PROJECT DESCRIPTION

CALIFORNIA RESOURCES PRODUCTION CORPORATION (CRPC)
PLATFORM EMMY 12-INCH ONSHORE PIPELINE REPAIR PROJECT
HUNTINGTON BEACH, CALIFORNIA

Project No. 2302-3991

Prepared for:

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MAY 2024
Revised July 2024

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CALIFORNIA RESOURCES CORPORATION

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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW AND LOCATION

California Resources Production Corporation (CRPC) is proposing to repair two pipeline corrosion anomalies on the Platform Emmy 12-inch production pipeline to shore (proposed Project) (Figure 1.1-1). The two anomaly locations are located the onshore segment of the existing pipeline and buried within a public area within the City of Huntington Beach known as "Dog Beach," which is below Bluff Top Park and Bike Trail (Project site). The two anomaly locations are approximately 16 feet (Beach Anomaly 2) and 90 feet (Beach Anomaly 1) west of the toe of the bluff and covered by approximately 7 to 11 feet of sand (depending on the season) (Table 1.1-1 and Figure 1.1-2). Project activities would include installation of temporary safety exclusion fencing, the excavation of the two pipeline repair locations on the beach, and remediation of the anomalies through the installation of external structural repair clamps. These activities will be followed up with demobilization of the Project equipment and restoration of the beach and bluff staging area.

Table 1.1-1. 12-Inch Production Pipeline – Onshore Anomaly Locations

Anomaly	Station	Latitude	Longitude	Approximate Depth of Sand Cover (feet)	Maximum Excavation Length (feet)	Maximum Excavation Area (Square Feet)
Beach Anomaly 1	0+55.67	33°40'30.60"N	118° 1'40.02"W	11	30	900
Beach Anomaly 2	1+28.71	33°40'31.18"N	118° 1'39.26"W	7	30	900

1.2 PROJECT NEED AND BENEFITS

Routine internal pipeline inspection (ILI) data has identified two metal loss anomalies characteristic of corrosion on the onshore portion of the Platform Emmy to shore 12-inch production pipeline. The anomalies pose no immediate threat to public health or the environment; CRPC is repairing the anomalies as part of standard operations and maintenance procedures to maintain service. CRPC has proposed to remediate these anomalies through the installation of standard structural repair clamps. These repairs will reinforce the pipeline at these locations to prevent the risk of pipeline rupture.

1.2.1 Anomaly Root Cause Analysis

Based on the ILI data, Beach Anomaly 1 was found to have 66 percent wall loss on the interior of the pipeline, and Beach Anomaly 2 was found to have 49 percent wall loss on the exterior of the pipeline. Root causes of the internal and external wall anomalies are typical of normal pipeline operations and are generally caused by electrolyte exposure, wear, and tear on the interior polymer coating, as well as abrasion from sand movement and location in the tidal

zone on the beach. Wall thickness remains acceptable under the current maximum allowable operating pressure, and the pipeline is in good operational condition overall.

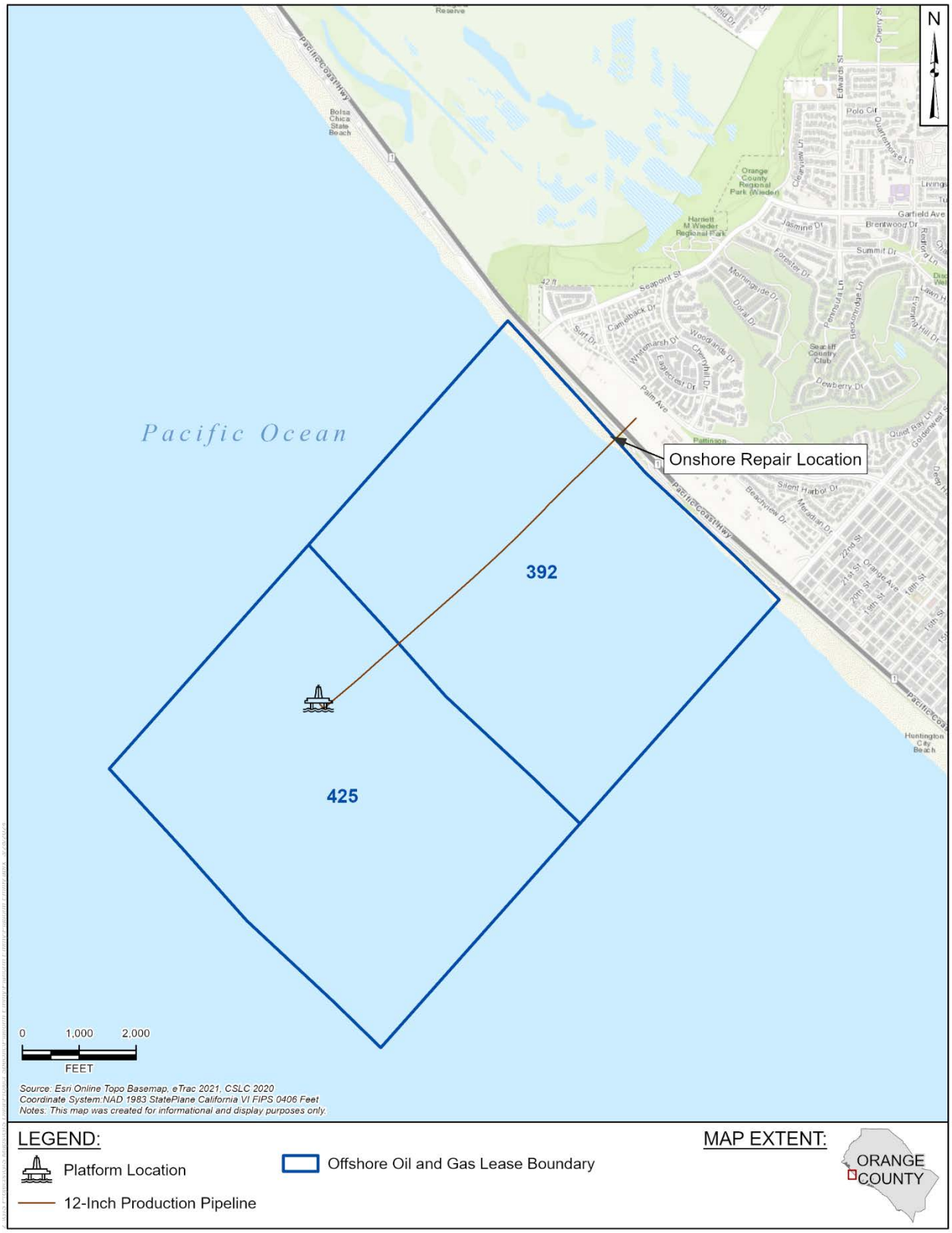

Figure 1.1-1. Site Location Map

Figure 1.1-2. Site Plan View

1.3 PERMIT REQUIREMENTS

The onshore pipeline repair locations are located above the mean high tide line and the high tide line (6.75 feet NAVD); therefore, it is outside of the Army Corps of Engineers (ACOE) jurisdiction for Section 10 of the Rivers and Harbors Act and Section 404 or 401 of the Clean Water Act, and no permit is required from ACOE or the Regional Water Quality Control Board (RWQCB). In addition, the Project site's location is above the high tide line and will require a Coastal Development Permit (CDP) from the City of Huntington Beach (City), which has a Local Coastal Plan approved by the California Coastal Commission (CCC). Lastly, use of the City's parking facilities will require an Encroachment Permit from the City. Beach Anomaly 1 (and the associated repair area) is located within State Lease PRC 425 issued by the California State Lands Commission (CSLC). Beach Anomaly 2 (and the associated repair area) is located within a beach area managed by the City of Huntington Beach. The permits and approvals are outlined in Table 1.3-1 below.

Additionally, it is anticipated that the Project will be subject to environmental review under the requirements established by the California Environmental Quality Act (CEQA). Based on past experience, it is expected that the work will be categorically exempt from CEQA per the CEQA Guidelines Section 15284, Pipelines (Repair) (to be confirmed by the lead agency).

Table 1.3-1. Summary of Anticipated Project Permit and Administrative Approvals

Agency	Permit/Approval	Regulated Activity and Status	Authority
Federal Agencies			
U.S. Army Corps of Engineers (USACOE)	Section 404 Nationwide Permit Authorization Section 10 Permit	All regulated activities would occur above HTL; Confirmation from ACOE that Project site is above HTL and No Permit Required.	Section 404 Clean Water Act (33 USC 1344) Rivers and Harbors Act of 1899
State of California Agencies			
California State Lands Commission (CSLC)	Maintenance procedure engineering approval	Assessment of potential project impacts under CEQA and compliance with Platform Emmy or Pipeline ROW Lease terms. Engineering review of proposed repairs in progress.	Government Code Section 113
California Coastal Commission (CCC)	Authority to Appeal	Assessment of potential project impacts on sensitive resource areas and compliance with the California Coastal Zone Management Plan. Project site is outside of CCC jurisdiction, but have authority to appeal.	California Coastal Act

Agency	Permit/Approval	Regulated Activity and Status	Authority
Santa Ana Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification	All regulated activities would occur above HTL; No Permit Required. Administrative discharge permit in progress.	Section 401 Clean Water Act Rivers and Harbors Act of 1899 Porter-Cologne Water Quality Act
Local Agencies			
City of Huntington Beach	Coastal Development Permit (City jurisdiction) Encroachment Permit	Access from Bluff Top Park and Parking lot as well as Project activities in City managed beach area. City Zoning and Public Works departments will review the proposed Project.	California Coastal Act

1.4 CONTACT INFORMATION

Questions regarding the proposed Project or application materials may be directed to the following people according to the subject matter indicated:

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2.0 PROJECT CONSTRUCTION

2.1 REPAIR METHODOLOGY

Based on an engineering evaluation completed by CRPC and the Project contractor (Longitude 123) on behalf of the Project (L123, 2024), the most efficient and safest option for remediation of the two anomalies is the installation of external structural repair clamps. This conclusion was based upon the following:

- The proposed repair means and methods were recently performed successfully on an offshore anomaly repair on the same pipeline in August 2023 (Figure 2.1-1).
- The work will require a much smaller construction footprint on the beach and much less equipment and personnel, which reduces the risk to the public and the environment in this heavily utilized public beach area.
- The work will not disrupt existing CRPC operations.
- The work can be performed after Labor Day of 2024, when beach and bike path traffic declines.
- Work can be completed within a 3-week (15 workday) period for repair of both anomalies and would be performed during low tide cycles to avoid inundated excavations.

An engineering drawing including the proposed repair clamp specifications is provided in Figure 2.1-2 below.

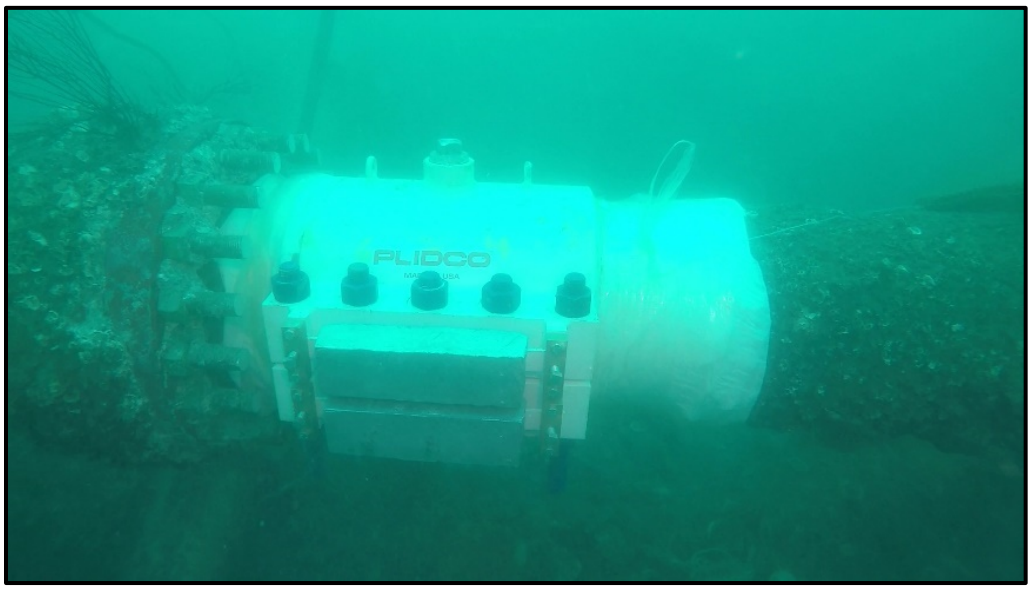

Figure 2.1-1. Example External Repair Clamp Installed Offshore on Pipeline

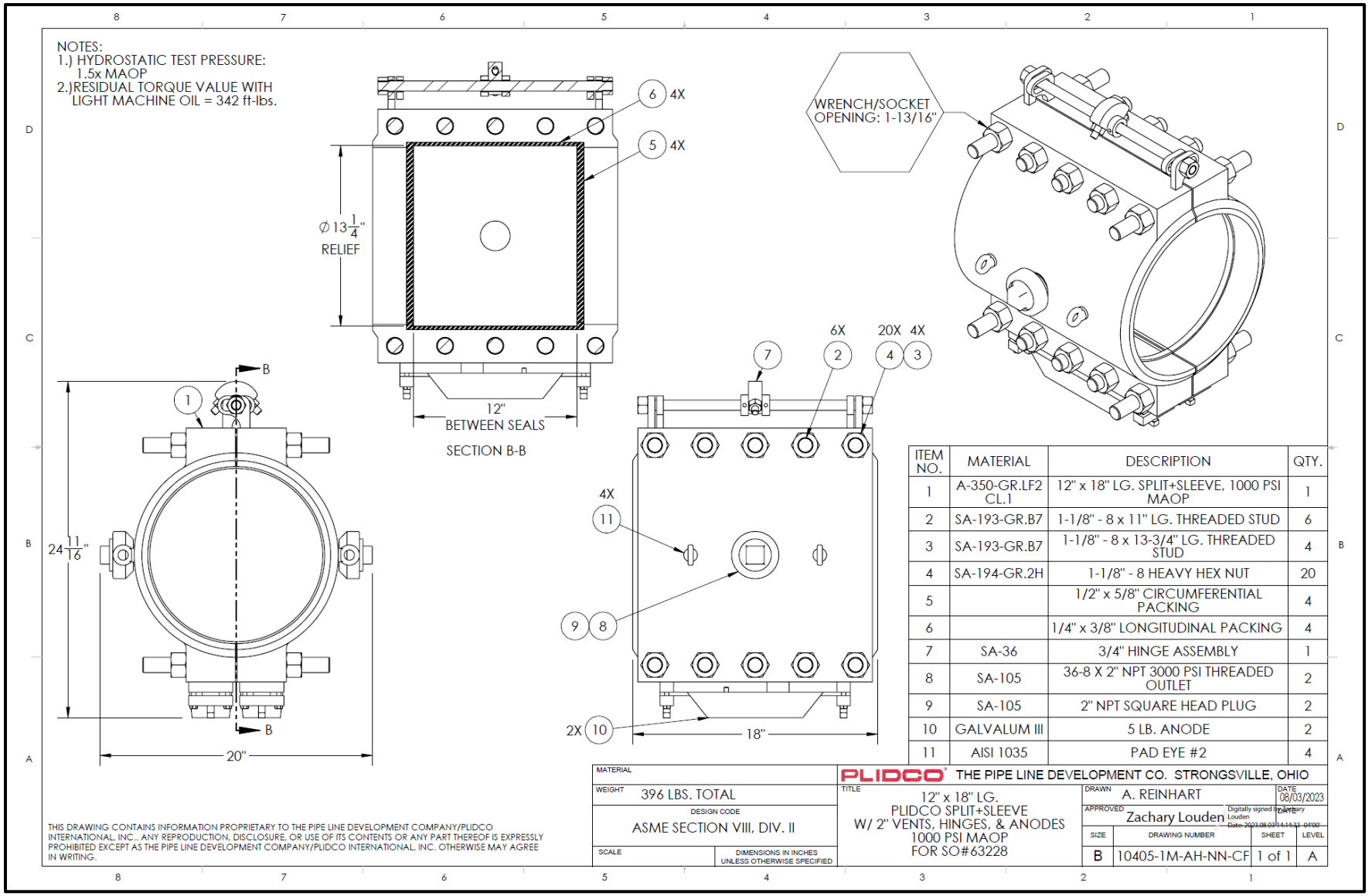

Figure 2.1-2. External Repair Clamp Engineer Drawing and Specifications

2.2 CONSTRUCTION PROCEDURES

Based on the Project Execution Plan prepared by L123 (2024), pipeline repair would be completed in the following primary steps, as further discussed below:

- Site Access and Preparation (Section 2.2.1)
- Repair Site Excavations (Section 2.2.2)
- Pipeline Repair (Section 2.2.3)

2.2.1 Site Access and Preparation

Access to the Project site is from Pacific Coast Highway (PCH) heading southbound. Traffic control signs will be stationed on the northbound and southbound directions of PCH to alert drivers that construction traffic will be entering and exiting the lot. The 12-inch pipeline comes ashore and runs northeast under the beach and under PCH into the existing CRPC "Uplands" facility located across PCH in this location (Figure 1.1-2). CRPC's Uplands facility will be utilized by employees and Project contractors for daily commute parking. Project employees and contractors will then be van-pooled to the Project worksite on a daily basis. Access to the Project site on the beach will be obtained from the adjacent Bluff Top Park area utilizing the pedestrian access ramp located to the west of the Bluff Top Park (Figure 2.2-3). CRPC will use equipment on wheels as much as feasible to avoid damage to the asphalt on the bike path and parking lot.

Temporary equipment drop-off and pick up will occur within the parking spots on the west side of the parking lot but will not occupy any ADA parking spots (Figure 1.1-2). Equipment drop-off and pick-up will occur between the hours of 5:00 to 8:00 am, Monday through Friday, only. Additionally, CRPC will rent approximately 4 parking spots from the City of Huntington Beach at the easternmost portion of the parking lot during the 3-week Project construction timeframe for the work crew's vanpool parking. An additional fenced refueling and equipment storage area (approximately 30' x 80') is proposed at the top of the proposed access route along a flat, open portion of the bluff top area. In addition, the fueling storage will have protective barriers around it. Traffic control plans for vehicles and pedestrians will be in place during all equipment and material movements, including refueling activities.

Just prior to the mobilization of the equipment and start of construction, safety fencing will be installed around the beach worksite and staging/refueling area to prevent access by the public and pets. Caution signs will be posted around the area to notify the public regarding emergency contacts, work scope and work schedule. Since this is a high-visibility site with significant bike and pedestrian traffic along the bike trail and bluff, additional safety fencing will be placed as needed to prevent onlookers from entering into potential fall zones (excavation areas). A Traffic Control Plan (Appendix B) has been prepared and will be implemented to ensure public safety and to minimize impacts on public use of the area.

2.2.1.1 Nighttime Operations and Lighting

The proposed Project mobilization, initial staging and fencing, and excavation activities would be completed during daytime hours; however, to take advantage of low tide events during

repair activities, nighttime operations may be required. The night operations crews would conduct pre-job safety analysis with the daytime crews that incorporates appropriate worker awareness, safety, and environmental controls associated with nighttime operations. The nighttime operations' crews would then complete the same handoff procedures with the daytime crews for any current work in progress at the end of their nighttime shift.

When nighttime operations are required and lighting is in use, the lighting will be shielded and oriented downward and on-demand lighting and/or timers will be used to minimize visual impacts of lighting when safety permits. Except as needed in emergency circumstances, operators shall use only such lighting as is necessary to provide the minimum intensity and coverage for safety and basic security between the hours of 7 p.m. and 7 a.m. CRPC will comply with the lighting standards with the City's Outdoor Lighting "Dark Sky Ordinance." Permanent nighttime lighting is not proposed as part of the Project.

2.2.1.2 Fuel Storage and Operations

A mobile fueling station will be mobilized in the fenced Project staging area for the purpose of refueling heavy equipment. The fueling station will consist of a 200-gallon National Fire Protection Associates (NFPA)-rated diesel tank placed within plastic secondary containment. A small portable hand pump will connect to a secondary battery source to move the fluid. The fueling of the Project equipment will be completed when the equipment is in the staging area for overnight storage and should not require additional trips to and from the work site.

2.2.2 Repair Site Excavations

Each pipeline repair site will be excavated to expose the anomaly locations. Using the construction equipment, the sand cover over the pipeline at the first anomaly location will be removed and set aside within the workspace using the bulldozer. The estimated excavation spoils volume is approximately 90 cubic yards for Beach Anomaly 2 and approximately 130 cubic yards for Beach Anomaly 1. Sand spoils will be temporarily stockpiled adjacent to the east of the two excavations. Once the pipeline is uncovered, the 8' x 10' trench box (Figure 2.2-4) will be installed over the pipeline to create a safe and controlled worksite. Sand will be backfilled as needed around the outside of the trench box to secure it in place and provide access for construction personnel. Using a trench box will significantly reduce the overall size of the excavation and the volume of material that must be moved. The work at Beach Anomaly 2 will take place away from the toe of the bluff where it will not affect the stability of the bluff.

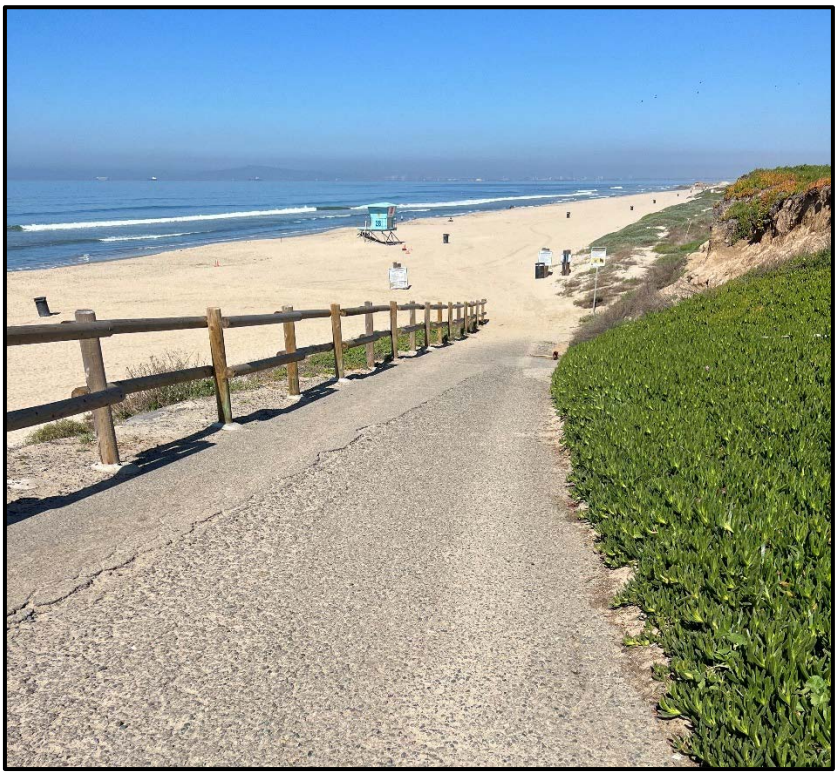

Figure 2.2-3. Access Ramp from Bluff Top Park to Dog Beach

Figure 2.2-4. Example of Trench Box Installed on Beach Construction Site

2.2.2.1 Water Intrusion

The Project plan is to schedule and maximize construction operations in dry conditions during low tide periods. Given the location of Beach Anomaly 2 near the base of the bluff, the excavation is expected to remain dry throughout the repair. However, given the location and depth of burial of Beach Anomaly 1, it is anticipated that there will be water intrusion in the excavation from groundwater and potentially from surface water, especially during high tides. Work may be conducted at night to take advantage of low tide events (Refer to Section 2.2.2.2).

Should groundwater intrusion into the excavation become an issue and prevent repairs in dry conditions, the water will be pumped out of the excavation and into a settling pond staged above the HTL and excavation areas and within the defined worksite. Depending on the anticipated water discharge pressure in the settling pond, an energy dissipator may be installed at the end of the pipe to reduce sand erosion in the settling pond. This will allow the water to percolate naturally down into the sand and back into the water table and avoid any discharges to the ocean. Additionally, if surface water becomes an issue during periods of high tides or high wave action, a sand berm will be constructed in an arc between the water and the excavation. The spoils from the excavation will be used to create the berm, so no new materials will be needed. Upon completion of the work, the spoils will be reused to backfill the excavation.

In the event that the rate of flow of groundwater into the excavation is higher than can be feasibly removed by the pump and settling pond approach, the excavation will be considered an underwater worksite, and the work will be performed using divers during water intrusion periods. This will be very similar to the offshore clamp installation work completed on this pipeline. Once the trench box is installed, mats will be placed on the ground surface within the box to minimize any sand movement in the box and optimize visibility during the flooded repair operations.

2.2.3 Pipeline Repair

2.2.3.1 Pipeline Cleaning and Preparation

Once the pipeline repair section has been excavated, any concrete or other coating will be removed using a handheld chipping tool. All underlying coating will be buffed clean using a handheld wire wheel in preparation for the ultrasonic inspection and repair clamp installation. The cleaned and buffed area will extend just beyond the length of the repair clamp. Waste material generated from pipeline cleaning activities will be collected and disposed of at an approved disposal facility in accordance with all applicable laws and regulations.

2.2.3.2 Ultrasonic Inspection

Once the pipeline is cleaned and buffed, construction personnel will lay out an inspection grid on the pipeline in the area of the anomaly and conduct an ultrasonic (UT) inspection of the grid to positively reconfirm the anomaly location and wall thickness, as well as the wall thicknesses in the surrounding grid pattern. A single transducer Cygnus Gauge will be used since it works in both dry and wet conditions.

2.2.3.3 External Repair Clamp Installation and Testing

Prior to lowering the external repair clamp to the pipeline, construction personnel will thoroughly inspect the clamp and seals. The clamp will then be installed following the manufacturer's repair clamp installation instructions. All bolting hardware torquing and confirmation and hydrostatic testing will also be completed per the manufacturer recommendations.

2.2.3.4 Pipeline Protective Coating Installation

Once the clamp is installed, a protective pipeline coating (Denso Petroleum Densyl paste, Densyl tape wrap, and Denso SynthoGlass outer wrap) will be installed by construction personnel at both ends (upstream and downstream) of the repair clamp at each anomaly location for corrosion protection on the exposed portion of the pipeline.

2.2.3.5 Backfill and Site Restoration

After the completion of each pipeline repair, the trench box will be removed, and the excavation backfilled with the native spoils from that site. Upon completion of the Project, the entire worksite will be final graded to match the adjacent beach contours. All equipment will be demobilized, and the safety fencing and signage will be removed. Any damage to existing public improvements from the construction activities will be replaced or repaired by the CRPC to pre-construction conditions, including but not limited to the bike and pedestrian paths, lodgepole fencing, existing restroom building, existing curbs and concrete hardscape at the Bluff Top parking lot and existing trees and landscaping.

2.3 EQUIPMENT AND PERSONNEL REQUIREMENTS

2.3.1 Equipment Requirements

The primary equipment requirements for the Project are summarized in Table 2.3-1 below. A summary of anticipated equipment and pickup delivery trips and distance is also provided in Table 2.3-2.

Table 2.3-1. Project Equipment List

Equipment	Quantity	Horsepower	Operating Hours/Day	Days
Light-duty truck (crew)	2	200	2	15
Light plant	2	15	4	15
Air compressor (185 cfm)	2	50	2	15
Water pump	1	20	2	7
Water Truck	1	200	3	15
Hydroexcavator	1	300	8	4
Excavator	2	310	8	15
Wheeled Loader	2	240	8	15
Dozer	1	310	8	10
Diving Air Compressor	1	50	12	7

Table 2.3-2. Equipment Pickup and Delivery Estimates

Item	Trips	One-Way Miles Per Trip
Heavy Equipment Mobilization / Demobilization	8	30
Vacuum Trucks	6	40

2.3.2 Personnel Requirements

Construction activities are anticipated to take 15 workdays to complete. During this time, up to thirteen personnel would have the potential to be onsite in support of work activities. Table 2.2-3 provides a summary of estimated manpower requirements during the Project.

Table 2.3-3. Estimated Manpower Requirements

Task	Quantity	Hours/Day	Days
Project Management	2	10	15
Excavation	6	10	13
Backfill/Site Restoration	6	10	2
Diving Support	5	10	7
Survey	2	10	2

2.4 CONSTRUCTION TIMING

Once all necessary permits and Project approvals are received, it is anticipated that pipeline repair activities would occur over approximately 15 workdays during the Fall/Winter of 2024/2025. Work activities at the two repair locations may overlap based on this schedule (i.e. the excavation on the second repair site can get underway while the repair clamp is being installed and tested on the first repair location). Additionally, the work durations are based on a 10-hour workday to minimize noise and disruption to the public. These durations assume a combination of terrestrial work on land and in-water work during high tide periods. To minimize the in-water work, the work window will be selected based on tide and wave forecasts and may occur at night, if necessary.

Prior to the intent to transport personnel and equipment to the job site, CRPC (or their representatives) will notify all appropriate agencies of impending work activities. The timing of agency notifications will be sent in accordance with Project permit conditions.

2.5 PROJECT-INCORPORATED PLANS AND MEASURES TO REDUCE POTENTIAL IMPACTS

The following Project plans and measures will be incorporated and implemented during Project activities to reduce the potential for environmental impacts:

2.5.1 Project Incorporated Plans

- Implementation of So-Cal Holdings, LLC: Coastal Oil Spill Contingency Plan #F5-20-3846 (March 2024) (Appendix A)
- Traffic Control Plan (Appendix B)
- Erosion Control Plan (Appendix C)

2.5.2 Project Incorporated Measures

- **Project Timing**. Work is proposed to be conducted after Labor Day to reduce impacts on recreational use of the site and following receipt of all required permit approvals; Work will not be conducted on weekends or Holidays.
- **Best Management Practices (BMPs).** BMPs will be employed to ensure equipment is in proper operating order, prevent unauthorized releases, and minimize the Project footprint during construction. All equipment will be inspected to ensure there are no fuel, hydraulic fluid leaks, or noxious weeds. Fueling will not occur on the beach, and drip pans will be installed under all equipment when not in use;
- **Construction Timing (Tides)**. Work activities at the Anomaly 1 location will be scheduled during low tide periods to the extent feasible to maximize construction operations in dry conditions;
- **Dewatering**. All dewatering activities will be discharged into a settling basin or tank and will not be directly discharged into the ocean waters; and
- **Public Access.** Public use of the beach will be maintained to the extent feasible, and lateral passage will be provided throughout the proposed repair efforts. Temporary safety fencing around the construction area will be used to prohibit entry by the public or animals.

3.0 ENVIRONMENTAL SETTING AND ANALYSIS

3.1 INTRODUCTION

The following Environmental Setting and Analysis is being prepared in support of the proposed CRPC Emmy 12-inch Onshore Pipeline Repair (Project). This evaluation includes environmental setting information for the proposed Project site, identifies potential environmental impacts from the proposed pipeline repair tasks, and identifies what measures will be implemented as part of the Project to minimize potential impacts to the greatest extent feasible. Although the Project is exempt from CEQA, this information has been provided to assist the Project permitting agencies in their interagency coordination and review of the potential environmental impacts of the proposed Project.

Based upon the short-term (15 day) duration to mobilize, complete the repairs and demobilize, the following resource areas have the potential to be affected by the proposed Project:

- Air Quality/GHGs
- Biological Resources
- Geology and Soils
- Hazardous Materials
- Recreation
- Water Resources

3.1.1 Setting

As shown in Figures 1.1-1, 1.1-2, and 2.2-3 (Site Location Map, Plan View of Project site and Project Work and Staging Areas/Access), CRPC proposes pipeline repairs on two anomaly locations that are located onshore and buried within a public area within the City of Huntington Beach known as “Dog Beach”. The proposed activities would require two excavations on the beach, sand spoils, dewatering area, as well as the installation of safety fencing around the Project site. In addition, three parking spots will be temporarily rented in the parking lot for crew vanpool vehicles. The Project site is located within a popular beach, bike trail and City park area. For the purposes of this evaluation, the Project site includes the beach area, beach access and traffic, and regional air districts.

Potential impacts associated with the Project are addressed within Sections 3.2.1 through 3.2.6 below. As demonstrated within the analysis, any short-term impacts to environmental resources that would result from the proposed Project have been mitigated through Project design and/or implementation of Applicant Proposed Measures (APMs). Project-incorporated measures to reduce potential impacts are summarized in Section 2.5 above.

3.2 IMPACT ANALYSIS

The following discussion provides a site-specific environmental analysis regarding the potential for impacts to result during the proposed Emmy 12-inch Onshore Pipeline Repair Project.

3.2.1 Air Quality and Greenhouse Gases

3.2.1.1 Regional Overview

The proposed Project is located within the South Coast Air Basin (SCAB) and falls under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Project area has a Mediterranean climate that is characterized by mild winters and warm, dry summers. The influence of the Pacific Ocean causes mild temperatures year-round along the coast, while inland areas experience a wider range of temperatures. Precipitation is confined primarily to winter months. Rainfall records for a nearby weather station (Newport Beach Harbor) indicate approximately 91 percent of the average annual precipitation (11.0 inches) falls during the six-month period of November through April. The warmest month is August with an average monthly maximum temperature of 73.4 ^{o}F. The coldest month is January with an average monthly minimum temperature of 46.9 ^{o}F.

The regional climate within the Project vicinity is dominated by a strong and persistent high-pressure system, the Pacific High, which frequently lies off the Pacific Coast. The Pacific High shifts northward or southward in response to seasonal changes or the presence of cyclonic storms. In its usual position to the west, the Pacific High produces an elevated temperature inversion. An inversion is characterized by a layer of warmer air above cooler air near the ground surface. Normally, air temperatures decrease with altitude, however in an inversion the temperature of the air increases with altitude. The inversion acts like a lid on the cooler air mass near the ground, preventing pollutants in the lower air mass from dispersing upward beyond the inversion “lid.” This phenomenon results in higher concentrations of pollutants trapped below the inversion. This weather pattern is intensified by mountain ranges that surround the SCAB which constrain the horizontal movement of air and inhibit the dispersion of air pollutants out of the region.

Airflow plays a significant role in the dispersal of pollutants. Local winds are normally controlled by the location of the Pacific High. Typical wind speeds in the area are generally light, which is another factor that contributes to higher concentrations of pollutants because low wind speeds minimize dispersion of pollutants. The sea breeze comes from the southwest, which blows air from the coastline eastward and inland. This weather pattern tends to blow pollution from the coastline inland, which then becomes trapped in the inversion discussed above, contributing to the poor air quality in the SCAB. When the Pacific High weakens, a Santa Ana condition can develop with air traveling westward toward the coast from the warmer desert regions eastward. Santa Ana winds can flush the basin and inversion of pollution, however stagnant air often occurs following a Santa Ana condition, causing a buildup of pollutants offshore.

3.2.1.2 Affected Environment

Air quality in Southern California has improved remarkably since the 1970s, which is a direct result of implementing the comprehensive, multiyear Air Quality Management Plan (AQMP) to reduce air pollution from all sources. While air quality has dramatically improved over the years, the basin still exceeds Federal public health standards for both ozone and particulate matter (PM) and is classified as an “extreme” nonattainment area (SCAQMD, 2022). The SCAB’s air pollution

problems are a consequence of the combination of emissions from the nation's second largest urban area, meteorological conditions adverse to the dispersion of the emissions, and mountainous terrain surrounding the basin that traps pollutants such as ozone and fine particulate matter (PM2.5) (SCAQMD, 2022).

Criteria Pollutants. Criteria air pollutants are those contaminants for which State and Federal ambient air quality standards have been established for the protection of public health and welfare. Criteria pollutants include: Carbon monoxide (CO), ozone, oxides of nitrogen (NO_x), sulfur dioxide (SO_2), particulate matter with a diameter of 10 microns or less (PM_{10}) and particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$) as further described below.

Carbon Monoxide (CO)

Carbon monoxide is primarily formed through the incomplete combustion of organic fuels. Higher CO values are generally measured during winter when dispersion is limited by morning surface inversions. Seasonal and diurnal variations in meteorological conditions lead to lower values in summer and in the afternoon. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Ozone

Ozone is formed in the atmosphere through a series of complex photochemical reactions involving oxides of nitrogen (NO_x), reactive organic gases (ROG) (also known as ROCs or reactive organic compounds), and sunlight occurring over several hours. Since ozone is not emitted directly into the atmosphere, but is formed as a result of photochemical reactions, it is classified as a secondary or regional pollutant. Because these ozone-forming reactions take time, peak ozone levels are often found downwind of major source areas. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Nitric Oxide (NO)

Nitric oxide is a colorless gas formed during combustion processes which rapidly oxidize to form nitrogen dioxide (NO_2) a brownish gas. The highest NO_2 values are generally measured in urbanized areas with heavy traffic. Exposure to NO_2 may increase the potential for respiratory infections in children and cause difficulty in breathing even among healthy persons and especially among asthmatics.

Sulfur Dioxide (SO_2)

Sulfur dioxide is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that

can cause narrowing of the airways, leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Particulate Matter (PM)

Ambient air quality standards have been set for two classes of particulate matter: PM_{10} (coarse particulate matter less than 10 microns in aerodynamic diameter) and $PM_{2.5}$ (fine particulate matter 2.5 microns or less in aerodynamic diameter). Both consist of different types of particles suspended in the air, such as: metal, soot, smoke, dust and fine mineral particles. Depending on the source of particulates, toxicity and chemical activity can vary. Particulate matter is a health concern because when inhaled it can cause permanent damage to the lungs. The primary source of PM_{10} emissions appears to be soil suspended in the air caused by vehicle traffic, construction, agriculture, and wind. Other sources of PM_{10} include sea salt, particulate matter released during combustion processes, such as those in gasoline or diesel vehicles, and wood burning. Fugitive emissions from construction sites, wood stoves, fireplaces and diesel truck exhaust are primary sources of $PM_{2.5}$. Both sizes of particulates can be dangerous when inhaled, however $PM_{2.5}$ tends to be more damaging because it remains in the lungs once it is inhaled.

Local Air Quality. The ambient air quality of the SCAB is currently monitored by 41 stations, with the nearest monitoring station located at 1630 Pampas Lane in Anaheim, approximately 11.8 miles north-northeast of the Emmy pipeline landfall. The ozone concentrations in the Anaheim area periodically exceed the State and Federal standards. In addition, monitored PM_{10} and $PM_{2.5}$ concentrations periodically exceed State and/or Federal standards. It is anticipated that the ambient air quality at the Project site is better than Anaheim due to the lack of major air pollutant sources (such as freeways) and consistent dispersion of pollutants by coastal winds.

3.2.1.3 Regulatory Overview

Federal Regulations

Federal Clean Air Act (CAA). The Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes Federal air quality standards, known as National Ambient Air Quality Standards (NAAQS), and specifies future dates for achieving compliance. The CAA delegates enforcement of the Federal standards to the State. The California Air Resources Board (CARB) is responsible for enforcing air pollution regulations in California. The CARB, in turn, delegates the responsibility of regulating stationary emission sources to local air agencies. In the SCAB, the SCAQMD has this responsibility. The CAA also mandates that the State submit and implement a State Implementation Plan for local areas not meeting those standards. The State Implementation Plan must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and the incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the CAA that would most substantially affect the development of the proposed Project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. The NAAQS were amended in July 1997 to include an 8-hour standard for ozone and adopt a NAAQS for fine particulate matter ($PM_{2.5}$). Most recently, in October of 2015 the final rule was signed, which revoked the 2008 8-hour standard for ozone while transitioning to the current 2015 standard.

The SCAB is currently classified as Federal non-attainment area (periodically exceeds Federal standards) for the:

- 1-hour ozone standard (Extreme non-attainment area)
- 2015 8-hour ozone standard (Extreme non-attainment area)
- PM2.5 standard (Serious non-attainment area)
- 3-month lead standard (Los Angeles County near-source areas only)

Non-Road Diesel Fuel Rule. In May 2004, the U.S. Environmental Protection Agency (USEPA) set sulfur limits for non-road diesel fuel, including marine vessels (excluding residual fuel used by ocean going vessels). Under this rule, diesel fuel was limited to low sulfur (500 parts per million [ppm]) starting June 1, 2007 and ultra-low sulfur diesel (15 ppm) starting January 1, 2012 (USEPA, 2017). The California Diesel Fuel Regulations (described below) generally are more stringent than this rule for other Project sources, such as switch yard locomotives, construction equipment, terminal equipment, and harbor craft.

State Regulations

California Clean Air Act. The CARB is responsible for implementing the requirements of the Federal CAA, regulating emissions from motor vehicles and consumer products, and implementing the California Clean Air Act of 1988 (CCAA). The California Clean Air Act outlines a program to attain the CAAQS for ozone, NO_2, SO_2, and CO by the earliest practical date. Since the CAAQS are more stringent than the NAAQS, attainment of the CAAQS will require more emission reductions than what will be required to show attainment of the NAAQS. Similar to the Federal system, the State requirements and compliance dates are based on the severity of the ambient air quality standard violation within a region.

The SCAB is currently classified as State non-attainment area (periodically exceeds State standards) for the:

- 1-hour ozone standard

- 8-hour ozone standard
- PM10 24-hour and annual standards
- $PM_{2.5}$ annual standard

Statewide Portable Equipment Registration Program. This Program established a uniform program to regulate portable engines and portable engine-driven equipment units (CARB, 2017c). Once registered in the Program, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts. This Program would not apply to Project-related stationary equipment such as generators, dive air compressors and jet pump.

3.2.1.4 Climate Change Concerns

Climate change, often referred to as "global warming," is a global environmental issue that refers to any significant change in measures of climate, including temperature, precipitation, or wind. Climate change refers to variations from baseline conditions that extend for a period (decades or longer) of time and is a result of both natural factors, such as volcanic eruptions, and anthropogenic factors, based on human-activity, including changes in land-use and burning of fossil fuels. Anthropogenic activities such as deforestation and fossil fuel combustion emit heat-trapping greenhouses gases (GHG), defined as any gas that absorbs infrared radiation within the atmosphere.

According to data from the National Oceanic and Atmospheric Administration, the 2019 average temperature across global land and ocean surfaces was 1.71 degrees Fahrenheit above the twentieth-century average of 57.0°F, making it the second-warmest year on record. The global annual temperature has increased at an average rate of 0.13 degrees Fahrenheit per decade since 1880 and over twice that rate (0.32 degrees Fahrenheit) since 1981. From 1900 to 1980 a new temperature record was set on average every 13.5 years; and since 1981 the average period between temperature records has decreased to every 3 years.

GHG emissions are a global issue, as climate change is not a localized phenomenon. Eight recognized GHGs are described below. The first six are commonly analyzed for projects, while the last two are often excluded for reasons described below.

- Carbon Dioxide (CO_2): natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic degassing; anthropogenic sources of CO_2 include burning fuels such as coal, oil, natural gas, and wood.
- Methane (CH4): natural sources include wetlands, permafrost, oceans, and wildfires; anthropogenic sources include fossil fuel production, rice cultivation, biomass burning, animal husbandry (fermentation during manure management), and landfills.
- Nitrous Oxide (N_2O): natural sources include microbial processes in soil and water, including those reactions which occur in nitrogen-rich fertilizers; anthropogenic

sources include industrial processes, fuel combustion, aerosol spray propellant, and use of racing fuels.

- Chlorofluorocarbons (CFCs): no natural sources; synthesized for use as refrigerants, aerosol propellants, and cleaning solvents.
- Hydrofluorocarbons (HFCs): no natural sources; synthesized for use in refrigeration, air conditioning, foam blowing, aerosols, and fire extinguishing.
- Sulfur Hexafluoride (SF6): no natural sources; synthesized for use as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF6 has a long lifespan and high global warming potential.
- Ozone: unlike the other GHGs, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Due to the nature of ozone, and because this Project is not anticipated to contribute a significant level of ozone (see below), it is excluded from consideration in this analysis.
- Water Vapor: the most abundant and variable GHG in the atmosphere. It is not considered a pollutant and maintains a climate necessary for life. Because this Project is not anticipated to contribute significant levels of water vapor to the environment, it is excluded from consideration in this analysis.

The primary GHGs that would be emitted during proposed decommissioning activities are CO_2, CH_4, and N_2O. The Project is not expected to have any associated use or release of HFCs, CFCs, or SF_6.

The heat absorption potential of a GHG is referred to as the "Global Warming Potential" (GWP). Each GHG has a GWP value based on the heat-absorption properties of the GHG relative to CO_2. The larger the GWP potential, the more a gas warms the earth relative to CO_2. This is commonly referred to as CO_2 equivalent (CO2E). The GWP of the three primary GHGs associated with the proposed Project are defined by the Intergovernmental Panel on Climate Change (IPCC): CO_2 – GWP of 1, CH_4 – GWP of 27.9, and N_2O – GWP of 273.

In efforts to reduce and mitigate climate change impacts, State and local governments are implementing policies and initiatives aimed at reducing GHG emissions. California, one of the largest state contributors to the national GHG emission inventory, has adopted significant reduction targets and strategies. The primary legislation affecting GHG emissions in California is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 (Nuñez; Chapter 488, Statutes of 2006) focuses on reducing GHG emissions in California and required the State to reduce GHG emissions to 1990 levels by 2020. CARB prepared a Draft Scoping Plan for Climate Change in 2008 pursuant to AB 32. The Climate Change Scoping Plan was updated in May 2014, and November 2017. A 2022 Climate Change Scoping Plan is currently in progress. In 2016, the State met the AB 32 target 4 years early. The State Legislature passed Senate Bill (SB) 32 (Pavley; Chapter 249, Statutes of 2016), which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197 (Garcia; Chapter 250, Statutes of 2016), which provides additional

direction for developing the Scoping Plan. The 2017 update to the Scoping Plan indicates the State is on track to reduce GHG emissions to 1990 levels by the 2020 target and focuses on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32. CARB indicated in their recent scoping plan update (November 2021) that AB32 targets were met in 2016 in terms of GHG emissions per capital and gross domestic product.

In December of 2009, the California Natural Resources Agency adopted amendments to the CEQA Guidelines (Cal. Code of Regulations, tit. 14, § 15000 et seq.) to comply with the mandate set forth in Public Resources Code § 21083.05. These revisions became effective March 18, 2010. According to GHG amendments to the CEQA Guidelines, each public agency that is a CEQA lead agency needs to develop its own approach to performing a climate change analysis for projects that generate GHG emissions. A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information.

3.2.1.5 Local Regulations

SCAQMD AQMP (2016). The SCAQMD's AQMP proposed control measures are based on implementing all feasible control measures through the accelerated deployment of available cleaner technologies, best management practices, co-benefits from existing programs, and incentive measures (SCAQMD, 2017). The AQMP details emissions occurring in the SCAQMD during the base year 2012 and attainment demonstration years of 2019, 2022, 2023, 2025, and 2031. The future emission forecasts are based on demographic and economic growth projections provided by the SCAG. Even without any additional controls, VOC and NO_x emissions are expected to decrease due to existing regulations, such as controls on off-road equipment, new vehicle standards, and the Regional Clean Air Incentives Market (RECLAIM) programs (SCAQMD, 2017).

SCAQMD Rule 402 - Nuisance. This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any such persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property.

3.2.1.6 Impact Discussion

Air pollutant emissions were estimated for comparison to the SCAQMD daily significance thresholds for construction activities. Total Project GHG emissions were estimated for comparison to the SCAQMD interim significance threshold. Emissions from Project equipment (excavator, hydroexcavator, water truck, loader, and dozer) were estimated using CARB's OFFROAD 2021 model assuming this equipment would originate from the SCAB and construction would occur in 2024 or early 2025. Emissions from on-road motor vehicles were estimated using CARB's EMFAC 2021 model assuming motor vehicles would originate from Orange County and construction would occur in 2024 or early 2025.

Air Pollutant Emissions. Table 3.2-1 provides the estimated peak daily emissions associated with the Project in comparison to the SCAQMD construction thresholds. Peak day

emissions would not exceed SCAQMD thresholds. Total Project emissions are presented in Table 3.2-2 below.

Table 3.2-1. Estimated Peak Day Project Emissions

Work Task	Units	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO	SO_2
Construction	Peak Day pounds/day	17.8	1.27	11.4	2.34	32.4	0.074
SCAQMD Daily Maximum Emission Threshold		**100**	**75**	**150**	**55**	**550**	**150**
Exceed Thresholds?		**No**	**No**	**No**	**No**	**No**	**No**

Table 3.2-2. Estimated Total Project Emissions

Work Task	Units	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO	SO_2
Construction	Tons	0.099	0.007	0.072	0.017	0.192	0.0005

Project Incorporated Measures to Reduce Potential Impacts:

Best Management Practices (BMPs). BMPs will be employed to ensure equipment is in proper operating order, prevent unauthorized releases, and minimize the Project footprint during construction. All equipment will be inspected to ensure there are no fuel, hydraulic fluid leaks, or noxious weeds. Fueling will not occur on the beach, and drip pans will be installed under all equipment when not in use.

Greenhouse Gas (GHG) Emissions. On December 5, 2008, the SCAQMD governing board adopted an interim GHG significance threshold of 10,000 metric tons per year of carbon dioxide equivalent ($MTCO_2E$) for industrial projects. Due to the lack of any other applicable threshold, this value is used in this analysis to determine the significance of the contribution of the Project to global climate change. Table 3.2-3 provides the estimated total Project GHG emissions, which would be much less than the SCAQMD threshold.

Table 3.2-3. Estimated Total Project GHG Emissions

Work Task	Unit	N_2O	CH_4	CO_2	$MTCO_2E$
Construction	Tons	0.001	0.011	45.0	41.4
SCAQMD Significance Threshold (Metric Tons/Year)					10,000
Exceed Thresholds?					No

3.2.2 Biological Resources

3.2.2.1 Setting and Habitat

The Project site is located along a highly developed and popular beach in Orange County. The ocean offshore of the Project site is a part of the Southern California Bight, while lands inshore

of the Project include the Pacific Coast Highway (Highway 1) as well as industrial and residential development. The north end of Bluff Top Park and bike trail consists of a relatively flat bluff area with crab grass (*Digitaria* sp.) and landscaping fan palm trees (*Washingtonia filifera*). Much of the park is developed areas of asphalt and concrete including a parking lot.

The bluff habitat abruptly transitions down the cliff to a sand beach, which is accessible via an asphalt trail down to the beach. The beach habitat within this area is comprised of a gradually sloping sandy beach that extends to a sandy intertidal zone. Due to the regular inundation of saltwater from high tides and wave activity, wind, and dynamic soils, the sand beach habitat does not support vegetation. However, deposits of kelp detritus and driftwood from extreme high tide periods provide cover for a variety of avifauna and marine invertebrates in portions of this habitat. The amount of available habitat from these deposits of kelp detritus and driftwood debris fluctuates throughout the year based on ocean tides and wave activity.

3.2.2.2 Species Characterization

Birds. There are large breeding populations of seabird on the Northern Channel Islands and an abundance of overwintering birds within the regional area; however, birds that are the most common in the winter months on the sand beach in the Project region are California Gull (*Larus californicus*), Western Gull (*Larus occidentalis*), least sandpiper (*Calidris minutilla*), whimbrel (*Numenius phaeopus*), semipalmated plover (*Charadrius semipalmatus*) and occasionally tern species (Caspian [*Hydroprogne caspia*], elegant [*Thalasseus elegans*], and royal [*Thalasseus maximus*]). Two federally and State listed species, California least tern (*Sternula antillarum*) and Western snowy plover (*Charadrius alexandrines*), have known nesting colonies at the Bolsa Chica Ecological Preserve 0.7 miles north of the Project site, and near the mouth of the Santa Ana River at Huntington State Beach approximately 5.0 miles south of the Project site (see section 3.2.2.3).

The Bolsa Chica Ecological Preserve, approximately 0.7 miles north of the Project site, hosts approximately 321 out of the 420 bird species known to Orange County and is an important migratory stop as well as nesting grounds for many coastal bird species. Because of species diversity in southern California, the timing of seasonal migrations can vary; however, the majority of southward migration to wintering areas in Southern California occurs from late September to late December and the route of coastal seabirds is usually further offshore than that used by the spring migrants. Spring migration normally occurs from February through the beginning of June, (Aspen, 2008). According to Spear and Ainley (1999), the variation in the number of migrants is directly correlated to the sea-surface temperature. The increase in over-wintering birds that congregate along the shoreline within the Project region may contribute to the overall higher abundance in the winter months; however, due to site specific disturbance by foot traffic and pets, it is unlikely that high numbers of roosting birds would be present and there is no suitable nesting habitat in the Project site.

Fish. Grunion (*Leuresthes tenuis*) is a member of the silverside family (Atherinidae) that uses sandy beaches from Monterey Bay to Central Baja California for spawning. Twice a month, at new and full moons between March and early September, grunions come ashore during the two or three nights following the highest tide. Grunion bury their eggs four to five inches below

the surface, with maturation occurring in ten days. The next spring high tide reaches the eggs, induces them to hatch, and carries the larvae offshore where they mature. Grunion runs are common along Orange County Beaches; however, the Project schedule would occur outside of their spawning season.

3.2.2.3 Special Status and Protected Species

Special-status species include those species that are State or federally listed as endangered or threatened, species proposed for such listing, candidate species, and state or local species of concern. For the purposes of this analysis, a special-status species is a plant or animal species that is:

- Listed as endangered, threatened, or a candidate species under the federal Endangered Species Act (FESA);
- Listed as endangered, threatened, or a candidate species under the California Endangered Species Act (CESA);
- Listed as a fully protected species or Species of Special Concern by the CDFW;
- A plant species that is on the CNPS's Rare Plant Ranking System as List 1 or 2; and/or
- Considered rare, threatened, or endangered under the California Environmental Quality Act (CEQA) Guidelines 15380(d) as the species' survival and reproduction in the wild are in immediate jeopardy, present in such small numbers throughout all or a significant portion of its range that it may become endangered, or likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Based on the literature review and species lists obtained from California Natural Diversity Database (CNDDB), USFWS (IPaC Trust Resource Report) and from NMFS for the Seal Beach quadrangle, a list of special-status species that have been reported within a five-mile radius surrounding the Project area has been compiled (CDFW, 2024) (Appendix E). Special-status species included on the USFWS species list or with CNDDB occurrences within five miles of the Project area are evaluated for potential occurrence. However, based on the earlier description of the Project site, suitable habitats for special-status species are not present in the Project site. Due to the proximity to their nesting colonies, the federal and State listed California least tern and federally listed Western snowy plover have a low to moderate potential of foraging in or adjacent to the Project site and are discussed below. Manmade structures and landscaping vegetation may provide temporary roosting and coastal birds may foraging in the beach habitat; however, due to continuous disturbance by vehicles, bike and pedestrian traffic, and off leash pets, it is unlikely that any other special status species will be present during Project activities.

California Least Tern

The California least tern was listed as a Federally endangered species in 1970. California least terns live along the coast from San Francisco to northern Baja California and migrate from

the southern portion of their range to the north. Least terns begin arriving in southern California as early as March, migrate to nesting areas by mid- to late-April, and depart following the fledging of the young in September or October (Frost, 2017). California least terns establish nesting colonies on sandy soils with little vegetation along the ocean, lagoons, and bays, where they forage by plunge-diving for small fish. California least terns forage for small epipelagic fish (anchovy, atherinids, and shiner surfperch) primarily in nearshore ocean waters and in shallow estuaries (USFWS, 2006).

California least terns have nesting colonies at the Bolsa Chica Ecological Preserve north of the Project site as well as near the mouth of the Santa Ana River, south of the Project site. This species nests in colonies and utilizes the upper portions of open beaches or inshore flat sandy areas that are free of vegetation. An estimated maximum of 130 nests were observed at the Bolsa Chica Ecological Reserve during the 2018-2019 breeding season (Sin et al., 2024). There is no suitable nesting habitat in the Project site, but least terns have the potential to forage in nearshore waters adjacent to the Project site. It is unlikely that least terns would roost in the Project site due to the continuous pedestrian traffic and off leash dogs.

Western Snowy Plover

The Pacific coast population of western snowy plover is Federally listed as Threatened, and USFWS-designated Critical Habitat was designated in June 2012; however, the Project site is not located in critical habitat. This species inhabits sandy beaches and shores of alkali lakes along the coast of Californian and feeds on small aquatic prey and requires sandy, gravelly, or friable soils for nesting (USFWS, 2007). The current Pacific coast breeding population extends from Damon Point, Washington, south to Bahia Magdalena, Baja California, Mexico (including both Pacific and Gulf of California coasts). The western snowy plover winters mainly in coastal areas from southern Washington to Central America (USFWS, 2007). Nests, which consist of a shallow scrape lined with bits of shell or stone, are easily disturbed by human activity. Western snowy plovers are also known to be heavily impacted by natural predators, such as raccoons, coyotes, and foxes. Coastal populations are largely non-migratory. Individuals that breed on the Pacific coast may disperse to the north or south in the fall. Fall migration away from the breeding grounds begins as early as late July.

Western snowy plovers have nesting colonies at the Bolsa Chica Ecological Preserve and near the mouth of the Santa Ana River. The 2022 Bolsa Chica breeding population rebounded from 2021's population of 66 adults to a 2022 population of 114 and exceeded the previous 5-year average population of 104 (Knapp and Woodfield, 2022). Western snowy plovers do not nest in the Project site; however, wintering populations snowy plovers are known to forage Huntington State beaches. It is unlikely that western snowy plovers would forage or roost in the Project site due to the continuous pedestrian traffic and off leash dogs.

3.2.2.4 Regulatory Setting

The following lists and summarizes the State and Federal regulations that are applicable to the assessment of potential impacts to the biological resources and/or habitats within the Project area.

Federal Regulations

The Federal Endangered Species Act (7 USC § 136, 16 USC § 1531 et seq.)

The Federal Endangered Species Act (FESA) of 1973 (Section 9 and implementing regulations 50 CFR Part 17) protects federally listed (endangered and/or threatened) marine wildlife species found within the U.S. Exclusive Economic Zone (200 mile limit) including those found off the coast of California. The FESA makes it unlawful to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an endangered species, or to attempt to engage in any such conduct. Violations of the FESA and regulations are subject to fines and imprisonment. An "endangered species" is defined by the Secretaries of the Department of the Interior and/or the Department of Commerce as any species that is in danger of extinction throughout all or a portion of its range. A "threatened species" is defined as any species, likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The USFWS and NMFS are responsible for the implementation of the federal FESA.

State Regulations

California Endangered Species Act (Fish & G. Code, § 2050 et seq.)

The CESA provides for the protection of rare, threatened, and endangered plants and animals, as recognized by the California Department of Fish and Wildlife (CDFW) and prohibits the taking of such species without its authorization. Furthermore, the CESA provides protection for those species that are designated as candidates for threatened or endangered listings. Under the CESA, the CDFW has the responsibility for maintaining a list of threatened species and endangered species (Fish & G. Code, § 2070). The CDFW also maintains a list of candidate species, which are species that the CDFW has formally noticed as under review for addition to the threatened or endangered species lists. The CDFW also maintains lists of Species of Special Concern that serve as watch lists. Pursuant to the CESA, an agency reviewing a proposed project in its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project site and determine whether the project will have a potentially significant impact on such species. The CDFW encourages informal consultation on any proposed project that may affect a candidate species. The CESA also requires a permit to take a State-listed species through incidental or otherwise lawful activities (§ 2081, subd. (b)).

Marine Life Protection Act (Fish & G. Code, §§ 2850–2863)

Pursuant to this Act, the California Department of Fish and Wildlife established and manages a network of MPAs to, among other goals, protect marine life and habitats and preserve ecosystem integrity. For the purposes of MPA planning, California was divided into five distinct regions (four coastal and San Francisco Bay) each of which had its own MPA planning process. The coastal portion of California's MPA network is now in effect statewide; options for a planning process in San Francisco Bay have been developed for consideration at a future date. The MLPA establishes clear policy guidance and a scientifically sound planning process for the siting and design of MPAs such as:

- State Marine Reserves (SMRs), which typically preclude all extractive activities (such as fishing or kelp harvesting)
- State Marine Parks (SMPs), which do not allow any commercial extraction
- State Marine Conservation Areas (SMCAs), which preclude some combination of commercial and/or recreational extraction

Coastal Zone Management Act (CZMA) (42 United States Code [USC] § 4321 et seq.)

The CZMA recognizes a national interest in coastal resources and the importance of balancing competing uses of those resources, giving full consideration to aesthetic, cultural and historic, ecological, recreational, and other values as well as the needs for compatible economic development. Pursuant to the CZMA, coastal states develop and implement comprehensive coastal management programs that describe uses, authorities, enforceable policies, and coastal zone boundaries, among other elements. The CZMA gives state coastal management agencies regulatory control ("federal consistency" review authority) over federal activities and federally licensed, permitted or assisted activities, if the activity affects coastal resources, including military projects at coastal locations and outer continental shelf oil and gas leasing, exploration and development. The California Coastal Commission and San Francisco Bay Conservation and Development Commission coordinate California's federally approved coastal management programs and federal consistency reviews within their respective jurisdictions.

California Coastal Act (Pub. Resources Code, § 30000 et seq.) and California Coastal Commission (CCC) Federal Consistency Program

Pursuant to the Coastal Act, the CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. The Coastal Act Chapter 3 policies address issues such as shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, oil and gas development, transportation, development design, power plants, ports, and public works. Development activities in the coastal zone generally require a coastal permit from either the CCC or the local government: (1) the CCC retains jurisdiction over the immediate shoreline areas below the mean high tide line and offshore areas out to 3 nautical miles; and (2) following certification of county- and municipality-developed Local Coastal Programs, the CCC has delegated permit authority to many local governments for the portions of their jurisdictions within the coastal zone. The CCC also exercises authority under Section 307 of the federal Coastal Zone Management Act (16 USC § 1456) over federal activities and development projects and non-federal projects that require a federal permit or license or are supported by federal funding. The consistency provisions of Section 307 provide that any federal activity, including a federal development project, that affects any land or water use or natural resource of the coastal zone, must be conducted in a manner that is "consistent to the maximum extent practicable" with the enforceable policies of the CCC's federally- approved coastal management program.

3.2.2.5 Impact Discussion

Potential impacts due to Project activities include temporary disturbance of beach habitat by heavy equipment and excavation activities. As indicated above, special-status species may be found within the region of the Project area, although suitable habitat is not present in the Project site and it is not anticipated that these species would be impacted during Project activities. No permanent effects to the existing environment are anticipated. Potential impacts are described below.

Disturbance to Beach Habitats. The Project will require a minor amount of beach habitat disturbance to excavate the pipeline anomalies. A total of approximately 900 square feet of beach will be disturbed by excavators and hydroexcavators. In addition, other heavy equipment, such as dozers and loaders, will support Project activities in the sand. The Project site consists of approximately 0.7 acres of beach area and will be delineated by a safety fence, so the heavy equipment will be limited to the sand area inside of the fencing. The safety fence will exclude both humans and pets, as well as wildlife from the disturbance area; therefore, it is expected that wildlife will not be present and will utilize other areas along the shoreline.

Oil Spills. The unintentional release of petroleum from Project equipment onto the sand from proposed Project activities could result in impacts to the beach habitat. Refined products (i.e., diesel, gasoline.) are more toxic than heavier crude or Bunker-type products. Although unlikely given the limited amount of fuel in the Project equipment, the loss of a substantial amount of fuel or lubricating oil during Project activities could contaminate the sand and intertidal habitats if the area came in contact with ocean water; however, the Project site is located above the high tide line, and all fueling will be done in a designated location in the Bluff Top Park staging area.

Regardless, CRPC's existing Coastal Oil Spill Contingency Plan #F5-20-3846 (March 2024) (Appendix A) will be implemented as necessary for Project activities. No cutting work directly on the pipelines is proposed; therefore, there is no risk of crude petroleum release from the pipelines during Project activities.

Project Incorporated Measures to Reduce Potential Impacts:

- **Oil Spill Contingency Plan**: Implementation of So-Cal Holdings, LLC: Coastal Oil Spill Contingency Plan #F5-20-3846 (March 2024) (Appendix A)
- A biological pre-activity survey will be completed 14 days prior to the start of work to confirm presence/absence of listed species and to provide any final biological protection recommendations for Project work crews. Further, a biological monitor shall be present during the installation of the safety fencing as well as during initial trench excavation activities.

3.2.3 Geology and Soils

3.2.3.1 Setting

The pipeline corridors are located underneath Huntington Beach "Dog Beach" adjacent to Bluff Top Park and Pacific Coast Highway. Major structural features in the vicinity include the northwest trending Palos Verdes Fault and San Pedro Basin fault zones. These zones consist of through-going strike-slip faults with components of vertical offset and numerous secondary faults and folds that are typical of the structural style of the region. The bluff adjacent to the Project site was not geologically formed but was constructed to support the Pacific Coast Highway and consists of unconsolidated concrete debris. Regardless, the bluff will not be disturbed by Project activities.

Based on surveys along the pipeline corridors, the subsurface soil conditions are predominantly comprised of sand and silt sediment. The 12-inch pipeline is buried approximately 7.0 to 11.0 feet beneath the sand's surface at the time of the most recent survey (November 2023). Each pipeline repair site will be excavated to expose the anomaly locations. Once the pipeline is uncovered, the 8' x 10' trench box (Figure 2.2-5) will be installed over the pipeline to stabilize the excavation and maintain a safe and controlled worksite. Sand will be backfilled as needed around the outside of the trench box to secure it in place and provide access for construction personnel. Using a trench box will significantly reduce the overall size of the excavation and the volume of material that must be moved. The work will take place away from the toe of the bluff where it will not affect the stability of the bluff.

3.2.3.2 Impact Discussion

The use of the trench boxes will ensure there are no geologic stability impacts on the beach during excavation and repair activities. In addition, work will not occur within the bluff area to ensure there are no risks to the Park area above and coastal infrastructure. After the clamps have been installed and tested, each excavation will be backfilled, compacted, and the beach will be restored to pre-Project grade. Pipeline remediation would occur on the exterior of the pipeline and would not disturb or modify the current pipeline alignment or burial depths. No impacts from geologic hazards or further soil stability issues would occur following Project activities.

3.2.4 Hazardous Materials

3.2.4.1 Setting

The proposed Project is located within a beach area that is utilized for primary recreational purposes. Vehicle traffic is present along the Pacific Coast Highway and in the Bluff Top Park parking lot. The 12-inch pipeline transports produced hydrocarbons from Platform Emmy to the shore facilities on the east side of Pacific Coast Highway.

The Project would mobilize heavy equipment in the Bluff Top Park parking lot and stage equipment on the top of the bluff above the Project site. During Project activities, heavy equipment will likely need to be moved between the worksite and the refueling and equipment

storage area. Equipment on the beach and in the staging area would use a limited number of hazardous materials (limited to fuels, hydraulic fluids, and lubricants) associated with the operation of internal combustion engines and hydraulic equipment.

3.2.4.2 Impact Discussion

Project equipment will be present in the fenced Project site or staging area for the 15-day work period. As such, a slight potential for release due to equipment failure or minor spill would exist. The Project site is located above the high tide line; therefore, in the event of a spill it is unlikely that the contaminant would come in contact with ocean water. Additionally, a limited volume of hazardous materials such as fuels, hydraulic fluids, and oils may also be used during Project activities. Fueling activities also present a slight potential for the release of hazardous materials to the environment. All equipment fueling and fuel storage will occur in the designated staging area in Bluff Top Park.

The proposed Project has been designed to minimize the potential risk to the greatest extent feasible. Specifically, Best Management Practices (BMPs) such as secondary containment will be implemented to prevent any unauthorized release of hazardous materials to the environment to the greatest extent feasible. Lastly, no cutting work directly on the pipelines is proposed; therefore, there is no risk of crude petroleum release from the pipelines during Project activities. Based on these preventative measures as well as the short-term duration of Project activities, no impact is expected.

Project Incorporated Measures to Reduce Potential Impacts:

- **Oil Spill Contingency Plan**: Implementation of So-Cal Holdings, LLC: Coastal Oil Spill Contingency Plan #F5-20-3846 (March 2024) (Appendix A)
- **Best Management Practices.** BMPs will be employed to prevent unauthorized releases during construction.

3.2.5 Recreation

3.2.5.1 Setting

The Project site is located within a public area of the City of Huntington Beach, colloquially known as “Dog Beach”. The beach area of the Project site is below Bluff Top Park and the adjacent bike and pedestrian trail. The beach and park can be accessed by vehicle from the southbound lane of Highway 1, also known as the Pacific Coast Highway (PCH). A parking lot adjacent to the Bluff Top Park allows for approximately 40 cars access to the Beach, Park, and bike and pedestrian trail. Pedestrians and cyclists can access the park and beach via the bike and pedestrian trail that runs parallel to PCH. Recreational activities in the Project site include biking, walking, jogging, and off leash dog activities.

Access to the Project site will be from the adjacent Bluff Top Park area utilizing the pedestrian access ramp located to the west of the Bluff Top Park. All movement of equipment from each of these staging and work areas will be conducted along a predetermined access route

with pre-selected traffic control points and a crew of safety flaggers, which will be used to stop bike and foot traffic while moving equipment. Additionally, three parking spots in the Bluff Top Park parking lot will be rented for the duration of the Project to be used for crew vanpool vehicles. A separate fenced staging area and equipment refueling area will occupy an approximately 20 by 50-foot portion of the park. The Project site on the beach will utilize an approximately 0.7-acre area of the upper beach, just west of the bluff. Prior to the start of Project activities, safety fencing will be installed around the worksite and staging/refueling areas to prevent access by the public and pets; the safety fencing will remain in place for the approximately three-week duration of the Project. Pedestrian access to and on the beach will be maintained along the shoreline, except for the temporary work area delineated by fencing.

3.2.5.2 Regulatory Setting

There are no federal laws, regulations, or policies pertaining to recreation that are relevant to the Project. At the state level, the California Coastal Act (CCA) regulates projects along the coastline. The CCA requires access to and along the coastline. Chapter 3 of the CCA focuses on issues pertinent to this Project including maintaining shoreline public access and recreation.

The City of Huntington Beach's Local Coastal Plan incorporates land use planning, goals, and policies concerning projects within the coastal zone boundary; however, none of the development policies are applicable to the Project.

3.2.5.3 Impact Discussion

Project activities will temporarily affect recreational opportunities in Bluff Top Park, dog beach, and the bike path. Additionally, the parking lot capacity of Bluff Top Park will be reduced by three of the 40 spaces. These impacts vary in duration but would not exceed the approximate three-week work window. There will also be minor impacts to traffic coming into the parking lot during the mobilization and demobilization of equipment from transport trucks. Project activities are proposed to start after the Labor Day weekend to limit the recreational impact. Throughout the duration of the Project, public access to the coast will be maintained.

A portion of Bluff Top Park will be used for staging and equipment refueling purposes. The mobilization and staging of the Project equipment in the parking lot of Bluff Top Park will temporarily affect the recreational use of the park and adjacent bike path. Additionally, the movement of equipment from the parking lot to the Bluff Top Park staging area and down to the Project site on the beach will temporarily impact recreational activities along the access route. Traffic control points will be utilized to temporarily stop public traffic along the access route while equipment is moved to and from the staging area (Appendix B – Traffic Control Plan).

The safety fencing and Project site will temporarily displace the recreational activities in that area of the beach. Access to the coastline and other parts of the beach will remain open to the public through lateral passage along the shoreline. All impacts to recreation in the park, bike path, and beach are temporary and will be restored to pre-Project conditions after the Project is completed.

Project Incorporated Measures to Reduce Potential Impacts:

The following measures will be implemented during the proposed Project to reduce potential conflicts with other vessel operations in the area.

- **Traffic Control Plan** (Appendix B) has been developed to protect the general public and the construction workers on the site during equipment movement and operations.
- **Project Timing**. Work is proposed to be conducted after Labor Day to reduce impacts on recreational use of the site and following receipt of all required permit approvals.
- **Public Access**. Public use of the beach will be maintained to the extent feasible, and lateral passage will be provided throughout the proposed repair efforts. Safety fencing around the construction area will be used to prohibit entry by the public or animals.

3.2.6 Water Quality

3.2.6.1 Water Quality Setting

The Project area is located above the high tide line at Huntington Beach "Dog Beach". The region offshore of the Project site is known as the Southern California Bight (SCB), which includes coastal southern California, the Channel Islands, and the local portion of the Pacific Ocean surrounding Platform Emmy. The surf zone adjacent to the Project site is highly dynamic, especially during winter storms, and undergoes daily changes in turbidity based on the swell and tides. The Bolsa Chica Wetlands State Marine Reserve flows out to the Pacific Ocean approximately 0.7 miles north of the Project site. There are no surface waters or wetlands present on the Project site.

3.2.6.2 Regulatory Setting

State and federal regulations control water quality in California. The United States Environmental Protection Agency (USEPA) is the federal agency responsible for water quality management and administers the Clean Water Act (CWA). Section 404 of the CWA assigns the U.S. Army Corps of Engineers (Corps) with permitting authority for proposed discharges of dredged and fill material into waters of the United States. Waters of the U.S. are defined as "…waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; territorial seas and tributaries to such waters." The jurisdictional boundary for Section 404 is the mean high water line; however, the Project site is above the mean high water line. In addition, structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit under the Rivers and Harbors Act, if the structure or work affects the course, location, or condition of the water body. The ACOE's jurisdiction for Section 10 is the high tide line; however, the Project site is above the high tide line as well.

In addition to the CWA, the State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. Since the Project site is not within the jurisdiction of the ACOE, requiring a Section 404 or 10

permits, and will not discharge to waters of the U.S. or State, there is no action required on behalf of the Regional Water Quality Control Board, Santa Ana Region (RWQCB-SA), to complete the Section 401 review.

3.2.6.3 Impact Discussion

Given the location and depth of burial of Beach Anomaly 1, it is anticipated that there will be water intrusion in the excavation from groundwater and potentially from surface water, especially during high tides. Should groundwater intrusion into the excavation become an issue and prevent repairs in dry conditions, the water will be pumped out of the excavation and into a settling pond above the high tide line within the defined worksite. This will allow the water to percolate naturally down into the sand and back into the water table and avoids any discharges to the ocean.

As discussed in Section 3.2.4.2, the proposed Project has been designed to minimize the potential risk to the greatest extent feasible. BMPs such as secondary containment will be implemented to prevent any authorized release of hazardous materials to the environment to the greatest extent feasible. In the event of a minor spill, contact with ocean water is not anticipated due to the Project site's elevation above the high tide line. Lastly, no cutting work directly on the pipelines is proposed; therefore, there is no risk of petroleum release from the pipelines during Project activities. Based on the proposed preventative design measures as well as the short-term duration of Project activities, no impact is expected.

Project Incorporated Measures to Reduce Potential Impacts:

- **Oil Spill Contingency Plan**: Implementation of So-Cal Holdings, LLC: Coastal Oil Spill Contingency Plan #F5-20-3846 (March 2024) (Appendix A)
- **Best Management Practices.** BMPs will be employed to prevent unauthorized releases during construction.
- **Construction Timing (Tides)**. Work activities at the Anomaly 1 location will be scheduled during low tide periods to the extent feasible to maximize construction operations in dry conditions.
- **Dewatering**. All dewatering activities will be discharged into a settling basin or tank and will not be directly discharged into the ocean waters.

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