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**INITIAL STUDY/MITIGATED NEGATIVE DECLARATION  
SANTA BARBARA CHANNEL  
COASTAL HAZARDS REMOVAL PROJECT  
SANTA BARBARA COUNTY AND VENTURA COUNTY  
CALIFORNIA**

Prepared for:

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## **SANTA BARBARA CHANNEL HAZARDS REMOVAL PROGRAM INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**

### **1.0 ENVIRONMENTAL CHECKLIST INFORMATION**

#### **1.1 BACKGROUND INFORMATION**

##### **1.1.1 Project Title**

Santa Barbara Channel Hazards Removal Program

##### **1.1.2 Lead Agency Name and Address**

California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

##### **1.1.3 Contact Person and Telephone Number**

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(916) 574-1897, [gilliee@slc.ca.gov](mailto:gilliee@slc.ca.gov)

##### **1.1.4 Project Location**

The proposed project is the removal of derelict structures located within the California State Lands Commission's (CSLC) jurisdiction in Ventura and Santa Barbara Counties. Twenty-four hazard sites have been identified along the Santa Barbara Channel coastline from Tajiguas Creek to the Ventura River, including one deepwater hazard located approximately 13,500 feet offshore (see Figures 1-1A and 1-1B). Many of the hazards are remnants of past oil and gas development, while others are the result of other types of development along the coastline. Table 1-1, Appendix A of this document, summarizes the hazard location, structure type, removal method, site access route, staging area, and expected project duration for each of the 24 sites. However, based on additional information obtained during the preliminary assessment of these 24 sites, three have been eliminated by the CSLC from further analysis due to extraneous circumstances: 1) The hazard located at Las Varas Canyon (Site No.3) no longer exists; 2) The hazard located at the east end of Goleta Beach (Site No. 11) has been previously removed as part of a previous project; and 3) The responsibility for hazard located at East Beach, Santa Barbara (Site No.12) has been acknowledged by the Clark Estate land-owner who will be removing the hazard.

##### **1.1.5 Project Sponsor's Name and Address**

California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

## 1.2 PROJECT SETTING

### 1.2.1 Agency Jurisdiction

**Lead Agency.** The California Environmental Quality Act (CEQA) applies, in part, to an activity undertaken by any public agency that has the potential to result in either a direct or indirect physical change in the environment. The CEQA lead agency is the California government agency that has the principal responsibility for carrying out a project and for preparing the appropriate CEQA documentation. The California State Lands Commission (CSLC) is the CEQA lead agency for this project by virtue of its discretionary authority to implement it.

**Responsible Agencies.** A responsible agency is an agency, other than the lead agency, that has a legal responsibility for approving a project. The responsible agency should actively participate in the lead agency's CEQA process by reviewing the document and must use it for its consideration of the project. Responsible agencies for this project include:

*Federal:*

- U.S. Army Corps of Engineers (USACOE) - The USACOE regulates placement of dredged or fill material into waters of the United States (i.e., wetlands, streams, and offshore from the mean high tide line) under Section 404 of the Clean Water Act. The Corps also authorizes activities on, under, over, and through navigable waters of the United States under Section 10 of the River and Harbor Act of 1899. Based on consultation with the U.S. Army Corps of Engineers, the project will require authorization under Sections 10 and 404. The CSLC will apply for authorization under the nationwide permit process.

*State:*

- California Coastal Commission (CCC) – Under the provisions of the Federal Coastal Zone Management Act (CZMA) and the guidelines established within the California Coastal Management Plan (CMP), the CCC has the responsibility to review all "development" that occurs within the defined Coastal Zone. A Coastal Development Permit will be required for the proposed work.
- Regional Water Quality Control Board (RWQCB) - The RWQCB issues water quality certification per Section 401 of the Clean Water Act. Water quality certification is required prior to issuance of the 404 permit from the U.S. Army Corps of Engineers.
- California Department of Fish and Game (CDF&G) - The CDF&G regulates activities resulting in alteration of streams and lakes and/or sensitive habitat areas containing state-listed endangered, threatened, and rare species; species of special concern; and fully protected species.

**Trustee Agencies.** Trustee agencies refer to state agencies having jurisdiction by law over the natural resources affected by a project.

- California Department of Parks and Recreation – Several of the project sites are located within the boundaries of designated State Parks. The California Department of Parks and Recreation are responsible for ensuring the proposed actions do not adversely affect natural resources located within Park property.
- University of California, Santa Barbara (UCSB) - Several of the project sites are located within UCSB's 410-acre parcel. The University makes land use and open space management decisions under the umbrella of a Long Range Development Plan (LRDP). The University's equivalent of a City or County General Plan, the LRDP addresses development location and type, open space, sensitive habitat protection and recreation through a series of maps and related policies. The University's Office of Budget and Planning prepares the LRDP is reviewed by numerous campus committees, approved by the Chancellor and submitted to the University system's governing board, the Regents of the University of California, for final approval. Because the campus is wholly located within the Coastal zone, the LRDP serves as the Local Coastal Plan (LCP) and requires certification by the Coastal Commission (UCSB, 2002).

**Commenting Agencies.** In addition to the previously identified agencies, the following agencies have the responsibility to review and provide guidance to the lead and permitting agencies regarding resources under their oversight. These agencies include:

*Federal:*

- U.S. Fish and Wildlife Service (USFWS) - The USFWS reviews and comments on federal actions (404 permit applications) that affect wetlands and other waters containing endangered fish and wildlife species. Review is conducted in consultation with the U.S. Army Corps of Engineers under Section 7 of the federal Endangered Species Act.
- National Marine Fisheries Service (NMFS) - The NMFS reviews and comments on federal actions (404 permit applications) that affect wetlands and other waters containing endangered marine and anadromous fish species. Review is conducted in consultation with the U.S. Army Corps and Engineers under Section 7 of the federal Endangered Species Act, Essential Fish Habitat of the Magnuson-Stevens Act, and Marine Mammal Protection Act.

*Local:*

- Ventura and Santa Barbara Counties - These counties will be responsible for reviewing and issuing the required local permits for the project as required on their General Plan and Local Coastal Plans. Such permits may include grading permits, temporary use permits and Coastal Development Permits.
- Local Cities - Portions of the project sites fall within the jurisdictions of the cities of Ventura, Carpinteria, and Goleta. These Cities will be responsible for reviewing and issuing the local permits for the project as required on their General Plan and Local

Coastal Plans. Such permits may include grading permits, temporary use permits and Coastal Development Permits.

- Air Pollution Control Districts (APCD) - The proposed project sites are located within the jurisdictional boundaries of the Santa Barbara County and Ventura County APCDs. These Districts regulate construction activities and development which affect designated air quality standards within their respective air basins. Due to the short term nature of the proposed project it is unlikely project specific permits will be required; however, all equipment will have valid operating permits as required.

## 1.3 PROJECT BACKGROUND

### 1.3.1 Purpose and Need

The purpose of the proposed project is to remove hazards at 21 sites located along the Santa Barbara and Ventura coastline that have been determined to pose a potential threat to public health and safety. In addition, these hazards are located on lands that are held in trust to be used for public purposes such as commerce, navigation, fishing, recreation, environmental protection, open space, and habitat. The objective of the Santa Barbara Channel Hazards Removal Program is to eliminate or mitigate these risks to public health and safety and allow the sites to support such trust activities.

### 1.3.2 Description of the Hazards

There are several types of hazardous structures (as described below) at the identified project sites. These structures include piles, sheet piling, "H" piles, "H" beams, well casings, well caissons, groins, railroad irons, electrical cable, angle bar in conglomerate tar, pipelines, pipe frames, and a deep offshore wellhead. Table 1-1 contains a listing of the hazard structures that are located at each site. In addition, Figure 1-2 contains representative photographs of these hazards.

**Piles.** Piles are slender units driven into the ground to transmit loads to the underground strata. Piles are often used to sustain a downward load such as that produced by a pier or other structure. Typically, piles are made of wood or steel. Timber piles are usually straight tree trunks with the limbs and bark removed. Timber piles range from 16 to 90 feet in length. Steel piles are pipe piles with a circular cross section. These piles can be either an open-end pile or a closed-end pile, depending on whether the bottom end is open or closed. The remnant piles that exist at the hazard sites are corroded and decayed.

**Sheet Piling.** Sheet piling consists of a series of panels driven into the ground with impact or vibratory hammers to form a barrier. Sheet piles are often installed to resist lateral soil pressure. The remnant sheet piling to be removed in this project consists of decayed and corroded wood or steel materials.

**"H" Piles and "H" Beams.** "H" piles and "H" beams have been widely used because they are easy to handle and relatively easy to drive. "H" piles and beams are steel, load

bearing components that have H-shaped cross sections. "H" piles are typically used for deep foundations for various types of structures. "H" piles are also used in conjunction with sheet piling to add lateral stiffness and bending capacity where loads exceed the capacity of the sheet piling. A majority of the project sites contain "H" piles and "H" beams both onshore and offshore.

**Well Casings.** A well casing is the inner steel pipe of a well that is located within the outer casing which is called the well conductor. The well casing hazards within the scope of this project range from 6 inches to 14 inches in diameter. The well casings are typically exposed in the winter months when the short period waves generated by local storms erode the beach, carrying sediment seaward.

**Well Caissons.** A well caisson is a steel-reinforced concrete circular footing (like a pile) that is typically used to support heavier items for increased stability.

**Groins.** Groins are used in situations where a shoreline is subject to longshore erosion, caused by wave or current action parallel or oblique to the shoreline. The groin is run out from the shoreline to check the longshore wave action or deflect it away from the shore to prevent further erosion and to promote the accumulation of sand. Groins are typically constructed of riprap or steel materials. The groins to be removed are composed of corroded steel with or without wood caps

**Railroad Irons.** Railroad irons are sections of railroad track that have been driven into the ground. The railroad iron hazards present consist of decaying metal posts extending from the ground. These posts are located in rows along the hazard sites with some sites containing more than 300 irons evenly spaced along the beach.

**Electrical Cable.** Hazard Site No.16 includes 600 feet of electrical utility cable that originates from the former offshore oil platform Hilda. The power cable extends from the former platform to the beach.

**Angle Bar in Conglomerate Tar.** Angle bars are lengths of steel or iron bent at a right angle along their longitudinal axis. They are primarily used as supports or for framework. The angle bars found at Site No.18 are imbedded in a naturally occurring conglomerate tar material.

**Pipe Frames.** A pipe frame is usually utilized in order to store pipe and prevent movement. The hazards that exist at Site No.8 include 30, 2½-inch corroded pipe frames that are scattered along the shoreline. The bent and broken metal pipe frames extend from the ground and are regularly exposed by tidal wave action.

**Pipeline.** A pipeline is utilized for transport materials from one location to another. The hazard structures that exist at Site No.6 include 500 feet of 6-inch pipeline. The pipe was historically used for the conveyance of wastewater from the Santa Barbara Shores area into the ocean. The pipeline emerges from a coastal bluff and extends above ground into the surf zone.

**Deep Offshore Wellhead.** A deep offshore wellhead would extend from the well to the surface, with the head being the top of the well. Hazard Site No.24 involves the removal of the abandoned Pauley wellhead, a deep offshore wellhead or marine riser; located 240 feet below mean sea level (see Figure 1-3).

**Table 1-1: Summary of Existing Hazard Structures at Project Sites**

Site Number	Hazard Type														
	2½-inch Pipe Frames	Steel Sheet Pile	Wood Sheet Piles	Steel "H" Piles	Well Caissons	Well Casings	"H" Beams	Railroad Irons	Wood Posts	Wood Piles	Steel Groins	Electrical Cable	Pipeline	Angle Bar	Onshore Wellhead
1								X							
2				X		X									
4		X													
5		X	X		X					X					
6			X		X								X		
7		X	X					X	X						
8	X					X	X								
9			X		X										
10			X		X										
13											X				
14										X					
15	X														
16			X		X			X				X			
17			X					X							
18					X								X		
19			X												
20			X												
21			X												
22						X									
23								X							
24															X



Steel H Piles and H Beams



Steel Pile or Pipe Frames



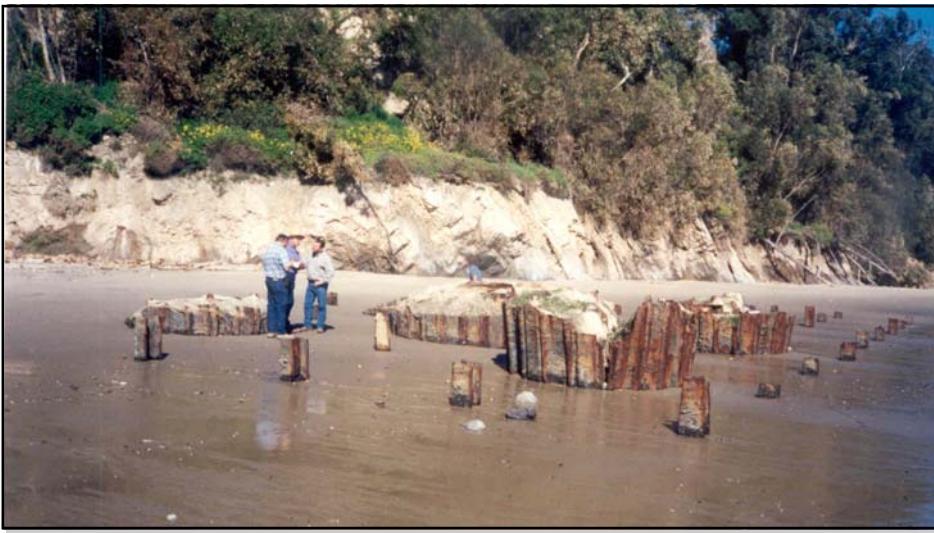
Sheet Piling



Pipeline Segment



Well Casing



Well Caissons and H Beams



Railroad Irons

### 1.3.3 Project Site Descriptions

The following site descriptions are based upon field identification/studies that were completed by CSLC field staff in February of 2002. These studies were supported by field reconnaissance done by Padre Associates, Inc., Fairweather Pacific and Divecon Services in June and July of 2002. Please refer to Table 1-1, Appendix A, for a summary of the project sites.

**Site No. 1 (Tajigus Creek)** - Site No.1 is located in close proximity to the mouth of Tajigus Creek, approximately 8-10 feet seaward of the sea wall. The hazards at the site consist of 30 railroad irons that stick out about 1-2 feet above ground, and are spaced approximately 10-15 feet apart. During removal activities, the staging area would be located on private property near the project site. The project site will be accessed through private property via Arroyo Cuemada. Some coordination with Union Pacific Railroad may be necessary prior to removal of this hazard.

**Site No. 2 (El Capitan State Beach)** - Site No. 2 is located at El Capitan State Beach within Santa Barbara County. The hazards at the site consist of 184, 6-inch "H" piles and 3 well casings. During removal, the staging area for this site would be located at the El Capitan State Beach maintenance yard. Access to the hazard site is via a gated, paved road located on the eastern side of the park entrance station.

**Site No. 4 (Ellwood West of VENOCO Ellwood Pier)**- Site No. 4 is located at Eagle Canyon Creek (Ellwood Cove) of Santa Barbara County, approximately 750 feet west of the VENOCO Ellwood Pier. The hazards at the site consist of 25, 6-inch "H" piles and a possible well casing. The piles were part of a previously existing pier structure. During removal of the piles, the staging area for this site would be located on private property above the Ellwood Pier parking lot. The project site may be accessed through the VENOCO/Exxon pier lot access and through private property.

**Site No. 5 (Ellwood East of VENOCO Ellwood Pier)**- Site No. 5 is located at Ellwood Cove of Santa Barbara County, approximately 200 yards east of the VENOCO Ellwood Pier. The hazards at the site consist of 128 6-inch "H" piles, 20 wood piles, 2, 12-inch well casings, and a 40-foot stretch of wood sheet piles which are located approximately 200 yards east and west of the site, respectively. During removal of these hazards, the staging area for this site would be located in front of the VENOCO Oil and Gas plant at Hollister Avenue. The site may be accessed from Haskell Beach for locations west of Bell Canyon Creek, or for all of the hazards if the creek is not flowing, and primary access for the hazards located east of Bell Canyon Creek is through an easement through the Sandpiper Golf Course. According to previous records, some hazard removal was previously completed at this site.

**Site No. 6 (Santa Barbara Shores A)** - Site No. 6 is located on the beach, immediately south of Santa Barbara Shores Drive, Santa Barbara County. The hazards that exist at Site No.6 consist of 80 6-inch "H" piles, 3 14-inch well casings, and 500 feet of 6-inch pipeline from a cutoff old pier structure. During removal activities, the primary staging

area for this site would be located on top of the bluffs within a temporarily fenced area. A secondary staging area could be located within the VENOCO Ellwood Marine Terminal (EMT) fence. Primary access to this site will be gained through a gate on Santa Barbara Shores Drive, along a dirt road to the bluff, and eastward to the beach. Secondary access is from the VENOCO gate, off of Storke Road and behind Ocean Meadows Golf Course and the University of California at Santa Barbara (UCSB), just west of EMT to the beach. The adjacent upland property is owned by the County of Santa Barbara and is currently used as a county park. (SLC-SD #92-07-21.2 PRC#95).

**Site No. 7 (Santa Barbara Shores B)**- Site No. 7 is also located on the beach, south of Santa Barbara Shores Drive of Santa Barbara County. The hazards consist of 79 6-inch "H" piles, 59 railroad irons, and an 900-foot stretch of wood sheet pile which is approximately 6-8 feet above ground, and 131 ten-inch wood posts. During removal of these hazards, the staging area and access to this site would be in the same locations as identified for Site No. 6 (Santa Barbara Shores A) as described above.

**Site No. 8 (Sands Beach at Devereaux Slough)**- Site No. 8 is located at Sands Beach in front of Devereaux Slough in the County of Santa Barbara. The hazards that exist at Site No.8 consist of 30, 2½-inch pipe frames, 2 6-inch well casings, and one 12-inch steel beam. During removal activities, the primary staging area for this project site would be in the gravel parking lot located at the access location. Secondary staging would be located within the UCSB maintenance yard. Access to the hazard site is gained via Storke Road to El Colegio Road and past Devereaux Ranch School to the gravel parking lot, and through a chain link fence to the beach.

**Site No. 9 (Devereaux Point)** - Site No. 9 is located at Devereaux Point, southeast of the UCSB Coal Oil Point Facility. The hazards consist of 8 6-inch "H" piles and 4 6-inch well casings. During removal activities, the staging area and access to the site would be in the same locations as identified for Site No. 8 (Sands Beach at Devereaux Slough) as described above.

**Site No. 10 (Isla Vista)** - Site No. 10 is located at Isla Vista of Santa Barbara County. The hazards consist of 55 6-inch "H" piles and 4 6-inch well casings. According to previous records, some work in terms of hazard removal was previously completed at this site. During removal, the staging and access points for this project site would also be located in the areas identified for Sites No. 8 - 9.

**Site No. 13 (Biltmore, South Birham)** - Site No. 13 is located in front of the Biltmore Hotel within the County of Santa Barbara. The site contains remnants of a 30-foot steel groin that was placed in front of the Biltmore Hotel to reduce the natural erosion or removal of sand from the adjacent beachfront. Some previous removal of this hazard has already been completed. There is no staging area necessary for the hazard removal activities at this site. The site may be accessed via the public beach fronting the Biltmore Hotel.

**Site No. 14 (Miramar, Santa Barbara-Carpinteria)** - Site No. 14 is located on the beach of Miramar between the cities of Santa Barbara and Carpinteria. This hazard consists of 6 wood piles. During removal activities, the staging area for this site would be located at the Miramar Hotel in a construction site. Primary access to the site will be through a gated Santa Barbara County Parks ramp at the corner of Posilipo Lane and Fernald Point Lane. Secondary access would be gained through a gated Santa Barbara County Parks ramp at the end of Eucalyptus Lane.

**Site No. 15 (Fernald Point, Santa Barbara)** - Site No. 15 is located at Fernald Point of Santa Barbara. The hazard at this site is a 60-foot stretch of steel sheet pile, or remnants of what may have been a rock jetty or groin. The staging area for Site No. 15 would also be located within the Miramar Hotel construction site. Primary access to the site will be through a gated Santa Barbara County Parks ramp at the corner of Posilipo Land and Fernald Point Lane. Secondary access would be gained through a gated Santa Barbara County Parks ramp at the end of Eucalyptus Lane.

**Site No. 16 (Ortega at Summerland, East End-Padaro Lane)** - Site No. 16 is located near the east end of Padaro Lane, south of Summerland. The hazards consist of 180 railroad irons, 31 6-inch "H" piles, 1 8-inch well casing, 3 12-inch well casings, and 600 feet of electrical cable originating from the former oil platform "Hilda." The power cable is located approximately 75 feet east of the county "Danger" sign located at the base of the beach access trail. The "H" piles are located approximately 12 feet east of the concrete retaining wall. Visibility of these hazards is dependent upon tide and sea state conditions. During removal, the staging area for this site would be located within a fenced yard at the sanitary plant above Summerland Beach. Primary access to the site may be obtained through a road adjacent to the Summerland Sanitary District and recycle plant located above Summerland Beach. Secondary access to the site is through a road at Lookout Park.

**Site No. 17 (Santa Barbara at Santa Claus Lane)** - Site No. 17 is located on the ocean side of the breakwater along Santa Claus Lane and the Southern Pacific Railroad right-of-way of Santa Barbara. The hazards at the site consist of 12 8-inch "H" piles and 850 railroad irons. As noted within the field inspection performed by CSLC, the irons appear to be part of a previous attempt by the Union Pacific Railroad Company to reinforce the protection of their right-of-way. The staging area for the project is located within the California Transportation (Caltrans) yard on Santa Claus Lane. Access to the site is through a low spot (gap) in the rip-rap armor stone approximately 100 yards east of the Santa Claus Lane 101 Freeway exit overpass.

**Site No. 18 (Carpinteria State Beach)** - Site No. 18 consists of 2 12-inch well casings and one angle bar located near the mouth of Carpinteria Creek at Carpinteria State Beach. The well casings have been identified with Well Nos. 130-1A and 190-1. Well No. 130-1A was drilled under state permit No. 130 by R.W. Caspers. It is a 12-inch casing located inside of a 24-inch casing which protrudes approximately 3 feet above the sand. Well No. 190 is located at the mouth of Carpinteria Creek. The casing is highly

deformed and located within a gravel pile. This casing is only visible during winter conditions. During removal, the staging areas for Site No. 18 would be located within an adjacent Clean Seas lot or at the VENOCO Casitas Pier parking lot. Access to the site may be gained from Carpinteria State Beach, via the Palm Avenue park entrance, over the bridge to the east end and onto the sand.

**Site No. 19 (Casitas Pier-East Side)** - Site No. 19 is located within a seal sanctuary/rookery on the east side of Casitas Pier (also referred to as Chevron Pier). The hazards at the site consist of 10 12-inch "H" piles. The staging area for Site No. 19 would also be located at the VENOCO parking lot above Casitas Pier or the adjacent Clean Seas lot. Access to the site is through the VENOCO Casitas Pier turnaround area.

**Site No. 20 (Rincon/Mussels Shoals at Mussel Rock/Pitas Point)**- Site No. 20 is located near the foot of the beach stair just seaward of 6766 Breakers Way and west of the pier at Mussel Rock. The hazards at this site consist of 30 6-inch "H" piles. During removal activities, the staging area for Site No. 20 would be located within the Rincon Island causeway parking lot. Access to the site may be gained via Mussel Shoals Road to Ocean Avenue to the pier/causeway access road.

**Site No. 21 (Ventura River, Ventura)** - Site No. 21 is located approximately 50-feet south/southwest of the boulder shore protection on the south side of the mouth of the Ventura River within Ventura County. The hazards at the site consist of 18 8-inch "H" piles. The staging area for Site No. 21 would be located within a Fairground/Caltrans yard adjacent to the northwest corner of the Ventura County Fairgrounds. The access point to the site is a public park and beach located at Ventura located just south of the Ventura River, or via the Fairground frontage road at the turnaround.

**Site No. 22 (Ortega Hill, East Fernald Point, Santa Barbara)**- Site No. 22 is located east of Fernald Point, approximately 8-10 feet south of a concrete retaining wall. The hazards consist of two rows of 40 steel "H" beams (80, total). The beams are spaced approximately 5 feet apart and rise approximately 2-3 feet above the sand. This hazard is suspected to be part of an old retaining wall that supported the Union Pacific Railroad line located above the beach. The first row of steel beams starts approximately 8-10 feet south of the concrete retaining wall. The staging area for Site No. 15 would be located within the Miramar Hotel construction site. Primary access to the site will be through a gated Santa Barbara County Parks ramp at the corner of Posilipo Lane and Fernald Point Lane. Secondary access would be gained through a gated Santa Barbara County Parks ramp at the end of Eucalyptus Lane.

**Site No. 23 (Rincon Point)** - Site No. 23 is located at Rincon Point within the limits of Santa Barbara County. The hazards that exist at Site No. 23 consist of 5 decaying railroad irons. No staging area will be necessary for the removal of the hazards at this site. The project site may be accessed by walking from the west parking lot of Rincon Point.

**Site No. 24 (Pauley Well)** - Site No. 24 is located approximately 13,500 feet offshore from Gaviota on State Lease PRC-2920. The hazard to be removed is the abandoned offshore Pauley wellhead. Casing records for the well are: 10 ¾ " casing set at 344 feet, 8 5/8 " casing set at 839 feet and 7 7/8 " hole to a total depth of 5,345 feet. The well was abandoned by plugging it with cement from 5,332 feet to 5,345 feet, 639 feet to 925 feet, and 250 feet to 380 feet (all depths measured from RKB, which is 23 feet above sea level, with a water depth of 254 feet). The current conditions are depicted in Figure 1-3 (cross section of Pauley wellhead). There is no staging area necessary for this project site. The offshore hazard will be accessed via boat deployed from Port Hueneme or the Santa Barbara Harbor.

## **1.4 CONSTRUCTION PLAN AND DESCRIPTION**

### **1.4.1 Contractor Information**

Divecon Services LP (Divecon) has been selected by the CSLC as the prime contractor for the Santa Barbara Channel Hazards Removal Program. As stated within Bid Log No. 2001-12 prepared for the CSLC in May of 2002 by Divecon, their staff has had extensive experience with wellhead and marine facility abandonment and the disposal of associated hazardous substances. Fairweather Pacific LLC (Fairweather) has been retained by Divecon to assist in the planning of this program.

Prior to the removal of the proposed hazards, all required permits (See Section 1.2.1) will be obtained by Divecon. Once Divecon has received a notice to proceed, the hazards will be removed, when and as directed by CSLC, following the methodology described below.

### **1.4.2 Hazard Structure Removal Methodology**

The method chosen for the removal of the derelict structures at each site is dependent upon the location and type of the hazard. Table 1-1, Appendix A, summarizes the specific methodology to be employed at each hazard site. Accordingly, five methods as summarized below will be employed in the removing the hazard structures. In addition, as a worst-case scenario, if one of these five methods does not succeed in removal of the hazard, a sixth option (vibratory extraction) may be considered. The work plan for each methodology is described in further detail below. Note: In all cases, equivalent equipment substitutions, i.e. manufacturer, model, etc. may be made depending upon equipment availability at time of work.

1. Beach (B) – Work is conducted from/on the beach with approach via vehicles on land. The removal method is characterized as excavate/expose and cut/burn.
2. Beach\* (B\*) – Work is expected to be conducted from/on the beach, but depending upon the tides, it may be required to perform some shallow diving in limited water depth. The removal method is characterized as excavate/expose and cut/burn.
3. Boat Deployed Shallow Diving (S) – Work is conducted by shallow air diving with approach via boat on water. Removal method is characterized as excavate/expose and cut/burn.

4. Beach Deployed Shallow Diving ( $S_{BD}$ ) – Work is conducted by shallow air diving in limited water depth with approach via land. The removal method is characterized as excavate/expose and cut/burn.
5. Offshore – Work is conducted by deep air/gas diving with approach via boat on water. This removal method is characterized by excavate/expose as necessary and cut/burn.
6. Vibratory – Work is conducted from/on the beach using vibratory pile extractors with approach via vehicles on land. The removal method is characterized by expose and extraction/removal.

A detailed description of the hazard removal work plans and associated equipment and personnel are provided below.

#### **1.4.2.1 Beach (B)/Beach\* (B\*)**

**Construction Equipment/Personnel.** The removal of the onshore beach hazards will typically require a seven-man work crew, four-wheel drive backhoe with operator, and four-wheel drive loader with a trailer. Due to changing tide levels, access to the hazard sites may be limited and startup times may vary from day to day. Work is expected to be performed during low tides when the hazards are most likely to be exposed.

**Methodology.** The onshore beach hazards may be approached by vehicles on land and require no diving operations. Onshore hazard removal operations will be required at twenty of the hazard sites including Sites No. 1, No. 2, No. 4 -No. 10, and No. 13 -No. 23.

Divecon will remove the various beach hazards at the nominated beach sites using a shore based mobile operations spread. The removal of the onshore hazards will require a four-wheel drive backhoe, four-wheel drive loader with a utility trailer, oxy-acetylene cutting equipment, water pumps, underwater burning lead, chain saws, hand tools, and rigging. The equipment to be used in the removal of the beach hazards is described in further detail below.

In an effort to achieve optimum removal, work will most likely be executed during winter months while the majority of sand is off the beaches due to heavy winter surf conditions. However, once the sand has been cleared, work will be planned around calm sea state conditions and during minus tides.

A backhoe will be utilized to construct temporary ramps where they may be required to access the beach. The ramps will be constructed from local fill where permitted. Once access to the beach is established, the backhoe will also be employed in attempts to pull out each hazard in order to completely remove the structures. When pulling the structures is not feasible, the backhoe will be employed to excavate the area around the hazards to a depth of six feet or to bedrock, or as directed by the State Lands Commission monitor. The hazards will then be cut off with an oxy/acetylene cutting torch, underwater burning lead, or chain saw as applicable. Sidewalk scrappers and chipping hammers will be utilized to prepare encrusted metal for cutting if necessary.

In addition, a skip loader will be employed to tow a small trailer to carry cutting equipment and rigging as well as to haul the removed hazard structures from the beach. All hazard debris removed from the beach will be cut into manageable pieces and loaded onto the trailer. The loader/trailer will make trips as necessary to the staging area where the recovered debris will be unloaded. Metal or wood recycling roll-off dumpsters will be staged at each site as applicable. Divecon will separate and load the debris into the appropriate roll-off dumpsters daily.

#### **1.4.2.2 Shallow Diving (S)/Shallow Beach DivingBD (SBD)**

**Construction Equipment/Personnel.** The removal of the shallow offshore hazards will require a six-man dive team and a utility work vessel complete with crane and mooring system. In addition, a shallow surface supplied air diving system, jet pump, 400 amp welding machine, underwater burning lead, hydraulic pump and umbilical, hydraulic chainsaws and chippers, hand tools rigging, and offshore style debris dumpsters will be employed.

The 106' 3" dive support vessel "McGaw" or similar vessel will be employed for the shallow diving operations. The "McGaw" is equipped with mooring systems and a crane. Please refer to Figure 1-4 for specifications of the proposed work vessels.

**Methodology.** The shallow offshore beach hazards consist of those hazards that will require shallow diving operations. Shallow diving operations will be required at five of the hazard sites – Sites No.4, No.5, No.6, No.16, and No.20. The hazards at these sites will be removed using surface supplied air diving personnel from a small utility workboat. Work is expected to be performed only during daylight hours when there is a low sea state projected.

The utility workboat will be moored onsite where the divers will be deployed from the vessel using surface supplied air diving equipment. Two divers will be deployed at all times. The diver's responsibilities will be divided allowing one diver to concentrate on jetting (if required) and cleaning, while the other diver will perform burning and scrapping activities. The diving operations will be performed in accordance with all OSHA, U. S. Coast Guard, and Association of Diving Contractor rules and regulations. Divers will be fully tethered with communications, air supply, pneumo, and emergency bailouts. The divers will have various types of underwater cutting devices available to them depending on the specific type of hazard to be removed.

In addition, if requested by the CSLC, the utility vessel will be equipped with underwater capabilities to allow excavation of hazards in order to remove them below the mud line. A 460 GPM jet pump will be employed for water jet excavating. However, it should be noted that jetting activities in the surf zone may not be practical depending on the composition of the sea floor, sea state, and sand drift. Sea state conditions must be favorable while in the surf zone for all diving operations.

The majority of the shallow offshore hazards are steel H piles. However, regardless of structure type, each hazard surface will require cleaning prior to being cut. Divers will either use a zero-thrust, high-pressure water blaster or a hydraulic chipping hammer to clear hazard

surfaces. Once the surfaces to be cut are cleaned, cutting will be performed with an underwater burning lead utilizing 3/8" Broco cutting rods or a hydraulic chain saw. Hazard debris will then be hauled back to the utility vessel with a deck-mounted winch and recovered with the vessel crane. Once the hazards have been recovered onto the vessel, they will be deposited into offshore dumpsters for recycling later. The vessel will make trips back to the harbor to unload the dumpsters as needed.

#### 1.4.2.3 Offshore (O)

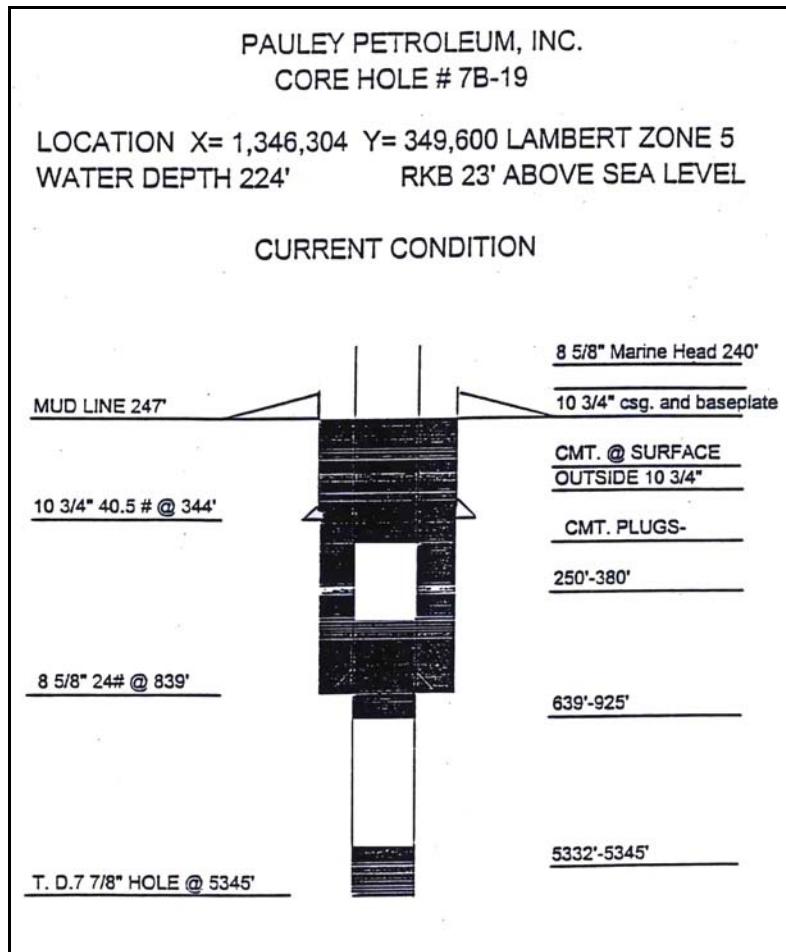
**Construction Equipment/Personnel.** The deep offshore diving operations will require a 27-man team of divers, ROV, vessel, and survey personnel. The "*American Patriot*" will be utilized as the main platform supported by the "*McGaw*" as the anchor support tug. The equipment items listed below will be mobilized onto the "*American Patriot*".

**Methodology.** The deep offshore beach hazards consist of those hazards that will require deep diving operations. Deep diving operations will be required for the removal of the Pauley wellhead at Site No.24. Please refer to Figure 1-3, below, or Section 1.6 (Site Descriptions) for specifications of the Pauley well. The deep offshore wellhead will be removed following the methodology described below.

The hazard at Site No.24 will be removed using surface supplied mixed gas diving techniques from the 165' workboat the "*American Patriot*" or equivalent vessel (see Figure 1-4). The "*American Patriot*" is equipped with a 40-ton crane and four point mooring system. Survey and positioning services will be provided by Fugro West, Inc. Divecon will supply a deep surface supplied mixed gas diving system complete with wet bell, Hysub 10 or Phantom HD2+2 Remotely Operated Vehicle System (ROV), generators, jet pump, high pressure water blaster with zero-thrust gun, 400 amp welding machine, underwater burning lead, rigging, and offshore style debris dumpsters.

A survey and pre-job planning will occur prior to the deep offshore removal operations. Specifically, a side-scan survey will be performed at the site by Fugro West, Inc., to identify and help develop the anchoring plan for the work vessel in order to avoid damaging hard bottom marine habitat. The side-scan will also serve to confirm any debris targets that may need to be removed during the offshore operations phase. A "Notice to Mariners" will be completed and filed with the U.S. Coast Guard prior to any deep offshore activities.

Once the pre-job planning and survey have been completed, Divecon will begin to monitor weather forecasts for the site. Prior to mobilization of the work vessel, Divecon will obtain concurrence of the State Lands Commission monitor to mobilize based on forecasted weather conditions. Oil spill response, if necessary will be completed in accordance with Divecon's Approved Oil Spill Contingency Plan.



**Figure 1-3. Cross section of Pauley wellhead**

The work will be completed as follows (refer to Figure 1-3 for well specifications):

1. Survey and anchor work vessel over site location.
2. Deploy ROV to survey well location, reposition work vessel as necessary.
3. Jump diver and establish down line.
4. Diver to water blast base plate and the inside and outside of the 10-3/4" and 7" casing. Rig up jet hose and jet under base plate if feasible to allow external cut of 10-3/4" casing. If unable to jet under base plate, cut base plate into manageable pieces and recover prior to proceeding to Step 5.
5. Rig casing and base plate for recovery. Cut window in 10-3/4" casing +/- 1 foot below mud line using an underwater burning torch. Cut 7" casing through window in 10-3/4" and then complete 10-3/4" external cut.
6. Recover casing and base plate and secure on work vessel.

7. Deploy ROV and perform a 360' diameter debris survey from the center of the well location using Mesotech (or similar) Sonar System. Investigate any targets located and document findings.
8. Recover any additional debris located in survey, secure on work vessel. Recover anchors and depart location.

All diving operations will be performed to meet OSHA, U.S. Coast Guard, and Association of Diving Contractors rules and regulations. Divers will be fully tethered with communications, breathing supply, pneumo, video cameras, hot water, and emergency bailouts.

**Anchoring.** Once anchor locations have been selected and plotted utilizing a differential GPS system, the anchoring of the American Patriot, which utilizes a four-point mooring system, will be achieved using "fly-over" anchoring techniques in order to minimize impacts to ocean bottom habitat. A standard procedure for fly-over anchoring involves the placement of the four anchors by an assist vessel which drops the anchors vertically in the mapped locations. The anchors will be retrieved by the same vessel and in the same manner, i.e., vertically.

#### **1.4.3 Staging Areas**

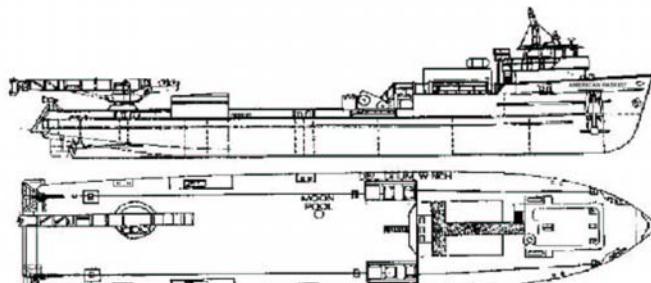
During removal activities, where the hazard removal activities will be conducted from the beach, an onshore staging area will be required for equipment and materials storage when not available from existing facilities. Offshore hazard sites that will be accessed via boat will not require a staging area. For offshore operations accessed via land, a staging area will allow for the storage of the roll-off dumpsters, equipment, and supplies required for the support of the shallow offshore diving hazard removal activities. The storage areas will effectively increase the safety of the operations by limiting public access to the equipment. Divecon will also supply sufficient construction barricades and signs to identify the staging area. Table 1-1, Appendix A, summarizes the specific staging areas proposed for each site.

#### **1.4.4 Disposal Methodology**

All metal and wood debris will be separated and recycled. Roll-off dumpsters will be supplied as required for the collection of the salvageable metal and wood materials. The roll-off dumpsters will be located within approved staging areas (summarized in Table 1-1) or at the Divecon facility. The dumpsters will be emptied on an as needed basis.

All debris that is not recyclable will require disposal at local approved landfill facilities. Roll-off bins will be located at each site as necessary for the collection of all non-recyclable debris. The dumpsters will be emptied on an as needed basis.

**M/V American Patriot:** 165' Construction Support Vessel



**Specifications:**

**TYPE**

General Marine Construction  
Coring, Diving and ROV Support

**BUILT**

Burton Shipyard, Inc.  
Port Arthur, Texas

**CERTIFICATION**

ABS Load Line Certificate  
297 Gross Tonnage  
200 Net Tonnage

**MACHINERY**

Main Engines: 2 Caterpillar D-398-TA, 800 H.P. each  
Reduction Gears: Caterpillar 4:1

Propellers: 78" x 66" Blade

Engine Controls: Pneumatic

Generators: 2 GMC 671, 60 KW, 208 VAC

Steering: Hydraulic

**NAVIGATION**

Radar: 1 Decca, 2 Furuno

Autopilot: Navcomp

Fathometer: 1 Furuno, Color, 600 Fathom 1 Sitex

Loran C: Sitex

Compass: KVH Fluxgate

Trimble Differential GPS Surface Navigation (Optional)

**DECK MACHINERY**

Crane: 40-Ton P&H Hydrocrane, Pedestal Mounted  
Anchor System:  
Skagit RB-90 Double Drum Winches (2)  
Hydraulic Levelwinds  
Up to 4,200' of 1-1/8" Wire on Each Anchor  
3,000 lbs. Or 6,000 lbs. Anchors (4)

**QUARTERS**

Berthing for 29 Persons

**PERFORMANCE**

Speed, Light: 9.5 Knots  
Speed, Loaded: 9.0 Knots  
Fuel Consumption (Approx.): 1,100 Gallons per 24 hours  
at 9

Knots Loaded

Range: 8,000 miles

Endurance: 30-45 Days

**CAPACITIES**

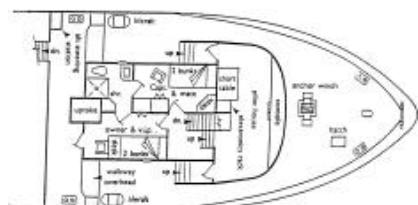
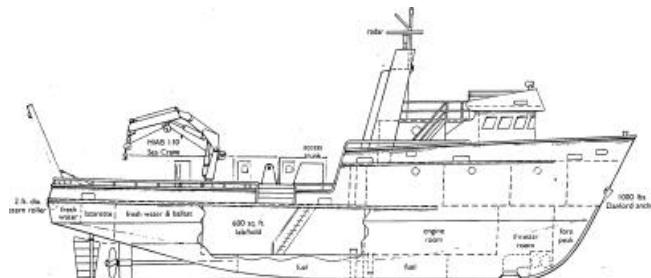
Fuel: 50,000 Gallons  
Potable Water: 50,000 Gallons  
Deck Cargo Deadweight: 100 Tons  
Lube Oil: 2,000 Gallons

**Figure 1-4A. Work Vessel Diagrams and Specifications**

**R/V Wm. A. McGaw:** 106'3" Dive Support Vessel



### Specifications:



Official No.: 678182

Call Sign: WSP 4965

Size & Class: 106 Single Screw

Home Port: Santa Barbara

ABS Classification: Load Line Certification

Hull Construction: Steel

#### DIMENSIONS: MACHINERY:

Tonnage: 243 Gross; 166 Net Main Engine: CAT D398TA; 850 HP @ 1225 RPM

Length: 106'3" Bow Thruster: White Fill 360 degree

Beam: 26' trainable, flush mounted

Depth: 13'4" Electrical Power: 2 CAT 3304 PCNA 40 KW

Draft: 12.5' max.; 10' average 208 VAC, 3 Phase generators

Work Deck: 25' x 50'

Equipment Hold: 600 sq. ft.; additional lab Hydraulic Power: 1-15 GPM @ 2000 PSI system with counter space 1-75GPM @ 2000 PSI system

Hatch: Oversized 8.5' x 9.5' Auxiliary Power: Detroit Diesel 12 V71, 325 HP

Through-Hull: Dual ten-inch through-hull

Fittings: Fittings

#### DECK MACHINERY:

Crane: HIAB Sea Crane, Model 110

Winch: Dual Drum, Dual Capstan

20,000 lb capacity

U-frame: 10 long ton, Pullmaster M-18 winch;  
 29 deg. forward, 48 deg. to stern

#### COMMUNICATION / NAVIGATIONS:

Radars: Furuno FCR-1411, 72 mile

Furuno, 24 mile color 0 to 3 knots (bow thruster) Loran C: Micrologic ML3000

GPS: Micrologic at 10 Knots

Gyro compass: Anshutz Gyrostar

Auto-Pilot: Anshutz Pilotstar

Radios: Raytheon 88 VHF/FM (Synth.) Stephens SEA 223 SSB/AM

Fathometers: Furuno FE808;

Recording depth 2,000

Weather Fax: Alden

#### PERFORMANCE ESTIMATE:

Speed: 3 to 11 knots (main engine)

Fuel Consumption: 850 gallons per 24 hour

Range: 4,000 nm+

Endurance: 15 to 20 days

#### CAPACITIES:

Fuel Capacity: 15,000 US gallons

Potable Water: 6,000 US gallons

plus 600 gpd water maker

#### ACCOMMODATIONS:

Berthing Capacity: 12 scientists + 4 crew

Galley: Full Equipped

#### RESCUE / SERVICE BOAT:

Inflatable: 12' Avon with outboard

**Figure 1-4B. Work Vessel Diagrams and Specifications**

#### **1.4.5 Site Restoration**

At the completion of hazard removal activities at each site, all beach excavations will be backfilled and graded to match the surrounding area. All trash and debris will be removed from the sites and properly disposed of. Temporary access ramps will be removed and the fill materials will be returned to their place of origin. All temporary staging areas that may have been erected will also be removed and the sites will be cleaned up.

#### **1.4.6 Schedule**

The proposed project will begin upon receipt of all required permits and associated approvals. Due to the nature of the hazards, a specific schedule for removal can not be predicted at this time. Work is dependent on the time the beach hazards have been exposed by natural conditions such as winter storms or seasonal sand migration. Therefore, beach work will be conducted during the winter months when annual sand movement is offshore and when wave energy is typically greatest. Since some of the hazards may be exposed for limited periods of time, very short notice to proceed may be given to the contractor. Deeper offshore work will be scheduled at a time weather conditions are favorable to vessel operations and diver safety. Such conditions typically occur in late fall prior to the winter storm season. Table 1-1 (Appendix A) provides a summary of anticipated project durations for each of the hazards sites. In many cases, work can be completed in less than a day, however the larger targets will take longer.

### **1.5 CONTINGENCY PLANNING**

#### **1.5.1 Marine Wildlife Contingency Plan**

All marine based operations will be conducted in compliance with the procedures outlined in the project Marine Wildlife Contingency Plan (See Appendix B). All vessel captains will be briefed by a trained marine wildlife specialist on the procedures outlined in this plan prior to conducting marine operations. Placards will be provided and maintained in the wheelhouse that outline the key procedures to be followed and notifications that need to be made in the event of any incidents with marine wildlife.

#### **1.5.2 Oil Spill Contingency Plan**

Divecon has prepared and will implement the procedures outlined in the project specific Oil Spill Contingency Plan (See Appendix C). This plan specifies the equipment, procedures and notification requirements to be followed for any oil spill associated with marine based operations. Due to the nature of the project, the likelihood of an oil spill is extremely low. However, fuel stored onboard work vessels have the potential to be released to the marine environment. Vessel personnel will be trained in the deployment of all onboard oil spill response equipment.

### **1.5.3 Hazardous-Materials Contingency Plan**

All Divecon employees have been trained in first aid and CPR. Many Divecon employees have also been trained as Emergency Medical Technicians. An OSHA approved first aid kit, fire blanket, and fire extinguisher will be provided at each project site. In addition, oil absorbent pads and boom will be provided as a precaution in the event of a burst hydraulic hose.

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, a cellular phone will be available at each job site for safety and to maintain good communications for office support.

## **1.6 MITIGATION MEASURES**

This Initial Study analyzes the significance of potential impacts resulting from the construction activities associated with removal of the hazards identified in this project. During this assessment, mitigation measures have been identified to avoid or reduce each potential impact to less-than significant levels. These mitigation measures are included in the proposed project.

To ensure an understanding of the types of impacts that could occur during construction and the implementation of the appropriate measures, environmental awareness training will be provided to construction crews and their superiors. The Mitigation Monitoring and Reporting Program (MMRP), included as Appendix D of this document, is designed to ensure that identified project modifications are properly implemented.