief periods throughout the day. It is anticipated that any marine birds present within the vicinity of a hazard site during removal procedures would most likely vacate the immediate area of the hazard due to their transient nature and ability to quickly abandon areas of immediate disturbance. To ensure no impacts to brown pelican and western snowy plover occur, pre-construction surveys would be conducted and biological monitoring at hazard sites would be conducted during all removal activities. With mitigation and due to the relatively small area of beach to be affected during removal of the hazards, minimal adverse effect to foraging areas and short duration of proposed disturbance, impacts to brown pelican and western snowy plover are considered less than significant. Additionally, all hazard removal activities within and/or adjacent to known habitat for the western snowy plover would be scheduled to avoid their primary breeding season (March through August).

Cooper's hawk, yellow warbler, and yellow-breasted chat may forage in riparian habitat within the creeks and drainages throughout the project area. Impacts to these species would be limited to short-term noise, dust, and human presence associated with equipment access routes and staging areas. However, all equipment and staging areas would be located to minimize impacts to sensitive riparian areas. Additionally, speed limits would be kept below 15 mph and dust suppression measures, as discussed in Section 2.3.3, Air Quality, would be implemented

throughout the project. Due to implementation of these measures, no impacts to Cooper's hawk, yellow warbler and yellow-breasted chat are expected.

Northern harrier, loggerhead shrike, and white-tailed kite have the potential to occur at or near the work sites during proposed hazard removal activities. Additionally, California horned lark, golden eagle, sharp-shinned hawk, pallid bat, and American badger may forage in the project area but were not observed during surveys. Disturbance to foraging habitat for these species would be limited to areas located adjacent to equipment access routes and designated staging areas. This disturbance would be short-term and when compared with the large foraging areas adjacent to the work sites would be insignificant over the short-term. Due to the high mobility of the above listed species, lack of long-term loss of foraging habitat and minimal area affected, the impact to the special status species listed above is considered less than significant.

Southern California rufous-crowned sparrow and Bell's sage sparrow may occur within coastal sage scrub habitat areas. However, these areas are composed of small fragments of habitat within a grazed grassland matrix. These species are more likely to occur within more contiguous stands of coastal sage scrub and open chaparral in foothill areas to the north of the project sites or associated access routes. Therefore, impacts to southern California rufous-crowned sparrow and Bell's sage sparrow are considered less than significant.

The San Diego desert woodrat was not observed at the work sites. Although the San Diego desert woodrat prefers rock outcrops and rocky cliffs in mixed and chamise chaparral and coastal sage scrub, potential habitat may exist at some of the proposed removal sites. Since coastal sage scrub habitat would be avoided during project operations to the extent feasible, the project is not expected to substantially reduce the population size or the probability of long-term persistence of this species. Therefore, potential impacts to San Diego desert woodrat are considered less than significant.

Monarch butterflies are known to roost within several of the eucalyptus groves located within the project area (Santa Barbara Shores and Ellwood Facility). Potential impacts to monarch butterflies and their habitat would be related to dust generation associated with vehicular activities along equipment routes and within onshore staging areas. However, measures to be implemented to reduce dust impacts include, periodic watering of access routes and maintaining speed limits below 15 mph. With mitigations, potential impacts to monarch butterflies are considered less than significant.

The hazard removal activities would not result in the addition of barriers to movement for any fish species, including southern steelhead or tidewater goby, i.e., Wood Canyon culvert located beneath railroad tracks, nor would they result in the temporary closure or damming of waterways occurring in the project areas. The removal of the coastal hazards is beneficial since it removes existing barriers to wildlife movements.

In general, the special-status species discussed above have access to multiple alternative habitats during the relatively short-term time periods required to complete the individual hazard removal projects. In addition, mitigation measures have been proposed to

avoid or reduce potential impacts to animal species within or adjacent to the work sites. For example, mitigation measures would require hazard removal activities to avoid the nesting season of sensitive species, i.e., western snowy plover. Work sites would also be surveyed for sensitive species prior to initiating construction activities and the species would be either avoided or relocated. Animal species, which are not classified as sensitive, would also be avoided or relocated where possible. Biological construction monitoring would be part of the proposed mitigation. In addition, the work sites would be returned to their natural condition once the hazards are removed thus resulting in a net benefit. With implementation of the above mitigation measures, no significant impacts would occur to the number and variety of animals at or near the hazard removal sites as a result of abandonment work activities. Therefore, the proposed project activities would have a potentially significant, but mitigable impact to the special-status species known to occur and with the potential to occur within the work sites.

Marine Fauna. A number of sensitive, threatened, and endangered wildlife species, such as the white abalone, Southern sea otter, Pacific harbor seal and California gray whale utilize the offshore work site. The work sites also support suitable habitat for a number of sensitive, threatened, and endangered wildlife species including the various seal, dolphin and whale species listed in Table 2.3.4-6. To ensure impacts to sensitive marine wildlife species are avoided or minimized to the maximum extent feasible, the project specific Marine Wildlife Contingency Plan (MWCP), Appendix B, will be implemented.

Some hazards removal activities could result in impacts to marine mammals known to utilize the project area. These impacts could include disturbance due to crew and equipment transport in intertidal areas, offshore vessel traffic, and anchoring. Vessel traffic could injure marine mammals and/or cause marine mammals to avoid using the area for foraging, protection, and resting. Anchoring could also result in impacts to marine mammals during installation and/or from animals contacting the deployed anchor lines. Potential impacts to the sensitive marine species within the project site are discussed in more detail below.

Sea otters are known to inhabit the area around and southeast of Point Conception during the months of November through April and begin to migrate northward in May of each year. Aside from preclusion of foraging/protection areas, offshore work activities are not expected to impact the sea otters because they are highly mobile and could avoid vessels, anchors, and cables within the project area. Further, mitigation measures, such as on-site biological monitoring, will be implemented to further reduce potential impacts. Therefore, impacts to sea otters from the hazards removal project are expected to be short-term, but potentially significant if not mitigated as proposed.

Gray whales could also venture near or into the project area during northbound or southbound migrations. Noise from marine vessels could potentially affect migration routes. The additional vessel traffic will, however, not add substantial numbers to the existing vessel traffic in the area. To further minimize any impacts to the gray whales, no offshore vessel work would be conducted during the normal migration times in this area (mid-November through mid-June). Also, marine wildlife monitors would be on board the work vessel at all times and will have the authority to stop work should marine mammals enter the work sites. The proposed

mitigation measures, such as avoiding work during migration seasons and wildlife monitors, would reduce any potential impacts. With the implementation of the proposed mitigation measures, no significant impacts to migrating gray whales are expected to occur. The impact to gray whales from the offshore work would be potentially significant if not mitigated as proposed.

Dolphins are also present within the work area. Typically dolphins migrate up and down the coast and would avoid the work site during work activities. Should dolphins enter the work area, all work activities would cease until they migrate out of the area. During vessel transport, dolphins may splash and jump near the work vessels. If dolphins should splash or jump near any work vessels while in transit, the vessel would slow down and keep a steady course until the dolphins lose interest. Impacts to dolphins from this project would not be significant because dolphins are highly mobile and could easily avoid the project area.

Rocky intertidal and subtidal areas along the coast between Point Conception and Ellwood are designated Environmentally Sensitive Habitat areas in the Santa Barbara County Coastal Plan. In addition, harbor seal haul-outs are also designated Environmentally Sensitive Habitat areas. Harbor seals are known to inhabit a designated work site (Site No. 19, Casitas Pier). Usually pinnipeds are shy and do not approach vessels or activity. However, the California sea lion has been noted to use man-made structures for hauling-out (resting) between foraging periods. If this were to occur, the animal would be left alone unless it is in an area where harm may come to it, at which time the NMFS shall be consulted for guidance on how to encourage the animal to move from the hazard area without harassment. Harbor seals and elephant seals are highly mobile and would avoid the work sites. There are known harbor seal rookeries (Casitas Pier) within the work areas that would be impacted by project activities. Therefore, project activities for hazard removal in these areas would be scheduled to avoid the period of beach closure (December through May).

With implementation of recommended mitigations, removal of the various coastal hazards is not expected to significantly disrupt the habitat of any sensitive marine wildlife. Project operations would result in a temporary preemption of foraging areas available in the project area and could affect individuals.

There are other species of animals that would be impacted by the removal of the various hazards, but are not classified as sensitive or rare. These species include the various invertebrates and fish discussed in the setting. The potential impacts to these species are discussed below.

One species of invertebrates that is considered sensitive, but is not anticipated to be present within the proposed offshore work site is the white abalone. The white abalone was recently placed on the federal endangered species list. White abalone typically occurs in depths from 60-200 feet (Ray de Wit, personal communication, June 2001). Prior to offshore work activities, the offshore marine wildlife monitor would perform a pre-dive survey. If white abalone is identified within the work area, the NMFS shall be contacted in accordance to the Endangered Species Act and California Department of Fish and Game.

The project offshore work site supports a diverse marine invertebrate fauna as described in the setting. Invertebrates could be impacted during anchors deployment and dragging anchor cables. They could also be impacted by activities associated with removal of the hazards, such as sedimentation from excavating and exposing the submerged hazards prior to cutting, disturbance of hard bottom habitat during cutting and lifting of debris and removal of those species actually located on the structures. The impacts to these species would be mitigated by anchoring and construction techniques, which limit the extent of the impact area. All anchors would be limited to specific areas (based on pre-activity surveys) and would be deployed using a tending vessel. Natural recolonization of disturbed areas, including the former location of the removed hazards, is expected to occur shortly after hazard removal; with mitigations, impacts to the marine invertebrate species are expected to be insignificant.

The SBC and the offshore project areas (intertidal and subtidal) support a diverse fish fauna. Since the project is short-term, fish are highly mobile and the surrounding habitat provides ample area for foraging and protection, impacts to fish species resulting from the project are not considered significant with implementation of mitigations.

Disturbance to the species discussed above would result from noise, anchoring, sediment removal, vessel traffic, hazard cutting/removal, diving, and vehicle and personnel traffic in the intertidal zone. These impacts are expected to be short-term and local. Implementation of recommended mitigation measures such as pre-planned anchoring procedures, limiting boat traffic to essential trips only, biological monitoring of transiting vessels during project operations, the pre-project biological survey, and scheduling of activities so as to avoid critical periods of habitat use would reduce the potential impacts for species listed above to less than significant.

Mitigation:

Due to the variety of biological resources existing within the project areas, the following mitigation measures have been categorized based on the general habitat types discussed in the impact section above: terrestrial, intertidal, and subtidal (offshore). Additionally, these project-specific measures are listed within Table 2.3.4-7 to address those mitigation measures that are applicable to each site. Implementation of these mitigation measures will reduce any potential significant impacts to a less than significant level.

Terrestrial Areas

TBio-1 A qualified biologist shall be on-site to monitor the hazard removal sites. The level of monitoring conducted at each site will be dependent on the extent of sensitive resources within the applicable work site. The qualified biologist shall provide the following during project operations:

- Pre-construction surveys for special-status plant and wildlife species known or potentially existing within the work sites prior to commencing project activities in the area.
- Conduct an employee orientation program for all project personnel; and

- Monitor all construction activity within 100 feet of wetlands or other designated sensitive habitat areas.

TBio-2 Protective fencing shall be installed temporarily around sensitive plant communities and/or other sensitive biological resources that could be impacted during hazard removal activities.

TBio-3 Work activities shall avoid breeding season (typically April 1-July1) of those sensitive species currently known to exist within or adjacent to the work sites or which are discovered during hazard removal activities.

TBio-4 To the extent feasible, the use of heavy equipment and vehicles shall be limited to existing roadways and defined staging areas/access points. The boundaries of each work area and staging area shall be clearly defined and marked with visible flagging or fencing.

TBio-5 During transportation of equipment, water trucks shall be used to prevent airborne particles from leaving the project site in addition to impacting monarch butterfly over-wintering habitat.

TBio-6 All project related equipment shall adhere to a 15 mph speed limit on-site.

TBio-7 To reduce inadvertent releases of fuel from construction areas to aquatic habitats, all refueling will occur only within designated refueling areas located at least 100 feet from known wetlands. All nearshore, i.e., within 100 ft of high tide line or within 100 ft of a coastal drainage, refueling and storage areas will be covered with an impervious material and surrounded by an earthen berm.

TBio-8 All areas that previously supported vegetation that are disturbed during work activities shall be replanted or reseeded with appropriate indigenous native or naturalized vegetation within a time period identified by the biologist to ensure greatest survival.

TBio-9 Erosion control measures shall be implemented as necessary to prevent sediment runoff in all disturbed areas. Measures may include installation of jute-netting, erosion control logs, and silt-fencing.

Intertidal Areas (To the –10 ft. Isobath)

MBio-1 Minimize the use of tracked vehicles; rubber tire vehicles should be used wherever possible.

MBio-2 Keep all vehicles above the highest high tide line and on dry sand wherever possible. At no time during project operations will vehicles be allowed to traverse identified coastal foredune habitat areas; traversing ice plant is acceptable, but minimize the area of impact by creating a temporary, minimal-width access route.

- MBio-3** Minimize the need to cross rock or boulder areas by planning beach access sites as close to the hazard site as possible and in areas where sand is present along the route from access point to hazard site.
- MBio-4** Complete mid- and low-intertidal (from +0.0 to -1.0 ft, MLLW) hazard removal during winter low tide periods and avoid disturbance of surf grass and rock habitat areas by minimizing the width of the work area corridor.
- MBio-5** Access site by traversing the beach in a straight line from the highest high tide line to the lowest; do not “cut across” the beach, particularly in rocky habitat areas.
- MBio-6** “Sidecast” and store excavated sand inshore (higher on the beach) and above the highest predicted tide for the day. Refill holes with excavated material and remove all material and vehicles at the end of each day.
- MBio-7** If vehicles traveling from the access point to the site(s) cannot avoid rocky intertidal habitats, use temporary wooden or steel sheets to “ramp” the rocks. Sediment/sand should not be used to cover the rocky habitat. Onsite sand can be used to cover cobble (rocks 1 ft or less in diameter) habitats along the access to site corridor. Restrict the width of the route to the widest vehicle.
- MBio-8** Locate access sites away from coastal streams wherever possible and utilize existing bridges to cross. Avoid crossing or damming coastal streams that are flowing across the beach and prevent project-related discharges or trash to enter coastal streams.
- MBio-9** Avoid conducting work activities within or adjacent to designated marine mammal rookeries and beach-area bird nesting sites during active breeding periods. Schedule removal activities during periods of non-use by these species. To the extent feasible, establish a 500 ft buffer area around work areas in marine mammal haul out areas (removal activities should cease if marine mammals are observed within the buffer area).
- MBio-10** Complete removal activities on grunion spawning beaches after mid-September and before early March. If activities must occur during the period between March and mid-September, consult with CDFG and prepare a grunion monitoring plan.

Subtidal Areas (Sites in Water Depths >10 ft, MLLW)

- MBio-11** Conduct a pre-anchoring survey at all proposed offshore anchoring sites and re-locate any proposed anchor sites at least 20 ft away from rocky substrate, surf grass, eelgrass, or kelp beds.
- MBio-12** Use crown buoys and near-surface anchor lines if rock substrate, surf grass, eelgrass, or kelp is between the anchor location and vessel.

- MBio-13** Vessels requiring multiple anchors should deploy those anchors with an anchor-assist vessel; recover anchors vertically and avoid dragging anchors across the seafloor.
- MBio-14** Avoid traversing surface kelp areas when accessing nearshore and offshore hazard sites by vessel.
- MBio-15** To the extent feasible, schedule offshore activities for periods other than grey whale migration seasons. All marine vessel operations shall be conducted in accordance with the procedures outlined in the Marine Wildlife Contingency Plan. Have an agency-approved marine mammal monitor onboard the vessel and provide him/her with the authority to cease operations if marine mammals are within 0.10 miles of the removal activity.
- MBio-16** Have an oil spill response/recovery plan for all offshore operations that require petroleum products to be onboard. Train all onboard personnel on actions to be taken in the event of an oil spill.
- MBio-17** Minimize the number of anchors and the water depth-to-anchor line length ratio for offshore operations without jeopardizing the safety of the operations.

Table 2.3.4-7. Biology Mitigation Summary Table

Sites	1	2	4	5	6	7	8	9	10	13	14	15	16	17	18	19	20	21	22	23	24		
Mit.I																							
TERRESTRIAL																							
TB-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
TB-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TB-3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TB-4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TB-5	X	X	X	X	X	X	X	X	X				X	X			X	X					
TB-6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TB-7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TB-8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TB-9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
INTERTIDAL																							
Mb-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Mb-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Mb-3	X	X	X	X	X	X	X	X	X		X	X	X	X			X	X	X				
Mb-4	X	X	X	X		X	X	X	X		X	X	X	X			X	X	X				
Mb-5	X	X	X	X	X	X	X	X	X		X	X	X	X			X	X	X				
Mb-6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Mb-7	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X				
Mb-8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Mb-9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mb-10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
SUBTIDAL																							
Mb-11			X	X	X								X				X					X	
Mb-12			X	X	X								X				X						X
Mb-13			X	X	X								X				X						X
Mb-14			X	X	X								X				X						X
Mb-15			X	X	X								X				X						X
Mb-16			X	X	X								X				X						X
Mb-17			X	X	X								X				X						X

2.3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 5064.5 of the CEQA Guidelines?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 5064.5 of the CEQA Guidelines?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting:

The Central Coast of California is one of the richest archaeological regions in California. The Chumashan groups Barbareño and Ventureño occupied the project area since before 9000 B.C. The Chumash hunter-gatherer population numbered around 15,000 people, occupying the area from Topanga Canyon to Estero Bay, as well as the four northern Channel Islands. The largest populations resided along the Santa Barbara Channel coastline. This region supported a large variety of terrestrial and maritime resources, which were exploited by villages and towns, some of which flourished as political centers and economic centers, i.e. trading and manufacturing.

A records search was conducted at the Central California Information Center at the University of California, Santa Barbara on July 12, 2002, for all known archaeological sites and previous cultural studies within a one-half mile radius of all project locations. The following inventories were consulted by the Information Center: National and California Registers of Historic Places, OHP Historic Properties Directory, and California Historic Landmarks and Points of Historical Interest. A letter requesting a Sacred Lands File check and applicable Native American representative contacts was sent to the Native American Heritage Commission on July 18, 2002.

Impact Discussion:

a, b, d) Although unlikely, project activity at the following sites, the possibility for a significant impact through disturbance to previously unidentified cultural resources exists.

Site No. 1 Tajiguas Creek. Access to the Tajiguas Creek site is through previously disturbed land that is now paved roads and private, developed property. Project activity will be conducted on the beach near the surf zone where it is unlikely any undiscovered archaeological or historical remains will be encountered. In addition, the previous installation of the hazard(s) to be removed would have disturbed any remains that may have been present.

Site No. 2 El Capitan State Beach. Ten archaeological sites and 22 surveys were identified within one-half mile of the project location at El Capitan State Beach. Of the 22 surveys, two (E-1570 and E-2133) were conducted at the staging area, along the access path, and around the hazard location. No prehistoric or historic archaeological sites are located in any of the areas.

Site No. 6 Santa Barbara Shores (A). Three archaeological sites and seven surveys were located within a one-half mile radius of the Santa Barbara Shores (A) project location. Two surveys were conducted at the staging area, along the access route, and at the hazard location (E-49 and E-54). None of the identified archaeological sites within the half-mile radius is at the staging area, along the access route, or at the hazard location.

Site No. 8 Sands Beach at Devereaux Slough. Around the Sands Beach at Devereaux hazard location, five archaeological sites and eleven surveys were found. One of the identified surveys (E-54) was conducted along the access route and at the hazard location. No archaeological sites were identified along the access route or at the hazard location.

Site No. 9 Devereaux Point. At the Devereaux Point hazard site, two archaeological sites and two surveys were found within the half-mile radius. No previous surveys have been conducted along the access route or at the hazard location. No archaeological sites were identified at the staging area, along the access route, or at the hazard location.

Site No. 13 Biltmore, South Birham. At the Biltmore, South Birham hazard site, two prehistoric archaeological sites, several historic properties, and thirteen surveys were identified within the half-mile radius of the site. None of the identified surveys, archaeological sites, or historic properties is located at the staging area, along the access route, or the hazard location.

Site No. 14 Miramar, Santa Barbara-Carpinteria. Two archaeological sites, several historical properties, and four surveys were identified within the half-mile radius around the hazard location at Miramar. None of the identified surveys, archaeological sites, or historic properties is located at the staging area, along the access route, or at the hazard location.

Site No. 15 Fernald Pt., Santa Barbara. Three archaeological sites, several historical properties, and six surveys were identified within one-half mile of the Fernald Point

hazard location. One survey (E-1746) was conducted along the stream channels of the project area, but it is not clear if the hazard location and the corresponding access route and staging area were surveyed. None of the identified archaeological sites is located at the staging area, along the access route, or at the hazard location.

Site No. 16 Ortega at Summerland East End – Padaro Lane. At the Padaro Lane site, eight archaeological sites and twenty surveys were identified within one-half mile of the hazard location. One survey was identified along the access route, but none covered at the hazard location. No archaeological sites were found at the staging area, along the access route, or at the hazard location.

Site No. 17 Santa Barbara at Santa Claus Lane. One archaeological site, one isolate, and twelve surveys were identified within one-half mile of the Santa Claus Lane hazard site. The identified archaeological site is not within the staging area, along the access route, or at the project location and none of the surveys conducted were situated in these areas.

Site No. 19 Casitas Pier – East Side. At the Casitas Pier hazard site, four archaeological sites and twenty-seven surveys were identified within one-half mile of the site. Two of the twenty-seven surveys (E-19 and E-34) covered the project area. No significant sites are located at the staging areas, along the access route, or at the hazard location.

Site No. 20 Rincon/Mussels Shoals at Mussel Rock/Pitas Pt. Based on previous studies of the Mussel Shoals area (Ferguson Pier Complex Decommissioning Program, CSLC, 1997), several prehistoric sites are situated in the vicinity of the project area. Much of the coastline in the project area has been substantially disturbed through a series of encroachment activities that began in the 1850s, including the Southern Pacific Railroad right-of-way and several US Highway 101 construction projects.

Site No. 21 Ventura River, Ventura. Discovery of significant sites at the Ventura River hazard site is considered unlikely. The staging area, access route, and hazard location are all located within previously disturbed and developed/paved areas. Hazard removal will be conducted within a river mouth where it is unlikely any undiscovered archaeological remains will be found.

These potential impacts will be reduced to a less than significant level through the implementation of mitigation measures 1, 2, 5, and 7, as described below.

Considering the location of the staging areas and access routes in developed and paved areas, it is highly unlikely that any undiscovered significant archaeological remains will be encountered during project activities at these sites. Hazard removals will be conducted on the beach near the surf zone where it is also unlikely any undiscovered archaeological remains will be found. In addition, the previous installation of the hazard(s) to be removed at the above sites would have disturbed any remains that may have been present, reducing the area to less than significant.

The following sites have the possibility of creating a significant impact, through disturbance, to known cultural resources.

Site No. 4 Ellwood West of VENOCO Ellwood Pier. In the West Ellwood area, 4 archaeological sites, 1 isolate, and 15 surveys were identified within one-half mile of the project location. Three surveys (E-54, E-2283, and E-2276) have been conducted at the staging area, along the access route, and at the hazard location. No archaeological sites were identified at the staging area (private property) or along the access route. Access to the site is primarily through previously disturbed land that is now paved and private property. One archaeological site exists in the western vicinity of the hazard location. It is possible that the materials from the site are within the hazard area.

Site No. 5 Ellwood East of VENOCO Ellwood Pier. In the East Ellwood area, 9 archaeological sites, 2 isolates, and 18 surveys were located within one-half mile of the project location. Four of the surveys (E-44, E-54, E-2283, and E-2276) were conducted at the staging area (a developed, paved road), along the access route, and at the hazard location. Several archaeological sites are present along the access routes and at the hazard locations. One site along the access route will be impacted and several others in the general vicinity of the access routes and hazard locations may be impacted by project activities and two others present the possibility of being impacted.

Site No. 7 Santa Barbara Shores (B). Four archaeological sites and 7 surveys were found within one-half mile of the Santa Barbara Shores (B) hazard location. Four of the surveys (E-49, E-54, E-2283, and E-2276) were conducted at the staging area, along the access routes, and at the hazard location. Two sites are located in the vicinity of the hazard location. The possibility for disturbance that would create a significant impact to the site does exist.

Site No. 10 Isla Vista. One archaeological site and 5 surveys were located within the half-mile radius around the Isla Vista hazard site. None of the identified surveys were conducted at the staging areas, along the access route, or at the hazard location. The staging area is in a heavily disturbed and traversed area where, if any archaeological sites were present, they would be insignificant today. However, several portions of the identified archaeological site are located along the access route and have the possibility of being disturbed by project activities.

Site No. 18 Carpinteria State Beach. At the Carpinteria State Beach hazard site, one archaeological site, several historic properties, and 12 surveys were located within a one-half mile radius. One survey encompasses the staging area, access route, and hazard location. No historical properties will be affected by project activities. The hazard removal site is located within the southwest boundary of the identified archaeological site. The possibility for disturbance that would create a significant impact to the site does exist.

Site No. 22 Ortega Hill, East Fernald Point. Five archaeological sites, 1 isolate, and 24 surveys were identified within a one-half mile radius around the Miramar hazard site.

None of the identified surveys covered the project area, but two of the archaeological sites are located along the access route. One of these sites has been developed with houses, but the second appears to still be intact. Disturbance to this site would be considered significant.

Site No. 23 Rincon Point. Based on a previous study by Conejo Archaeological Consultants (Phase 1 Archaeological Survey and Impact Assessment for the Rincon Point Sanitation Project, 1999), six prehistoric archaeological sites were identified within the Rincon Point area and two prehistoric sites on the Carpinteria Bluffs. These sites, several of which contain human burials, include the protohistoric and historic village site of Shuku. None of the located sites are within the staging area, access route, or the hazard location.

These potential impacts will be reduced to a less than significant level through the implementation of mitigation measures 1 – 5 and 7, as described below.

Proposed offshore project related work activities at Site No. 24 (Pauley Well) has the potential to damage identified or unidentified underwater cultural resource sites. No surveys and no archaeological sites were identified through the records search for the offshore Pauley Well site. The possibility exists that the Divecon anchoring plan will be situated near previously recorded or unrecorded historic shipwrecks. Decommissioning activity at this site therefore has the possibility of creating a significant impact through disturbance to known or unknown cultural resources. However, these potential impacts will be reduced to a less than significant level through implementation of mitigation measures 1 – 2, and 6, as described below.

- c) Areas that will be affected by the project are located within the surf zone or offshore. Any paleontological resources, if present, have been highly disturbed by wave action and longshore drift of littoral sediments. Hazard removal is not expected to further disturb paleontological resources, if present.

Mitigation:

The following mitigation measures are proposed to reduce potential impacts to cultural resources to a less than significant level.

Cul-A,B,D-1 As the California Central Coast is a significant archaeological resource for the state, environmental monitors will exercise increase awareness with respect to archaeological materials at all hazard removal sites.

Cul-A,B,D-2 At all hazard removal sites and before commencing work, project crews and personnel shall be informed of the importance of the potential archaeological resources in the area and of the regulatory protections afforded to the resources. The crew should be informed of procedures relating to the discovery of archaeological remains during project activities and cautioned to avoid archaeological areas with equipment and not to collect artifacts. Personnel and the crew should inform their supervisor and the on-site monitor should cultural remains be uncovered.

Cul-A,B,D-3 Known archaeological sites shall be avoided, so as not to inflict a significant impact to the site. Avoidance can be accomplished by having the archaeologist and project engineer demarcate cultural resource boundaries on the ground to ensure that proposed project improvements do not impinge on the resource(s). Construction equipment can then be directed away from the resource, and construction personnel directed to avoid entering the area.

Cul-A,B,D-4 Archaeological monitoring is required during project activities at these sites:

Site No. 4: Ellwood West of VENOCO Ellwood Pier

Site No. 5: Ellwood East of VENOCO Ellwood Pier

Site No. 7: Santa Barbara Shores (B)

Site No. 10: Isla Vista

Site No. 18: Carpinteria State Beach

Site No. 22: Ortega Hill, East Fernald Point

Site No. 23: Rincon Point

Cul-A,B,D-5 At all hazard removal sites, if buried cultural resources, such as lithic debitage or groundstone, shell midden, historic debris, building foundations, or human bone, are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until the Project Archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in accordance with the CSLC, the State Historic Preservation Officer (SHPO) and other appropriate agencies. Any non-burial cultural resource artifacts recovered will become the property of the Native Americans, with the disposition of the artifacts carried out as per the approved County Guidelines.

Cul-A,B,D-6 At the Pauley Well site, fly-over anchoring and a pre-anchoring survey at all proposed offshore anchoring sites shall be conducted in order to avoid impacting any previously unidentified historic shipwrecks. Any proposed anchoring sites on or near a historic shipwreck shall be moved at least 20 feet away.

Cul-A,B,D-7 If Native American human remains are discovered during project construction at any hazard removal site, the Project Archaeologist shall be notified and state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Pub. Res. Code Sec. 5097), shall be followed. The coordination of the procedures outlined in the Proposed Native American Burial Protection Plan is the responsibility and under the authority of the California State Lands Commission.

In the event that human remains are unearthed, all work shall stop in the area of the find and any nearby area reasonably suspected to overlie adjacent human remains and the County Coroner notified. If the remains are determined to be of Native American descent, the Coroner shall notify the NAHC within 24 hours. Reburial or disposal of human remains shall be conducted according to the instructions of the most likely descendent, as identified by the NAHC.

2.3.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

Santa Barbara County has a distinctive and long shoreline. The western coast, from the mouth of the Santa Maria River south to Point Arguello, a distance of about 25 miles, trends more southerly than the California coast generally, and is interrupted by prominent rocky headlands such as Point Sal and Purisima Point. From Point Arguello to Point Conception, the coast forms an open, curving bight facing southwest.

The project area is located on the northern edge of the SBC in the western part of the Transverse Range Physiographic Province. This region is characterized by east-west oriented topographic and structural elements. The Santa Barbara Channel is the submerged western extension of the Ventura Basin, and is bounded on the north by the Santa Ynez Range and on the south by the northern Channel Islands. Total relief from the western portion of the Santa Ynez Mountains to the floor of the Santa Barbara Channel is about 6,000 feet. The Santa Ynez Mountains rise from a narrow coastal plain to elevations of more than 4,000 feet.

Offshore, the mainland shelf slopes gently seaward from the coastline to depths of about 280 feet where it intersects the northern slope of the Santa Barbara Channel. The mainland slope dips relatively steeply toward the center of the Channel. Water depths in the central part of the Channel vary from 650 to 2,000 feet. To the south, the Santa Barbara Channel rises along a submarine slope to a narrow nearshore shelf bordering the four northern Channel Islands: Anacapa, Santa Cruz, Santa Rosa, and San Miguel.

The Santa Barbara Channel is underlain by a thick sequence of upper Mesozoic and Tertiary marine and continental sediments resting on basement rocks of the Jurassic-age Franciscan complex. It is bounded on the north and south by major east-west trending fault systems. The Santa Ynez fault system to the north is over 90 miles long and was responsible for the uplift of the Santa Ynez Mountains in late Tertiary to Quaternary time. To the south is the Santa Monica-Santa Cruz Island fault system.

Based on geologic soil classification information provided by Diblee (see reference section for quadrangles and years), Table 2.3.6-1 summarizes the basic soil classifications found at the project sites and what those soils represent geologically.

Table 2.3.6-1 Summary of Project Sites Soil Classifications

		Site	1	2	4	5	6	7	8	9	10	13	14	15	16	17	18	19	20	21	22	23	
Soil Classification	Qs	x	x	x	x						x	x	x	x		x	x	x		x	x	x	
	Qoa											x			x								
	Qa								x	x									x				
	Qg												x	x							x	x	
	Tm, Tml		x		x	x					x							x	x				
	Tsq							x				x											

- Qs- Surficial Sediments, beach and sand deposits.
- Qoa- Older dissected surficial sediments. Former alluvial deposits of silt, sand and gravel.
- Qa- Alluvium, unconsolidated floodplain deposits of silt, sand, and gravel.
- Qg- Surficial Sediments, stream and channel deposits.
- Tm, Tml- Monterey Formation, Monterey Shale, lower/upper shale units.
- Tsq- Sisquoc Shale, light gray, silt diatomaceous clay shale.

Earthquake Faults. The Santa Ynez fault system to the north of the Santa Barbara Channel is over 90 miles long and was responsible for the uplift of the Santa Ynez Mountains in late Tertiary to Quaternary time. To the south is the Santa Monica-Santa Cruz Island fault system. Both the Santa Ynez and Santa Monica-Santa Cruz Island fault systems are characterized by left-lateral strike-slip and reverse separations along their lengths. In addition to

these two major fault systems, numerous left-oblique and reverse faults and steep-limbed folds occur within and adjacent to the Santa Barbara Channel.

Historically, the Santa Barbara Channel has experienced a low to moderate level of seismic activity. Studies of the instrumental seismic record for the Santa Barbara Channel area show that earthquake epicenters can generally be correlated with east-west trending reverse faults and with concentrations of activity in the central and northeastern portions of the channel. Recorded seismicity is relatively sparse in the western portion of the Channel. Only five earthquakes have exceeded magnitude 5.0 since 1900, with a maximum magnitude of 6.2 in 1925.

Impact Discussion:

- a, d) As with all of Southern California, the project area is subject to seismic ground shaking events. Ground shaking can result in liquefaction and subsequent settlement impacts. Since the proposed project involves removal of various hazards, impacts related to seismic activities are considered insignificant. In addition, the Santa Barbara County Comprehensive Plan (Seismic Element, 1991) states that the project sites have a low potential for tsunami, liquefaction, or expansive soils to occur. No other geologic or soils related hazards are anticipated to be generated by the proposed project. No additional persons or property would be exposed to seismically induced hazards, soil hazards, or slope stability hazards as a result of the proposed project.

- b-c) In order to access the project sites, and remove the hazards, disruption and/or displacement of topsoils may occur. This includes all surficial disturbance related to access road removal and the final recontouring of the site. According to the Santa Barbara Comprehensive Plan Seismic Safety Element (1991), the project areas are located below the bluffs that are classified as having a moderate to high potential for slope stability impacts or landslides to occur. During decommissioning activities, if grading activities are required through these bluffs in order to obtain access to a site, a potentially significant impact could result. However, as part of the project, after decommissioning activities are complete, the sites would be revegetated and the bluff face and the beach access road would be recontoured and restored, making the further threat of erosion less than significant. Ultimately, these various decommissioning activities are not expected to adversely affect existing geologic conditions of the project area because all grading activities would result in temporary impacts. Therefore, impacts to the sites described above, due to disruptions or displacement of soil, would be considered potentially significant if not mitigated as proposed.

- e) Not applicable to the proposed project.

Mitigation:

Implementation of the following mitigation measures will reduce potential significant impacts to a less than significant level.

Geo-1 A grading and erosion control plan shall be prepared for all areas of active cut or fill activities. Recontouring/regarding of all disturbed areas shall match the surrounding terrain, including drainage links. The grading and erosion control plan shall be designed to minimize erosion and include:

- Grading schematics with site specific diagrams and erosion control methods.
- Graded areas shall be revegetated immediately following completion of hazard removal. Timing of revegetation may vary depending on vegetation areas and weather conditions.
- Site specific, detailed temporary erosion and sediment control plans shall be developed for all drainages and creeks and excavation areas with steep slopes.
- Where appropriate, Geotextile binding fabrics or erosion control netting shall be required to hold slope soils until vegetation is established.
- Straw bales, sedimentation fencing, soil compaction, water bars, trench plugs, baffle boards and trench drains shall be used to control erosion.
- The plan shall include a post-construction inspection plan to inspect all areas of excavation and vegetation removal and, if necessary, repair areas of erosion and revegetation.

Geo 2 All beach excavations shall be backfilled with native materials.

2.3.7 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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 accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting:

The proposed project will involve the removal of twenty-one hazards at sites that have been identified along the Santa Barbara Channel coastline from Tajiguas Creek to the Ventura River, as well as one deepwater hazard located approximately 13,500 feet offshore. Many of

the hazards are remnants of past oil and gas development, while others are the result of development along the coastline (See Section 1.3.3). Removal of the well structure itself will not have the potential to release hazardous materials, including the release of hydrocarbons into the marine environment, since the well has been abandoned and the well concreted 250 – 380 feet from the wellhead. The project will remove 10 – 15 feet of this plug. Therefore, the risk of release is confined to the equipment and vessels. Divecon has prepared and, if necessary, will implement the procedures outlined in the project specific Oil Spill Contingency Plan and Hazardous Materials Contingency Plan (See Appendices). These plans outline the equipment, procedures and notification requirements required in the event of an oil or other hydrocarbon spill associated with land or marine based operations.

Hazard removal activities will involve the use of hazardous materials associated with internal combustion engines and hydraulic equipment, including fuels, coolant liquids, oils, and lubricants. According to the applicant, fueling and maintenance of equipment will be done at designated staging areas located away from the marine environment. Removal activities are also likely to encounter hazardous materials such as creosote or other contaminant-soaked timbers, and potentially, naturally occurring surface and sub-surface crude oil, i.e. tar seeps.

Several of the proposed project sites are located within one-quarter mile of a school. None of the project sites is located within 2 miles of a public airport. No private airstrips are located in the vicinity of any of the project sites.

Impact Discussion:

- a) The proposed project activities may involve the routine transport, use, or disposal of hazardous materials such as creosote or other contaminant-soaked timbers, remnant oil-conveying structures, e.g., the Pauley wellhead, and fuels, hydraulic fluid, and lubricants for equipment. The contractor shall use proper transportation and disposal procedures such as wrapping contaminated materials in plastic, or storing the materials in plastic-lined bins. Disposal and transportation of used fuel or lubricants from equipment will be conducted in sealed containers. The risks of potential impacts from the routine transport, use, or disposal of hazardous materials from the proposed project are minimized.
- b) Small quantities of hazardous materials, such as fuels, hydraulic fluids, and oils would be used during construction to operate construction equipment. Approximately 110 gallons of diesel fuel and petroleum-based lubricants may be present during fueling operations. However, with the exception of offshore activities, no hazardous materials will be stored at any of the project sites. All fuels, hydraulic fluids, and oils supplied for onshore activities shall be stored in proper containment devices at the designated staging areas. All fueling operations shall occur at each designated staging area. Offshore fuel, lubricant, and oil supplies shall also be stored in proper containment devices aboard each vessel. Potential impacts to the environment could occur from accidental spills involving fuels and petroleum-based liquids, and when encountering any potential residual hydrocarbons from the creosote-soaked timbers and the Pauley wellhead. Due to the constant wave action

- and transitory sand movement experienced at the hazard locations, it is not expected that any residual contaminated soils will be discovered. All spills of hazardous materials, if impacting or threatening state or federal waters must be reported to local, state and federal agencies. The applicant has incorporated an Oil Spill Contingency Plan, which includes spill response procedures and a list of required spill response equipment in the event of an upset condition during hazard removal activities. With implementation of the contractor's fueling containment, fueling operation, and spill response procedures outlined above and in the above-stated plans, this impact is considered less than significant.
- c) Although several of the project sites are located within one-quarter mile of an existing or proposed school, hazardous emissions from project activities are not of significant levels (see Section 2.3 Air Quality). In addition, none of the hazards to be removed at these locations (Hazard Sites No. 8 and No. 9) is composed of hazardous materials. In an unlikely event of any fuel, lubricants, or oil being released to the marine environment, all fluids will be contained and cleaned up within each project site as per the contractor-provided Oil Spill Contingency Plan. This impact is considered less than significant.
 - d) The proposed project sites are not located within a hazardous waste site, as defined by Government Code Section 65962.5
 - e & f) None of the proposed project sites are located within two miles of a public or private airport. Consequently, there are no safety hazards to the general public from the proposed operations.
 - g) No impacts to the implementation of public emergency response plans will occur from the proposed operations.
 - h) Proposed operations generally will not result in an increased likelihood of wildland fire hazards. All of the project sites are located on beach faces or in open ocean. With the exception of any work activities within each staging area, e.g., fueling and transporting equipment via access roads, all work activities shall be conducted within the project sites located adjacent to the ocean and away from any wildland vegetation. The contractor will be required to comply with fire regulations, including hot work permits, imposed by the respective county fire departments. This impact is considered less than significant.

Mitigation:

- a) No significant impacts would result; therefore, no mitigation measures are required.
- b) The following mitigation measures are required to reduce the potential impacts from the release of hydrocarbons or other hazardous substances during construction activities to an insignificant level:

Haz-1 Equipment staging areas shall be identified which are located at least 100 feet from any water body or wetlands. All staging, fueling, and maintenance of vehicles shall be conducted in designated staging areas. Equipment shall be provided with drip pans nightly to prevent soil contamination during periods of inactivity. The contractor shall maintain spill containment and clean-up materials on-site during the construction activities. Any soil contaminated by fuels or petroleum-based products shall be immediately removed and placed in DOT-approved drums and properly disposed in accordance with state and federal regulations.

Haz-2 All heavy equipment and supplies shall be removed from the beach each day. When equipment must be left on the beach overnight, it must be stored above the tide and will not block public use of the beach.

- c-h) No significant impacts would result; therefore, no mitigation measures are required.

2.3.8 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

The Coastal Hazards Removal Program is comprised of various project site locations within Santa Barbara and Ventura Counties. Potential impacts to water quality exist due to the proximity of project sites to a variety of water resources that exist onshore, nearshore, and offshore. Water resources include marine waterbodies, drainages, and municipal wastewater discharge systems. All project sites are closely associated with at least one of these resources.

Those marine water resources associated with project sites that are considered to be of “beneficial use” by the Regional Water Quality Control Board (RWQCB) are listed below in Table 2.3.8-1. Effluent limitations, background seawater contamination concentrations and water quality objectives of these marine waterbodies are included within The Water Quality Control Plan for Ocean Waters of California (Ocean Plan), adopted by The State Water Resources Control Board (SWRCB). Nearshore marine waters are subject to seasonal runoff from coastal streams and storm waves that result in increased sediment input and turbidity. In addition, movement of sediments occurs within these environments due to natural environmental cycles. Heavy swell activity during the winter season results in movement of sediment particles, resulting in high turbidity. The Ocean Plan provides marine water quality objectives for several physical parameters and biological and chemical contaminants. Significant water quality impacts are those that would result in exceeding the thresholds listed in the Ocean Plan.

Water resources that occur onshore within hazard removal project sites include several drainages, estuaries, and sloughs. Potentially significant impacts to the quality of the water within those resources could result from project-related activities that may result in erosion, sedimentation and accidental discharges.

Table 2.3.8-1. Beneficial Water Uses of Coastal Waters of the Central Coast Region

Water Body	REC 1	REC 2	IND	NAV	MAR	SHELL	COMM	RARE	WILD
Coal Oil Point to Rincon Pt.	E	E	E	E	E	E	E	E	E
Goleta Slough	E	E			E	E		E	E
Santa Barbara Harbor	E	E	E	E	E		E		
Beach Parks	E	E		E	E				
Ventura River (nearshore ocean)	E	E		E	E		E	E	
Pacific Ocean (offshore)	E	E		E	E	E	E		

E Existing Beneficial Water Use
 REC1 Water Contact Recreation
 REC2 Non-Contact Water Recreation
 IND Industrial Service Supply
 NAV Navigation
 MAR Marine Habitat
 SHELL Shellfish Harvesting
 COMM Ocean Commercial and Sport Fishing
 RARE Preservation of Rare and Endangered Species
 WILD Wildlife Habitat

Source: RWQCB, 1989, Water Quality Control Plan, Central Coast Region (cited in Chambers Group, 1992).

Impact Discussion:

- a-f) Based upon the proposed excavation and cutting methodologies, it is expected that all activities occurring within or near water bodies associated with project sites during hazard removal will not result in the violation of regional water quality standards or waste discharge requirements. For those project sites located within the off- or near-shore environment, short-term insignificant impacts of increased turbidity levels are possible at project sites as a result of sediment resuspension occurring during hazard removal activity. Resuspension of sediment can increase contaminant levels and reduce dissolved oxygen within the water column to levels that exceed the criteria established within The Ocean Plan. However, project sites that are located within sandy inter- and shallow subtidal habitats are regularly disturbed by ocean wave action. Additionally, no project sites are located in areas of historical marine sediment contamination. Therefore, based on the extent of disturbance expected by hazard removal associated with existing water bodies, in addition to the implementation of mitigation measures listed within the Marine Biological Resources and Habitat section, degradation of water quality from resuspended sediments are expected to be less than significant within the offshore or near-shore environment.

For project sites located on-shore, short-term impacts of increased turbidity levels are possible in the event that hazard removal activity results in the discharge of pollutants into existing watercourses or stormwater drainage system. Erosion caused by hazard removal activity and sediment-laden stormwater runoff could potentially result in increase sediment load and turbidity in adjacent watercourses. This could result in decreased oxygen levels and increased contamination in the receiving waters. Project site access routes and staging area locations have been identified to minimize the impacts associated with erosion and sedimentation. In addition, no project sites will involve the alteration of an existing drainage.

Appropriate erosion control measures addressed within the erosion control plan will be implemented prior to construction activity to reduce the potential for discharges from impacting on-site and areas adjacent drainages from flooding. Mitigation measures listed within the Biological Resources and Habitat section will ensure that potential impacts to water quality are less than significant.

During hazard removal activity in both offshore and onshore activity, potentially significant water quality impacts could result from the inadvertent release of petroleum products from offshore work vessels and equipment. Should a spill occur, the project oil spill contingency plan would be executed immediately thus reducing the impacts to less than significant. In regards to onshore activity, additional mitigation measures that will reduce potential impacts associated with petroleum releases from onshore activities have been listed within the Biological Resources and Habitat section. Therefore, impacts are expected to be less than significant for on-shore activity.

Due to the scope of construction activity and the nature of the hazards associated with the Coastal Hazard Removal Program, no impacts are expected to occur in regards to groundwater, or have an effect on 100-year flood hazard areas.

g-j) Not applicable to the proposed project.

Mitigation:

Implementation of the mitigation measures listed in the Biological Resources and Habitat (Tbio-7, -9, and Mbio-16) and the Geology (Geo-1) sections will reduce the potentially significant impacts to a level below significance. No additional mitigation measures are required.

2.3.9 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

The project sites are generally located within the CSLC's jurisdiction in Ventura and Santa Barbara Counties. This area is characterized by a flat, sandy beach which lines the coast between the project sites and upland areas. A steep coastal bluff separates the beach from these upland areas, abruptly rising 80 to 100 feet above the beach in some areas. Portions of these upland areas are developed, although a majority of the area is considered open space (County of Santa Barbara, Comprehensive Plan Open Space Element, 1991). Numerous public and private coastal accesses, parks, and beaches are integrated within residential and commercial developments along the coastline.

Specifically, the project sites and surrounding development are currently utilized as shown below in Table 2.3.9-1. Typically, the beaches are owned by the state and operated by the California State Department of Parks and Recreation. Many of the project sites are located within ungranted sovereign land, or are included under leases from the state obtained for offshore oil and gas exploration activities. Upland adjacent properties are owned and operated by a variety of private interests and residential development.

Table 2.3.9-1. Summary of Site Land Uses

Site	APN/State Lease No. (if applicable)	Zoning/Land Use Designation	Present Land Uses	Surrounding Land Uses
1	081-150-14	RR-40: Residential Ranchette, 40 acres	Shoreline west of Tajiguas Creek	Gaviota State Park, Residential development
2	081-230-10 and 081-230-11 Lease PRC-No. 8010	Recreation:	El Capitan State Beach-Recreational, Open Space	Open Space and scattered O&G related development
4	079-210-59 Former Lease PRC No. 88, 420, and 3120	Recreation	Haskell Beach, Ellwood Pier, VENOCO facilities	Bacara Resort west of the site, VENOCO Gas Plant
5	079-210-59 Former Lease PRC No. 91, 94	Recreation	Haskell Beach, Ellwood Pier, VENOCO facilities	VENOCO Gas Plant, Bell Canyon Creek, Sandpiper Golf Course
6	079-210-67 Former Lease PRC No. 94, 95	Recreational	Santa Barbara Shores	VENOCO Ellwood Marine Terminal (EMT) facility, UCSB, Ocean Meadows Golf Course
7	079-210-59 and 079-210-67	Recreational- may be rezoned for housing.	Santa Barbara Shores	VENOCO Ellwood Marine Terminal (EMT) facility, UCSB, Ocean Meadows Golf Course
8	079-210-15 and 073-090-61 PRC No. 3904, 3242	PRD-Planned residential development 162 units: may change in the future to an recreational/ open space designation	Sands Beach, Devereaux Slough	Devereaux Ranch School, UCSB
9	079-210-15 and 073-210-61 PRC No. 3904, 3242	PRD-351 units,	Devereaux Point	Devereaux Ranch School, UCSB
10	075-181-16 through 36, 075-192-02 through 06, 075-193-01 through 39, 075-202-01 through 52, 075-213-02 through 21, 075-223-01 through 22 Former Lease PRC No. 158, 159, 308, and 309		Isla Vista	UCSB, residential development

Site	APN/State Lease No. (if applicable)	Zoning/Land Use Designation	Present Land Uses	Surrounding Land Uses
13	009-353-15	CV (Visitor serving commercial)	Beach located in front of Biltmore Hotel	Residential, butterfly beach
14	007-372-01 through 13	1-E-1: 1 acre, single family dwelling	Beach located in front of homes from Posilipo Lane	Beachfront residential development, Miramar Hotel
15	007-372-01 through 13	1-E-1: 1 acre, single family dwelling	Beach located in front of homes from Posilipo Lane, Fernald Point	Beachfront residential development, Miramar Hotel
16	005-010-20 State Lease PRC No. 1824	TC- Transportation Corridor	Summerland Beach	Summerland Sanitary District
17	005-440-02 through 16	10-R-1: 10,000 square foot res sfd.	Beach east of Santa Claus Lane	Santa Claus Lane, Caltrans yard, Southern Pacific Railroad right-of-way
18	003-502-01 State Lease PRC No. 3150	Recreation/ LUP- Parks/Open space	Carpinteria State Beach	Carpinteria Creek, Casitas Pier
19	001-170-21 State Lease PRC No. 3133	MCD- Coastal Dependent Industry/ LUP is coastal dependent ind.	East of Casitas Pier, seal sanctuary and rookery	CleanSeas, VENOCO Casitas pier parking lot
20	060-090-195	CC- Coastal Commercial, GP- Existing Community	Beach at Mussel Shoals, Pitas Point	Residential and commercial development
21	060-320-225, 060-320-090, 073-231-01		Ventura River mouth, San Buenaventura State Beach	Ventura Fairgrounds/Seaside Park, Ventura Pier
22	007-372-01 through 13	1-E-1: 1 acre, single family dwelling	Beach located in front of homes from Posilipo Lane	Beachfront residential development, Miramar Hotel
23	001-021-024, 001-021-020, and 001-018-069	Vta	Rincon Point park and Bates Beach	Luxury residential development along Rincon Point

Project sites are located within the Coastal Zone, and are therefore subject to provisions of the California Coastal Act. A majority of the project sites are located in areas which have been designated for recreational purposes and uses. Surrounding land uses are dominated by residential and commercial development.

Impact Discussion:

- a-c) The existing land uses at the work sites are open space and recreational in nature. The project does not propose any new structures or new uses on the

project sites, and would therefore not physically divide, nor conflict with any existing land uses. Through removal of the hazards, the project sites would be enhanced within their present conditions and for their present uses.

Mitigation:

No significant impacts would result; therefore, no mitigation measures are required.

2.3.10 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

Santa Barbara County mineral resources include petroleum and natural gas, mercury, diatomite, limestone, phosphate, rock, sand, and gravel. However, there are no currently known mercury, diatomite, limestone, or phosphate resources located within the vicinity of the project region of Santa Barbara County (County of Santa Barbara, 1994). Ventura County also contains petroleum and aggregate resources that support the physical and economic growth of the region.

Petroleum and natural gas account for approximately half of the total value of Santa Barbara County's mineral production and 75 percent of Ventura County's mineral production. Eighteen producing oil and gas fields are located within Santa Barbara County and 1987, 39 producing oil and gas fields were located within Ventura County. Oil and gas resources in the vicinity of the project region are located along the Gaviota, Ellwood, Goleta, Carpinteria, and northern Ventura County coastal zones.

Rock, sand and gravel are primarily used for construction aggregates. Aggregates are used in nearly all residential and commercial construction. Three known rock, sand, and gravel resources in the vicinity of the project region are located offshore from Gaviota, Ellwood, and Summerland (County of Santa Barbara, 1994). Known aggregate resources of the Ventura County project region are located north of the Ventura River mouth (County of Ventura, 1992).

Impact Discussion:

- a) Project activities associated with the removal of the coastal hazards will have no impacts on mineral resources. None of the twenty-one project sites is located in proximity to any known mineral resources that may be affected by project activities. Although some aggregate may need to be temporarily relocated for the removal of the coastal hazards, the project activities will not involve the removal or extraction of any mineral resources.
- b) The proposed project will not result in the loss of locally important mineral resources.

Mitigation:

No significant impacts would result; therefore, no mitigation measures are required.

2.3.11 Noise

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

Characteristics of Noise. The duration of noise and the time period at which it occurs are important factors in determining the impact of noise on sensitive land uses. Noise is more disturbing at night than during the day and noise indices have been developed to account for the varying duration of noise events over time as well as community response to them. The Community Noise Level Equivalent (CNEL) and the Day-Night Average Level (DNL or Ldn) are such indices. They are time-weighted average values based on the equivalent sound level (Leq), which is a constant sound level that equals the same amount of acoustic energy as actual time-varying sound over a particular period. The CNEL penalizes noise levels during the night (10 p.m. to 7 a.m.) by 10 decibels (dB) to account for the increased sensitivity of people to noise after dark. Evening noise levels (7 p.m. to 10 p.m.) are penalized 5 dB by the CNEL. Appropriately weighted hourly Leqs are then combined over a 24-hour period to result in a CNEL. The Ldn also penalizes nighttime noise levels, but does not penalize evening levels. These two indices are generally equivalent.

In general, the CNEL may be thought qualitatively as an accumulation of the noise associated with individual events occurring throughout a 24-hour period. The noise of each individual event is accounted for in a separate, discrete measurement that integrates the changing sound level over time as, for example, when an aircraft approaches, flies overhead, then continues off into the distance. These integrated sound levels for individual operations are referred to as Sound Exposure Levels or SELs. The accumulation of the SELs from each individual operation during a 24-hour period determines the CNEL for the day.

Noise Regulation. To limit population exposure to physically and/or psychologically significant noise levels, the State of California, various county governments, and most cities in the state have established guidelines and ordinances to control noise. The State of California and County of Santa Barbara have established criteria for noise exposure which require that interior noise levels within residential dwelling units fall below 45 dBA CNEL and that exterior living areas, e.g., yards, balconies and patios, be located and or designed in such a manner so as to keep noise exposure levels below 65 dBA CNEL.

The County of Santa Barbara has established significance thresholds for noise impacts associated with proposed development (County of Santa Barbara, 1995). Although the CSLC is not required to use these thresholds, they are provided for reference and guidance in the evaluation of potential project noise impacts. Because the only noise impacts that are anticipated to be associated with the proposed project are short-term and construction related, only the relevant construction threshold is provided here.

Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities hospitals or care facilities, would generally result in a potentially significant impact. According to EPA guidelines average construction noise is 95 dBA at a distance of 50 feet from the source. A 6 dB drop occurs with the doubling of the distance from the source. Therefore, locations within 1,600 feet of the construction site would be affected by noise levels over 65 dBA. To mitigate this impact, construction within 1,600 feet of sensitive receptors shall be limited to weekdays between the hours of 8:00 am and 5:00 pm only. Noise attenuation barriers and muffling of grading equipment may also be required. Construction equipment generating noise levels above 95 dBA may require additional mitigation.

Ambient Noise. As stated within the Noise Element within the Santa Barbara Comprehensive Plan (1986), in Santa Barbara County, transportation facilities are by far the most significant sources of noise. This is true in terms of the magnitude of noise produced and the number of people affected. In addition, for areas located along the coast, the surf is a major contributor to ambient noise levels.

Regional ambient noise conditions are dominated by noise generated by freeway traffic along U.S. 101 which is clearly and constantly perceptible along a noise corridor approximately 1-mile wide (County of Santa Barbara, June 2000). Properties farther than 250 feet from the freeway generally experience noise levels below 65 dBA, and properties north of Foothill Road are well beyond the 65 dBA (US 101) noise corridor.

The ambient noise levels at various sites containing potentially sensitive receptors or representative site conditions was measured by Padre Associates, Inc. using a Larson Davis DSP 80 Noise Meter on July 2, 2002. Please refer to Table 2.3.11-1 for a summary of the site locations measured for ambient noise conditions.

Table 2.3.11-1 Ambient Noise Level Measurements

Site	15-minute representative ambient Leq measurement (dBA)	Influencing Noise sources	Sensitive receptors-if applicable
2	60.1	Ocean, pedestrians, birds	Park visitors
4	62.1	Ocean	N/A
6/7	61	Ocean, planes, pedestrians, train	SB Shores Residential
8/9	52.3	Ocean, parking lot cars, lawn mower, planes, pedestrians	UCSB faculty housing
14	58.2	Ocean, traffic, pedestrians	Gated residential communities
16	56.8	Ocean, traffic, pedestrians, train	N/A
17	61.5	Highway 101 traffic, pedestrians, planes	Residential community located north of the site
19	62.3	Ocean, traffic, planes	N/A

Impact Discussion:

- a, c, d) During the decommissioning activities, the project sites will experience a short-term increase in ambient noise levels. This would primarily affect the project sites that are located within recreational areas or proximal to residential development. This is considered a significant, but mitigable impact utilizing measures suggested by the County of Santa Barbara within the Noise Element as described below. There are no permanent increases in noise levels occurring as a result of the project.
- b) Decommissioning equipment utilized at the sites will expose persons to a minor amount of groundbourne vibration. This is not considered a significant impact.
- e-f) Not applicable to the proposed project. No hazard is located within an airport and private air strip land use plan.

Mitigation:

Because there will be no long-term impacts with respect to noise, no long-term mitigation measures are necessary. However, to mitigate short-term construction-related noise impacts, the following measures will be implemented to reduce any potential significant impacts to a less than significant level.

- **N-1** Use of heavy equipment or other high noise producing tools, e.g., concrete breakers, and concrete saw, at the project site will be limited to the hours of 7:00 am to 5:00 pm. and will be restricted to Monday through Friday unless otherwise agreed

to by the affected neighbors (It may be desirable to have longer construction hours if it would reduce the overall construction period duration).

- **N-2** Nearby residents will be given advanced written notification of construction activity scheduling and hours of construction.
- **N-3** Noise producing stationary equipment, e.g., generators, shall be shielded and located as far as possible from residences.

2.3.12 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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"/>

Setting:

This section addresses the existing population and growth trends of the project region. Sites 1-20 and 22 are located within Santa Barbara County and Site 21 is located within the limits of Ventura County. Accordingly, the population and growth trends of Santa Barbara County and Ventura County will be discussed.

Santa Barbara County

The coastal area of Santa Barbara County is an especially desirable place to live. People of all economic sectors have chosen to locate in this area, particularly in the urbanized areas of the South Coast, and this has created a wide diversity of life styles and housing needs (Santa Barbara County Coastal Plan, 1982). Santa Barbara County is divided into two distinct subregions: the South Coast and the North County. The North County is divided into five distinct census divisions: Santa Ynez, Lompoc, Santa Maria, Guadalupe, and Cuyama. The South Coast area includes two census districts: Carpinteria and Santa Barbara.

The present population of Santa Barbara County is over 400,000. The population grew 11% in the last decade and is projected to increase another 14% by 2010 (U.S. Census Bureau 2002).

Ventura County

Ventura County is divided into twelve census divisions: Camarillo, Fillmore-Piru, Los Posas, Los Padres, Meiners Oaks-Ojai, Moorpark, Oxnard, Santa Paula, Simi Valley, Thousand Oaks, Triunfo Pass-Coastal, and Ventura. The present population of Ventura County is over 770,630. The population grew approximately 9.6% in the last decade and is projected to increase another 8% by 2010 (U.S. Census Bureau 2002).

Impact Discussion:

- a-c) The proposed project would not create homes, permanent jobs, or remove obstacles to growth. The project would not extend any infrastructure that would support or encourage growth on a project-specific or cumulative basis. There will be no displacement of homes as a result of the proposed project, therefore there will not be a need for relocation of homes. The proposed project does not remove existing housing, nor create any permanent jobs, therefore there would be no displacement of people to be accommodated by replacement housing elsewhere.

Mitigation:

No significant impacts would result; therefore, no mitigation is required.

2.3.13 Public Services

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

Public service providers in the vicinity of the project are detailed below.

Public Facilities/Services	Service Provider
Law enforcement	West Ventura County Police Services Bureau Santa Barbara County Sheriff's Department
Fire protection	Santa Barbara Fire Protection Department Ventura Fire Protection Department Carpinteria/Summerland Fire Department
Ambulance	Various
Medical Services	Various
Spill Response	Divecon Oil Spill Contingency Plan, Onshore and Offshore

Impact Discussion:

- a) Activity at each project location would be short term and not include any elements that would result in the need for substantial increases in fire or police protection services. Construction personnel are anticipated to either already be located within the area or to use transient accommodations only if from outside of the area. Thus, no students are expected to be generated by the project. As such, the project would not result in the need for new facilities or alter acceptable service ratios for fire protection, police protection, schools, or parks.

In the event of an emergency at a project location, public service providers with jurisdiction over the project location would be contacted. In an emergency, any of the local groups and ambulance services can be contacted by dialing 911. Divecon has an Oil Spill Contingency Plan (Appendix C) to address pollution prevention, safety, and response. This plan complies with a variety of relevant Federal and State regulations. In addition, a Job Safety Analysis (JSA) will be completed for each site. The JSA will be thoroughly discussed at a job execution meeting. All project participants will also be required to attend pre-job and daily toolbox meetings. Furthermore, all job sites will be provided with a cellular phone for safety and to maintain good communications for office support.

Mitigation:

No significant impacts would result; therefore, no mitigation is required.

2.3.14 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

Santa Barbara County

Santa Barbara County currently offers opportunities for hiking, biking, and equestrian use in the coastal zone (Santa Barbara County Coastal Plan, 1982). Most of the recreational activities along the shore are water related or dependant. The offshore recreational activities of the project area include boating and sportfishing. However, due to the known presence of oil seeps, the area is not considered a prime destination for commercial sportfishing. In addition to the specific private and government owned/operated facilities, privately owned, undeveloped open space areas exist along the Santa Barbara and Ventura County coast.

There are several parks in the vicinity of the project areas of Santa Barbara County including Stow Grove, Lake Los Carneros, Goleta Beach County Park, Isla Vista County (Sea Lookout) Park, and Santa Barbara Shores. The greatest number of public parks and recreational facilities are found in the City of Santa Barbara, and the combined open space totals 1,213 acres (Santa Barbara Comp Plan-Open Space Element, 1991). In addition, the University of California at Santa Barbara has a wide range of recreational facilities typical of a major university. These facilities are primarily available to the students of the University. Furthermore, two golf courses offer recreational opportunities on the Santa Barbara County coast. Specifically, the Ocean Meadow Golf Course is a 9-hole public course located inland from Devereaux Lagoon and the 18-hole public Sandpiper Golf Course is located in Goleta just above from Sites 4-7.

Ventura County

There are several parks in the vicinity of the project area within Ventura County that offer recreational opportunities. These parks include Faria County Park, Seaside Wilderness Park,

Seaside Park, Promenade Park, Marina Park, Hobson County Park, and Rincon Parkway. In addition, the Olivas Park Golf Course is located in the near the Ventura County project area.

Impact Discussion:

- a. Several of the project sites are located within highly utilized recreational areas. Short-term impacts to recreational activities may result during hazard removal activities due to the presence of heavy equipment and personnel on the beach. Although it is anticipated that work will occur during the winter months, restricted beach activities may result. Some beach users may perceive these restrictions as a significant impact. Decommissioning of the hazards at these sites will improve long-term recreational opportunities by improving the safety of the area; however, this is not anticipated to result in increased usage of the facilities.
- b. The project does not include the construction or expansion of recreational facilities, and would therefore not result in an adverse physical effect on the environment.

Mitigation:

The following mitigation measure is proposed to reduce short-term recreational impacts to a less than significant level.

Rec-1 All work areas will be clearly delineated by safety fencing and/or an on-site monitor will be present to direct individuals around the work area. Staging areas shall be located away from major recreation paths and clearly fenced during non-work hours.

2.3.15 Transportation/Traffic

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard 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) Result in a change in traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

Setting:

The proposed Coastal Hazards Removal Project is comprised of 21 individual project sites located along the coast of Santa Barbara and Ventura Counties. All project sites that are accessible by ground transportation utilize State Highway 101 and a various public and private roads throughout both counties. State Highway 101 within the project area is maintained by Caltrans Region 5. All public roads utilized by ground transportation vehicles are maintained by the County of Santa Barbara Public Works Department and the County of Ventura Public Works Agency.

Project sites that are accessible via ground transportation and require heavy equipment would have a designated staging area within proximity of the construction area to reduce

transportation impacts. Staging areas will contain all equipment and supplies necessary for removal of hazards within the area.

For sites located offshore, waterborne transportation would be necessary to supply equipment and personnel required for offshore hazard removal. The only site requiring offshore transportation within the Coastal Hazards Removal Project is Site No. 24. This project site would require support of two vessels throughout the duration of the hazard removal. These vessels would be deployed from either the Santa Barbara Municipal Harbor, Casitas Pier, and/or Port Hueneme. The vessels would make daily trips to the harbor to offload equipment and personnel during the short duration of the hazard removal. Due to the nature of offshore project sites, staging area location is not applicable.

The following are access routes and staging area descriptions of each project site located within the Coastal Hazards Removal Program. Ground transportation descriptions are based from State Highway 101.

Site No. 1 Tajiguas Creek. This project site can be accessed through private property via Arroyo Cuemada. Due to the proximity of railroad right-of-way, coordination with Union Pacific Railroad would be required to access project site. During removal activity, a staging area will be established on private property adjacent to the construction site.

Site No. 2 El Capitan State Beach. This project site requires road access on El Capitan State Beach property. Access would be gained via a maintenance road located approximately 75 yards prior to the campground entrance booth on the east side of the main road. The maintenance road varies in width and is comprised of sections of dirt and asphalt. After approximately 150 yards, access to staging area would be gained via dirt road heading east towards the project site. Heavy equipment would be staged within open space in this area. Beach access for heavy equipment would be obtained at the shoreline to reach project hazards.

Site No. 4 Ellwood - West of VENOCO Ellwood Pier. All hazards located within this project site would be accessed via a private road located above Ellwood Pier parking lot. This access road is an unmaintained asphalt road. The staging area for this project site is located within approximately 500 yards from project site.

Site No. 5 Ellwood – East of VENOCO Ellwood Pier. This project site would require two points of access to minimize impacts to biological resources in the event that Bell Canyon Creek has breached. For those hazards located west of Bell Canyon Creek, access would be gained at Haskell Beach parking lot. Haskell Beach parking lot would also be the location of the staging area during removal activity west of Bell Canyon Creek. For those hazards located east of Bell Canyon Creek, access would be gained via VENOCO easement through Sandpiper Golf Course. The easement is an unmaintained dirt road. The staging area for this access route would be located in front of VENOCO Gas Plant along Hollister Avenue frontage road. The area would be kept clear for emergency vehicles.

Site No. 6 Santa Barbara Shores (A). Access to the project site would be initially gained at a gated entrance located at Santa Barbara Shores Dr. cul-de-sac. Santa Barbara Shores Dr. is a residential paved road maintained by the County of Santa Barbara. Asphalt paving terminates at the cul-de-sac and the access route continues south along dirt maintenance road, heading towards coastline. Prior to terminating at bluff, access route continues parallel along bluff, heading east for approximately .5 miles to the beach access site. Beach access from the bluff is landmarked by a small, red brick structure. Staging for equipment would be approximately 30 yards from the bluff access.

Site No. 7 Santa Barbara Shores (B). Santa Barbara Shores (B) would be accessed via Santa Barbara Shores (A) access route.

Site No. 8 Sands Beach at Devereaux Slough. Sands Beach at Devereaux Slough would be accessed through a UCSB maintenance road at the intersection of Storke Road and El Colegio Road. Storke Road would be the primary public road utilized from State Highway 101 and is maintained by the County of Santa Barbara. The UCSB maintenance road travels adjacent to the Devereaux Slough and terminates at a gravel parking lot located adjacent to an Ecological Preserve Area. Beach access is obtained through a chain link fence located at the end of the dirt access road, west of the gravel parking lot. The staging area for this project site would be located within the gravel parking lot.

Site No. 9 Devereaux Point. Devereaux Point would be accessed via Sands Beach at Devereaux Slough (Site No. 8) access route.

Site No. 10 Isla Vista. Access to Isla Vista will be obtained via the Sites 8 and 9 access route.

Site No. 13 Biltmore, South Birham. Access to project Site No. 13 would not require a project specific access route. All work to be performed at this site would be accomplished by a hand crew only. No staging area is required. The hand crew would park a vehicle at the nearest street parking location and carry equipment and debris to and from the project site.

Site No. 14 Miramar, Santa Barbara-Carpinteria. Access to project Site No. 14 would be obtained via a Santa Barbara County Parks and Recreation easement located on Posilipo Lane. The easement runs adjacent to a privately-funded boardwalk that provides access to the adjacent residence for approximately 30 yards. The easement terminates at a small retaining wall and ice plant ground cover to access the beach. The staging area for the project site would be the Miramar Hotel construction site.

Site No. 15 Fernald Point, Santa Barbara. Fernald Point would be accessed via the Site No. 14 access route.

Site No. 16 Ortega at Summerland East End – Padaro Lane. Site No. 16 would be accessed via a paved road adjacent to the Summerland Sanitary District and recycle plant located above Summerland Beach. The staging area for this project site would be located within a fenced yard located at the Summerland Sanitary District Plant.

Site No. 17 Santa Barbara at Santa Claus Lane. All hazards located within this project site would be accessed from Santa Claus Lane. Access to project hazards will require frequent crossing of a Southern Pacific Railroad right-of-way at a location approximately 100 yards east of the Santa Claus Lane exit from State Highway 101. The staging area for this location would be located at a Caltrans maintenance yard on Santa Claus Lane near the project site.

Site No. 18 Carpinteria State Beach. Access to the Carpinteria State Beach project site would be obtained after crossing the Carpinteria Creek bridge and directly accessing the beach. The staging area for Site No.18 would be located at the Clean Seas parking lot.

Site No. 19 Casitas Pier – East Side. The Casitas Pier – East Side project site can be accessed via the VENOCO Casitas Pier turnaround. Vehicle access to the beach is not necessary at this project site. Staging of all equipment would be located within the VENOCO Casitas Pier parking lot. Hand crews would utilize the pier for hauling equipment onto the beach and for hauling debris and equipment from the beach via a truck located on the pier.

Site No. 20 Rincon/Mussel Shoals at Mussel Rock/Pitas Point. Access to Site No. 20 would be obtained from Mussel Shoals Road to the pier/causeway access road. During removal activities, the staging area for Site No. 20 would be located within the Rincon Pier parking lot.

Site No. 21 Ventura River, Ventura. The access point for Site No. 21 is a public park and beach located at Santa Ventura located just south of the Ventura River, or via the Fairground frontage road to the turnaround. The staging area for Site No. 21 would be located within a Caltrans yard adjacent to the northwest corner of the Ventura County Fairgrounds.

Site No. 22 Ortega Hill, East Fernald Point. The access route for Site No. 22 would follow the same access route for Site No. 14. The staging area for both sites would be located within the Miramar Hotel construction site.

Site No. 23 Rincon Point. Access for Rincon Point would not require a project specific access route for heavy equipment. All work performed at this project site would be accomplished by a hand crew only. No staging area is required. The hand crew would approach the project site from the parking lot located to the west of Bates Road. All equipment and debris would be carried by the hand crew to and from a parked vehicle.

Site No. 24 Pauley Well. Site No. 24 is located approximately 13,500 feet offshore from Gaviota. Due to offshore location, no staging area is necessary for this project site. The offshore hazard will be accessed via work vessels.

Impact Discussion:

- a) The proposed hazards removal program would generate very little traffic in the vicinity of each project site. Roads directly associated with project sites are public or private roads with low volumes of local traffic.

During pre- and post-removal activity of each project site, private and public roads would be used to transport construction equipment to and from the staging areas. Impacts from the transportation of heavy equipment are expected to be insignificant due to the small quantity of equipment utilized during the removal project and the infrequency of equipment transport to and from staging areas.

During removal activity, a number of construction vehicles, including backhoes, loaders, forklifts, and trucks, would all be confined to construction staging areas except during ingress and egress to the project site location. Access to project sites is via public or private roads with low volumes of local traffic. Therefore, no significant impacts would be made on existing traffic loads.

- b) The temporary traffic generated by the proposed project would not conflict with the Santa Barbara County Congestion Management Plan.
- c) Overall, the proposed project would not result in a change of traffic patterns that may result in substantial safety risks. However, the increase in the number and type of equipment using County roads could result in temporary safety hazards. Egress and ingress to the access route from County roads would result in unanticipated stops for motorists. Large, slower moving construction vehicles would also impede sight distances.

In addition, those project sites using uncontrolled railroad crossings for equipment transportation to and from the project site would result in temporary safety hazards. These crossings could potentially have views that would require vehicles to cross the railroad with caution and safety.

- d) The proposed project involves the removal of several coastal hazards and would not result in substantially increasing traffic hazards due to a design feature.
- e) Emergency vehicle access is limited for several of the work sites because access roads to the sites are in poor condition. Although access is limited, it would only slow down emergency response time and not prevent emergency access. Because the project is short-term and emergency vehicle access is available, the impact is less than significant.

- f) During the hazard removal activities, adequate parking for equipment and personnel would be provided at the work sites within staging area or surrounding area. The proposed project would not require the addition of new parking spaces or result in inadequate parking.
- g) Due to the location of the project sites and the determined staging areas, no conflicts with adopted policies, plans or programs supporting alternative transportation exist.

Mitigation:

Implementation of the following mitigation measure will reduce any potentially significant transportation and traffic impacts to a less than significant level.

Trans C-1 A Traffic Management and Access Plan shall be prepared for each significant access area. These plans shall include, but not limited to, the following items:

- A designated access route map and discussion.
- A description and map for designed parking and staging areas.
- Designation of flagmen and/or traffic control signage or measures.
- Railroad crossing procedures including coordination requirements for Union Pacific Railroad permits.

2.3.16 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting:

Urbanized areas of the project area are serviced by public water and wastewater districts, while rural location typically have private water wells and septic systems. The proposed project will utilize private services to provide both onsite water and sanitary services. Solid waste collected within the project area, will be disposed of at the County of Santa Barbara operated Tajiguas Landfill or the County of Ventura operated Toland Landfill. Both landfills currently have operating capacity beyond the proposed project's time frames.

Impact Discussion:

- a-g) The proposed project would not generate any new requirement for infrastructure, electricity, or wastewater in the project area during or after removal procedures. No additional water would be required or produced during the project. Ocean water that may enter an excavation during the project would be pumped out of the excavation and back to the ocean in accordance with any discharge permit requirements. All solid waste would be recycled or sent to an approved disposal site. Divecon complies with all federal, state and local statutes relating to solid waste, and will continue to do so during the operation of the proposed project.

Mitigation:

No significant impacts would result; therefore, no mitigation is required.

2.4 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) As discussed throughout this analysis, the project would not result in significant impacts to the physical and biological environment with the implementation of preventative measures proposed as part of the project, as well as recommended mitigation measures. Therefore, the project would not substantially degrade the quality of the environment, nor would it substantially affect biological resources, including plant communities, fish and wildlife species, and special status plant and animal species. Also, as indicated in 2.3.5 – Cultural Resources, the project would not adversely impact areas that are of historic, cultural, or paleontological significance provided that required mitigation measures are implemented.

b) The project would not result in significant cumulative impacts provided that required mitigation measures are implemented.

c) As indicated throughout this analysis, with the implementation of preventative measures proposed as part of the project, as well as recommended mitigation

measures, the project would not be expected to have substantial direct or indirect adverse effects, i.e., significant impacts, on human beings due to air emissions, release of hazardous substances, noise, contamination of a public water supply, or any other environmental effects.

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