3.7 Hazards and Hazardous Materials

The following section addresses the hazardous materials and public safety impacts associated with implementation of the Transpacific Fiber-Optic Cables Project. The marine segments of the cable systems refer to those segments between the mean high water (MHW) line and the outer limit of the continental shelf—that is, areas where seawater depth is no greater than approximately 5,904 feet (1,800 meters). The marine construction activities include directional boring support, cable pulling, a pre-lay grapnel run, cable laying, post-lay burial of the nearshore portion of the cables, cable plowing, and remotely operated vehicle (ROV) post-lay burial. The terrestrial segments of the cable systems refer to those segments located on land, within the City of Hermosa Beach, above the MHW line. The terrestrial construction activities include directional boring, cable pulling, terrestrial conduit installation, and PFE facility construction.

3.7.1 Environmental Setting

Population growth and industrialization within the City of Hermosa Beach and near the Santa Monica Bay throughout the last century has increased the need for waste disposal in the region. As the region grew, industrial, agricultural, and household contaminants increasingly flowed or were washed into the Bay. Many of these pollutants are known to pose risks for people, marine life, and the surrounding environment. Historically, contaminants of greatest concern in the Bay have included DDT, PCBs, heavy metals (such as lead), and polycyclic aromatic hydrocarbons (PAHs) (U.S. Geological Survey, 2003). The potential impacts of construction through those areas are discussed in Section 3.8, *Hydrology and Water Quality* and below. The hazardous materials sites listed in the SWRCB Geotracker data management system for tracking contaminated sites that could potentially affect groundwater and are located within the vicinity of the proposed Project are listed below in Table 3.7-1.

Table 3.7-1. Hazardous Materials Sites in the Project Vicinity

Site	Address	Approximate Distance from Project	Status
City of Manhattan Beach	1400 Highland Avenue, Manhattan Beach	0.9 mile (1.5 km) northwest of Longfellow Ave. manhole	Leaking underground storage tank (LUST) cleanup site. Soil only. State Water Resources Control Board (SWRCB) underground storage tank (UST). Cleanup staff has completed a review of the case and determined that the case meets the SWRCB's Low-Threat Underground Storage Tank Case Closure Policy criteria and made a recommendation for UST case closure.
ARCO #1846	1002 Manhattan Beach Blvd., Manhattan Beach	1 mile (1.6 km) northeast of Longfellow Ave. manhole	LUST cleanup site. Gasoline impacted soil. Case closed January 1997.
Champion Chevrolet	707 Sepulveda Blvd N, Manhattan Beach	0.8 mile (1.3 km) northeast of Longfellow Ave. manhole	LUST cleanup site. Gasoline impacted soil. Case closed October 1996.
Former Service Station	1304 2nd Street, Los Angeles	1 mile (1.6 km) east of Longfellow Ave. manhole	LUST cleanup site. Gasoline impacted media. Case closed January 2007.
Vasek Polak Saab	356 Sepulveda Blvd S, Manhattan Beach	0.7 mile (1.1 km) east of Longfellow Ave. manhole	LUST cleanup site. Aviation fuel impacted soil. Case closed January 1997.
Hillside Plaza-Joint Venture	125 Sepulveda Blvd S, Manhattan Beach	0.6 mile (1 km) east of Longfellow Ave. manhole	LUST cleanup site. Waste, motor, hydraulic, and lubricating oil impacted soil. Case closed July 1993.[a]

Table 3.7-1. Hazardous Materials Sites in the Project Vicinity			
Site	Address	Approximate Distance from Project	Status
Manhattan Car Wash	300 S. Sepulveda Blvd., Manhattan Beach	0.6 mile (1 km) east of Longfellow Ave. manhole	LUST cleanup site. Soil only. SWRCB determined that the case meets their Low-Threat Underground Storage Tank Case Closure Policy criteria and has granted closure to the site.
Blakely-Comstock	400 S. Sepulveda Blvd., Manhattan Beach	0.6 mile (1 km) east of Longfellow Ave. manhole	LUST cleanup site. Gasoline impacted soil. Case closed July 1986.
Vasek Polak BMW	2901 Pacific Coast Hwy, Hermosa Beach	0.6 mile (1 km) northeast of Longfellow Ave. manhole	LUST cleanup site. Gasoline impacted soil. Case closed January 1997.
Bright Cleaners	1505 Hermosa Avenue, Hermosa Beach	0.65 mile (1.05 km) southeast of 25th St. manhole	Cleanup program site. Contaminated media not disclosed. Case closed June 1997.
ISCO Industries	540 1st Street, Hermosa Beach	0.7 mile (1.1 km) southeast of 25th St. manhole	LUST cleanup site. Waste, motor, hydraulic, and/or lubricating oil impacted soil. Case closed June 1990.
Key Centers, Inc	1325 Hermosa Avenue, Hermosa Beach	0.7 mile (1.1 km) southeast of 25th St. manhole	LUST cleanup site. Gasoline impacted groundwater. Case closed February 2014.
Shell Service Station	1031 Hermosa Avenue, Hermosa Beach	0.8 (1.3 km) mile south of 25th St. manhole	LUST cleanup site. Gasoline impacted groundwater. Case closed November 1997.
Prestige Auto Works	1420 Pacific Coast Hwy, Hermosa Beach	0.7 mile (1.1 km) southeast of 25th St. manhole	LUST cleanup site. Gasoline impacted soil. Case closed February 2008.
Tosco S.S. #1840	755 Pier Avenue, Hermosa Beach	0.7 mile (1.1 km) southeast of 25th St. manhole	LUST cleanup site. Benzene impacted soil. Case closed September 2001.
Thrifty #258	1311 Pacific Coast Hwy, Hermosa Beach	0.7 mile (1.1 km) southeast of 25th St. manhole	LUST cleanup site. Gasoline impacted soil. Case closed February 1998.
Arco #9652	1311 Pacific Coast Hwy, Hermosa Beach	0.7 mile (1.1 km) southeast of 25th St. manhole	LUST cleanup site. Gasoline impacted soil. Case closed September 2008.
Mobil #11-E3F	931 Pacific Coast Hwy, Hermosa Beach	0.9 mile (1.5 km) southeast of 25th St. manhole	LUST cleanup site. Waste, Motor, hydraulic, and/or lubricating oil impacted soil. Case closed May 2010.
Desert Petroleum	890 Pacific Coast Hwy S, Hermosa Beach	1 mile (1.6 km) southeast of 25th St. manhole	LUST cleanup site. Gasoline impacted groundwater. Case closed May 1999.

[a] State Water Resources Control Board (2014).

3.7.1.1 Nearby Schools

There is one proposed or existing school within 0.25 mile (0.4 kilometer) of the proposed cable landing sites (Table 3.7-2). Three other schools were identified as being potentially within 0.25 mile (0.4 kilometer) of proposed PFE facility locations.

Table 3.7-2. Schools Potentially within 0.25 Mile of Proposed Project Facilities		
School Name	Address	Approximate Distance from Project
Robinson Elementary	80 S. Morningside Drive, Manhattan Beach	0.19 mile (0.31 kilometer) northeast of Longfellow Avenue LMH and 0.23 mile (0.37 kilometer) east of Neptune Avenue LMH
Hermosa Valley Elementary	1645 Valley Drive, Hermosa Beach	0.07 mile (0.11 kilometer) North of 1529 Valley Dr and 0.14 mile (0.22 kilometer) west of 1601 PCH PFE location
Fusion Academy	1601 Pacific Coast Highway, Suite 260, Hermosa Beach	Located within the proposed 1601 PCH PFE location.
Hermosa View Elementary	1800 Prospect Ave, Hermosa Beach	0.20 mile (0.32 kilometer) northeast of the proposed 1601 PFE facility location.

Source: APED (2015), City of Hermosa Beach (2014)

3.7.1.2 Nearby Airports and Airstrips

The proposed Project would not be within an airport land use plan or within 2 miles (3.2 kilometers) of a public airport or public use airport. The closest airport is the Los Angeles International Airport (LAX), approximately 3.8 miles (6.12 kilometers) north of the proposed Neptune Avenue cable landing site. Hawthorne Municipal Airport is 5.3 miles (8.5 kilometers) northeast of the proposed Neptune Avenue cable landing site, and Torrance Airport-Zamperini Field is 5.3 miles (8.5 kilometers) southeast of the 25th Street landing site. The proposed Project is not located within any Airport Influence Areas or Runway Protection Zones (Los Angeles County Airport Land Use Commission, 1991).

3.7.1.3 Hermosa Beach Hazardous Material Plan and Emergency Preparedness Program

The Hermosa Beach Emergency Preparedness Advisory Commission (EPAC) educates and prepares the public to survive, endure, and recover from natural or human-made disasters. EPAC has the following objectives.

- To develop a comprehensive, ongoing public preparedness awareness program.
- To review and develop a comprehensive communications program involving preparation and response to emergencies.
- To develop an ongoing plan for volunteer organizations within the City, as well as groups or resources that would respond to emergencies.

The Hermosa Beach Fire Department administers the City's Hazard Mitigation Plan and Emergency Operations Plan.

3.7.1.4 Wildfire Risk

According to the "Fire Hazards Severity Zones for State Responsibility Area – Los Angeles County" map, from the Fire and Resource Assessment Program, California Department of Forestry and Fire Protection, the proposed Project is not located within a High Fire Risk Area (California Department of Forestry and Fire Protection, 2011).

3.7.1.5 City Maintenance Yard

One of the proposed locations for a PFE facility is the City of Hermosa Beach maintenance yard located at 555 6th Street. This maintenance yard was the site of the proposed E&B Oil Drilling & Production Project and has a history of environmental assessment. The information and environmental assessments prepared and utilized for the E&B Oil EIR have been incorporated into this section to aid the analysis and provide a more accurate environmental setting. The City of Hermosa Beach uses the yard for maintenance, which requires the use and storage of some hazardous materials. These hazardous materials are typically associated with maintenance activities, such as vehicle maintenance, fueling, and city upkeep. The maintenance yard also stores relatively small quantities of paint, welding gases, consumer quantities of solvents, etc. However, none of these materials are stockpiled in quantities large enough to present a public health risk, or create a hazard.

The maintenance yard also stores a limited amount of fuels such as gasoline, diesel, and propane onsite, primarily within the individual fuel tanks of all the vehicles parked on site. This storage could produce a threat to human safety as a result of spilled gasoline caused by a vehicle accident or a refueling error; however, the numerous vehicles traveling daily along the nearby streets and stored on the city streets also present a similar risk level. The maintenance yard contains a 500-gallon propane

tank on the south end of the yard. This tank is used to refill the small vehicles used by the parking enforcement division and the forklifts used by the City. There are no active underground storage tanks (USTs) located on the property, and all fueling of vehicles (gasoline and diesel) is preformed off site.

The maintenance yard has a history of activities that may have contributed to the existing contamination on site. These were analyzed in multiple reports including GeoResearch (1989), ENTRIX (1994, 1995), GEO-CAL. Inc. (1998), Brycon (2012), and the E&B Oil EIR. These reports are discussed individually below. The contamination that is known to exist within the yard is illustrated in Figure 3.7-1: Existing Site Conditions. The historical uses and activities for the City maintenance yard which may have contributed to the existing contamination include:

- The yard was the site of a former landfill from the 1920s to the 1950s. During that time, contamination may have occurred in the northeast area of the site.
- The City of Hermosa Beach removed steel USTs and the associated piping and dispenser equipment in 1989 and 1998. The Phase I conducted by ENTRIX indicated that chemicals of concern were not detected in the UST area.
- The yard contained an old maintenance building (northern area) that included a paint room, a vehicle maintenance room, a parts room, and a miscellaneous storage room. A Phase II ESA (ENTRIX, 1995) indicated that no chemicals of concern were present in the soil underneath the building.
- The maintenance yard was the location of an oil production well and the associated tanks were located on site. A search of the California Department of Conservation, Division of Oil Gas and Geothermal Resources (DOGGR) website reveals the well has been plugged and abandoned. The Phase II ESA conducted by ENTRIX indicated that there was no chemicals of concern within the well location.
- The Phase I ESA also revealed that the yard has an area which was previously utilized as an Asphalt Batching area, which is now utilized as a storage area for sand and gravel. The Phase II ESA did not indicated any chemicals of concern present.

GeoReseach (1989)

GeoResearch prepared a report in 1989 for the city maintenance yard site which contains details of the closure of two 550-gallon underground storage tanks in 1989. The tanks in question were closed by filling them with concrete and abandoning them in place. Eighteen soil samples were taken from three different soil borings and used to measure the concentration of total petroleum hydrocarbons (TPH). No TPH was detected in any samples, which lead to the County of Los Angeles, Department of Public Works to issue a closure letter for the site on April 10, 1989.

ENTRIX (1994)

A Phase I report was prepared for the yard location by ENTRIX, Inc. in October 1994. The report found that the site contained or had contained multiple uses which may be resulted in a petroleum and/or solvent release within the site. These uses included the two underground storage tanks, the previously mentioned oil well, an asphalt batching area, a vehicle washout area, a drum storage area, and a maintenance building. A soil gas survey was performed on the previously closed USTs on site, which verified the previous findings from the GeoResearch 1989 report that a significant release from the USTs was unlikely to have occurred due to the low to non-detectable levels of chemicals of concern in the soil near the USTs. The report also contained a history of the site and indicated that several of the uses, including use as a city dump, the presence of former above ground storage tanks (ASTs), and the previous use by the Hermosa Glass Company warranted additional sampling.

Source: Applicant Project Application, DOGGR well database, Phase 2 Environmental Site Assessments

Legend

- Proposed Project Site Boundary
- Existing Lead Contamination
- Existing THP Contamination

Figure 3.7-1
Existing Site Conditions

ENTRIX (1995)

Based on the results of the Phase I report prepared by ENTRIX in 1994, a Phase II ESA was conducted in April 1995 to more accurately evaluate the conditions of the subsurface. Soil samples taken from 15 different borings to a depth of 46 feet below ground surface (bgs) and analyzed for various chemicals of concern which would indicated the depth and spread of a potential contaminant plume. ENTRIX delineated the plume and concluded that TPH was present in the northeastern potion of the site near the base of the former landfill. The plume was described as a circular pattern 40 feet in diameter and roughly 20 feet thick, extending from 10 feet bgs to 30 feet bgs. The report also calculated the total volume of TPH contaminated soil at roughly 700 cubic yards, with the highest level of contamination located 20 feet bgs (36,000 mg/kg). The report also indicated the present of lead and cadmium within the area of the former landfill at roughly 15 feet bgs. The report concluded with the recommendation for further evaluation.

GEO-CAL. Inc. (1998)

In 1998, GEO-CAL, Inc. issued a report in 1998 which described the work which was completed to remove three USTs as well as the piping and dispensers. This report documented the two (2) 4,000-gallon gasoline tanks and one 2,000-gallon diesel tank. These tanks are different then the tanks which were filled with concrete and abandoned in place. The report analyzed 12 different soil samples which were taken from immediately below each tank (2 per tank), below each dispenser (1 per dispenser), and below the trench which contained the piping, 3 samples from the fill from around the tanks. The analysis indicated that chemicals of concern were only found in the sample below the diesel dispenser (15 mg/kg TPHd). This report was used when the County of Los Angeles, Department of Public Works, issued the Closure Certification and a letter of "no further action required" on January 13, 1999.

Converse (2005)

In 2005, Converse conducted a Phase II ESA to evaluate the semi-volatile organic carbon impacted soil extent. Based on the analytical results, Converse concluded that the semi-volatile organic carbon impacted soil is at a depth of approximately 2 to 5 feet bgs in the area about the middle of the current building site; lead impacted soil is located on the northeastern portion of the property approximately 2 to 5 feet bgs in the area near the property line; and that the lead impacted soil may extend offsite; and that an estimated up to 120 tons of impacted soil will need to be excavated and disposed of as non-RCRA hazardous waste.

Brycon (2012)

In 2012, a site assessment was prepared by Brycon. The study took 73 soil samples, 10 of which were found to exceed the LARWQCB guidelines for TPH. Six of the samples exceeded the EPA region 9 Industrial Regional Screening Levels for lead. In 2013, a series of groundwater borings conducted by Brycon found the presence of TPH, lead, barium, and arsenic in the groundwater below the City Maintenance Yard that exceed the Maximum Contaminant Levels (MCLs) established for drinking water by the Regional Water Quality Control Board.

E&B Oil Drilling & Production Project

The E&B Oil Drilling & Production Project was a proposed oil drilling facility that would have been located on the site of the city maintenance yard. The proposed Project had an EIR prepared with the City of Hermosa Beach as the lead agency and included analysis of the potential impacts from the

contamination located in the yard. The document also included a Remedial Action Plan (RAP) would have been implemented to address the lead, barium, arsenic, and TPH contaminated soil and groundwater within and beneath the former landfill area. The RAP proposed removing approximately 9,000 cubic yards of lead contaminated soil from the project site, and approximately 4,500 cubic yards of TPH contaminated soil would be treated onsite via a vapor extraction system. The document also indicated that the DTSC and RWQCB have stated that the contamination present within the site is below the levels of concern for the area and that groundwater remediation would not be necessary for the site.

3.7.2 Regulatory Setting

3.7.2.1 Federal

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established an EPA-administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous waste.

Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

U.S. Department of Transportation (DOT) Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), and 177 (Highway Transportation), would all apply to the proposed Project and/or surrounding uses.

3.7.2.2 State

California Health and Safety Code

The California Department of Toxic Substances Control (DTSC), a department of the California Environmental Protection Agency, is the primary agency in the State for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and CCR Title 22, Division 4.5). Division 20, Chapter 6.5 deals with hazardous waste control through regulations pertaining to transportation, treatment, recycling, disposal, enforcement, and permitting of hazardous waste. Division 20, Chapter 6.10 contains regulations applicable to the cleanup of hazardous materials releases. California Code of Regulations Title 22, Division 4.5 contains the environmental health standards for the management of hazardous waste. This includes standards for identification of hazardous waste (Chapter 11) and standards applicable to transporters of hazardous waste (Chapter 13).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Division 20, Chapter 6.11, Sections 25404–25404.9) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement

activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA is designed to protect public health and the environment from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes. This is accomplished via inspections, emergency response, enforcement, and site mitigation oversight. The CUPA for Hermosa Beach is the Los Angeles County Fire Department. The CUPA is also responsible for reviewing and approving the hazardous materials business plan required for the proposed Project.

California Code of Regulations, Title 8—Industrial Relations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) and the federal Occupational Safety and Health Administration (OSHA) are the agencies responsible for assuring worker safety in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would be applicable to both construction and operation of the Project. The standards included in CCR, Title 8 include regulations pertaining to hazard control (including administrative and engineering controls), hazardous chemical labeling and training requirements, hazardous exposure prevention, hazardous material management, and hazardous waste operations.

California Labor Code

The California Labor Code includes the regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5 ensures employees that are in charge of the handling of hazardous materials are appropriately trained on, and informed of, the materials they are handling. Division 5, Part 7 ensures employees who work with volatile flammable liquids are outfitted in appropriate safety gear and clothing.

California Department of Forestry and Fire Protection Fire Prevention Program

This program encompasses multiple facets of fire prevention techniques, including fire engineering, vegetation management, fire planning, education, and law enforcement. These techniques can include fire break construction and other fire fuel reduction activities that lessen the risk of wildfire to communities and evacuation routes, and brush clearance around communities, along roadways, and along evacuation routes. The fire prevention program also includes defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, implementation of the state Fire Plan, and fire-related law enforcement activities such as arson investigation.

Lempert-Keene-Seastrand Oil Spill Prevention and Response Act

This act covers all aspects of marine oil spill prevention and response in California. It established an Administrator who is given powers to implement the provisions of the act. In 1991, the Office of Spill Prevention and Response (OSPR) opened, headed by the Administrator.

3.7.2.3 Local

County of Los Angeles General Plan

General Goals and Policies

The goals and policies listed below are related to safety and more specifically hazardous materials safety.

General Goals

- Prevent or minimize personal injury, loss of life, and property damage due to natural or man-made disasters.
- Effective County emergency response management capabilities.

Plan Policies

- Enforce stringent site investigations for factors related to hazards.
- Limit development in high hazard areas such as floodplains, high fire hazards areas, and seismic hazard zones.
- Facilitate the safe transportation, use, and storage of hazardous materials in the County.
- Encourage the reduction or elimination of the use of hazardous materials.

City of Hermosa Beach Municipal Code Chapter 8.16 Hazardous Materials

Chapter 8.16 of the City's municipal code discusses the designation, identification, and disclosure of hazardous materials. It establishes minimum citywide standards for business and area plans relating to the handling and release or threatened release of hazardous materials.

City of Hermosa Beach Municipal Code Chapter 15.10 Fire Prevention Code

Chapter 15.10 of the City's municipal code discusses the applicable fire safety and prevention requirements for projects within the City of Hermosa Beach. It establishes minimum citywide standards for business and area plans relating to the handling and release or threatened release of flammable materials. Subsection 15.20.050 contains the requirements for flammable liquids storage in outside aboveground storage tanks.

3.7.3 Impact Analysis

Impacts were analyzed qualitatively based on professional judgment in light of information provided by the applicant and from analyses conducted for similar fiber-optic projects in the same region. Within those categories, contamination of groundwater or seawater, routine transport, use, or disposal of hazardous materials, accidental release of hazardous materials, proximity to schools and airports, locations of hazardous materials sites, and interference with emergency response plans were applicable. Impacts are discussed for both Project construction and operation under each threshold of significance, as appropriate.

3.7.3.1 Methodology/Approach

The following impact analysis evaluates the effects from hazards and hazardous materials that would result should the proposed Project be implemented. Based upon the existing conditions described

above, the impact analysis assesses the direct and indirect impacts related to hazards and hazardous materials and determines whether the Project would exceed any of the thresholds listed below.

3.7.3.2 Significance Thresholds

An impact related to hazards or hazardous materials would be considered significant if the proposed Project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or as a result of an accidental release of hazardous materials.
- Cause contamination of groundwater onshore and/or seawater offshore within the Project area during construction and/or operation of the Project, resulting in exposure of workers and/or the public to contaminated or hazardous materials at levels in excess of those permitted by California Occupational Safety and Health Administration (Cal-OSHA) in CCR Title 8 and the Federal Occupational Safety and Health Administration (OSHA) in Title 29 CFR Chapter XVII Part 1910.
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- For site contamination, result in mobilization of contaminants currently existing in the soil and groundwater, creating potential pathways of exposure to humans or other sensitive receptors that would result in exposure to contaminant levels that would be expected to be harmful.

3.7.3.3 Impacts and Mitigation Measures

Routine Transport, Use, or Disposal of Hazardous Materials or Accidental Release of Hazardous Materials

Impact HAZ-1: Oil or hazardous materials spills could occur during Project construction activities.

Construction activities associated with the proposed Project would use hazardous materials such as gasoline, diesel fuel, oil, acetylene, oxygen, antifreeze, and lubricants associated with construction equipment and other vehicles and would use and store hazardous materials such as mineral oil, cleaning solvents, paints, adhesives, vehicle fuels, oil, hydraulic fluid, and other vehicle and equipment maintenance fluids in the construction staging yards and at the locations of the directional bores. These hazardous materials would be transported, stored, used, and disposed of in accordance with applicable laws, regulations, and guidelines designed to prevent accidents, injury, or other damages to the public, workers, or the environment. Material Safety Data Sheets will be made available at the construction site for all workers as required by the Occupational Safety & Health Administration. No acutely hazardous materials would be stored or used on location or at staging yards during construction. Acutely hazardous wastes are wastes that would cause death, disabling

personal injury, or serious illness if exposed. These wastes are more hazardous than ordinary hazardous wastes.

Minor spills or releases of hazardous materials could occur due to improper handling and/or storage practices of hazardous materials during construction activities. The applicant would be responsible for preparing and implementing a Spill Prevention and Contingency Plan (SPCP) to be applied during construction activities. This plan would include protocol for dealing with spill assessment, prevention, containment, and response. The proposed Project disturbs more than one acre of land and would therefore also be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for the proposed Project. The SWPPP would provide the locations for storage of hazardous materials during construction, as well as protective measures, best management practices, notifications, and cleanup requirements for any incidental spills or other potential releases of hazardous materials. For more details please see Section 3.8.2.2, *Hydrology and Water Quality*. The applicant would also be required to prepare and submit the appropriate hazardous materials business plan for the construction of the marine bores, and the operation of the PFE facilities as are required for the quantity of fuel stored on site. The business plan would be submitted to the City of Hermosa Beach Fire Department, Los Angeles County Fire Department, and the California Environmental Reporting System.

A potential drilling fluid release could occur as a result of a "frac-out." A frac-out occurs when drilling fluids travel vertically along a fissure or crack in the soil and reach the surface. A loss of drilling fluid into the surrounding formation is not necessarily an indication that a frac-out has occurred or is about to occur. As discussed above and in Chapter 2 *Project Description*, the drilling fluid for this Project would be made of a mixture of bentonite clay and water, an inert non-toxic substance used to lubricate the drill and remove material from the bore path. This mixture is not considered to be hazardous to persons or the environment (NLM, 2013).

During operation and maintenance activities, it is anticipated that only small amounts of hazardous materials would be used, only as is necessary for a given activity; primarily liquids such as gasoline, lubricants, and solvents associated with maintenance vehicles. Operation and maintenance would likely only require transport, use, and disposal of hazardous materials infrequently and would likely be associated with emergency repair and maintenance activities. It is likely that only minor drips or spills of maintenance vehicle fluids would occur during operation and maintenance activities which could and would be cleaned up immediately after occurrence.

Marine activities would include installation, monitoring, and repair of fiber-optic cable. Oil or hazardous materials spills could occur during the proposed Project's marine construction activities. Improper handling of the materials listed above could lead to potential releases. The risk of potential spills is highest with vessel collisions or if a vessel runs aground. This risk can increase with additional marine traffic, navigational hazards, or severe weather conditions. Non-tank vessels of more than 300 gross tons (305 gross tonnes) are required to prepare an Oil Spill Response Plan and submit it to the CDFW's OSPR per CCR Title 14, Division 1, Subdivision 4, Chapter 3. The OSPR provides confidential advice to the Administrator primarily related to the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act. The OSPR also requires that the vessel maintain a contract with a firm that has appropriate oil spill response capacity. If the marine cable is removed from the seafloor after Project retirement, risks of a spill of oil or hazardous materials from ships involved in cable removal would be similar to those of cable installation.

The proposed marine cable routes cross Santa Monica Bay and several offshore basins, ridges, and escarpments located on the California Borderland before reaching the edge of the outer continental shelf. These proposed marine cable alignments were selected to avoid explosives dumping areas and contaminated sediments in Santa Monica Bay associated with the Palos Verdes shelf and the Hyperion sewage outfall. Typical marine operations include directional bore and cable-pulling, monitoring, pre-lay grapnel run, cable laying and cable burial. Approximate quantities of hazardous materials used in these types of activities are shown in Table 3.7-3.

Table 3.7-3. Hazardous Materials Typically Present in Cable-Laying Projects

Type of Vessel	Activity	Hazardous Materials (approximate)
Cable Ship	Cable laying	Fuel oil (1636 tons; 1,662 tonnes) Ballast (300,000 gallons; 1,135,624 liters)
Cable Ship	Monitoring	Fuel oil (1636 tons; 1,662 tonnes) Ballast (300,000 gallons; 1,135,624 liters)
Tug	Support vessel	Fuel (3,500 gallons; 13,250 liters)
Dive	Diver support	Fuel (50,000 gallons; 189,271 liters) Lube oil (2,000 gallons; 7,571 liters)
Seaplow	Cable burial	Hydraulic fluid (26.4 gallons; 100 liters)
ROV	Cable monitoring	Hydraulic fluid (26.4 gallons; 100 liters)

Source: Ecology and Environment, Inc. (2011).

To avoid collisions, marine vessels used in the cable laying and burial process are expected to travel at slow speeds on predetermined linear routes (routes are surveyed prior to construction activities to avoid subsurface hazards). Additionally, cable-laying vessels would navigate using Global Positioning Systems (GPS) or similar, further reducing the potential of vessel collisions.

With preparation and implementation of the various required plans and compliance with existing regulations, the proposed Project is not expected to create a significant hazard to the public or the environment through the transport, storage, use, or disposal of hazardous materials. Avoiding collisions and other accidents through implementation of the spill prevention and contingency plans reduces the likelihood of any releases through the implementation of preventative measures and the likelihood of a large release would be further reduced. In accordance with the mitigation measures outlined below, by implementation of the spill prevention and contingency plan, potential impacts to the environment and sensitive receptors can be reduced to a less-than-significant level (Class II).

Mitigation Measures

HAZ-1a **Spill Prevention and Contingency Plan.** The applicant will prepare and shall strictly adhere to a Spill Prevention and Contingency Plan (SPCP) for terrestrial construction activities. The SPCP will be submitted to the City of Hermosa Beach Fire Department for approval prior to issuance of the City's construction permit. At a minimum, the plan will include the following:

- Hazard assessment, which shall contain:
  - A copy of the MSDS for every hazardous material used
  - CAS number
  - SIC Code
  - United Nations Identification Number
  - A list of the chemical names and any common names of every hazardous material (As defined by the City of Hermosa Beach Municipal Code Section 8.16.020)

  - The maximum amount of hazardous material handled or used at any one time over the course of a year.
  - The characteristics of all hazardous material disclosed including, but not limited to, the degree such material may be toxic, flammable, reactive and corrosive.

- Spill prevention and containment, which shall include:
  - Specific information as to how and where hazardous materials are handled or used in order to allow fire and safety personnel to prepare adequate emergency response plans for the potential release of such hazardous materials, including clear and legible diagrams and annotated site maps.
- Emergency Response Procedures for both a release and/or a threatened release of a hazardous material, which shall include:
  - The name, title, and twenty-four (24) hour telephone number of a contact person, and an alternate, representing the business who can provide technical information and assistance in the event of a release or a threatened release of hazardous materials. The contact person shall have full facility access, site familiarity, and authority to make decisions regarding incident mitigation, in conjunction with the fire department
- Reporting procedures including a contact list, and
- Closing the spill incident

HAZ-1b **Worker Training.** Prior to construction, all construction site workers will be trained to recognize and respond to spills as mandated by the required plans, including which authorities to contact. The crews will be supplied with, and trained in, the use of containment devices and spill kits which contain at a minimum sorbent booms and pads, personal protective equipment and detailed emergency response guidance. The workers will also be trained in the proper response to a drilling fluid frack out and the proper procedures in the event of a total loss of return or frack out as well as the proper containment and disposal procedures. Records of all training will be sent to the City at the end of each Project construction phase along with a report detailing the training plans.

HAZ-1c **Maintain Equipment.** Prior to entry on the construction site, and periodically during construction, all construction equipment will be inspected for line breakage and leakage. Any equipment found to be chronically or continuously leaking will be immediately removed off site and repaired before returning to operation.

HAZ-1d **Refueling Practices.** Absorbent material such as pads or drip pans will be placed underneath all vehicles and equipment during equipment refueling or maintenance. If the beach landing sites are utilized for the boring activities, refueling activities may only be conducted within a designated and contained refueling area. Any refueling activity on the beach must also be conducted at least 100 feet (30.5 meters) from the mean high tide line. Any and all fluids drained from equipment will be collected in leak-proof containers and disposed of at an appropriate recycling facility if possible. If no recycling facility is available, an appropriate disposal facility may be used.

HAZ-1e **Human Waste**. Portable self-contained chemical toilets will be provided in sufficient quantity for the construction crews. The toilets will be provided by a commercial service and will be maintained in good working order to ensure that there are no leaks and will

pump or replace the toilets as necessary to prevent a containment breach. The vendor will be responsible for off-site disposal of waste according to appropriate regulations.

Contamination of Groundwater or Seawater

Impact HAZ-2: Laying marine cable could potentially disturb sediments that contain contaminants.

As discussed for Impact HAZ-1 above and in greater detail in Section 3.8, *Hydrology and Water Quality*, there is a potential for a spill of oil or hazardous materials to occur during the proposed Project's marine construction activities, resulting in contamination of seawater. With implementation of Mitigation Measure HAZ-1a, the spill response plan, and compliance with existing regulations, the proposed Project is not expected to cause contamination of seawater. Marine construction activities would take place offshore in Santa Monica Bay and, therefore, would not come in contact with groundwater.

Laying cable has the potential to re-suspend sediment and temporarily increase turbidity. Sediments along the floor of Santa Monica Bay are contaminated with DDT, PCBs, and metals. The proposed marine routes were selected to avoid known marine features such as explosives dumping areas and heavily contaminated sediment areas in Santa Monica Bay. However, offshore construction activities may result in re-suspension of fine-grained mineral particles, usually smaller than silt, and contaminants in the water column. Sediments are naturally re-suspended and dispersed by wave action and ocean floor currents throughout very large areas of Santa Monica Bay. The volume of contaminated sediments potentially re-suspended and dispersed via natural processes is far more than that anticipated to be caused by the very small-scale Project construction activities. Project activities are isolated to a very small footprint and, therefore, can only generate very small amounts of re-suspended sediment. Also, the Project avoids heavily contaminated areas and re-suspended sediment in areas of cable laying would be far below levels of re-suspended sediment from natural processes that would occur in larger areas. The effects of suspended sediments and contaminants are expected to be local, short-term, and not significant (Class III), with the re-suspended materials settling onto the seafloor shortly after the disturbance. As such, contaminated material impacting seawater during marine construction activities are expected to be negligible. More information on potential impacts associated with sediment is provided in Section 3.8, *Hydrology and Water Quality*.

Proximity to Schools

Marine construction would not have an impact on area schools. There is one school potentially located within 0.25 mile (0.4 kilometer) of the proposed Project: Robinson Elementary (see Table 3.7-2). Although Robinson Elementary is within 0.25 mile (0.4 kilometer) of proposed Project work sites at the Longfellow and Neptune manholes, marine construction activities would most likely occur at a distance greater than 0.25 mile (0.4 kilometer) from Robinson Elementary School. Any potential construction-related hazardous releases or emissions would be from materials such as fossil fuels, antifreeze, drilling fluids, and small amounts of acetylene and oxygen and would not include substances listed in 40 CFR Part 355, Appendix A: *Extremely Hazardous Substances and Their Threshold Planning Quantities*. Any spills would be localized and immediately contained and cleaned. Therefore, construction of the proposed Project would not affect land uses 0.25 mile (0.4 kilometer) away from work sites, including Robinson Elementary School.

Construction of the proposed Project would involve the installation of terrestrial power cables connecting the PFE facility to the cable regenerators responsible for propagating the fiber-optic light

signal across the ocean. The terrestrial conduit cables, described in detail in Section 2.4.1.4, *Terrestrial Conduit Systems*, would contain an insulated copper power cable that would be used to transmit direct current (DC) power. The proposed Project would bury the cables utilizing the trenchless construction techniques described in Section 2.4.2.2 *Trenchless Conduit Installation*. The proposed Project would require the installation of a 48-volt copper cable, roughly 0.5 inches (1.2 cm) in diameter. Operation of the proposed Project would result in the generation of a small magnetic field. As described in Section 2.5.2.3 *Cable Regenerators*, the cable would generate a static magnetic field on the order of 5 milligauss at a distance of 3.28 feet (1 meter) from the cable. The field diminishes with distance from the cable, such that at 33 feet (10 meters) it would be approximately 0.5 milligauss. The Earth produces a static magnetic field due to the movements of the Earth's molten magnetic core. The magnetic field of Earth averages around 500 milligauss (NIEHS, 2015).

There is no consensus in the scientific community regarding health risks associated with EMF exposure and, therefore, conclusions regarding this concern cannot be reached in this discussion. In addition, there are no federal or State standards limiting human exposure to EMF from transmission lines. However, the static fields generated by DC transmission in particular are not viewed as a health concern due to the extremely low level compared to the naturally occurring static fields. No impact as a result of potential exposure to the static electric fields generated by the power cables is anticipated.

Hazardous Materials Sites

No facilities would be installed in marine segments of the proposed Project. Additionally, none of the sites listed in Government Code Section 65962.5 shown in Table 3.7-1 are located in the marine Project area. These proposed marine segments were selected to avoid explosives dumping areas and contaminated sediments in Santa Monica Bay associated with the Palos Verdes shelf and the Hyperion sewage outfall. These contaminated sites are further discussed in Section 3.8.1, *Hydrology and Water Quality*.

Proximity to Airports

The marine cable alignments are not located within an airport land use plan or within 2 miles (3.2 kilometers) of a public airport or public use airport. The closest airport is the Los Angeles International Airport (LAX), approximately 3.8 miles (6.12 kilometers) north of the proposed Neptune Avenue cable landing site. Hawthorne Municipal Airport is 5.3 miles (8.5 kilometers) northeast of the proposed Neptune Avenue cable landing site, and Torrance Airport-Zamperini Field is 5.3 miles (8.5 kilometers) southeast of the 25th Street landing site. The proposed Project would not be within an Airport Influence Area or Runway Protection Zone. Therefore, no impacts are anticipated.

Interference with Emergency Response and Evacuation

The proposed Project would not interfere with any adopted emergency response plans or emergency evacuation plans. The City of Hermosa Beach Emergency Operations Plan was developed in 2011 by a committee to integrate the State's Standardized Emergency Management System and meet the requirements of Federal Emergency Management Agency's planning guidance as well as the National Incident Management System. This document addressed the planned response by the City of Hermosa Beach to emergency situations, and does not address normal day-to-day emergencies or well established and routine procedures. Potential traffic impacts from construction of the proposed Project on emergency response are discussed in Section 3.12.3.3, *Transportation and Traffic*. The City

of Hermosa Beach does not have an emergency evacuation plan developed nor are evacuation routes identified.

There are no emergency response plans or emergency evacuation plans utilizing ocean areas of Santa Monica Bay that have been identified. It is likely that all emergency response and evacuation plans would be terrestrial; therefore, marine construction activity on or below the water would not interfere with any emergency response or evacuation plans. Once installed, the cables would be buried 3 to 4 feet (1 to 1.2 meters) beneath the seafloor up to a water depth of 3,037 feet (1,200 meters). Cables would be less than 2 inches (5 centimeters) in diameter, unburied cable occurring either temporarily during construction and maintenance or in water depths greater than 3,037 feet (1,200 meters) would not interfere with any potential emergency response or evacuation uses of Santa Monica Bay.

Existing Site Contamination

Impact HAZ-3: Ground-disturbing activities within the City of Hermosa Beach Maintenance Yard could release contaminants into the environment.

As discussed above in Section 3.7.1.5, previous studies have identified existing contamination present within the City of Hermosa Beach maintenance yard located at 555 6th Street. The City of Hermosa Beach uses the yard for maintenance, which requires the use and storage of some hazardous materials. These hazardous materials are typically associated with maintenance activities, such as vehicle maintenance, fueling, and city upkeep. The maintenance yard also stores relatively small quantities of paint, welding gases, solvents, etc. However, none of these materials are stockpiled in large enough quantities to present a public health risk, or create a hazard. Previous studies have indicated that the yard's historical use as a landfill may have resulted in the existing contamination. Figure 3.7-1 illustrates the most recent study of the contamination, showing the extent of the existing lead and total petroleum hydrocarbon (TPH) contamination. The existing contamination on site was delineated in the Phase II ESA prepared by Entrix in 1995. This report described the contamination plume as being located as roughly 40 feet in diameter, and existing between 10 feet and 30 feet below ground surface (bgs). The report also noted the presence of lead and cadmium at roughly 15 feet bgs. These findings were later modified in a Phase II ESA conducted by Converse in 2005, finding lead-impacted soil located approximately 2 to 5 feet bgs.

These studies provide sufficient evidence to support an assumption that ground-disturbing activities conducted within the area of the known plume may result in a significant impact. However, it is unlikely that the construction within the City maintenance yard would take place within the area of known contamination, which primarily exists beneath an existing building. The PFE facility would likely be constructed in another part of the yard outside of the known contaminant plume. Short sections of trenching, required to connect the trenchless underground conduit into the PFE facility, could potentially uncover contaminated sediments and provide an avenue for contamination to enter the environment. The proposed Project is expected to disturb greater than one acre of land and would be required to prepare a SWPPP, as described in Section 3.8, *Hydrology and Water Quality*. Implementation and enforcement of the plans required by Mitigation Measures HAZ-1a, HAZ-3b, and HAZ-3c along with the worker training required by Mitigation Measure HAZ-1b would reduce the potential impact on the environment from disturbance of contaminated soils. Implementing and enforcing these mitigation measures, along with the location selection required by Mitigation Measure HAZ-3a below, would reduce this potential impact to a less-than-significant level (Class II).

Mitigation Measures

HAZ-3a **Construction Location.** The applicant shall avoid utilizing ground-disturbing construction techniques in all areas of known environmental contamination.

HAZ-3b **Remedial Action Plan**. If the applicant requires the use of the City of Hermosa Beach maintenance yard as a PFE facility location and would need to conduct ground-disturbing activities in an area of known contamination, the applicant shall prepare a remedial action plan for all ground-disturbing activities within the yard. This document shall be prepared to review the potential actions necessary for work on the site, including a full remedial action, as well as excavation of the contaminated soil. This plan will contain the preventative measures and procedures which will be followed for the removal and/or remediation of contaminated soil. This plan shall be similar in scope to the Remedial Action Plan prepared for the E&B Oil Drilling & Production Project and at a minimum contain:

- Purpose and need for the plan
- Assessment of the potential hazards
- Spill Prevention
- Containment measures and best management practices.
- Soil testing requirements and documentation.
- Reporting procedures to the City and other relevant agencies
- Disposal Documentation and Chain of Custody Information
- A notification list in case of release.

HAZ-3c **Dispose of Contaminated Soils.** All soils excavated within the City maintenance yard shall be contained and stored onsite, tested for chemicals of concern, and disposed of as necessary. Disposal documentation and chain of custody documentation shall be provided to the City of Hermosa Beach Public Works Department.

3.7.3.4 Cumulative Effects

Introduction

The marine segments of the cable systems are located in Santa Monica Bay between the MHW line and the outer limit of the Continental Shelf—that is, areas where seawater depth is no greater than approximately 5,904 feet (1,800 meters). Santa Monica Bay is a semi-enclosed shelf centrally located in the Southern California Bight.

The region surrounding Santa Monica Bay has been substantially altered in the last 100 years and terrestrial areas have been developed. The development areas surrounding the Bay have subsequently altered the marine environment, with impacts identified from contaminated water and sediments in Santa Monica Bay, associated storm drain effluent, Ballona Creek discharge, and contamination at the Palos Verdes shelf. In addition, the military has deposited explosives in designated dumping areas. Submarine cables have also been installed in Santa Monica Bay. As stated above, marine construction would take place within the water areas of Santa Monica Bay. All of the cumulative projects listed in Table 3-1 are terrestrial and do not extend into the water areas of Santa Monica Bay as defined by the marine segments of the Project.

Project Contribution to Cumulative Impacts

The marine and submarine nature of the Project segments provide a distinct separation from the terrestrial projects listed in Table 3-1 and, therefore, the Project's impacts would not combine with similar effects that may be caused by the implementation of these projects. Project construction is temporary and limited mainly to the water, and the scale of the Project is relatively small. With the implementation of Mitigation Measure HAZ-1a, the unlikely contamination of seawater by an oil spill or other hazardous materials associated with marine construction equipment would be minimized. Sediments are naturally re-suspended and dispersed by wave action and ocean floor currents throughout very large areas of Santa Monica Bay. The volume of contaminated sediments suspended and dispersed via natural processes is much more than can possibly be generated by small-scale and localized Project construction activities. The Project avoids heavily contaminated areas, and re-suspended sediment in areas of cable laying would be far below levels of re-suspended sediment from natural processes that would occur in these areas. Any disturbances to the seafloor and/or water column during construction would be temporary and localized. Therefore, the Project is not expected to make a considerable contribution to cumulative effects associated with possible release of hazardous materials into the marine environment.

3.7.3.5 Summary of Impacts, Mitigation Measures, and Significance Conclusions

Table 3.7-4, below, provides a summary of each identified impact and associated mitigation measures to reduce or avoid the impact, if warranted. Mitigation measures are required for each significant impact, but are not required for impacts that are not significant. Table 3.7-4 also indicates the significance conclusion for each identified impact.

Table 3.7-4. Summary of Hazards and Hazardous Materials Impacts, Mitigation Measures, and Significance Conclusions

Impact	Mitigation Measures	Significance Conclusion
Impact HAZ-1: Oil or hazardous materials spills could occur during Project construction activities.	HAZ-1a Spill Prevention and Contingency Plan. HAZ-1b Worker Training HAZ-1c Maintain Equipment HAZ-1d Refueling Practices HAZ-1e Human Waste	Class II
Impact HAZ-3: Ground-disturbing activities within the City of Hermosa Beach Maintenance Yard could release contaminants into the environment.	HAZ-1a Spill Prevention and Contingency Plan HAZ-1b Worker Training HAZ-3b Remedial Action Plan HAZ-3c Dispose of Contaminated Soils	Class II

Class I: **Significant impact; cannot be mitigated to a level that is not significant.** A Class I impact is a significant adverse effect that cannot be mitigated below a level of significance through the application of feasible mitigation measures. Class I impacts are significant and unavoidable.

Class II: **Significant impact; can be mitigated to a level that is not significant.** A Class II impact is a significant adverse effect that can be reduced to a less-than-significant level through the application of feasible mitigation measures presented in this EIR.