

**Minute Item  
84**

04/20/00  
W 25454  
K. Walker  
B. Dugal

**GLOBAL PHOTON SYSTEMS, INC.  
(APPLICANT)**

**Staff made presentation to Commission and listened to speakers who  
were in favor and concerned.**

**The item was conditional and approved 3-0.**

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MINUTE ITEM

This Calendar Item No. 84 was approved as Minute Item No. 84 by the State Lands Commission by a vote of 3 to 2 at its 4-20-00 meeting.

CALENDAR ITEM  
**84**

- A 12, 27, 33, 35, 53 and 78
- S 8, 15, 18, 28, and 39

04/20/00  
W 25454  
K. Walker  
B. Dugal

**PERMIT FOR TELEPHONE RIGHT OF WAY**

**APPLICANT:**

Global Photon Systems, Inc.  
600 West Broadway, #1200  
San Diego, California 92101

**AREA, LAND TYPE, AND LOCATION:**

76 acres, more or less, of sovereign lands in the Pacific Ocean, with landing points located in San Francisco, Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, Los Angeles and San Diego counties.

**BACKGROUND:**

The proposed project is a high capacity telecommunications system that would directly link major cities along the coast of California from San Francisco to San Diego. Unlike the trans-Pacific cables the Commission has before it, this is the first north-south coastal cable link proposed for California. The cable is much smaller than the trans-Pacific cables because it does not carry any electrical power for repeaters. The system consists of an unpowered, high capacity fiber optic cable that would be buried in the sea floor for most of its length. The cable is just under one inch in diameter, and transmits only light. The cable will run from three to twelve miles off shore, and will come ashore at seven landings in a "festoon" arrangement. Once ashore the cable system will connect with planned and existing land cable networks.

While the proposed project involves the landing of cable at seven different landing points along the coastline of California, the Commission will be considering issuing a Permit only for four of the proposed landing sites located at San Francisco, Manressa Beach, Carmel Highlands, and Morro Bay. The remaining landing points involve lands that have been legislatively granted and the grantee will be responsible for issuing the rights to the Applicant to land the cable within lands under their respective jurisdictions.

The proposed project is designed to help alleviate the congestion developing on the existing telecommunications network and allow for the expected future growth in traffic. At the present time all north-south telecommunications traffic in California is carried on terrestrial cables, and this offshore route is planned to

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provide for the route diversity that protects the whole system in case of emergencies.

The project is planned using state-of-the-art transmission equipment, including Dense Wavelength Division Multiplexing (DWDM). This equipment enables high-capacity transport of voice, video, data and multimedia signals. All of the optoelectronics are housed in existing buildings in central downtown areas of major cities, and can be upgraded over time without any further work on the cable system itself.

Pursuant to Public Utilities Code Section 7901 (PUC §7901), telephone corporations may construct and operate lines and equipment along and upon any public road, highway or the navigable waters of the State, without payment of compensation, provided the lines and facilities do not interfere with the public use. In order to qualify for the rent-free use of public lands under PUC §7901, an applicant must be authorized to provide telecommunication services within the State of California, and the facilities in question must be operated for the purpose of providing telecommunication services to the public. The Applicant has represented that the equipment and facilities to be located on the subject lands will be operated by Applicant as a public utility for the purpose of providing intrastate telephone communications service to the public under authority of a Certificate of Public Convenience and Necessity (CPCN), Decision 98-11-073, issued by the California Public Utilities Commission. A copy of the CPCN is on file with this Commission. Applicant has further advised that it will handle interstate and international telecommunications traffic utilizing the network as a common carrier, subject to the regulation of the Federal Communications Commission.

**AUTHORIZED USE:**

Construction, installation, operation, maintenance, and use of five steel conduits and one fiber optic cable for use in connection with or to facilitate communication by telephone.

**PERMIT TERM:**

Continuous use plus one year, commencing April 20, 2000.

**CONSIDERATION:**

No monetary consideration shall be charged for the placement, use and maintenance of fiber optic cables or other similar transmission devices placed by those qualifying under the scope of Section 7901 of the Public Utilities Code.

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**OTHER PERTINENT INFORMATION:**

1. The Commission is the Lead Agency for the purposes of CEQA. Many public agencies will be using the Environmental Impact Report (EIR) in their decision making processes and will not be granting any rights to the Applicant to construct before the Commission certifies the EIR. Pursuant to the proposed Permit terms, and prior to commencing construction, the Applicant will be required to provide evidence to the Commission of the appropriate rights to use the uplands associated with the proposed landing sites.
2. The primary environmental concern for the proposed offshore cable was the potential for use conflicts between the cable companies and commercial fisherman. Issues included possible exclusion from historical fishing grounds, snagging cables with trawling gear and potential fisherman liability for cable damage. These potential conflicts have been resolved with a combination of careful route selection, burial of the cable over most of the route and establishment of joint Fishermen-Cable Company liaison committees to establish fishing operating procedures, replace fishing gear lost on the cable and resolve disputes on an on-going basis.
3. The potential for disturbance of offshore cultural resources, primarily shipwrecks, has been dealt with on two levels. First, the applicant has completed a large-scale sonar search of the entire route and a record search of the CSLC shipwreck database. Both of these sources indicate that there are no known shipwrecks on the cable route. Second, more detailed sonar and video searches of the route will be completed immediately prior to laying the cable. Monitors will review this information in case unknown shipwrecks are discovered and it is anticipated that such shipwrecks can be avoided by minor route adjustments. Detailed procedures for shipwreck encounters will be provided and approved prior to commencing cable lay operations.
4. The potential for disturbing on-shore cultural resources or sacred sites has also been dealt with at two levels. First, each landing site and alternative site have had record searches completed and "level one" site inspections prepared for them. Preliminary discussions have been held with major tribal groups on potential conflicts and procedures to be used at each site. Detailed discussions are now underway with Native American representatives to finalize specific treatment plans for those sites which have been identified as "high risk." These discussions are focusing on "discovery" operations, as no known cultural resources have been identified at any of the landing sites. Second, for the land route

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alternatives, record searches have been made for each potential portion of the route. This process identified known cultural sites that are within the potential area of impact for each cable installation route, which varies depending on whether the cable is to be trenched, placed on overhead poles or placed in existing conduit. Discussions with Native American groups have not begun on these segments because none have been chosen as a preferred route. Mitigation plans call for such discussions prior to construction if any segment is chosen as an actual route.

5. The last major environmental area of concern brought up during the CEQA process is the laying of the cable through the Monterey Bay National Marine Sanctuary (Sanctuary). Groups supporting the Sanctuary have expressed the belief that it is inappropriate for the cable to go through the Sanctuary. Discussions have been held between agencies and the Sanctuary and between the applicant and the Sanctuary. The Sanctuary staff and NOAA Headquarters have stated that there is no prohibition on cables within the Sanctuary, but that a federal environmental document would be required before any authorization to construct is given. The applicant will be working with Sanctuary staff to prepare the federal document following State approval. If the Sanctuary denies permission to install the cable through the Sanctuary, then the applicant can be permitted to use the on-land alternative of the project from San Luis Obispo to Salinas, as described in the CSLC EIR.
6. The staff held scoping sessions in six California cities to hear concerns from the public and other agencies. Under the Commission's delegation of authority and the State CEQA Guidelines (Title 14, California Code of Regulations, section 15025), the staff prepared an EIR identified as California State Lands Commission (CSLC) EIR No. 692, State Clearinghouse No. 99021067. This EIR was circulated statewide, and public comment hearings were again held in six locations along the coast (Half Moon Bay, Monterey, San Luis Obispo, Santa Barbara, Manhattan Beach and San Diego). Comments gathered at these hearings were combined with written comments received from public agencies, and revisions in the project were incorporated in a Final EIR which also has been circulated. A Mitigation Monitoring Program, attached hereto, has been prepared in conformance with the provisions of CEQA (Public Resources Code section 21081.6).
7. Findings made in conformance with the State CEQA Guidelines (Title 14, California Code of Regulations, section 15091) are contained in Exhibit attached hereto.

**FURTHER APPROVALS REQUIRED:**

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National Park Service Golden Gate National Recreation Area, U. S. Fish and Wildlife Service/National Marine Fisheries Service, United States Army Corps of Engineers, National Marine Sanctuary, National Oceanic and Atmospheric Administration, California Coastal Commission, California Department of Fish and Game, California Department of Parks and Recreation, California Department of Transportation, California Regional Water Quality Control Board, the counties of: Monterey, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, San Benito, San Francisco, Santa Clara, the cities of: Mountain View, Sunnyvale, Palo Alto, Menlo Park, Atherton, San Carlos, Redwood City, Belmont, Burlingame, Millbrae, San Bruno, South San Francisco, San Francisco, Brisbane, Daly City, San Jose, Salinas,, Sand City, Morgan Hill, Gilroy, Watsonville, Seaside, Marina, Monterey Bay, Morro Bay, San Luis Obispo, Santa Barbara, Manhattan Beach, El Segundo, Los Angeles, and San Diego.

**EXHIBITS:**

- A. CEQA Findings
- B. Mitigation Monitoring Plan
- C. Location/Site Map - San Francisco Landing
- D. Location/Site Map - Manressa Beach Landing
- E. Location/Site Map - Carmel Highlands Landing
- F. Location/Site Map - San Luis Obispo North End Landing
- G. Location/Site Map - San Luis Obispo South End Landing
- H. Location/Site Map - Santa Barbara Channel Cable Southern Portion
- I. Location/Site Map - Santa Barbara Channel Cable Northern Portion
- J. Location/Site Map - Santa Barbara Channel Cable Parcel 2

**PERMIT STREAMLINING ACT DEADLINE:**

April 20, 2000

**RECOMMENDED ACTION:**

IT IS RECOMMENDED THAT THE COMMISSION:

**CEQA FINDING:**

CERTIFY THAT AN EIR NO. 692, STATE CLEARINGHOUSE NO. 99021067, WAS PREPARED FOR THIS PROJECT PURSUANT TO THE PROVISIONS OF THE CEQA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

ADOPT THE FINDINGS, MADE IN CONFORMANCE WITH TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15091, AS CONTAINED IN EXHIBIT A.

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ADOPT THE MITIGATION MONITORING PROGRAM, AS CONTAINED IN EXHIBIT B, ATTACHED HERETO.

DETERMINE THAT THE PROJECT, AS APPROVED, WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

**SIGNIFICANT LANDS INVENTORY FINDING:**

FIND THAT THIS ACTIVITY IS CONSISTENT WITH THE USE CLASSIFICATION DESIGNATED BY THE COMMISSION FOR THE LAND PURSUANT TO PUBLIC RESOURCES CODE SECTIONS 6370, ET SEQ.

**AUTHORIZATION:**

AUTHORIZE ISSUANCE TO GLOBAL PHOTON SYSTEMS, INC. OF A PERMIT FOR TELEPHONE RIGHT OF WAY, BEGINNING APRIL 20, 2000, FOR A TERM OF CONTINUOUS USE PLUS ONE YEAR, FOR CONSTRUCTION, INSTALLATION, OPERATION, MAINTENANCE, AND USE OF FIVE STEEL CONDUITS AND ONE FIBER OPTIC CABLE ON THE LAND SHOWN ON EXHIBITS C THROUGH J ATTACHED AND BY THIS REFERENCE MADE A PART HEREOF; CONSIDERATION: EXEMPT PURSUANT TO SECTION 7901 OF THE PUBLIC UTILITIES CODE.

**EXHIBIT A**

**REQUIRED CEQA FINDINGS  
GLOBAL WEST FIBER OPTIC CABLE PROJECT**

**Lead Agency**

**STATE LANDS COMMISSION  
Sacramento, California**

**Applicant**

**Global Photon Systems, Inc.**

**APRIL 2000**

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## 1.0 PROJECT DESCRIPTION

The proposed Global West Fiber Optic Cable Project is a telecommunications system that would link major cities along the California coast from San Francisco to San Diego using both undersea and terrestrial fiber optic cable. The sea cable, which would be buried along the California coastline (generally 3 to 12 miles offshore), would come ashore at seven landing sites. At the landing sites, the sea cable would connect with terrestrial cable to directly link the cities of San Francisco, San Jose, Monterey, San Luis Obispo, Santa Barbara, Los Angeles, and San Diego.

The entire cable route, including offshore and onshore portions, is shown on Figure 1. The landing sites are generally about 100 miles apart along the coast except for the two landing sites in Monterey Bay. The two Monterey Bay landing sites are much closer together and would be connected by terrestrial cable rather than sea cable. Also shown on Figure 1 is an onshore route that connects San Francisco with San Jose and the Monterey Bay area. This connection provides a redundant (backup) path for the San Francisco to Monterey Bay sea cable segment.

Currently, all north-south high-capacity telecommunications traffic in California is carried by onshore cable systems. Between San Francisco and Los Angeles, the U.S. 101 highway corridor is the only high-capacity telecommunications route that directly connects the cities of Monterey, San Luis Obispo, and Santa Barbara. The route diversity provided by the offshore portion of the proposed project would increase reliability and survivability of public communications between these cities in case of network disruption due to accident or natural disaster.

### 1.1 FIBER OPTIC CABLE

Fiber optic cable provides a high-capacity (large bandwidth) capability to transmit voice, data, video, cable TV, Internet traffic, and all other forms of digital data by means of encoded pulses of light with no in-line optical amplifiers or underwater repeaters. The optical signals are extremely small pulses of light energy, thereby eliminating all danger of electrical shorts and shocks to humans or other organisms or potential attraction or repulsion of such organisms. Furthermore, because fiber optic cable is inert and does not transmit electricity, it has no electromagnetic interference interactions with other cables; thus, it has no proximity restrictions.

The proposed sea cable is a small-diameter (0.90-inch) single-armored cable with about three times more flexibility than electrically powered transoceanic cables. Enhanced flexibility allows the cable to conform more readily to hard bottom contours, thereby reducing the number and length of possible cable suspensions. A small amount (less than 5 percent) of the sea cable would be double armored (diameter 1.2 inches). Double-armor cable would be used in shallow rocky areas and at the landings where the cable would be pulled through conduit.

The proposed terrestrial cable is standard terrestrial fiber optic cable with a 0.42-inch diameter. The land cable does not need to withstand the rigors of ocean pressure, but merely requires a plastic tube surrounding the fiber optic core structure to prevent moisture from entering.

The cable core has 24 fibers. Each fiber pair can carry at least 16 different wavelengths (colors) of light. The capacity of the cable is equivalent to more than 10 million telephone conversations. The cable is optimal for high density, relatively long distance, telecommunications traffic.

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## 1.2 OFFSHORE CABLE ROUTE

The total length of the offshore portion of the proposed cable route is approximately 920 kilometers (km) (572 miles). About 90 percent of this length would be in federal waters (the area from 3 to 12 nautical miles offshore). The remainder of the route (where the cable comes ashore at the seven landing sites) would be in state waters (within 3 nautical miles of the shore).

The proposed offshore route includes five relatively long, continuous sea cable segments that connect the landing sites. The five segments and their approximate lengths are as follows:

- San Francisco to La Selva Beach in north Monterey Bay (150 km);
- Fort Ord in south Monterey Bay to Estero Bay (210 km);
- Estero Bay to Santa Barbara (220 km);
- Santa Barbara to Manhattan Beach (150 km); and
- Manhattan Beach to San Diego (190 km).

From near San Francisco to just north of Estero Bay, the offshore route lies within the Monterey Bay National Marine Sanctuary. As it passes through the Santa Barbara Channel, the route avoids the Channel Islands National Marine Sanctuary. The route crosses designated coastwise shipping lanes five times — once southwest of San Francisco, twice south of Oxnard, and twice south of Los Angeles.

Most of the undersea cable would be buried to protect it from being snagged by fishing activities or anchors. About 93 percent of the cable length would be buried in a sea floor trench 4 inches wide and approximately 3 feet deep.

From a point approximately 0.5 mile offshore of each landing site, the sea cable would enter a steel conduit. The conduit would be installed by horizontal directional drilling from the shore to avoid the potential environmental impacts of trenching across beaches and nearshore areas. The steel conduit would lead directly into a new onshore manhole where the cable would be anchored and connected to the terrestrial cable. At this point, the onshore cable route begins.

## 1.3 ONSHORE CABLE ROUTE

The total length of the onshore portions of the proposed cable route is approximately 404 km (251 miles). From each landing site, the onshore routes extend to a point of presence (POP), which is where the connection would be made to the public switched telephone network.

To ensure continued overall system integrity in case of cable disruption, two separate routes are proposed from three of the landing sites to their POPs. These separate routes, referred to as *diverse routes*, each contain a cable that can carry signals in both directions. Thus, in the case of an accident that disabled one cable, the other could still carry signals in both directions.

Diverse routes are proposed for San Luis Obispo, Santa Barbara, and Los Angeles where a backup route to the sea cable is not available. San Francisco and the Monterey area have the onshore route via San Jose as a backup. San Diego is at the end of the cable where a failure would not be as critical for the rest of the system, thus, a San Diego diverse route is not planned.

The landing sites and their associated onshore routes are described below. Landing site locations were selected to avoid conflicts with existing structures and facilities and to avoid significant environmental impacts.

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### 1.3.1 San Francisco Landing to the POP

The proposed San Francisco onshore route begins at the landing site in northwestern San Francisco near the intersection of Great Highway and Fulton Street. The proposed route is 8.1 miles long. The first 2.1 miles of cable would be installed overhead on existing poles; the remainder (6 miles) would be installed in existing conduit. The route lies entirely within the City of San Francisco and follows city streets through residential and commercial areas en route to the POP at the intersection of Harrison and Spear streets in the northeast corner of the city.

### 1.3.2 San Francisco to Monterey Bay

The onshore route from the San Francisco POP to the cable station in Sand City is designed to provide a redundant (backup) link for the sea cable segment between San Francisco and Monterey Bay. An additional POP would be located in San Jose, which is about halfway along the route. The proposed cable route is 127.2 miles long. The entire route would be installed in existing conduit except some portions near the San Jose POP, between San Jose and Morgan Hill, and between Salinas and Sand City. These portions include some installation as aerial cable on existing poles (15.9 miles) and some trenching along road ROW (4.0 miles).

### 1.3.3 Monterey Bay Area

A deep submarine canyon, known as Monterey Canyon, cuts into the sea bottom from the mouth of Elkhorn Slough westward across Monterey Bay and extends many miles out to sea. Prudent marine cable engineering advises against an undersea cable crossing of Monterey Canyon. Instead, it is proposed that the cable land north of Monterey Canyon, bypass the submarine canyon on land, and return to sea south of the canyon. Thus, two landing sites connected by an onshore cable route are needed in the Monterey Bay area, one north of the canyon and one south of the canyon.

The proposed north Monterey Bay landing site is in the community of La Selva Beach in southern Santa Cruz County. La Selva Beach is just north of Manresa State Beach. The HDD conduit would come ashore at a new manhole in a private parking lot. The parking lot, which is off Breve Benito Avenue, is a beach access point for local residents.

The south Monterey Bay landing site is at the south end of Beach Range Road in the southwest corner of the former Fort Ord military base. The landing site is in Monterey County jurisdiction between the cities of Marina and Sand City. A new manhole would be installed 50 feet south of the Fort Ord lift station.

An onshore route would connect these two landing sites. The route from La Selva follows roadways and overhead utility alignments through rural and urban areas of Santa Cruz and Monterey counties and the cities of Marina, Seaside, and Sand City to the POP in Sand City. The cable would then double back along a portion of the same route to terminate in the new manhole at the former Fort Ord military base.

The proposed route from La Selva to Sand City is approximately 31 miles long. Along most of the route, cable would be installed as an overhead line on existing poles (22.9 miles). The remainder would be installed in existing conduit (6.6 miles), trenched along road ROW (1.2 miles), installed on a bridge (1,000 feet), or trenched across open land (500 feet).

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#### 1.3.4 San Luis Obispo Landing to the POP

The proposed San Luis Obispo onshore route begins at the landing site adjacent to the Chevron Estero Marine Terminal on Estero Bay just within Morro Bay city limits on the inland side of California State Highway 1. A new manhole would be installed on the inland side of the highway just within the ROW.

To ensure continued overall system integrity in the event of accidental cable disruption, two separate onshore routes are proposed from the San Luis Obispo landing site to the POP. These separate routes, referred to as *diverse routes*, each contain a cable that can carry signals in both directions. To distinguish between the routes, they are referred to as *Diverse Route A* and *Diverse Route B*. Both routes pass through urban and rural areas of San Luis Obispo County and the cities of Morro Bay and San Luis Obispo to the POP in San Luis Obispo. Diverse Route A is 15.1 miles long. Approximately 6 miles of the route would be installed in existing conduit, the remainder (9.1 miles) would be trenched along road ROW. Diverse Route B is 16.1 miles long. The entire route would be installed overhead on existing poles.

#### 1.3.5 Santa Barbara Landing to the POP

The proposed Santa Barbara onshore route begins at the landing site located at Leadbetter Beach between the marina and the east end of Shoreline Park. After crossing under the beach via an HDD conduit, the sea cable would connect with the onshore cable in a new manhole to be installed in the Leadbetter Beach parking lot.

Diverse Route A is 1.25 miles long. Along most of the route, the cable would be installed in existing conduit (3,800 feet); the remainder would be trenched (2,800 feet) along road ROW. Diverse Route B is 1.4 miles long. Along most of the route, the cable would be installed in existing conduit (4,900 feet); the remainder would be trenched (2,500 feet) along road ROW.

#### 1.3.6 Manhattan Beach Landing to the POP

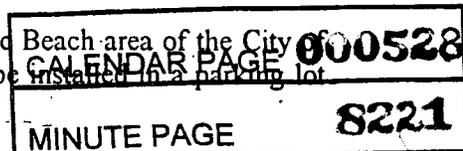
The proposed Manhattan Beach onshore route begins at a new manhole near the intersection of 12<sup>th</sup> Street and Morningside Drive in the City of Manhattan Beach. The manhole location for this landing site is different from the other landing sites, because at a distance of 0.6 mile from the shore, it is further inland. The manhole location (in the easterly parking lane of Morningside Drive) is the HDD location, which means the boring would run the full length of 12<sup>th</sup> Street, then under the beach and the offshore area.

Diverse Route A is 17.4 miles long. Along most of the route, the cable would be installed in existing conduit (17.1 miles); the remainder would be trenched (1,700 feet) in roadway pavement. The route follows city streets and railroad ROWs through residential, commercial, and industrial areas of the cities of Manhattan Beach, El Segundo, Inglewood, and Los Angeles.

Diverse Route B is 20.9 miles long. Along most of the route, the cable would be installed in existing conduit (20.6 miles); the remainder would be trenched (1,500 feet) in roadway pavement. The route follows city streets and railroad ROWs through residential, commercial, and industrial areas of Manhattan Beach, El Segundo, Hawthorne, Los Angeles County, and City of Los Angeles.

#### 1.3.7 San Diego Landing to the POP

The proposed San Diego onshore route begins at the landing site in the Pacific Beach area of the City of San Diego at the west end of Pacific Beach Drive. A new manhole would be installed in a parking lot adjacent to the beach.



The proposed cable route is 12.6 miles long. The entire length would be installed in existing conduit. The route follows streets and railroad ROWs through residential, commercial, and industrial areas of San Diego enroute to the POP at Broadway and 3<sup>rd</sup> Avenue.

## 1.4 ALTERNATIVES

As part of the environmental review, numerous alternative routes and landing sites were considered. Four of the landing site alternatives appear to have advantages over the proposed landing sites. Thus, they were analyzed in the Final Environmental Impact Report (FEIR) on a co-equal basis with the proposed landing sites. Global Photon has indicated a willingness to make any of these changes to the project, if required. The four proposed landing sites and their corresponding alternatives are listed here and described below.

<u>Proposed Landing Sites</u>	<u>Alternative Landing Sites</u>
North Monterey Bay (La Selva Beach)	North Monterey Bay (Manresa State Beach)
South Monterey Bay (Fort Ord)	South Monterey Bay (Carmel Highlands)
Estero Bay (Chevron Marine Terminal)	Estero Bay (Morro Beach)
Manhattan Beach (12 <sup>th</sup> Street)	Manhattan Beach (Bayview Terrace)

The alternative landing sites at Carmel Highlands and Bayview Terrace require onshore cable routes that are different from the proposed routes to their POPs. The alternative landing sites at Manresa State Beach and Morro Beach involve onshore cable routes that are simply shorter versions of the proposed routes to their POPs.

### 1.4.1 Manresa Beach Landing Alternative

This alternative landing site is approximately 1,500 feet south of the proposed landing at La Selva Beach. It is located at Manresa State Beach just off San Andreas Road in Santa Cruz County. The manhole for this landing would be located at the inland side of the beach parking lot. From the manhole, a bore would run southeast approximately 100 feet (parallel to the railroad tracks) under the paved parking lot to the park entrance at San Andreas Road where the cable would be installed overhead on existing utility poles. From this point, the onshore cable would follow the same route as the proposed landing.

### 1.4.2 Carmel Highlands Landing Alternative

This alternative landing site is located approximately 11 miles southwest of the proposed landing site at the former Fort Ord. In this alternative, the Monterey Bay onshore route would continue south from Sand City to a landing site at Carmel Highlands instead of doubling back to the proposed landing site at Fort Ord.

The Carmel Highlands alternative landing site is on private property overlooking the beach just south of the Point Lobos State Reserve. A new manhole would be placed approximately 60 feet west of California State Highway 1.

The cable route from Carmel Highlands to Sand City is 11.4 miles long. Most of the route would use existing conduit (11.1 miles) except at the landing site and at the POP, which would be placed in roadway trench (0.3 mile). The route travels through rural and urban areas of Monterey County and the cities of Carmel, Monterey, Seaside, and Sand City.

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### 1.4.3 Morro Beach Landing Alternative

This alternative landing site is approximately 2,250 feet south of the proposed landing site. It is located in the city of Morro Bay at the north end of Toro Lane on the bluff overlooking the beach. The manhole would be placed in Toro Lane approximately 50 feet south of a small public parking lot and approximately 175 feet west of Highway 1. The nine-space parking lot at the end of Toro Lane is a public access point for the North Point Natural Area and the public beach below the bluff.

The HDD conduit from the manhole to the offshore bore exit would pass under Morro Strand State Beach. From the manhole inland to Highway 1, the cable would be installed by conventional "jack and bore" techniques. At Highway 1, the cable would meet the proposed cable route from the proposed Estero Bay landing site. At this point, the proposed Diverse Route A is in a new trench, which continues for a distance of approximately 500 feet before reaching the beginning of existing conduit at Yerba Buena Street. The proposed Diverse Route B is overhead on existing poles. From here to the POP, the cable routes for this alternative landing site are the same as for the proposed landing site.

### 1.4.4 Bayview Terrace Landing Alternative

This alternative landing site is approximately 3,500 feet north of the proposed landing site at 12<sup>th</sup> Street. It is in the city of Manhattan Beach at Bayview Terrace Park, about three blocks inland from the beach, between 26<sup>th</sup> and 27<sup>th</sup> streets. The manhole location is approximately 70 feet from the intersection of 27<sup>th</sup> Street and Bayview Drive. This alternative landing site and the revised onshore routes were developed in response to City of Manhattan Beach comments on the Draft EIR, which expressed concerns about the proposed landing site.

Diverse Route A for the Bayview Terrace landing alternative starts out heading south until it joins proposed Diverse Route B at Manhattan Beach Boulevard. Then it follows proposed Route B about 3 miles before jogging west to join proposed Route A. The remainder of alternative Route A is similar to proposed Route A. At 18.8 miles in length, this alternative route is 1.4 miles longer than proposed Route A; but the entire route is in existing conduit. The route follows city streets and railroad ROWs through residential, commercial, and industrial areas of the cities of Manhattan Beach, El Segundo, Inglewood, and Los Angeles to the POP on 6<sup>th</sup> Street.

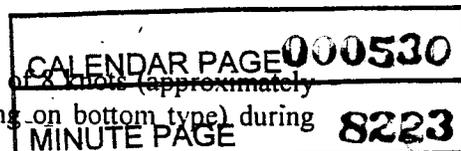
Diverse Route B for the Bayview Terrace landing alternative is entirely different from proposed Diverse Route B and, at 25.8 miles in length, this alternative route is 4.9 miles longer. The entire route, however, is in existing conduit. The route, which follows road, railroad, and utility ROWs through residential, commercial, and industrial areas, heads north through Manhattan Beach and El Segundo, crosses Los Angeles International Airport west of the runways, continues north across the southeast corner of Marina Del Rey, through west Los Angeles and Century City, crosses the south end of Beverly Hills, and continues east to the POP on 6<sup>th</sup> Street.

## 1.5 PROJECT CONSTRUCTION

### 1.5.1 Sea Cable Installation

The cable-laying vessel that would be employed for this project would be designed for coastal/shallow water applications. The ship would be a maximum of 300 feet long by 40 feet wide, have a shallow draft of about 16 feet, and be capable of traveling at 15 knots.

Cable deployment operations would occur 24 hours a day at a maximum speed of 2 knots (approximately 9 statute miles per hour) for bottom laying and at 0.5 to 1.5 knots (depending on bottom type) during



plowing. Based on an average sea cable "leg" (the sea portion of the cable route between landing sites) of 120 miles and the assumption that plowing would be possible for most, if not all, of that distance, it is estimated that deployment would take 100 to 140 hours (4 to 6 days) per leg. Generally, the vessel would continue moving and would not stop enroute before completing deployment of a leg.

The cable-laying vessel would tow a submarine cable plow, which would dig a narrow trench into the seafloor and insert the cable into the trench. No dredging or other removal of material would be required. The seafloor material would slump back into place immediately behind the plow such that no additional cable burial action would be required. Three underwater cameras and obstacle avoidance sonar would give the operator warning of visible obstacles.

### 1.5.2 Horizontal Directional Drilling

Horizontal directional drilling (HDD) would be used to install an underground conduit, consisting of 4-inch-diameter steel pipe, from a staging area at the manhole location to a point about 1,000 to 5,000 feet offshore. The sea cable would be pulled through the conduit to a new manhole. The borehole is typically about 30 feet below the ground surface when it crosses beneath the tidal zone. Use of HDD is proposed to avoid disturbance of beach areas, interference with recreational use, and cable exposure from beach erosion.

Drilling would be performed from shore using a mobile drill rig which includes the drill and a mud (drilling fluid) pump system. The duration of the HDD operation, including setup and takedown is expected to be approximately 3 weeks (weekdays only) at those sites requiring two bores (Estero Bay, Santa Barbara, and Manhattan Beach). At the remaining sites, where only one bore is required, approximately 3 to 4 days less would be needed. Drilling would be conducted during daylight hours only; unless specified otherwise by the applicable local authorities, thus, night lighting would not be necessary, and noise impacts would not occur during nighttime hours.

### 1.5.3 Terrestrial Cable Installation

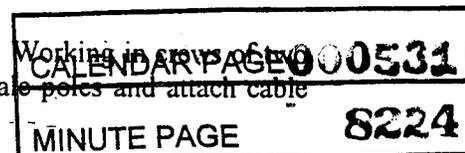
Approximately 71 percent (178 miles) of the terrestrial cable would be installed in existing conduit, mostly along existing road and railroad ROWs. Most of the remainder (57 miles) would be installed as overhead lines on existing poles. A small amount (less than 16 miles) would require trenching along road ROWs. New conduit across a bridge (0.2 mile) and a land trench (0.1 mile, not in a road ROW) account for the remainder. Cable installation methods for existing conduit, overhead lines, and road trench are described below.

#### *Cable Installation in Existing Conduit*

Cable is generally installed in existing conduit by pulling it from manhole to manhole. First, high-pressure air is used to blow a "pig" (a cylindrical object with an attached line) from manhole to manhole (or farther if conditions permit). The light line is then used to draw a stronger winch hawser into the conduit. The winch, working from street level, hauls the cable (attached to the hawser) through the conduit. The whole operation is then shifted one or more manholes over and repeated. Under favorable conditions, cable segments up to 1-km long can be installed at one time. Installation of 5 to 10 km of cable per day is standard.

#### *Cable Installation as Overhead Lines on Existing Poles*

Aerial fiber optic cable is transported on reels in standard panel trucks or vans. Working in pairs of two or three persons, experienced telephone linemen with special equipment to scale poles and attach cable



are able to install several miles of cable in a single shift. Where the poles are in road ROWs, the work typically occurs on the roadway shoulder and traffic control measures generally are not needed.

***Road ROW Trenching***

Trenching in road ROW is a common practice and need in urban areas. Because of the small width (approximately 12 inches) of the trench required for the cable, trenching and cable installation would move rather quickly, except in locations where the presence of other underground utilities requires additional construction measures. In most areas, cable installation in road ROW is expected to occur at a rate of approximately 1 mile per day. Consequently, any traffic impacts in most trenching locations would likely occur over a period of 1 day or less. Road ROW trenching would be performed in accordance with permit conditions specified by the local jurisdiction. Trenching and cable installation in roadways would be scheduled for weekdays during non-rush-hour periods.

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## 2.0 THE RECORD

The California Code of Regulations, Title 14, Section 15091(b) requires that the lead agency's findings be supported by substantial evidence in the record. For this project, the record consists of the following:

- a. Documentary and oral evidence, testimony, and staff comments and responses received and reviewed by the State Lands Commission during scoping meetings, public review, and public hearings on the project. All files of the State Lands Commission pertaining to Global Photon Systems, Inc. are part of the record.
- b. The *Final Environmental Impact Report for Global West Fiber Optic Cable Project*, as certified on April 20, 2000.
- c. Documentary evidence and other materials cited or referenced in the *Final Environmental Impact Report for Global West Fiber Optic Cable Project* which are matters of common knowledge to the public, including those materials that have been published in publicly-available journals or treatises, are available in university or public libraries, and/or are located in the files of Science Applications International Corporation (SAIC).
- d. Application and supporting materials for the proposed project submitted by Global Photon Systems, Inc.
- e. Matters of common knowledge to the State Lands Commission, such as:
  - The California Environmental Quality Act (CEQA) and the state CEQA guidelines implementing the Act;
  - Relevant enacted or adopted statutes, regulations and policies in the California Coastal Act;
  - Relevant enacted or adopted statutes, regulations and policies of the California Department of Fish and Game;
  - Relevant enacted or adopted statutes, regulations and policies of the U.S. Fish and Wildlife Service; and
  - Relevant enacted or adopted statutes, regulations and policies of other applicable federal, state and local agencies with jurisdiction over the proposed project.

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### 3.0 FINDINGS FOR PROJECT IMPACTS

This section contains the findings required by the California Environmental Quality Act (CEQA) California Public Resources Code Section 21081, which requires a public agency to address each significant effect that would occur if the proposed project were carried out.

The FEIR reviewed the installation of the proposed cable as well as impacts associated with cable repair operations, upset conditions and cable abandonment and removal within the context of the following resource areas as required by the CEQA: Air Quality, Marine Biological Resources, Terrestrial Biological Resources, Commercial and Recreational Fishing, Cultural Resources, Geology, Water Quality, Land and Recreational Water Use, Transportation, Utilities, Paleontology, and Noise. The findings are organized first by project element then by resource issue area, which reflects the organization of the *Final Environmental Impact Report (FEIR) for the Global West Fiber Optic Cable Project* (March 2000). The following is a list of the project elements and resource issues for which potentially significant environmental impacts were identified in the FEIR:

#### Impacts Associated with the Sea Cable

- Air Quality
- Cultural Resources
- Commercial Fishing

#### Impacts Associated with the San Francisco Landing

- Air Quality
- Cultural Resources
- Water Quality
- Paleontology

#### Impacts Associated with the San Francisco to Monterey Bay Onshore Route

- Water Quality
- Cultural Resources

#### Impacts Associated with the North Monterey Bay Landing

- Cultural Resources
- Paleontology
- Noise

#### Impacts Associated with the Manresa State Beach Landing

- Air Quality
- Cultural Resources
- Water Quality
- Paleontology
- Noise

#### Impacts Associated with the Monterey Bay Onshore Route

- Terrestrial Biological Resources
- Cultural Resources
- Water Quality
- Paleontology

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**Impacts Associated with the South Monterey Bay Landing (Fort Ord site)**

- Terrestrial Biological Resources
- Cultural Resources
- Paleontology

**Impacts Associated with the Carmel Highlands Landing Alternative**

- Terrestrial Biological Resources
- Cultural Resources
- Water Quality
- Paleontology
- Noise

**Impacts Associated with the San Luis Obispo Landing**

- Air Quality
- Terrestrial Biological Resources
- Cultural Resources
- Water Quality
- Paleontology

**Impacts Associated with the Morro Beach Landing Alternative**

- Air Quality
- Terrestrial Biological Resources
- Cultural Resources
- Water Quality
- Noise

**Impacts Associated with the Santa Barbara Landing**

- Cultural Resources
- Water Quality
- Noise

**Impacts Associated with the Manhattan Beach Landing**

- Air Quality
- Cultural Resources
- Water Quality
- Paleontology

**Impacts Associated with the Bayview Terrace Landing Alternative**

- Air Quality
- Cultural Resources
- Water Quality

**Impacts Associated with the San Diego Landing**

- Cultural Resources
- Water Quality
- Paleontology

Each potentially significant project impact is set forth below. Following each impact are the recommended mitigation measures(s) or changes incorporated into the Project, an identification, if applicable, of another agency responsible for adoption of the mitigation, a description of residual impacts after mitigation as been implemented and supportive evidence for the finding.

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mitigation measures described herein, all potentially significant environmental impacts of the proposed project will be avoided or reduced to levels less than significant.

The proposed project was originally designed to avoid or minimize significant impacts. As a result, with the exception of potentially significant impacts associated with the project elements on the resource areas noted above and discussed herein, the proposed project would have no other potentially significant impacts that would require avoidance or mitigation. The summary table in the Mitigation Monitoring Program identifies the project elements and associated resource issue areas for which potential impacts were determined not to be potentially significant due to protective measures included as part of the proposed project. Such impacts are identified in that summary table as unnumbered potential impacts and the protective measures are identified in the table as being incorporated in the project.

The FEIR also analyzes a number of alternatives to the proposed project, including three alternative sea routes, five alternative land routes and alternative landing sites for six of the proposed landfall locations and a no project alternative. The no project alternative is environmentally superior to all other alternatives, but does not meet any of the project objectives. Of the remaining alternatives, the proposed project is the environmentally superior alternative. With incorporation of the mitigation measures described herein, the proposed project will have no remaining significant impacts. Based on the information and analysis of the alternatives in the FEIR, none of the alternatives would avoid or lessen any significant unmitigated impacts of the proposed project.

Although none of the alternative landing sites would avoid or lessen any significant unmitigated impacts of the proposed project, four of the landing site alternatives were determined to have other potential advantages, and the applicant has indicated a willingness to make any of these changes, if required. Therefore, the impacts of each of these alternative landing sites is also set forth below, followed by the recommended mitigation measure(s), a specific finding for the impact, a description of residual impact after mitigation has been implemented and supportive evidence.

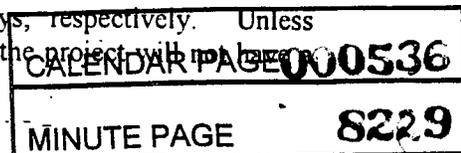
In accordance with CEQA section 21083(b), the FEIR also analyzes whether the proposed project would have any significant cumulative impacts in each of the above-referenced categories (*see* FEIR section 6.2). Based on the analysis in the FEIR, the proposed project would result in no cumulative impacts. In addition, no significant unavoidable impacts have been identified for the proposed project alone, and it, in combination with the other reasonably foreseeable projects, would also not result in significant impacts. Section 8.1 of the FEIR also analyzes the "growth-inducing" effects of the proposed project, i.e., how the project could foster economic or population growth in the surrounding environment, in accordance with CEQA section 15126(g). Based on the analysis in the FEIR, the proposed project would not be significantly growth-inducing.

### 3.1 Impacts Associated with the Sea Cable

#### 3.1.1 Air Quality

##### *Impact AQ-2*

Within the 3-mile state waters boundary, use of vessels would exceed daily NO<sub>x</sub> emission thresholds within the MBUAPCD/SLOCAPCD/SCAQMD jurisdictions for 4/3/3 days, respectively. Unless construction activities occur within the MBUAPCD during the ozone season, the project will not have a significant impact on air quality within the MBUAPCD.



*Mitigation Measure AQ-2.* Implementation of the following measures would reduce O<sub>3</sub> precursor emissions from proposed vessel and vessel equipment sources:

1. Fuel injection timing retard of 2 degrees on diesel-powered vessels and vessel equipment.
2. Engine turbocharging and after-cooling on diesel-powered vessels and vessel equipment.
3. Use of ARB on-road diesel fuel in diesel-powered equipment.
4. Maintain equipment in tune per manufacturer's specification, except as otherwise required in items (1) and (2) above.
5. Substitute gasoline-powered for diesel-powered equipment, where feasible.

Implementation of this measure has been required as Condition of Approval #32. Within the MBUAPCD, this mitigation measure is only necessary if construction activities take place during the ozone season (May through October).

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant in SLOCAPCD. In combination with AQ-3 and AQ-4, this measure would reduce the impact in MBUAPCD and SCAQMD, respectively, to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* Cable installation would require the use of heavy equipment, trucks, and vessels and would produce combustive emissions. The FEIR includes data, assumptions and calculations regarding these project construction emissions, including the impacts within the MBUAPCD, SLOCAPCD and SCAQMD jurisdictions. The data in the FEIR indicate that project emissions may exceed the NO<sub>x</sub> threshold for daily emissions during construction activities. Although daily emissions would be considered to be significant during this construction period, total construction emissions would not exceed the calendar quarter thresholds of 2.5 tons. All other proposed construction emissions would not exceed the jurisdictional thresholds and therefore would be insignificant.

Implementation of 2 degree ITR and the use of on-road, rather than the more inexpensive off-road diesel fuel has been shown in practice to be relatively easy measures to reduce NO<sub>x</sub> and ROG emissions from diesel-powered engines by at least 15 and 16 percent, respectively. However, implementation of AQ-2 may not reduce project emissions to below daily jurisdictional thresholds. Therefore, implementation of measure AQ-2, in addition to measures AQ-3 and AQ-4 as needed, are necessary to adequately reduce the impact of the project emissions on O<sub>3</sub> precursor emissions to insignificance.

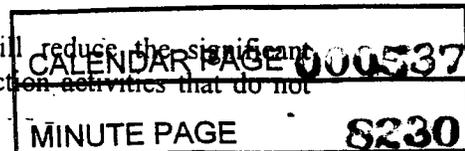
#### *Impact AQ-3*

Within the 3-mile state waters boundary, use of vessels would exceed daily NO<sub>x</sub> emission thresholds within the MBUAPCD jurisdiction for 4 days.

*Mitigation Measure AQ-3.* In addition to AQ-2, contribute to an off-site emission reduction program within the MBUAPCD jurisdiction as identified by MBUAPCD. This mitigation measure will only be necessary if construction activities take place during the ozone season (May through October). Implementation of this measure has been required as Condition of Approval #33.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact during the ozone season to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant. Construction activities that do not



occur during the ozone season (May through October) will not have a significant adverse effect on the environment.

*Supportive Evidence.* If the proposed cable installation activities occurred outside of the O<sub>3</sub> season, NO<sub>x</sub> emissions from these activities would not contribute to an excessive formation of O<sub>3</sub> during that time of year and the impact of the project on ambient O<sub>3</sub> levels would be insignificant. In the event that construction must occur during the O<sub>3</sub> season, Global Photon would contribute to an offsite mitigation program that would reduce O<sub>3</sub> precursor emissions from existing stationary sources within the North Central Coast Air Basin. Global shall fund the administration of a project for the MBUAPCD under the Carl Moyer Heavy Duty Vehicle Emission Reduction Program that will reduce NO<sub>x</sub> emissions in the region by replacing old agricultural pump engines with new ones. Compliance with this measure will be documented by the MBUAPCD in the form of a letter to Global that Global will provide to CSLC, along with a copy of a receipt for funds committed to the program. Therefore, implementation of measure AQ-3, in addition to measure AQ-2, will adequately reduce the impact of the project emissions on O<sub>3</sub> precursor emissions to less than significant levels.

#### *Impact AQ-4*

Within the 3-mile state waters boundary, use of vessels would exceed daily NO<sub>x</sub> emission thresholds within the SCAQMD jurisdiction for 3 days.

*Mitigation Measure AQ-4.* In addition to AQ-2, electrify horizontal directional drilling (HDD) equipment, acquire emission offsets, or contribute to an off-site emission reduction program within the SCAQMD jurisdiction. Implementation of this measure has been required as Condition of Approval #34.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides background on emissions that would occur within the South Coast Air Basin for offshore activities associated with cable-laying construction activities. The data in the FEIR indicate that project emissions would exceed the SCAQMD daily NO<sub>x</sub> emission threshold of 100 pounds during the three day construction period, due to the emissions of the cable-laying vessel. Although daily emissions would be considered to be significant during this construction period, total construction emissions would not exceed the calendar quarter threshold of 2.5 tons. All other proposed construction emissions would not exceed the SCAQMD thresholds and therefore would be insignificant.

Implementation of 2 degree ITR and the use of on-road, rather than the more inexpensive off-road diesel fuel has been shown in practice to be relatively easy measures to reduce NO<sub>x</sub> and ROG emissions from diesel-powered engines by at least 15 and 16 percent, respectively. However, implementation of AQ-2 would not reduce project emissions to below daily SCAQMD thresholds. Therefore, additional measures such as those described in AQ-4 above are necessary to mitigate the proposed emissions to insignificance. Global shall initiate negotiations with SCAQMD staff to finalize a mitigation program acceptable to both parties, and compliance with this measure will be documented by Global in the form of a letter to the SCAQMD and CSLC. Therefore, implementation of measures AQ-2 and AQ-4 would adequately reduce the impact of the project's O<sub>3</sub> precursor emissions to insignificance.

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### 3.1.2 Cultural Resources

#### Impact CR-1

Trenching could affect marine cultural resources.

*Mitigation Measure CR-1.* A qualified marine archaeologist shall prepare a Marine Cultural Resources Inventory and Avoidance Plan and supervise a magnetometer survey as needed to ensure all potential resources are identified and avoided during grappling and sea cable installation. Implementation of this measure has been required as Condition of Approval # 18.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The side-scan sonar and sub-bottom profiler survey of the sea route indicates that the sea route can avoid strong sonar contacts that represent shipwrecks or potential shipwrecks. However, two suspected shipwrecks are within 50 meters of the sea route and could be affected unless avoidance procedures are developed for use during installation. Additionally, small segments of the sea route cross historic sea lanes, harbor areas, and other waters predicted to be sensitive for shipwrecks and other maritime resources (MMS 1987, 1990) and additional shipwrecks or potential shipwrecks in the sea route could be identified by a magnetometer survey. Mitigation measures have been required that would require careful examination of magnetometer data as needed to determine the location of such unrecorded shipwrecks and for adjustment of the cable route to avoid any potential shipwrecks.

### 3.1.3 Commercial Fishing

#### Impact CF-1

Bottom trawls could become entangled with exposed or insufficiently buried cables or cables that become exposed over time.

*Project Component CF1* The cable will be buried in all soft sediments to a target depth of one meter, as required in Permit Condition # 10, 11, and 23. To ensure accurate positions and depths are known, positions for the installed cable shall be obtained by an acoustic navigation system linked to surface DGPS. "As built" cable locations and burial depths will be provided to all fishermen and permit agencies upon completion of cable lay operations. The cable installation phase will be monitored by a representative of the State Lands Commission.

*Project Component CF2* The applicant shall conduct post-lay cable burial verification every 18 months or after events that may cause buried cable to daylight. The survey will be conducted by an ROV equipped with video and still cameras by a third party agreed to by the State Lands Commission. A report providing verification of cable burial shall be submitted to the permitting agencies.

*Residual Impacts* The incorporation of these two conditions would reduce the potential impact to less than significant.

potential impact to less.
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*Findings* Features incorporated into the proposed project will reduce the potential significant environmental impact as identified in the FEIR to an insignificant level.

*Supportive Evidence* The FEIR contains information regarding bottom trawling equipment and methods, including depth of penetration of the sea bed. Because the trawls are designed to maintain contact with the sea floor, they can potentially become entangled with cables on the sea floor. Entanglement can result in loss or damage to the trawl, damage to the cable or both. Due to potential economic loss associated with fishing down-time, this could lead to a significant impact. Analysis presented in the FEIR show that cable burial at a target depth of one meter will avoid conflict with trawls, reducing the impact to a level of insignificance.

The cable can not be buried in areas of hard bottom. While the FEIR shows that the proposed route has less than 7 per cent of the cable in this situation, fishermen must be notified of the precise location of such areas in order to take operating precautions to avoid entanglement.

### 3.2 Impacts Associated with the San Francisco Landfall (Ocean Beach Landing to the POP in Downtown San Francisco)

#### 3.2.1 Air Quality

##### *Impact AQ-1*

Road trenching would generate potentially significant fugitive dust emissions (PM<sub>10</sub>).

*Mitigation Measure AQ-1.* Implement BAAQMD recommended fugitive dust emission controls to ensure that emissions of PM<sub>10</sub> from grading and removal/relocation activities remain insignificant:

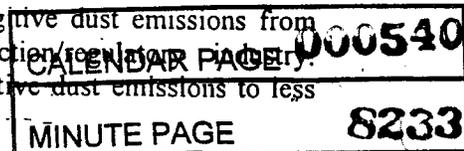
1. Water all active construction areas at least twice daily;
2. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard;
3. Pave, apply water 3 times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites;
4. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites; and
5. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

Implementation of this measure has been required as Condition of Approval # 31.

*Residual Impact.* Implementation of the above mitigation measure would reduce the potential impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* Fugitive dust emissions could occur over a 0.6 mile stretch of the cable route. The BAAQMD has developed effective measures to minimize the impact of fugitive dust emissions from construction projects that are used widely throughout the construction industry. Implementation of these measures would reduce the potential impact of fugitive dust emissions to less than significant levels.



3.2.2 Cultural Resources

*Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The record searches and cultural resource surveys conducted for the FEIR indicate that cultural resources are not likely to be found at the San Francisco landing site. Excavation for a new manhole at this site, however, could encounter unexpected significant or potentially significant cultural resources. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to a less than significant level.

*Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The record searches and cultural resource surveys conducted for the FEIR indicate that cultural resources are not likely to be found at the San Francisco landing site. Excavation for a new manhole at this site, however, could encounter unexpected significant or potentially significant cultural resources. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent

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construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to a less than significant level.

### 3.2.3 *Water Quality*

#### *Impact WQ-1*

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is greater. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) shall be followed in construction areas to prevent migration of potential fuel spills and drilling fluid spills to nearby drainages and the Pacific Ocean. Implementation of this measure has been required as Condition of Approval # 40.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses the use of construction equipment, the potential for spillage of petroleum products (hydraulic fluids, motor oil, grease, or gasoline), and the surface water quality impacts that could result if a spill entered a nearby drainage. Spill prevention and containment practice has demonstrated that standard measures such as establishing storage, fueling, and equipment maintenance areas a safe distance from wetlands, creeks, and drainages will sufficiently reduce the possibility of water quality impacts from construction equipment such that the potential for such impacts would be reduced to less than significant. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) provides detailed guidance for implementation of these measures.

### 3.2.4 *Paleontology*

#### *Impact PA-1*

Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

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*Supportive Evidence.* Project trenching is not expected to disturb significant fossils at the San Francisco landing site. The areas at the San Francisco landing site are characterized by Recent (Holocene) Alluvium or dune material and/or basement rocks of the Franciscan assemblage. Impacts on paleontological resources are not expected because trenching would not reach basement rocks. However, if vertebrate fossils are discovered during construction, construction activities shall temporarily cease, pending inspection by a qualified paleontologist, and the above measure shall be applied to reduce impacts to insignificance.

### 3.3 Impacts Associated with the San Francisco to Monterey Bay Onshore Route (from the San Francisco POP to Sand City)

#### 3.3.1 Water Quality

##### *Impact WQ-1*

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is greater. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) shall be followed in construction areas to prevent migration of potential fuel spills and drilling fluid spills to nearby drainages and the Pacific Ocean. Implementation of this measure has been required as Condition of Approval # 40.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses the use of construction equipment, the potential for spillage of petroleum products (hydraulic fluids, motor oil, grease, or gasoline), and the surface water quality impacts that could result if a spill entered a nearby drainage. Spill prevention and containment practice has demonstrated that standard measures such as establishing storage, fueling, and equipment maintenance areas a safe distance from wetlands, creeks, and drainages will sufficiently reduce the possibility of water quality impacts from construction equipment such that the potential for such impacts would be reduced to less than significant. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) provides detailed guidance for implementation of these measures.

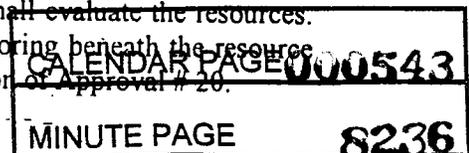
#### 3.3.2 Cultural Resources

##### *Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.



*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The proposed on-shore route would involve 4.0 miles of road trenching between Salinas and the Sand City POP. The largest portion of the trenching would be along Monterey Road and the UPRR corridor. Results of the record search and SAIC's January 2000 survey indicate that one site, SCL-448, has the potential to be located within the ROW corridor. Although no surface evidence of the site was observed during SAIC's survey, intact subsurface cultural deposits may exist at this location. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the above mitigation measures would reduce any impacts to a less than significant level (Class II).

### *Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

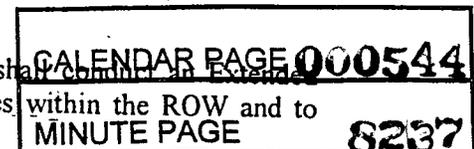
*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The proposed on-shore route would involve 4.0 miles of road trenching between Salinas and the Sand City POP. The largest portion of the trenching would be along Monterey Road and the UPRR corridor. Results of the record search and SAIC's January 2000 survey indicate that one site, SCL-448, has the potential to be located within the ROW corridor. Although no surface evidence of the site was observed during SAIC's survey, intact subsurface cultural deposits may exist at this location. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the above mitigation measures would reduce any impacts to a less than significant level (Class II).

### *Impact CR-4*

Potential trenching disturbance of recorded archaeological site.

*Mitigation Measure CR-4.* Prior to construction, a qualified archaeologist shall conduct a Phase I subsurface survey at recorded site SCL-448 to define site boundaries



determine whether the ROW contains buried archaeological deposits. A Native American monitor shall be present during all excavations. The subsurface survey may use shovel test pits, backhoe trenching, or a combination of the two. Backhoe trenches shall be used where deposits could be encountered more than 3 feet deep. A qualified geomorphologist, under the direction of a qualified archaeologist, will inspect and describe soil exposures of the subsurface survey. Any potentially significant archaeological deposits at SCL-448 shall be avoided by directionally boring beneath the resource or by re-routing.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The proposed on-shore route would involve 4.0 miles of road trenching between Salinas and the Sand City POP. The largest portion of the trenching would be along Monterey Road and the UPRR corridor. Results of the record search and SAIC's January 2000 survey indicate that one site, SCL-448, has the potential to be located within the ROW corridor. Although no surface evidence of the site was observed during SAIC's survey, intact subsurface cultural deposits may exist at this location. In the event that the pre-construction subsurface survey or subsequent construction activities identify potentially significant archaeological deposits, a qualified archaeologist, geomorphologist and a Native American monitor will be onsite to evaluate the resources and ensure that any potentially significant resources are avoided. Therefore, the above mitigation measures would reduce any impacts to a less than significant level (Class II).

### 3.4 Impacts Associated with the North Monterey Bay Landfall (at LaSelva Beach)

#### 3.4.1 Cultural Resources

##### *Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Mitigation Measure CR-7.* A qualified archaeologist and a Native American shall monitor excavation of the new manhole at the landing site and the road trench that runs south from the manhole along Highway 1.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The record searches and cultural resource surveys conducted for the FEIR indicate that cultural resources are not likely to be found at the North Monterey Bay landing site. HDD

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excavation at this site, however, could encounter unexpected significant or potentially significant cultural resources. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

### *Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a Cultural Resources Construction Monitoring Plan (CRCMP) to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The record searches and cultural resource surveys conducted for the FEIR indicate that cultural resources are not likely to be found at the North Monterey Bay landing site. HDD excavation at this site, however, could encounter unexpected significant or potentially significant cultural resources. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

### *3.4.2 Paleontology*

#### *Impact PA-1*

Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

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*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* Project trenching at the North Monterey Bay landfall is not expected to disturb significant fossils. As discussed in the FEIR, the portion of the route that would be disturbed is comprised of recent (Holocene) sand dunes and active beach sand deposits. The potential for fossils at the North Monterey Bay landfall is low, due to the character of such sand dunes and beach sand deposits, which are generally too young to contain fossils. However, if vertebrate fossils are discovered during construction, construction activities shall temporarily cease, pending inspection by a qualified paleontologist, and the above mitigation measure shall be applied to reduce impacts to insignificance.

### 3.4.3 Noise

#### *Impact NO-1*

The HDD activity would generate noise levels of approximately 66 dBA at the nearest residences, which would exceed the Santa Cruz County daytime threshold of 60 dBA for a residential area.

*Mitigation Measure NO-1.* Take necessary measures to muffle, shield, or enclose the HDD activity such that noise levels at the nearest residences do not exceed 60 dBA. Implementation of this measure has been required as Condition of Approval # 43.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses noise generated by the HDD activity, the potential noise levels at nearby sensitive receptors, and the applicable regulatory thresholds. Noise reduction practice has demonstrated that standard measures such as muffling equipment exhaust along with construction of shields or an enclosure will sufficiently reduce or contain onsite noise such that the noise level at the nearest sensitive receptor does not exceed the regulatory threshold and would be less than significant. The construction permit issued by the County of Santa Cruz will require that measures be taken to minimize noise impacts, and the project will be required to follow any such permit requirements.

### 3.5 Impacts Associated with the Manresa State Beach Landing Alternative

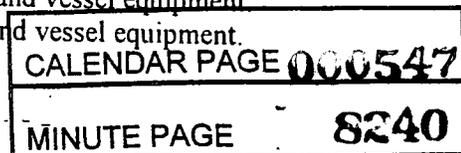
#### 3.5.1 Air Quality

##### *Impact AQ-3*

Within the 3-mile state waters boundary, use of vessels would exceed the daily NO<sub>x</sub> emission threshold within the MBUAPCD jurisdiction for 4 days.

*Mitigation Measure AQ-2.* Implementation of the following measures would reduce O<sub>3</sub> precursor emissions from proposed vessel and vessel equipment sources:

1. Fuel injection timing retard of 2 degrees on diesel-powered vessels and vessel equipment
2. Engine turbocharging and after-cooling on diesel-powered vessels and vessel equipment.
3. Use of ARB on-road diesel fuel in diesel-powered equipment.



4. Maintain equipment in tune per manufacturer's specification, except as otherwise required in items (1) and (2) above.
5. Substitute gasoline-powered for diesel-powered equipment, where feasible.

Implementation of this measure has been required as Condition of Approval # 32.

*Mitigation Measure AQ-3.* In addition to AQ-2, contribute to an off-site emission reduction program within the MBUAPCD jurisdiction as identified by MBUAPCD. Construction activities that do not occur during the ozone season (May through October) will not have a significant adverse effect on the environment. Implementation of this measure has been required as Condition of Approval # 33.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant. Construction activities that do not occur during the ozone season (May through October) will not have a significant adverse effect on the environment and measures AQ-2 and AQ-3 would not be required.

*Supportive Evidence.* If the proposed cable installation activities occurred outside of the O<sub>3</sub> season, NO<sub>x</sub> emissions from these activities would not contribute to an excessive formation of O<sub>3</sub> during that time of year and the impact of the project on ambient O<sub>3</sub> levels would be insignificant. In the event that construction must occur during the O<sub>3</sub> season, Global Photon would contribute to an offsite mitigation program that would reduce O<sub>3</sub> precursor emissions from existing stationary sources within the North Central Coast Air Basin. Global shall fund the administration of a project for the MBUAPCD under the Carl Moyer Heavy Duty Vehicle Emission Reduction Program that will reduce NO<sub>x</sub> emissions in the region by replacing old agricultural pump engines with new ones. Compliance with this measure will reduce impacts to less than significant levels, and will be documented by the MBUAPCD in the form of a letter to Global that Global will provide to CSLC, along with a copy of a receipt for funds committed to the program.

### 3.5.2 Cultural Resources

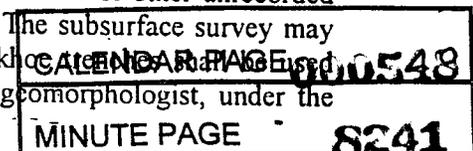
#### *Impact CR-12*

Potential impacts to recorded archaeological site.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Mitigation Measure CR-12.* Conduct Extended Phase I Survey at the location of the manhole for the Manresa State Beach alternative landing. Prior to construction, a qualified archaeologist shall conduct a Phase I Extended Archaeological Survey where the manhole would be constructed to determine the presence of potentially significant archaeological deposits associated with SCR-172 or other unrecorded sites. A Native American monitor shall be present during all excavations. The subsurface survey may use shovel test pits, backhoe trenching, or a combination of the two. Backhoe trenching shall be used where deposits could be encountered more than 3 feet deep. A qualified geomorphologist, under the



direction of a qualified archaeologist, shall inspect and describe soil exposures of backhoe trenches. Any potentially significant archaeological deposits shall be avoided by re-location of the manhole.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* Results of the record search and SAIC's January 2000 survey conducted for the FEIR indicate that one site, SCR-172, has the potential to be located within the manhole construction area. Although no surface evidence of the site was observed during SAIC's survey, intact subsurface cultural deposits may exist at this location. In the event that the pre-construction subsurface survey or subsequent construction activities identify potentially significant archaeological deposits, a qualified archaeologist, geomorphologist and a Native American monitor will be onsite to evaluate the resources and ensure that any potentially significant resources are avoided by re-location of the manhole. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

### 3.5.3 *Water Quality*

#### *Impact WQ-1*

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is greater. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) shall be followed in construction areas to prevent migration of potential fuel spills and drilling fluid spills to nearby drainages and the Pacific Ocean. Implementation of this measure has been required as Condition of Approval # 40.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses the use of construction equipment, the potential for spillage of petroleum products (hydraulic fluids, motor oil, grease, or gasoline), and the surface water quality impacts that could result if a spill entered a nearby drainage. Spill prevention and containment practice has demonstrated that standard measures such as establishing storage, fueling, and equipment maintenance areas a safe distance from wetlands, creeks, and drainages will sufficiently reduce the possibility of water quality impacts from construction equipment such that the potential for such impacts would be reduced to less than significant. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) provides detailed guidance for implementation of these measures.

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### 3.5.4 Paleontology

#### Impact PA-1

Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* Project trenching is not expected to disturb significant fossils at the alternative Manresa State Beach landfall. As discussed in the FEIR, the portion of the route that would be disturbed is comprised of recent (Holocene) sand dunes and active beach sand deposits. The potential for fossils in this area is low due to the character of such sand dunes and beach sand deposits, which are generally too geologically young to contain fossils. However, if vertebrate fossils are discovered during construction, construction activities shall temporarily cease, pending inspection by a qualified paleontologist, and the above mitigation measure shall be applied to reduce impacts to insignificance.

### 3.5.5 Noise

#### Impact NO-5

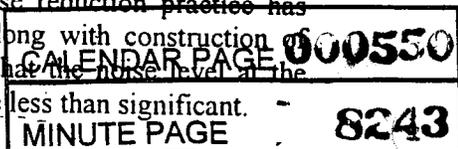
Noise level of 74 dBA at nearest part of beach would exceed Santa Cruz County threshold of 65 dBA at a recreational land use.

*Mitigation Measure NO-5.* Take necessary measures to muffle, shield, or enclose the HDD activity such that noise levels at the nearest residences do not exceed 65 dBA. Implementation of this measure has been required as Condition of Approval # 46.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses noise generated by the HDD activity, the potential noise levels at nearby sensitive receptors, and the applicable regulatory thresholds. Noise reduction practice has demonstrated that standard measures such as muffling equipment exhaust along with construction shields or an enclosure will sufficiently reduce or contain onsite noise such that the noise level at the nearest sensitive receptor does not exceed the regulatory threshold and would be less than significant.



3.6 **Impacts Associated with the Monterey Bay Onshore Route (from LaSelva Beach to Fort Ord)**

3.6.1 **Terrestrial Biological Resources**

**Impact TB-1**

Activities incidental to cable installation on existing poles along San Andreas Road may pose some risk to the endangered Santa Cruz long-toed salamander which resides in the area. Cable installation by trenching along California State Highway 1 (Highway 1) near Elkhorn Slough could affect salt marsh biota.

*Mitigation Measure TB-1.* Prepare a CIMP to address this by coordinating with local jurisdictions, landowners, utilities, and responsible agencies to address potential impacts on sensitive species and habitats. Avoid impacts on wetland areas by confining ground disturbance to non-wetland areas, installing protective fencing, and monitoring during construction to ensure protective fencing is in place and to keep foot and vehicle traffic out of wetlands.

*Mitigation Measure TB-1a.* For the Monterey Bay Onshore Route, the CIMP shall incorporate the following:

- Any precautions deemed necessary by the USFWS and CDFG to ensure that the placement of the cable on existing poles along San Andreas Road does not adversely affect the Santa Cruz long-toed salamander shall be implemented.
- Cable installation equipment and activities in the vicinity of the Elkhorn Slough shall be confined to the road and road shoulder or adjacent uplands that are above the limit of salt marsh vegetation in this area to avoid any potential impacts on wetlands or other Waters of the U.S. Temporary silt fencing shall be installed between the construction area and the upper limit of salt marsh vegetation.
- A monitor acceptable to the USACE-Los Angeles District shall direct the placement of fencing with respect to the slough and salt marsh. The monitor shall be present during construction and shall document construction activities, including the avoidance of impact at the Elkhorn Slough and Bennett Slough crossings. The monitor shall have the authority to halt or redirect construction as necessary to prevent activities or soil deposition from occurring in the slough or areas supporting salt marsh vegetation.

Implementation of this measure has been required as Condition of Approval # 39.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides information on biological resources for this area and indicates that sensitive habitats and species are known or reasonably likely to occur in the vicinity of the proposed route. The sensitive habitats identified in the FEIR include Ellicott Slough National Wildlife Refuge and Elkhorn Slough. The FEIR provides information with regard to the habitat and characteristics of a number of sensitive species known or reasonably likely to occur in the vicinity of the route, including the endangered Santa Cruz long-toed salamander.

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Most of the areas that could be affected by trenching constitute disturbed roadsides and adjacent developed, agricultural, or ruderal grassland habitats, and the FEIR concludes that temporary disturbances in these areas would have less than significant impacts (Class III). One exception are the salt and/or brackish marsh habitats adjacent to Highway 1 approaching Elkhorn Slough, which could be affected where the cable would be installed by trenching for approximately 4,000 feet. The potential area for disturbance is approximately 1.4 acres (4,000 feet linear distance x 15-foot wide construction corridor). The affected area is of low value to wildlife because of heavy traffic on the adjacent highway and the limited extent of wetland vegetation and aquatic habitat along the road corridor. However, due to the ecological importance of the surrounding wetlands, the mitigation measures are necessary and will reduce the impacts to these sensitive areas to less than significant. Apart from this limited area of potential disturbance near Elkhorn Slough, the routing and installation plans for the proposed project have minimized potentially significant impacts on sensitive species.

For the Monterey Bay Onshore Route, the CIMP shall incorporate results of focused biological surveys if needed to confirm the presence or absence of sensitive biological resources in areas of potential impact. The CIMP shall specify construction measures such as scheduling, cable placement, installation methods, protective fencing, and monitoring by a qualified biologist, to minimize impacts. Residual impacts would be mitigated by additional measures such as habitat restoration and/or compensation consistent with permit requirements. The CIMP shall be subject to review and approval by the CSLC, USACE, and CDFG. Other agencies, such as the Coastal Commission, Department of Parks and Recreation, and USFWS will be involved in review and approval regarding resources and portions of the project for which they have responsibility. The implementation of such measures will reduce the potential impacts to less than significant levels.

### 3.6.2 Cultural Resources

#### Impact CR-2

Unanticipated discovery of significant or potentially significant cultural resources.

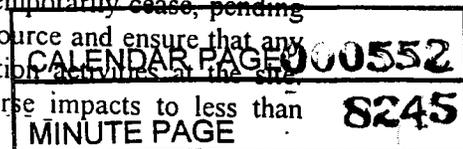
*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The proposed Monterey Bay Onshore Route will involve 1.2-miles of road trenching and 500-feet of trenching across open land. The records search and September 1999 archaeological survey indicates that several recorded sites may extend into the trenching ROW, including MNT-228, MNT-229, MNT-731/H, MNT-1382/H, and MNT-1462/H. In the event of an unanticipated discovery of potentially significant resources, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.



**Impact CR-3**

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The proposed Monterey Bay Onshore Route will involve 1.2-miles of road trenching and 500-feet of trenching across open land. The records search and September 1999 archaeological survey indicates that several recorded sites may extend into the trenching ROW, additionally, given the proximity of these known archaeological resources, the potential exists for discovery of unrecorded cultural resources as well. In the event of a discovery of potentially significant resources, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

**Impact CR-5**

Potential trenching disturbance of recorded archaeological sites.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Mitigation Measure CR-5.* Prior to construction, a qualified archaeologist shall conduct an Extended Phase I subsurface survey at recorded sites (apply to MNT-228, MNT-229, MNT-731/H, MNT-1382/H, and MNT-1462/H) to define site boundaries within the ROW and to determine whether the ROW contains buried archaeological deposits. A Native American monitor shall be present during all excavations. The subsurface survey may use shovel test pits, backhoe trenching, or a combination of the two. Backhoe trenches shall be used where deposits could be encountered more than 3 feet deep. A qualified geomorphologist, under the direction of a qualified archaeologist, will inspect and describe soil exposures of the subsurface survey. Any potentially significant archaeological deposits shall be avoided by directionally boring beneath the resource or by re-routing.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

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*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The proposed Monterey Bay Onshore Route will involve 1.2-miles of road trenching and 500-feet of trenching across open land. The records search and September 1999 archaeological survey indicates that several recorded sites may extend into the trenching ROW, including MNT-228, MNT-229, MNT-731/H, MNT-1382/H, and MNT-1462/H. In the event that the pre-construction subsurface survey or subsequent construction activities identify potentially significant archaeological deposits, a qualified archaeologist, geomorphologist and a Native American monitor will be onsite to evaluate the resources and ensure that any potentially significant resources are avoided by any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

### 3.6.3 Water Quality

#### *Impact WQ-1*

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is greater. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) shall be followed in construction areas to prevent migration of potential fuel spills and drilling fluid spills to nearby drainages and the Pacific Ocean. Implementation of this measure has been required as Condition of Approval # 40.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

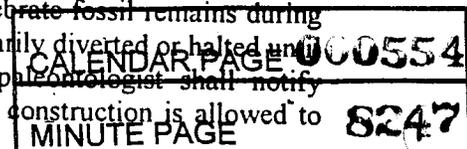
*Supportive Evidence.* The FEIR discusses the use of construction equipment, the potential for spillage of petroleum products (hydraulic fluids, motor oil, grease, or gasoline), and the surface water quality impacts that could result if a spill entered a nearby drainage. Spill prevention and containment practice has demonstrated that standard measures such as establishing storage, fueling, and equipment maintenance areas a safe distance from wetlands, creeks, and drainages will sufficiently reduce the possibility of water quality impacts from construction equipment such that the potential for such impacts would be reduced to less than significant. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) provides detailed guidance for implementation of these measures.

### 3.6.4 Paleontology

#### *Impact PA-1*

Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to



resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The Monterey Bay onshore route includes excavation of a manhole at La Selva Beach and short segments of trenching across the mouth of Elkhorn Slough and in Sand City and Marina. As discussed in the FEIR, recent sand dunes, Holocene basinal deposits, and disturbed rock material characterize these areas. The potential for fossils in these areas is low, due to the character of such sand dunes and rock units, which are generally too geologically young to contain fossils. Therefore, project trenching is not expected to disturb significant fossils. However, if vertebrate fossils are discovered during construction, construction activities shall temporarily cease, pending inspection by a qualified paleontologist, and the above mitigation measure shall be applied to reduce impacts to insignificance.

### 3.7 Impacts Associated with the South Monterey Bay Landing

#### 3.7.1 Terrestrial Biological Resources

##### *Impact TB-2*

Potential impacts on sensitive dune plants.

*Mitigation Measure TB-1.* Prepare a CIMP by coordinating with local jurisdictions, landowners, utilities, and responsible agencies to address potential impacts on sensitive species and habitats. Avoid impacts on wetland areas by confining ground disturbance to non-wetland areas, installing protective fencing, and monitoring during construction to ensure protective fencing is in place and to keep foot and vehicle traffic out of wetlands.

*Mitigation Measure TB-1b.* For cable installation in the dunes at Fort Ord, the CIMP shall include the following:

- A pre-construction botanical survey shall be conducted to identify and avoid areas containing sensitive plant species within the potential footprint of construction. These areas shall be delineated in the construction contractor's plans and staked for avoidance in the field.
- Topsoil salvage and replacement, and provisions for right-of-way monitoring and maintenance that are agreeable to the Department of Parks and Recreation shall be implemented.

Implementation of this measure has been required as Condition of Approval # 37.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

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*Supportive Evidence.* The FEIR provides information regarding the sand dune system at Fort Ord. A variety of sensitive plant and wildlife species are known or reasonably likely to occur in the dune system, and the FEIR provides information regarding their habitat and characteristics.

The area of potential impact is limited to the immediate vicinity of the HDD site and a short trenched segment to reach existing conduit at the railroad. The area of ground disturbance would be limited to approximately 0.1 acre, including the 3,750-foot work area and a 50-foot trenched segment to the railroad lift station. Because of the concentration of sensitive plant and animal species in the surrounding dunes, which are considered an Environmentally Sensitive Habitat, impacts are potentially significant but mitigable (Class II).

For the south Monterey Bay landing, the CIMP shall incorporate results of focused biological surveys to confirm the presence or absence of sensitive biological resources in areas of potential impact. The CIMP shall specify construction measures such as scheduling, cable placement, installation methods, protective fencing, and monitoring by a qualified biologist, to minimize impacts to sensitive plant species. Residual impacts would be mitigated by additional measures such as habitat restoration and/or compensation consistent with permit requirements. The CIMP shall be subject to review and approval by the CSLC, USACE, and CDFG. Other agencies, such as the Coastal Commission, Department of Parks and Recreation, and USFWS, will be involved in review and approval regarding resources and portions of the project for which they have responsibility. The implementation of such measures will reduce the potential impacts to less than significant levels.

### 3.7.2 Cultural Resources

#### *Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The landing site would involve the construction of a new manhole, located 50 feet south of the Fort Ord lift station. As discussed in the FEIR, a survey of this area (Waite 1995) identified no cultural resources, therefore impacts to such resources are not expected. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate and document the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the above mitigation measure would reduce impacts to a less than significant level.

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### *Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The landing site would involve the construction of a new manhole, located 50 feet south of the Fort Ord lift station. As discussed in the FEIR, a survey of this area (Waite 1995) identified no cultural resources, therefore impacts to such resources are not expected. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate and document the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the above mitigation measure would reduce impacts to a less than significant level.

### *3.7.3 Paleontology*

#### *Impact PA-1*

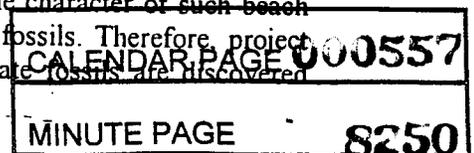
Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* Project trenching is not expected to disturb significant fossils at the South Monterey Bay landfall, which is comprised of active beach sands or Recent (Holocene) Alluvium. As discussed in the FEIR, the potential for fossils in these areas is low, due to the character of such beach sands and rock units, which are generally too geologically young to contain fossils. Therefore, project trenching is not expected to disturb significant fossils. However, if vertebrate fossils are discovered



during construction, construction activities shall temporarily cease, pending inspection by a qualified paleontologist, and the above mitigation measure shall be applied to reduce impacts to insignificance.

### 3.8 Impacts Associated with the Alternative Carmel Highlands Landfall (Carmel Highlands Landing to the POP in Sand City)

#### 3.8.1 Terrestrial Biological Resources

##### *Impact TB-3*

Potential conflicts with natural resource protection at Carmel Highlands.

*Mitigation Measure TB-1.* Prepare a CIMP to address this by coordinating with local jurisdictions, landowners, utilities, and responsible agencies to address potential impacts on sensitive species and habitats. Avoid impacts on wetland areas by confining ground disturbance to non-wetland areas, installing protective fencing, and monitoring during construction to ensure protective fencing is in place and to keep foot and vehicle traffic out of wetlands.

*Mitigation Measure TB-1c.* As part of the CIMP, cable installation by HDD and trenching at the Carmel Highlands site shall be coordinated with the CDFG, Monterey County, Caltrans, and Monterey Bay National Marine Sanctuary to avoid potential conflicts with natural resource values and management in the area. Implementation of this measure has been required as Condition of Approval # 38.

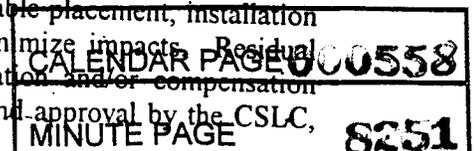
*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides information on biological resources for this area and indicates that the Point Lobos State reserve and coastline adjacent to the HDD site support a variety of sensitive habitats, including several species of sensitive plant and wildlife species that are known or reasonably likely to occur in the vicinity of the proposed route. These species include Smith's blue butterfly, which has been recorded in the area (CNDDDB 1999), but is not expected to be found onsite as the location of the HDD is at the edge of the butterfly's known range and they are associated with coastal dunes. In addition, various sensitive plant and wildlife species are possible along the route between Carmel Highlands and Sand City, including monarch butterflies and Smith's blue butterfly. However, the proposed use of existing conduit eliminates the project's overlap of areas where these species could be present.

The HDD operation and trenching from the bore site to existing utility poles may require small amounts of vegetation clearing. Because of the location of the site on the rugged coastline in close proximity to the Point Lobos State Reserve, this activity could conflict with natural resource values and management in the area (Class II).

The CIMP for the Carmel Highlands landing alternative shall incorporate results of focused biological surveys if needed to confirm the presence or absence of sensitive biological resources in areas of potential impact. The CIMP shall specify construction measures such as scheduling, cable placement, installation methods, protective fencing, and monitoring by a qualified biologist, to minimize impacts. Residual impacts would be mitigated by additional measures such as habitat restoration and/or compensation consistent with permit requirements. The CIMP shall be subject to review and approval by the CSLC,



USACE, CDFG, and Monterey County. Other agencies, such as the Coastal Commission, Department of Parks and Recreation and USFWS, will be involved in review and approval regarding resources and portions of the project for which they have responsibility. The implementation of such measures will reduce the potential impacts to less than significant levels.

### 3.8.2 Cultural Resources

#### *Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The records search and June 1999 archaeological survey indicates that one recorded site, MNT-820, may extend into the trenching ROW at the Carmel Highlands alternative landing site. Recorded resources could be impacted by trenching activities taking place in and around the locations of this site and may potentially damage significant deposits. However, the Carmel Highlands Alternative would primarily use existing conduit (11.1 miles), with the exception of a 0.3 mile roadway trench and the construction of a new manhole located 60 feet west of Highway 1. The above mitigation measures would reduce any impacts to a less than significant level (Class II). In the unlikely event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate and document the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site.

#### *Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

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*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The records search and June 1999 archaeological survey indicates that one recorded site, MNT-820, may extend into the trenching ROW at the Carmel Highlands alternative landing site. Recorded resources could be impacted by trenching activities taking place in and around the locations of this site and may potentially damage significant deposits. However, the Carmel Highlands Alternative would primarily use existing conduit (11.1 miles), with the exception of a 0.3 mile roadway trench and the construction of a new manhole located 60 feet west of Highway 1. The above mitigation measures would reduce any impacts to a less than significant level (Class II). In the unlikely event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate and document the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site.

**Impact CR-6**

Potential disturbance of recorded archaeological site.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Mitigation Measure CR-6.* Prior to construction, a qualified archaeologist shall conduct a Phase I Extended Archaeological Survey at recorded site MNT-820 to define site boundaries within the ROW and to determine whether the ROW contains buried archaeological deposits. A Native American monitor shall be present during all excavations. The subsurface survey may use shovel test pits, backhoe trenching, or a combination of the two. Backhoe trenches will be used where deposits could be encountered more than 3 feet deep. A qualified geomorphologist, under the direction of a qualified archaeologist, will inspect and describe soil exposures of backhoe trenches. Any potentially significant archaeological deposits shall be avoided by directionally boring beneath the resource or by re-routing.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The records search and June 1999 archaeological survey indicates that one recorded site, MNT-820, may extend into the trenching ROW at the Carmel Highlands alternative landing site. Recorded resources could be impacted by trenching activities taking place in and around the locations of this site and may potentially damage significant deposits. However, the Carmel Highlands Alternative would primarily use existing conduit (11.1 miles), with the exception of a 0.3 mile roadway trench and the construction of a new manhole located 60 feet west of Highway 1. In the event that potentially significant archaeological deposits are identified prior to or during construction, all construction shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist, along with a geomorphologist and a Native American monitor, will be onsite to evaluate the resource and ensure that any potentially significant resources are avoided by any subsequent construction activities at

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the site. The above mitigation measures would reduce any impacts to a less than significant level (Class II).

### 3.8.3 *Water Quality*

#### *Impact WQ-1*

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is greater. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) shall be followed in construction areas to prevent migration of potential fuel spills and drilling fluid spills to nearby drainages and the Pacific Ocean. Implementation of this measure has been required as Condition of Approval # 40.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses the use of construction equipment, the potential for spillage of petroleum products (hydraulic fluids, motor oil, grease, or gasoline), and the surface water quality impacts that could result if a spill entered a nearby drainage. Spill prevention and containment practice has demonstrated that standard measures such as establishing storage, fueling, and equipment maintenance areas a safe distance from wetlands, creeks, and drainages will sufficiently reduce the possibility of water quality impacts from construction equipment such that the potential for such impacts would be reduced to less than significant. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) provides detailed guidance for implementation of these measures.

### 3.8.4 *Paleontology*

#### *Impact PA-1*

Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

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*Supportive Evidence.* Conduit trenching at the Carmel Highlands alternative site would cross granitic rocks, which have no potential for paleontological resources, and older dune sands, which have only low potential for containing significant fossils. The trench in Sand City would be in Holocene (Recent) Alluvium or disturbed ground where the potential for fossils is low. Because of the nature and geological age of these rock units, project trenching is not expected to disturb significant fossils. If vertebrate fossils are discovered during construction, construction shall temporarily cease, pending inspection by a qualified paleontologist, and the above measure shall be applied to reduce impacts to insignificance.

### 3.8.5 Noise

#### *Impact NO-2*

Noise levels of 56 dBA at the nearest part of the Point Lobos State Reserve would exceed Monterey County threshold of 50 dBA.

*Mitigation Measure NO-2.* Take necessary measures to muffle, shield, or enclose the HDD activity such that the noise level at the nearest part of Point Lobos State Reserve does not exceed 50 dBA. Implementation of this measure has been required as Condition of Approval # 42.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses noise generated by the HDD activity at Carmel Highlands, the potential noise levels at nearby sensitive receptors (including Point Lobos State Reserve), and the applicable regulatory thresholds for Monterey County. The HDD activity would generate noise levels of approximately 56 dBA at the nearest part of the Point Lobos State Reserve, which would exceed the Monterey County daytime threshold of 50 dBA for a passively used park area. Noise reduction practice has demonstrated that standard measures such as muffling equipment exhaust along with construction of shields or an enclosure will sufficiently reduce or contain onsite noise such that the noise level at the nearest sensitive receptor does not exceed the regulatory threshold of 50 dBA and would be less than significant.

### 3.9 Impacts Associated with the San Luis Obispo Landfall (Estero Bay Landing to the POP in Downtown San Luis Obispo)

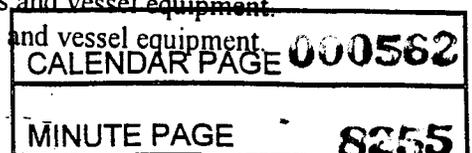
#### 3.9.1 Air Quality

##### *Impact AQ-2*

Within the 3-mile state waters boundary, use of vessels would exceed the SLOCAPCD daily NOx emission threshold for 3 days.

*Mitigation Measure AQ-2.* Implementation of the following measures would reduce O<sub>3</sub> precursor emissions from proposed vessel and vessel equipment sources:

1. Fuel injection timing retard of 2 degrees on diesel-powered vessels and vessel equipment.
2. Engine turbocharging and after-cooling on diesel-powered vessels and vessel equipment.
3. Use of ARB on-road diesel fuel in diesel-powered equipment.



4. Maintain equipment in tune per manufacturer's specification, except as otherwise required in items (1) and (2) above.
5. Substitute gasoline-powered for diesel-powered equipment, where feasible.

Implementation of this measure has been required as Condition of Approval # 32.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides background on emissions that would occur within San Luis Obispo County for offshore and onshore activities associated with the San Luis Obispo landfall. The data in the FEIR indicate that project emissions would exceed the SLOCAPCD daily NO<sub>x</sub> emission threshold due to the use of the HDD and cable-laying vessel. Although daily emissions would be considered to be significant during the three-day construction period, total construction emissions would not exceed the calendar quarter threshold of 2.5 tons.

Implementation of 2 degree ITR and the use of on-road, rather than the more inexpensive off-road diesel fuel has been shown in practice to be relatively easy measures to reduce NO<sub>x</sub> and ROG emissions from diesel-powered engines by at least 15 and 16 percent, respectively. However, implementation of AQ-2 would not reduce project emissions to below daily SLOCAPCD thresholds. Additional NO<sub>x</sub> emissions could be achieved with further ITD, but this level of adjustment would produce excessive fuel usage and would be considered infeasible. The FEIR discusses a dispersion model analysis for a recent marine fiber optic cable installation in South Morro Bay that determined that cable landing activities would not exceed the state 1-hour NO<sub>2</sub> standard during worst-case meteorological conditions. Since the short-term NO<sub>x</sub> emissions from the Global West project would be less than those estimated for the South Morro Bay project, the Global West project would be expected to produce insignificant impacts to ambient NO<sub>2</sub>. Therefore, implementation of measure AQ-2 represents the most feasible measures to adequately reduce the impact of the project emissions on ambient levels of O<sub>3</sub> to insignificance.

### 3.9.2 Terrestrial Biological Resources

#### Impact TB-4

Potential disturbance to snowy plovers on the beach near the landing site; potential disturbance to wetlands in areas of cable installation by trenching.

*Mitigation Measure TB-1.* Prepare a CIMP to address this by coordinating with local jurisdictions, landowners, utilities, and responsible agencies to address potential impacts on sensitive species and habitats. Avoid impacts on wetland areas by confining ground disturbance to non-wetland areas, installing protective fencing, and monitoring during construction to ensure protective fencing is in place and to keep foot and vehicle traffic out of wetlands.

*Mitigation Measure TB-1d.* The CIMP for this portion of the project shall incorporate the general provisions described previously plus the following specific requirements:

- To avoid potential impacts on the western snowy plover, HDD equipment shall be muffled to reduce sound levels to no more than 65 dBA on the beach below the landing site and project personnel shall not be allowed on the beach in potential nesting areas. Other measures recommended by the USFWS shall be implemented as required to avoid an adverse effect on this species.

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- The absence of burrowing owls and badgers from ground squirrel burrows along roadside embankments or grassland vegetation shall be confirmed prior to any construction through such areas. The cable shall be routed around any occupied burrows of these species.
- Cable installation across streams and wetlands shall be accomplished either by placement of the cable in existing fill above the drainage or by boring under the habitat of concern. The boundaries of jurisdictional Waters of the U.S. and bordering wetland and/or riparian vegetation shall be depicted on project engineering plans and staked for avoidance prior to construction. Points of access, travel routes, and staging and refueling areas for construction vehicles that avoid impacting streams and wetlands shall be specified on the plans. Any additional measures recommended by USFWS to avoid impacts on the California red-legged frog shall also be implemented. Applicable setbacks required by San Luis Obispo County shall be specified on construction plans.
- Temporary silt fencing and/or straw bales shall be placed immediately downhill from the construction corridor as needed to prevent sediment deposition in stream channels and associated wetlands.
- A monitor acceptable to the USACE-Los Angeles District shall direct the placement of fencing with respect to drainage crossings along Highway 1. The monitor shall be present during construction and shall document construction activities, including the avoidance of impact. The monitor shall have the authority to halt or redirect construction as necessary to prevent activities or soil deposition from affecting stream channels and associated riparian vegetation.
- Immediately following cable installation, the ground surface shall be restored to pre-construction contours, stabilized, and seeded or planted according to specifications approved by Caltrans and the local jurisdiction.

Implementation of this measure has been required as Condition of Approval # 39.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides information on biological resources for this area and indicates that various sensitive habitats and species are known or reasonably likely to occur in the vicinity of the proposed route, including the presence of nesting snowy plovers. Project-related activities, including construction noise, incidental foot traffic, and vehicular traffic immediately above the beach, could disturb snowy plovers. The impact on this species is potentially significant because of the recent designation of the beach area as critical habitat for the snowy plover, but is mitigable (Class II) by implementation of the above mitigation measures.

The impacts of cable installation by trenching along Highway 1 would involve approximately 9.1 miles of trenching, with the possibility of boring under specific areas to avoid the impacts of ground disturbance. Sensitive plant species have also been documented near the cable route, but suitable habitat for these species is not present at the landing site or within the Highway 1 ROW. The potential area of impact includes wetlands and other Waters of the U.S. at 31 drainage crossings totaling approximately 0.2 to 0.7 acre. The larger streams in the Chorro Valley (Chorro Creek and tributaries) could support the California red-legged frog and southern steelhead, both of which are federally listed threatened species. These streams and associated riparian habitats are also likely to support the western state species of concern, riparian bird species. Finally, badgers or burrowing owls, both of which are state species of concern, could be present in association with ground squirrel colonies and, if present, be affected by

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construction. These impacts are potentially significant but mitigable (Class II) by implementation of the above mitigation measures.

For the San Luis Obispo landing, the CIMP shall incorporate results of focused biological surveys to confirm the presence or absence of sensitive biological resources in areas of potential impact. The CIMP shall specify construction measures such as scheduling, cable placement, installation methods, protective fencing, and monitoring by a qualified biologist, to minimize impacts. Residual impacts would be mitigated by additional measures such as habitat restoration and/or compensation consistent with permit requirements. The CIMP shall be subject to review and approval by the CSLC, USACE, and CDFG. Other agencies, such as the Coastal Commission, Department of Parks and Recreation, and USFWS, will be involved in review and approval regarding resources and portions of the project for which they have responsibility. The implementation of such measures will reduce the potential impacts to less than significant levels.

### 3.9.3 Cultural Resources

#### *Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* To install the cable at the landing area, a new manhole would be excavated on the east side of Highway 1 and HDD conduit would be installed by boring west underneath Highway 1 to a point offshore. The HDD conduit would be 100 feet deep. As discussed in the FEIR, the Chevron facility is considered archaeologically sensitive and a slight potential exists that excavation of the manhole and the land trench to the south along Highway 1 could affect unrecorded archaeological deposits. In the event that construction activities identify potentially significant archaeological deposits, all construction shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

#### *Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

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*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* To install the cable at the landing area, a new manhole would be excavated on the east side of Highway 1. As discussed in the FEIR, the Chevron facility is considered archaeologically sensitive and it is possible that excavation of the manhole and the land trench to the south along Highway 1 could affect unrecorded archaeological deposits. In addition, buried archaeological resources in this area are known to be located where tributary drainages enter large valleys, such as San Bernardo Creek and San Luisito Creek. Trenching within these areas may lead to unanticipated discoveries. In the event that construction activities identify potentially significant archaeological deposits, all construction shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

#### *Impact CR-7*

Impacts to potentially significant cultural resources within ROW.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

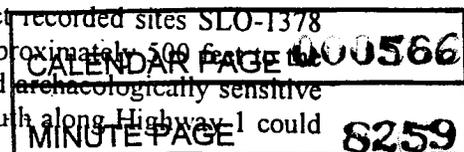
*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Mitigation Measure CR-7.* A qualified archaeologist and a Native American shall monitor excavation of the new manhole at the landing site and the road trench that runs south from the manhole along Highway 1.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The San Luis Obispo route is split into two diverse routes, both of which include a new manhole on the east side of Highway 1. Diverse Route A includes approximately 9.1 miles of road trenching, while Diverse Route B would be installed overhead on existing poles (and therefore would not impact cultural resources). The manhole and road trenching would not affect recorded sites SLO-1378 (located on a marine terrace above the project site) and SLO-879 (located approximately 500 feet north). However, as discussed in the FEIR, the Chevron facility is considered archaeologically sensitive and it is possible that excavation of the manhole and the land trench to the south along Highway 1 could



affect unrecorded archaeological deposits. In the event that excavation activities identify potentially significant archaeological deposits, all construction shall temporarily cease, pending inspection by a qualified archaeologist. Both the archaeologist and a Native American monitor will evaluate the resources and ensure that any potentially significant resources are avoided by any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to less than significant.

**Impact CR-8**

Potential trenching disturbance to archaeological sites.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Mitigation Measure CR-8.* A qualified archaeologist shall conduct an Extended Phase I Survey at SLO-168, SLO-1800/H, and SLO-1860 and where the ROW crosses the San Bernardo Creek and San Luisito Creek drainages. A Native American monitor shall be present during all excavations. The subsurface survey may use shovel test pits, backhoe trenching, or a combination of the two. Backhoe trenches will be used where deposits could be encountered more than 3 feet deep. A qualified geomorphologist, under the direction of a qualified archaeologist, will inspect and describe soil exposures of backhoe trenches. Any potentially significant archaeological deposits shall be avoided by directionally boring beneath the resource or by re-routing.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The records search and cultural resources survey conducted for the FEIR identified three recorded sites that may extend into the trenching ROW, including SLO-168, SLO-1800/H, and SLO-1860. In addition, buried archaeological resources in this area are known to be located where tributary drainages enter large valleys, such as San Bernardo Creek and San Luisito Creek. Trenching within these areas may lead to unanticipated discoveries. Diverse Route A includes approximately 9.1 miles of road trenching. In the event that the pre-construction subsurface survey or subsequent construction activities identify potentially significant archaeological deposits, all construction shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist, along with a geomorphologist and a Native American monitor, will be onsite to evaluate the resource and ensure that any potentially significant resources are avoided by any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to a less than significant level. In addition, since Diverse Route B would be installed overhead on existing poles, it does not involve trenching and therefore no impacts to cultural resources would occur.

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### 3.9.4 Water Quality

#### Impact WQ-1

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is greater. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) shall be followed in construction areas to prevent migration of potential fuel spills and drilling fluid spills to nearby drainages and the Pacific Ocean. Implementation of this measure has been required as Condition of Approval # 40.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR discusses the use of construction equipment, the potential for spillage of petroleum products (hydraulic fluids, motor oil, grease, or gasoline), and the surface water quality impacts that could result if a spill entered a nearby drainage. Spill prevention and containment practice has demonstrated that standard measures such as establishing storage, fueling, and equipment maintenance areas a safe distance from wetlands, creeks, and drainages will sufficiently reduce the possibility of water quality impacts from construction equipment such that the potential for such impacts would be reduced to less than significant. The Onshore Spill Prevention and Contingency Plan (FEIR, Appendix S.2) provides detailed guidance for implementation of these measures.

### 3.9.5 Paleontology

#### Impact PA-1

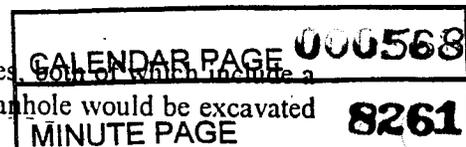
Unanticipated discovery of vertebrate fossils.

*Mitigation Measure PA-1.* In the event of an unanticipated discovery of vertebrate fossil remains during construction, subsurface excavations in the vicinity of the find shall be temporarily diverted or halted until the resource is inspected by a qualified vertebrate paleontologist. The paleontologist shall notify appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils will be salvaged through a program of excavation, analysis, and documentation. Fossil remains collected during this salvage program shall be cleaned, sorted, catalogued and then deposited in a public, nonprofit institution with research interests in the materials. Implementation of this measure has been required as Condition of Approval # 41.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The San Luis Obispo route is split into two diverse routes, both of which include a new manhole on the east side of Highway 1. As discussed in the FEIR, the manhole would be excavated



into Holocene (Recent) Alluvium and/or disturbed ground, both of which have a low potential for fossils. Diverse Route A includes approximately 9 miles of trenching in Holocene (Recent) Alluvium, Jurassic-Cretaceous Franciscan assemblage and/or disturbed ground. Although the Holocene (Recent) Alluvium has a low potential for fossils, the others have no potential for fossils due to their characteristics and geological age. Diverse Route B would be placed on poles, therefore no impacts would occur in these areas. Therefore, project construction activities along the San Luis Obispo route are not expected to impact significant fossils. If vertebrate fossils are discovered during construction, construction shall temporarily cease, pending inspection by a qualified paleontologist, and the above measure shall be applied to reduce impacts to insignificance.

### 3.10 Impacts Associated with the Morro Beach Landing Alternative

#### 3.10.1 Air Quality

##### *Impact AQ-2*

Within the 3-mile state waters boundary, use of vessels would exceed the SLOCAPCD daily NO<sub>x</sub> emission threshold for 3 days.

*Mitigation Measure AQ-2.* Implementation of the following measures would reduce O<sub>3</sub> precursor emissions from proposed vessel and vessel equipment sources:

1. Fuel injection timing retard of 2 degrees on diesel-powered vessels and vessel equipment.
2. Engine turbocharging and after-cooling on diesel-powered vessels and vessel equipment.
3. Use of ARB on-road diesel fuel in diesel-powered equipment.
4. Maintain equipment in tune per manufacturer's specification, except as otherwise required in items (1) and (2) above.
5. Substitute gasoline-powered for diesel-powered equipment, where feasible.

Implementation of this measure has been required as Condition of Approval # 32.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides background on emissions that would occur within San Luis Obispo County for offshore and onshore activities associated with the Morro Beach alternative landing site. The data in the FEIR indicate that project emissions would exceed the SLOCAPCD daily NO<sub>x</sub> emission threshold due to the use of the HDD and cable-laying vessel. Although daily emissions from these sources would be considered to be significant during the construction period, total construction emissions would not exceed the calendar quarter threshold of 2.5 tons. All other proposed construction emissions would not exceed SLOCAPCD thresholds and therefore would be insignificant.

Implementation of 2 degree ITR and the use of on-road, rather than the more inexpensive off-road diesel fuel has been shown in practice to be relatively easy measures to reduce NO<sub>x</sub> and ROG emissions from diesel-powered engines by at least 15 and 16 percent, respectively. Therefore, implementation of measure AQ-2 would adequately reduce the impact of the project's O<sub>3</sub> precursor emissions at the Morro Beach landfall to insignificance.

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### 3.10.2 Terrestrial Biological Resources

#### Impact TB-4

Potential disturbance to snowy plovers on the beach near the landing site; potential disturbance to wetlands in areas of cable installation by trenching.

*Mitigation Measure TB-1.* Prepare a CIMP to address this by coordinating with local jurisdictions, landowners, utilities, and responsible agencies to address potential impacts on sensitive species and habitats. Avoid impacts on wetland areas by confining ground disturbance to non-wetland areas, installing protective fencing, and monitoring during construction to ensure protective fencing is in place and to keep foot and vehicle traffic out of wetlands.

*Mitigation Measure TB-1d.* The CIMP for this portion of the project shall incorporate the general provisions described previously plus the following specific requirements:

- To avoid potential impacts on the western snowy plover, HDD equipment shall be muffled to reduce sound levels to no more than 65 dBA on the beach below the landing site and project personnel shall not be allowed on the beach in potential nesting areas. Other measures recommended by the USFWS shall be implemented as required to avoid an adverse effect on this species.
- The absence of burrowing owls and badgers from ground squirrel burrows along roadside embankments or grassland vegetation shall be confirmed prior to any construction through such areas. The cable shall be routed around any occupied burrows of these species.
- Cable installation across streams and wetlands shall be accomplished either by placement of the cable in existing fill above the drainage or by boring under the habitat of concern. The boundaries of jurisdictional Waters of the U.S. and bordering wetland and/or riparian vegetation shall be depicted on project engineering plans and staked for avoidance prior to construction. Points of access, travel routes, and staging and refueling areas for construction vehicles that avoid impacting streams and wetlands shall be specified on the plans. Any additional measures recommended by USFWS to avoid impacts on the California red-legged frog shall also be implemented. Applicable setbacks required by San Luis Obispo County shall be specified on construction plans.
- Temporary silt fencing and/or straw bales shall be placed immediately downhill from the construction corridor as needed to prevent sediment deposition in stream channels and associated wetlands.
- A monitor acceptable to the USACE-Los Angeles District shall direct the placement of fencing with respect to drainage crossings along Highway 1. The monitor shall be present during construction and shall document construction activities, including the avoidance of impact. The monitor shall have the authority to halt or redirect construction as necessary to prevent activities or soil deposition from affecting stream channels and associated riparian vegetation.
- Immediately following cable installation, the ground surface shall be restored to pre-construction contours, stabilized, and seeded or planted according to specifications approved by Caltrans and the local jurisdiction.

Implementation of this measure has been required as Condition of Approval # 39.

*Residual Impact.* Implementation of the above mitigation measure would reduce the impact to less than significant.

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*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The FEIR provides information on biological resources for this area and indicates that various sensitive habitats and species are known or reasonably likely to occur in the vicinity of the proposed route, including the presence of nesting snowy plovers. Project-related activities, including construction noise, incidental foot traffic, and vehicular traffic immediately above the beach, could disturb snowy plovers. The impact on this species is potentially significant because of the recent designation of the beach area as critical habitat for the snowy plover, but is mitigable (Class II) by implementation of the above mitigation measures.

The impacts of cable installation by trenching along Highway 1 would involve approximately 9.1 miles of trenching, with the possibility of boring under specific areas to avoid the impacts of ground disturbance. Sensitive plant species have also been documented near the cable route, but suitable habitat for these species is not present at the landing site or within the Highway 1 ROW. The potential area of impact includes wetlands and other Waters of the U.S. at 31 drainage crossings totaling approximately 0.2 to 0.7 acre. The larger streams in the Chorro Valley (Chorro Creek and tributaries) could support the California red-legged frog and southern steelhead, both of which are federally listed threatened species. These streams and associated riparian habitats are also likely to support the western pond turtle and sensitive riparian bird species. Finally, badgers or burrowing owls, both of which are state species of concern, could be present in association with ground squirrel colonies and, if present, could be impacted by construction. These impacts are potentially significant but mitigable (Class II) by implementation of the above mitigation measures.

For the Morro Beach landing alternative, the CIMP shall incorporate results of focused biological surveys if needed to confirm the presence or absence of sensitive biological resources in areas of potential impact. The CIMP shall specify construction measures such as scheduling, cable placement, installation methods, protective fencing, and monitoring by a qualified biologist, to minimize impacts. Residual impacts would be mitigated by additional measures such as habitat restoration and/or compensation consistent with permit requirements. The CIMP shall be subject to review and approval by the CSLC, USACE, and CDFG. Other agencies, such as the Coastal Commission, Department of Parks and Recreation, and USFWS, will be involved in review and approval regarding resources and portions of the project for which they have responsibility. The implementation of such measures will reduce the potential impacts to less than significant levels.

### 3.10.3 Cultural Resources

#### *Impact CR-2*

Unanticipated discovery of significant or potentially significant cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

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*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The alternative San Luis Obispo landing site at Morro Beach is located in an area that has been thoroughly surveyed for cultural resources. Only one archaeological site has been identified in the vicinity and is approximately 0.25 miles from the proposed project area, therefore, no impacts would occur at this site. Although impacts on cultural resources are not expected, a remote chance exists for unexpected but potentially significant cultural resources to be encountered during construction of a new manhole. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to a less than significant level (Class II).

### *Impact CR-3*

Unanticipated discovery of unrecorded cultural resources.

*Mitigation Measure CR-2.* Avoid all significant or potentially significant cultural resources.

*Mitigation Measure CR-3.* Prepare and implement a CRCMP to ensure avoidance and documentation of unexpected discoveries. If such discoveries occur, a qualified archaeologist shall evaluate the resources. Resources considered potentially significant shall be avoided by directional boring beneath the resource or by re-routing. Implementation of this measure has been required as Condition of Approval # 20.

*Residual Impact.* Implementation of the above mitigation measures would reduce the impact to less than significant.

*Findings.* Mitigation measures incorporated into the proposed project will reduce the significant environmental effect identified in the FEIR to less than significant.

*Supportive Evidence.* The alternative San Luis Obispo landing site at Morro Beach is located in an area that has been thoroughly surveyed for cultural resources. Only one archaeological site has been identified in the vicinity and is approximately 0.25 miles from the proposed project area, therefore, no impacts would occur at this site. Although impacts on cultural resources are not expected, a remote chance exists for unexpected but potentially significant cultural resources to be encountered during construction of a new manhole. In the event of an unanticipated discovery during construction, all construction activities shall temporarily cease, pending inspection by a qualified archaeologist. The archaeologist will evaluate the resource and ensure that any potentially significant resources are avoided during any subsequent construction activities at the site. Therefore, the mitigation measures recommended above would reduce adverse impacts to a less than significant level (Class II).

### *3.10.4 Water Quality*

#### *Impact WQ-1*

Potential petroleum spills from construction equipment.

*Mitigation Measure WQ-1.* Designated storage, fueling, and equipment maintenance areas shall be established at a safe distance (i.e., greater than 100 feet) from nearby wetlands, creeks, and drainages, as measured from the top of the uppermost bank or edge of riparian or wetland vegetation, whichever is

