BIOLOGICAL ASSESSMENT

CALIFORNIA RESOURCES CORPORATION
DECOMMISSIONING OF THE GRUBB LEASE
INTAKE/OUTFALL STRUCTURE
VENTURA COUNTY, CALIFORNIA

Project No. 1802-2271

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LIST OF ACRONYMS

AT&T	AT&T Corporation
BA	Biological Assessment
cm	centimeter
CRC	California Resource Corporation
CSLC	California State Lands Commission
DPS	Distinct population segment
EFH	Essential fish habitat
ESCA	Endangered Species Conservation Act
FE	Federally endangered
FESA	Federal Endangered Species Act
ft	feet/foot
FT	Federally threatened
in	inch
kg	kilogram
km	kilometer
lbs	pounds
m	meter
mi	miles
MMPA	Marine Mammal Protection Act
MWCP	Marine Wildlife Contingency Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PCH	Pacific Coast Highway
sq. km.	square kilometers
PSO	Protected Species Observer
PSWP	Project Work and Safety Plan
U.S.	United States
USCG	United States Coast Guard
UPRR	Union Pacific Railroad
USFWS	United States Fish and Wildlife Service

1.0 INTRODUCTION

The following Biological Assessment (BA) is for the proposed California Resources Corporation (CRC) Decommissioning of the Grubb Lease (PRC 3913.1) Intake/Outfall Structure Project (Project). The BA has been prepared to evaluate the potential affect that the proposed action may have on Federally threatened, endangered or proposed species described in this document. This BA is prepared in accordance with legal requirements set forth under Section 7 of the Federal Endangered Species Act (FESA, 16 U.S.C. 1536[c]), and follows the standard established by the National Environmental Policy Act (NEPA) and FESA guidance. In addition, the BA is prepared in accordance with the United States (U.S.) Marine Mammal Protection Act (MMPA) of 1972, amended in 1994, which protects all marine mammals by prohibiting intentional killing or harassment of cetaceans, pinnipeds, and sirenians. The species considered in this document were based on information obtained from National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) protected species list for the Project area.

1.1 SUMMARY OF PROPOSED PROJECT

CRC is proposing to decommission Project-related facilities located within Lease PRC 3913.1 in accordance with California State Lands Commission (CSLC) lease requirements prior to the lease expiration in January 2020. The lease agreement requires that CRC plan for replacement and rehabilitation of the pipelines or plan for full removal of the pipelines. The Project objective is the removal of the pipelines and appurtenant facilities to fulfill the existing lease requirements and quit claim the lease.

1.2 PROJECT WORK AREAS AND OVERVIEW

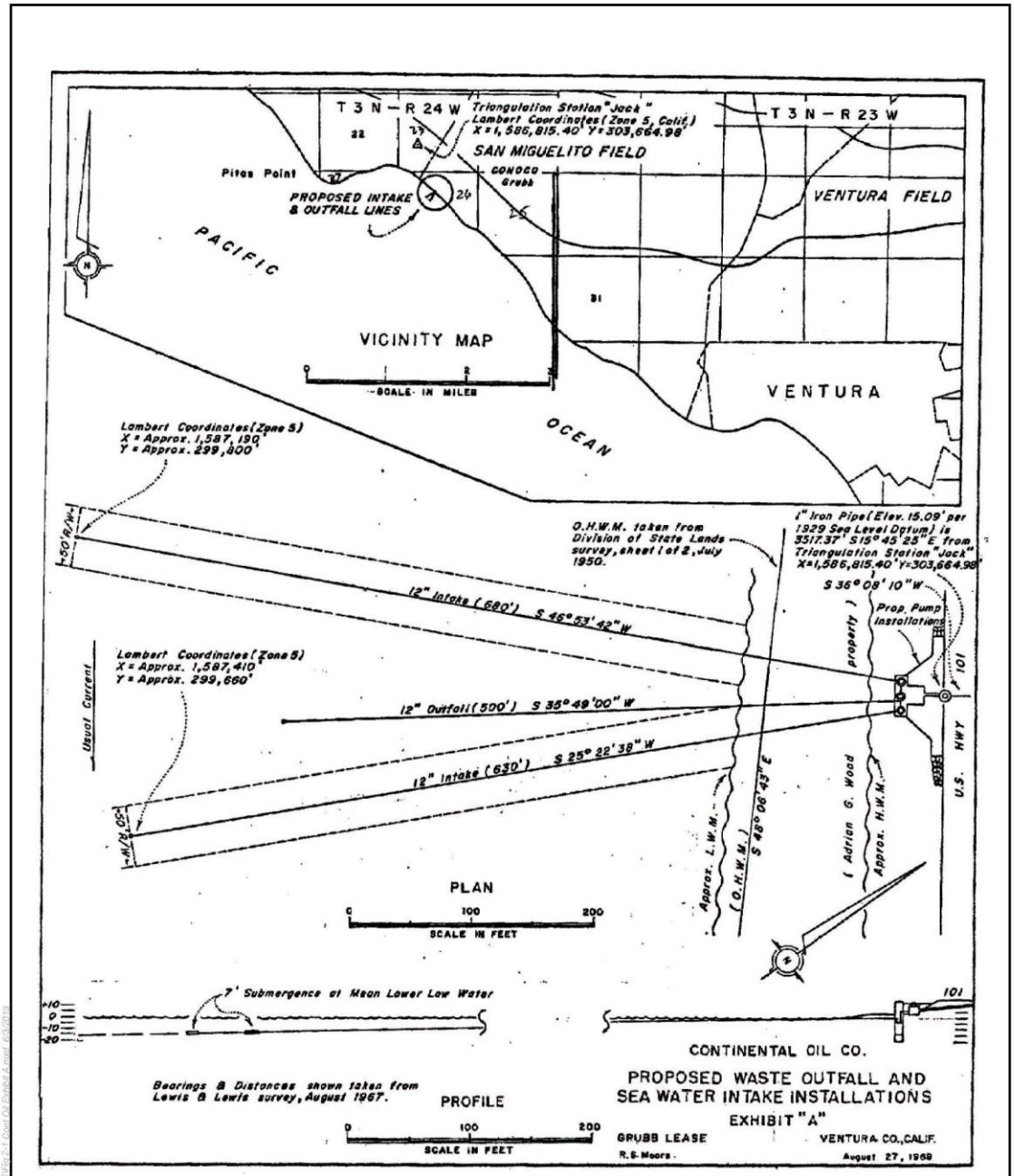
1.2.1 Offshore Intake and Outfall Pipelines

The offshore portion of the facility consists of three 12-inch (in) (30.5 centimeter [cm])-diameter steel submarine pipelines consisting of two intake pipelines and one outfall pipeline. The two intake pipelines measure approximately 680 and 630 feet (ft) (207 and 192 meters [m]) in length, and the outfall pipeline measures approximately 500 ft (152 m) in length. The original materials specification and wall thickness of these pipelines is unknown. The pipelines appear to be coated with an anti-corrosive coating or weight coating of unknown composition, but most likely somastic. The external coatings will be sampled prior to removal and tested for the presence of any hazardous materials.

All three pipelines run southwest, spaced at approximately ten-degree increments from the vault structure on the beach (Figure 1-1 – Proposed Waste Outfall and Sea Water Intake Installations). Each of the two intake pipelines has an approximately 6-ft by 6-ft (1.8-m by 1.8-m) reinforced concrete lattice box structure at the offshore end, which are presumably intake structures that provided some level of filtering or exclusion when in operation.

All three pipelines are fully severed, as a result of corrosion, just south of the southern side (seaward side) of the vault in the surf zone area (Figure 1-2 – Photograph of Severed Pipelines). At the severance points all three pipelines appear to have double walls of internal steel or plastic pipe with a mastic filler between the walls.

Offshore, the pipelines appear to be intact and buried through the surf zone. The length and depth of cover appears to vary with the season and associated annual sand migration. This approximately 200-ft (61-m) long surf zone segment has not been surveyed due to the difficulties of working in the surf zone. Further offshore, the remaining 300 to 500 ft (91 to 152 m) of pipe are exposed and laying on a bedrock and sand seafloor.



Source: CRC Figure 2.1-1
Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Notes: This map was created for informational and display purposes only.

padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS	PROJECT NAME: CRC - DECOMMISSIONING OF GRUBB LEASE INTAKE/OUTFALL STRUCTURE VENTURA COUNTY, CA PROJECT NUMBER: 1802-2271 DATE: June 2019	CONTINENTAL OIL COMPANY PROPOSED WASTE OUTFALL AND SEA WATER INTAKE INSTALLATIONS - EXHIBIT "A"	FIGURE 1-1

Figure 1-1. Proposed Waste Outfall and Sea Water Intake Installations

Figure 1-2. Photograph of Severed Pipelines

1.2.2 Shoreline Vault

The shoreline vault is a reinforced concrete and steel sheet pile structure set in the armor rock seawall between Pacific Coast Highway and the intertidal zone. The vault measures approximately 20 ft wide by 14 ft wide and 27 ft in height (6.0 m by 4.2 m by 8.2 m). The two intake pipelines and one outfall pipeline were originally connected to the seaward side of this vault. The vault is located within the intertidal zone and its seaward side is inaccessible during periods of high tide (Figure 1-3 – Onshore Project Components).

Three pipelines within a 36-in (91-cm)-diameter casing exit the vault on the north side (landward side). The vault interior is partially filled with water and still contains water pumps, piping, two levels of grating and other ancillary equipment, much of it submerged. The interior water level does not change with the tides and so appears to be isolated from the ocean. Due to the flooded condition, the vault interior has only been partially surveyed.

The vault is approximately 27 ft (8.2 m) deep and terminates approximately 12 ft (3.7 m) below the surrounding sand beach level. Large pumps and equipment appear to be fastened to the floor of the vault and the floor is assumed to be concrete. The interior vault walls and ceiling are concrete, and the exterior walls are sheathed with steel sheet pile (Figure 1-4 – Steel Sheet Piling Foundation at Concrete Vault). The vault backs up to Pacific Coast Highway on the north side and is surrounded by armor rock on the other three sides.

The top of the fenced vault enclosure is approximately 20 ft (6.1 m) wide by 42 ft (21.8 m) long and includes three approximately 3-ft by 3-ft pump caisson openings on the southern end and an access hatch with ladder on the southwest side. The area just north of the vault, between the concrete vault structure and Pacific Coast Highway, is assumed to be compacted soil covered with an asphalt layer and then a thin layer of dirt. The entire 20-ft by 42-ft (6.1-m by 12.8-m) vault enclosure is surrounded by chain link fencing with access through a locked gate on the north side.

Figure 1-3. Onshore Project Components (South Elevation)

Figure 1-4. Steel Sheet Piling Foundation at Concrete Vault

1.2.3 Onshore Facilities

The onshore facilities consist of underground pipeline and support structure that span between the northern side of the vault (landward) and the valve pit located in the CRC onshore facilities north of the Ventura Freeway – U.S. Highway 101. Exiting the interior wall on the north side of the vault is a 36-in (91.4 cm)-diameter steel casing containing one 14-in (35.6-cm)-diameter steel pipeline, one 12-in (30.5-cm)-diameter steel pipeline and one eight-inch (20.3-cm)-diameter polyvinyl chloride pipe (PVC pipe) liner inside of a second 12-in (30.5-cm)-diameter steel pipeline. The annulus between the pipelines within the 36-in (91.4-cm) steel casing are filled with a grout material where they enter the side of the vault. The extent of this grout fill is unknown and will have to be field verified during decommissioning.

Based on pipeline tracking data, the 36-inch-diameter casing appears to run underground approximately 220 ft (67.1 m) to the northeast and terminate approximately 80 ft (24.4 m) north of the Union Pacific Railroad (UPRR) easement. Pipe tracking data suggests that at least one pipeline exits the 36-in (91.4 cm)-diameter casing and extends underground via the "A" Lease Canyon Road, underneath the Ventura Freeway – U.S. Highway 101 overpass a distance of approximately 310 ft (94.5 m), and terminates in a valve box on CRC onshore property. Depth of burial to the top of the 36-in (91.4 cm)-diameter casing varies from approximately nine ft (2.7 m) at the southern side of Pacific Coast Highway to over 11 ft (3.4 m) while running under the UPRR easement and Ventura Freeway (U.S Highway 101) dirt frontage road.

1.3 PROJECT COMPONENTS

The Project would require the following primary components:

- Pre-Project Preparation Activities and Surveys
    - Construction of a temporary equipment access ramp
- Removal of the Intake/Outfall facilities within PRC 3913.1 including:
    - Recovery of the 6-ft by 6-ft by 6-ft concrete lattice box structures at the offshore end of each of the intake pipelines;
    - Recover of the two, 12-in-diameter steel intake pipelines (approximately 680 and 630 ft [207.3 m and 192.0 m] in length);
    - Recovery of the 12-in-diameter steel outfall pipeline (approximately 500 ft [152.4 m] in length); and
    - Demolition and removal of existing 20-ft tall, 20-ft by 40-ft (6.1 m by 6.1 m by 12.2 m) concrete vault and surrounding structure.
- Abandon-in-place the 36-in (91.4-cm)-diameter casing (and internal pipelines) on the onshore side of the beach vault, including:
    - Fill the casing between the onshore side of the beach vault and valve box on CRC's lower Grubb lease property with slurry.
- Ramp demolition and reconstruction of the armor rock seawall at the gap created by removal of the concrete vault

- Demobilization of equipment and disposal/recycling of recovered pipelines and appurtenant facility components (fencing, foundation piling, concrete)
- Post-Project survey to confirm removal of pipelines and any associated seafloor anomalies identified in the Pre-Project survey.

1.3.1 Pre-Project Preparation Activities and Surveys

1.3.1.1 Plans and Survey(s)

Once all regulatory permits are received, but prior commencement of Project activities, the following technical plans and surveys will be completed:

a. A Project Work and Safety Plan (PSWP) that provides the following will be submitted to all pertinent agencies for review and approval prior to the start of site work:
   - Project-specific Emergency Action Plans
   - Project Contacts
   - Final scope of work and final dispositions
   - Updated Project Schedule
   - Step-by-step procedures with supporting engineering calculations
   - Quality Management Plan
   - Project Management and Communications Plan
   - Site Safety Plan
   - Certified Asbestos Work Plan (if asbestos is found)
   - Diving Safety Plan
   - Critical Operations and Curtailments Plan
   - Survey Plan
   - Confined Space Entry Plan
   - Hot Work Plan
   - Oil Spill Response Plan
   - Marine Safety and Anchoring Plan with anchoring pre-plot
   - Excavation Plan
   - Certified Traffic Management Plan
   - Hazardous Materials Management Plan (if hazardous materials are found)
   - Other plans and information required to perform the work safely and in compliance with all regulatory permits and permissions, Cal OSHA safety regulations, U.S. Coast Guard (USGC) safety regulations, and owner's safety requirements, as applicable.

b. Produce a pre-project multi-beam seafloor survey, with 400 percent coverage, of the offshore area around the pipelines, including the proposed anchor spreads. This will serve as the baseline seafloor debris survey that will be compared against a post-decommissioning seafloor debris survey of the same area to ensure that no debris has been left underwater on the seafloor.

c. Conduct a pre-project topographic survey of the armor rock seawall on each side of the vault to determine the pre-construction contours and conditions of the seawall. This will serve as the baseline for reconstructing the seawall after removal of the vault and the construction access ramp and restoration of the site to existing contours.

d. Conduct an 811 utility location (DigAlert) survey from the northern edge to the valve pit on the CRC property to ensure that all utilities are identified and located on the survey maps.

1.3.1.2 Ramp Construction

A temporary equipment access ramp will be constructed across the existing armor rock seawall approximately 50 ft (15.2 m) south of the concrete vault to provide equipment access to the Project site. An excavator will remove and relocate the existing armor rock as needed to create the foundation for the equipment access ramp. All rock removed will be stored for replacement upon completion of construction activities. An excavator and loader will place smaller rock and cobble on top of the existing armor rock seawall to create a ramp of sufficient density and strength to allow tracked construction equipment to travel across it to the beach. The equipment access ramp will be approximately 30 ft (9.1 m) wide and 60 ft (18.3 m) long.

1.3.2 Pipeline and Vault Removal

1.3.2.1 Offshore Facilities Decommissioning

The proposed final disposition of the offshore facilities is to remove the two reinforced concrete lattice intake structures and all three 12-in (30.5-cm)-diameter submarine pipelines in their entirety.

Prior to the start of offshore and onshore decommissioning activities, the work area will be staged in accordance with the pre-approved Traffic Control Plan. This will include setting up equipment and materials staging areas along the southern shoulder of Pacific Coast Highway; most likely the closure of the eastbound bicycle and vehicle lane of Pacific Coast Highway; and the temporary rerouting of both eastbound and westbound traffic into the existing center divider and westbound lanes of Pacific Coast Highway. While occasional traffic stops on Pacific Coast Highway may be needed during equipment ingress and egress, no long-term full closure of Pacific Coast Highway is anticipated (Figure 1-5 – Project Facilities).

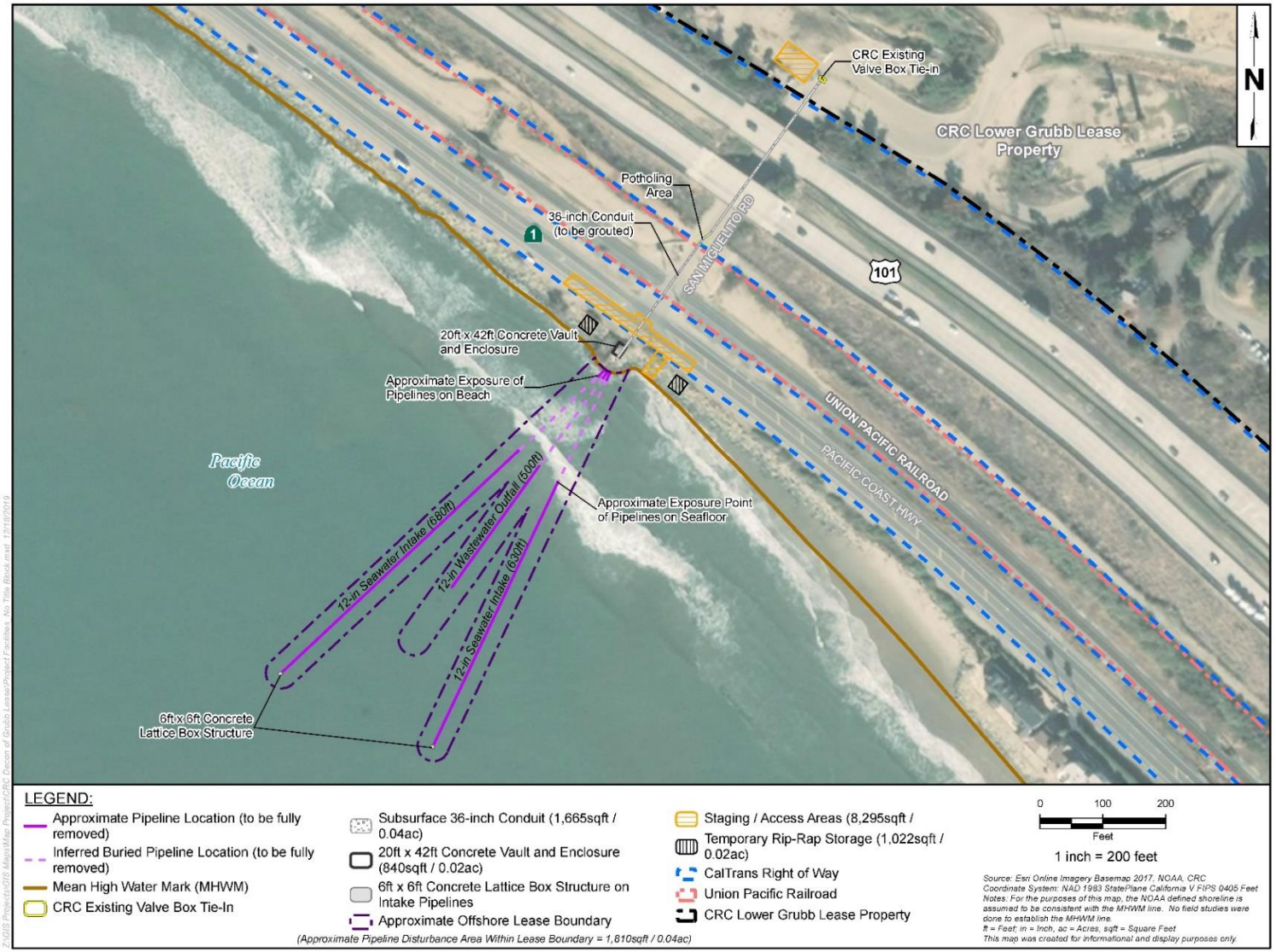


Figure 1-5. Project Facilities

Offshore work will be initiated by the anchoring of the dive support vessel over the terminus of the intake and outfall structures (Appendix B – Anchoring Plot). Divers will be deployed to cut and remove the diffusers from each pipeline. Once cut, the diffuser structures will be winched to the surface and recovered onboard the vessel. The proposed primary submarine pipeline removal methodology consists of mounting a winch on top of the existing reinforced concrete shoreline vault and pulling the submarine pipeline segments to shore along their existing alignments. The onshore ends of each pipeline will be exposed by an excavator operating on the beach. The ends of each pipeline will be cut and prepared for attachment of a pull wire or bridle. Tension will be slowly increased on the pipeline pulling wire until the pipeline breaks free of the surf zone sand cover. The pipelines will be pulled along their existing alignments up onto the beach where they will be cut into truckable sections. Once cut, the segments will be lifted from the beach, placed on a flatbed truck and trucked to an approved offsite recycler or disposal facility (Figure 1-6 – Pipeline Recovery Illustration). This use of the vault and associated recovery of the offshore pipelines to shore will be performed prior to decommissioning the shoreline vault and armor rock.

Alternatively, should the onshore pipe recovery operation be unable to recover all the submarine pipeline segments to shore, the anchored offshore marine work spread consisting of a dive support vessel and divers will be used to recover the remaining submarine pipeline segments.

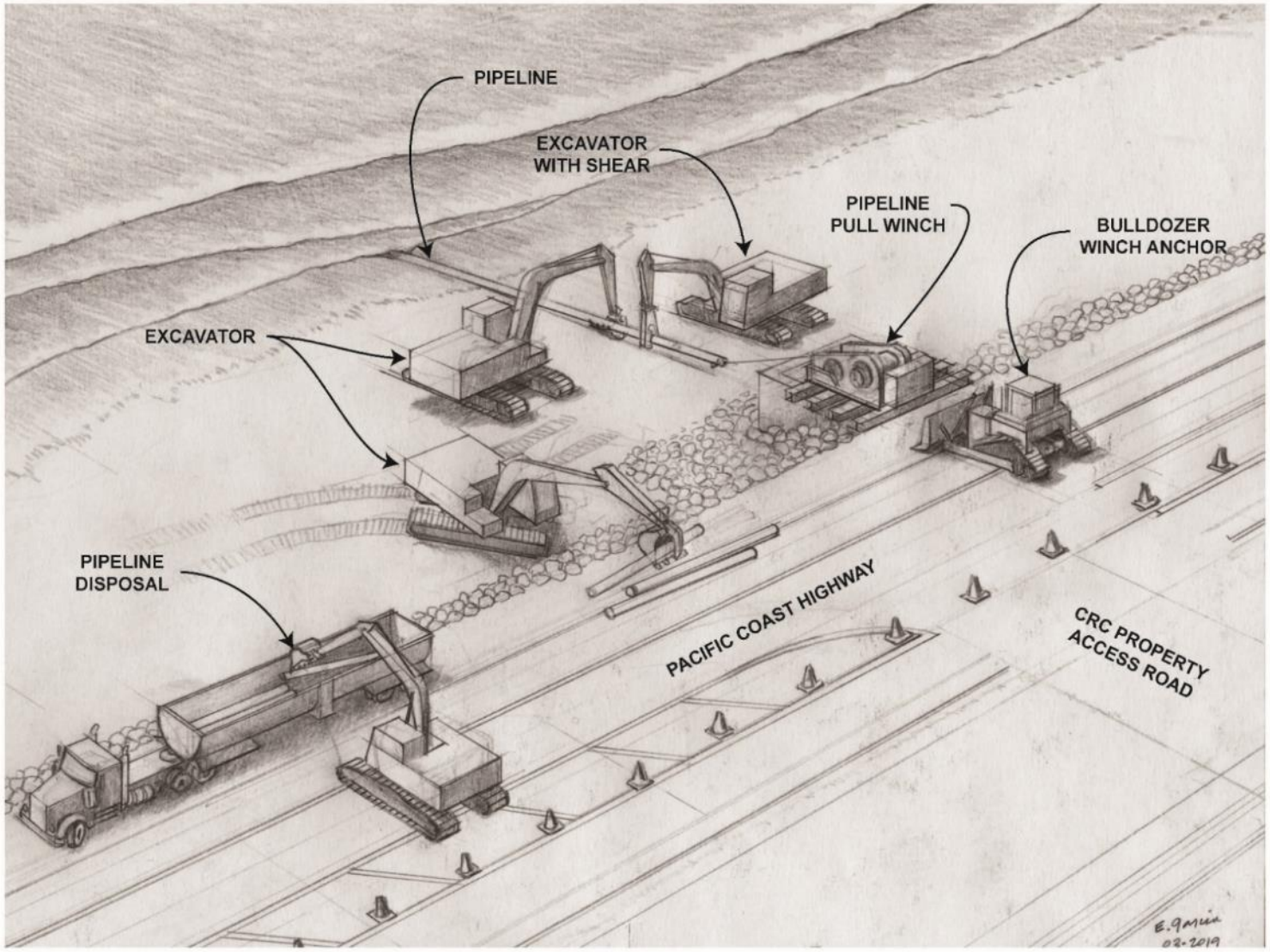


Figure 1-6. Pipeline Recovery Illustration

1.3.2.2 Shoreline Vault Decommissioning

The proposed final disposition of the shoreline vault is to remove all equipment and appurtenances from inside the vault and then remove the entire vault structure down to 5 ft (1.5 m) below the existing beach contours and abandon the remaining 7 ft in place.

The decommissioning of the vault will begin once the submarine pipelines have been removed. To facilitate removal of the vault, all armor rock currently surrounding the vault will be removed to expose the vault walls down to the beach elevation. (Figure 1-7 – Armor Rock Removal). Most of the removed armor rock will be used to construct the equipment access ramp between the Pacific Coast Highway southern shoulder and the beach. The remaining armor rock will be stored next to the existing armor rock to the east and west of the vault.

The water in the vault will be re-sampled, pumped out, and shipped offsite for appropriate disposal. The reinforced concrete vault ceiling will be saw cut and removed and all equipment, appurtenances and debris inside the vault removed and disposed of or recycled at approved facilities.

Once the water, equipment, appurtenances and debris has been removed from the interior of the vault, the vault walls will be cut into removable sections with the use of a hydraulically powered rotary demolition saw (cuts both concrete and steel) attached to an excavator boom (Figure 1-8 – Vault Removal). In use, the excavator will reach inside the interior and make a horizontal cut around the base of the walls at an elevation at least five feet below the existing beach contours, or at a lower elevation if conditions permit. After the base cut has been completed, the saw will be used to cut the walls into vertical sections for removal. An excavator will be used to grasp the cut wall pieces and place them in trucks for offsite disposal or recycling at approved facilities.

The 36-in (91.4-cm)-diameter casing that connects into the shoreward side of the vault, and pipes contained in that casing, will be excavated and cut back approximately even with the existing earth slope of the armor rock seawalls that exist on either side of the vault. The casing and pipes contained in the casing will have been decommissioned in accordance with the description in Section 1.3.2.3 – Onshore Facility Decommissioning below.

Immediately after the vault decommissioning has been completed, a seawall will be constructed in the gap left by the removal of the vault to match the armor rock materials, slope and grade of the existing seawall on either side of the gap. The armor rock that was removed from around the vault at the beginning of the vault decommissioning will be used to construct this section of seawall. Remaining rock will be trucked away for disposal.

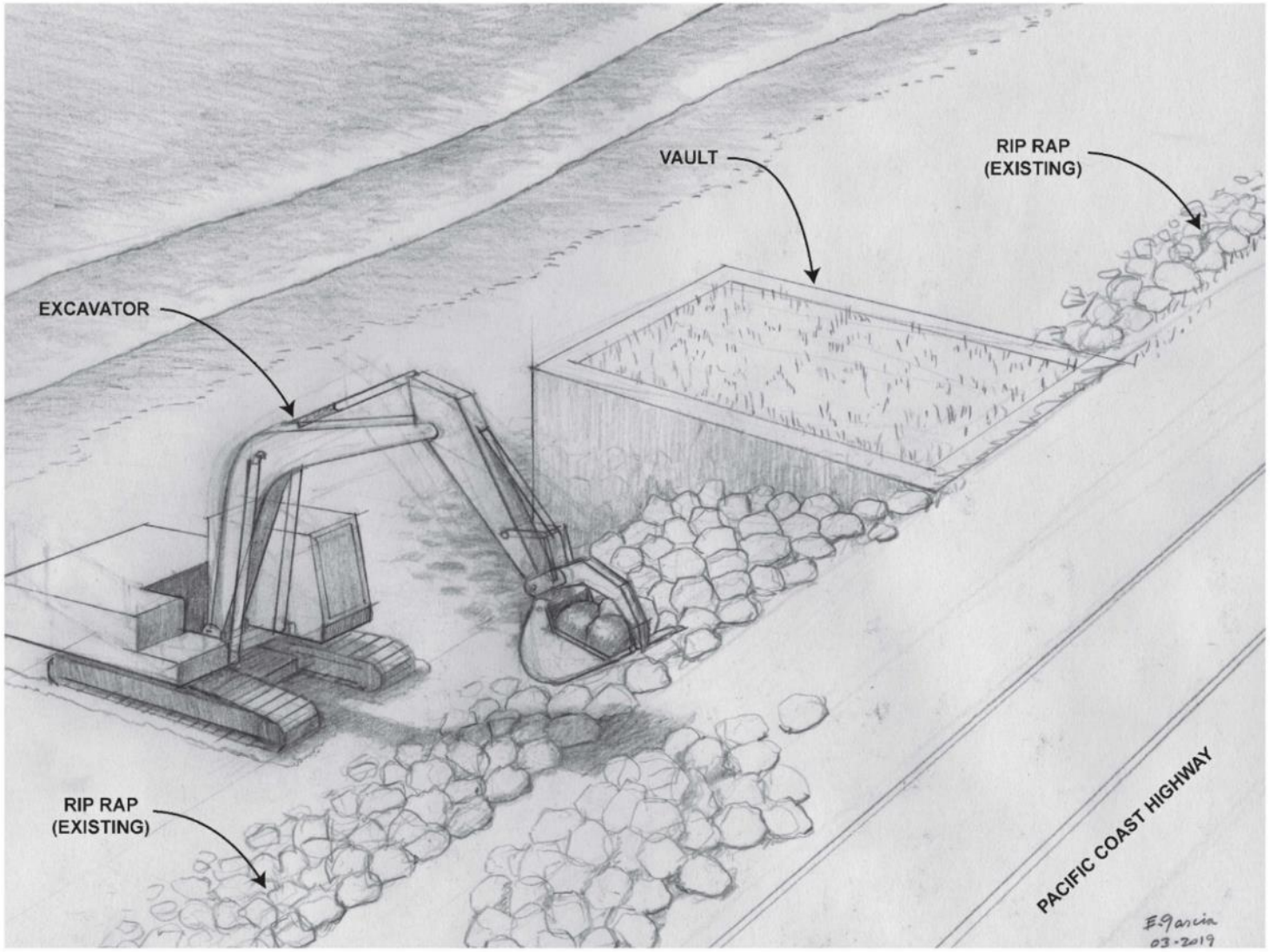


Figure 1-7. Armor Rock Removal

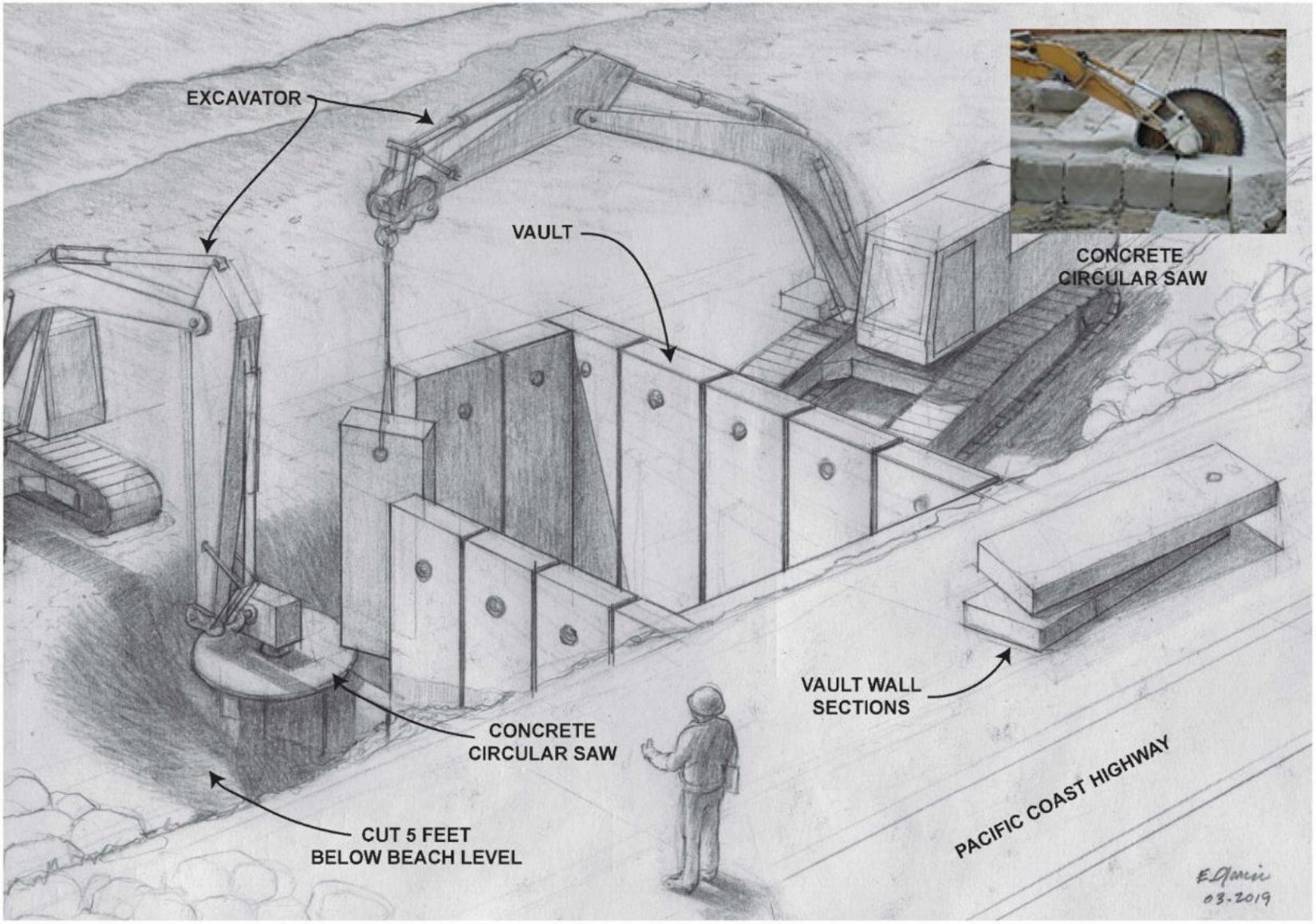


Figure 1-8. Vault Removal

1.3.2.3 Onshore Facilities Decommissioning

The final disposition of the onshore facilities is to fill the 36-in (91.4-cm)-diameter casing with cement slurry and abandon it in place after the pipelines inside the casing have been removed, or alternatively, if the pipelines carried inside the 36-in (91.4-cm)-diameter casing are found to be already cemented into the 36-in (91.4-cm)-diameter casing, fill these pipelines with cement slurry and abandon the entire bundle in place. The underground pipe or pipelines between the landward end of the 36-in (91.4-cm)-diameter casing and their termination in the valve box located inside CRC onshore facilities on the north side of Ventura Freeway – U.S. Highway 101 will be filled with cement slurry and abandoned in place.

1.3.3 Ramp Demolition and Armor Rock Reconstruction

Upon completion of pipeline and vault removal activities, terrestrial construction equipment working from the shoulder of the road will deconstruct the equipment access ramp and construct the armor rock seawall at the removed vault location using original armor rock from the vault perimeter. The reconstructed armor rock seawall will match pre-decommissioning contours.

1.3.4 Post-Project Survey

Upon completion of the offshore decommissioning work, a second offshore geophysical debris survey will be performed, and the results compared to the initial baseline seafloor debris survey. Any anomalous seafloor objects located in the survey will be positively identified by divers and any remaining objects related to the decommissioning will be removed. A Project close-out report with drawings and coordinates of all facilities abandoned in place will be submitted to the CSLC within approximately 60 days of the completion of the work.

1.4 SITE ACCESS AND STAGING

There is currently only pedestrian access via a concrete stairway to the Project site from the adjacent roadway. A temporary equipment ramp will be constructed across the existing riprap approximately 50 ft (15.2 m) south of the concrete vault to provide equipment access to the Project site. Equipment will need to be moved off the beach with each tidal cycle, as the Project site becomes inundated at high tide.

Project equipment staging will occur adjacent to the Project site along Pacific Coast Highway (PCH). The staging area will be approximately 25 ft (7.6 m) by 150 ft (45.7 m).

1.5 EQUIPMENT/PERSONNEL REQUIREMENTS

The primary equipment and personnel requirements for the Project are summarized in Tables 1-1 and 1-2.

Table 1-1. Project Equipment List

Equipment Type	Quantity	Horsepower	Hours/Day	# of Days
Onshore				
Onshore Casing and Pipeline Decommissioning				
Excavator	1	310	10	10
Crane	1	220	10	10
4x4 Truck	1	325	10	1
Cement Truck	5	300	10	1
Cement Pump	1	85	10	1
Onshore Pipeline Recovery and Removal				
Excavator	3	310	10	9
Winch	1	150	10	9
Bulldozer	1	435	2	9
4x4 Truck	1	325	5	9
Onshore Vault Removal and Armor rock Re-Construction				
Excavator	3	310	10	10
Crane	1	220	10	10
4x4 Truck	1	325	5	10
Vacuum Truck	5	225	10	1
Offshore				
Offshore Intake Structure Removal				
Dive Support Vessel	1	1,000	24	4
Shallow Air Dive System	1	50	12	4
Offshore Pipeline Removal Option – Pull Offshore (Alternative)				
Dive Support Vessel	1	1,000	12	4
Shallow Air Dive System	1	50	12	4

Table 1-2. Personnel Requirements

Labor	Quantity	Hours/Day	# of Days
Onshore			
Onshore Casing and Pipeline Decommissioning			
Project Manager	1	10	10
Site Supervisor	1	10	10
Heavy Equipment Operator	3	10	10
Rigger	2	10	10
Onshore Pipeline Recovery and Removal			
Project Manager	1	10	9
Site Supervisor	1	10	9
Heavy Equipment Operator	3	10	9
Rigger	2	10	9
Onshore Vault Removal and Armor rock Re-Construction			
Project Manager	1	10	10
Site Supervisor	1	10	10
Heavy Equipment Operator	3	10	10
Rigger	2	10	10
Offshore			
Offshore Intake Structure Removal			
Project Manager	1	12	4
Dive Supervisor	1	12	4
Diver	3	12	4
Tender	1	12	4
Surveyor	1	12	4
Marine Wildlife Monitor	1	12	4
Offshore Pipeline Removal Option – Pull Offshore (Alternative)			
Project Manager	1	12	4
Dive Supervisor	1	12	4
Diver	3	12	4
Tender	2	12	4
Surveyor	1	12	4
Marine Wildlife Monitor	1	12	4

1.6 PROJECT CONSTRUCTION SCHEDULE

Project operations have been proposed to take place in Fall or Winter 2019/2020 to take advantage of low-tide conditions during that time of year. It is expected that Project activities will be conducted during daylight hours (approximately 10-12 hours/day) for approximately 73 days. Onshore and offshore removal activities would be conducted concurrently to minimize construction timing. Table 1-3 provides a summary of construction timing by task.

Table 1-3. Project Construction Duration

Activity	Duration (days)
Mobilization	
Perform Seafloor Debris Survey	2
Onshore Work	
Mobilization	15
Strip Concrete Vault – Piping/Fencing/Electric	1
Casing and Pipeline Decommissioning	15
Pipeline Recovery and Removal	15
Vault Removal and Seawall Construction	15
Demobilization	2
Offshore Work	
Mobilization	1
Recover Intake Structures	4
Demobilization	1
Final Surveys	
Perform Seafloor Debris Survey	2
Total Duration	**73***

Note: *Some activities would occur simultaneously. All durations are estimates

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2.0 SPECIES ACCOUNTS AND SATUS OF SPECIES IN THE ACTION AREA

Based on the species lists provided on the USFWS and NMFS websites, an analysis of the range and habitat preferences was conducted (USFWS, 2019; and NMFS, 2019a) (Appendix C – U.S. Fish and Wildlife Service Species List). The species descriptions in this section are confined to those listed species that have a potential to occur in the Project area (Table 2-1). Certain species were eliminated from these analyses due to the absence of the preferred habitat or water depths within the Project site. Other species were eliminated from consideration because the Project site was beyond the recorded geographic range for the species.

Although marine mammals and sea turtles are not expected to occur within the immediate Project area, there is a likelihood they could be encountered during vessel transit in deeper waters; therefore, these species are included in the analyses below.

Table 2-1. Federally Listed Species Within the Project Area and Their Likelihood of Occurrence within the Project Area

Common Name	Scientific Name	Status[1]	Designated Critical Habitat	Likelihood to occur in Project Area
PLANTS				
California orcutt grass	*Orcuttia californica*	FE	None	Unlikely to Occur
Gambel's watercress	*Nasturtium gambellii*	FE	None	Unlikely to Occur
Marsh sandwort	*Arenaria paludicola*	FE	None	Unlikely to Occur
Salt marsh bird's-beak	*Cordylanthus maritimus ssp. maritimus*	FE	None	Unlikely to Occur
Spreading navarretia	*Navarretia fossalis*	FT	Yes, critical habitat is outside of Project area.	Unlikely to Occur
Ventura marsh milk-vetch	*Astragalus pycnostachys var. lanosissmus*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur
INVERTEBRATES				
Black abalone	*Haliotis cracherodii*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur
White abalone	*Haliotis sorenseni*	FE	None	Unlikely to Occur
REPTILES				
Olive Ridley turtle	*Lepidochelys olivacea*	FT	None	Possible
Green turtle	*Chelonia mydas*	FT	Yes, critical habitat is outside of Project area.	Possible
Loggerhead turtle	*Caretta caretta*	FE	Yes, critical habitat is outside of Project area.	Possible
Leatherback turtle	*Dermochelys coriacea*	FE	Yes, critical habitat is outside of Project area.	Possible
BIRDS				
California condor	*Gymnogyps californianus*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur

Common Name	Scientific Name	Status[1]	Designated Critical Habitat	Likelihood to occur in Project Area
California least tern	*Sterna antillarum browni*	FE	None	Possible
Least Bell's vireo	*Vireo bellii pusillus*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur
Light-footed clapper rail	*Rallus longirostrius levipes*	FE	None	Unlikely to Occur
Marbled murrelet	*Brachyramphus marmoratus*	FT	Yes, critical habitat is outside of Project area.	Unlikely to Occur
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur
Western snowy plover	*Charadrius nivosus nivosus*	FT	Yes, critical habitat is outside of Project area.	Unlikely to Occur
AMPHIBIANS				
California red-legged frog	*Rana draytonii*	FT	Yes, critical habitat is outside of Project area.	Unlikely to Occur
FISH				
Tidewater goby	*Eucylogobius newberryi*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur
Southern Steelhead	*Oncorhynchus mykiss*	FE	Yes, critical habitat is outside of Project area.	Unlikely to Occur
Green sturgeon	*Acipenser medirostris*	FT	Yes, critical habitat is outside of Project area.	Unlikely to Occur
MAMMALS				
Cetaceans				
Blue whale	*Balaenoptera musculus*	FE	None	Possible
Fin whale	*Balaenoptera physalus*	FE	None	Possible
Humpback whale	*Megaptera novaeangliae*	FT	None	Possible
Northern right whale	Eubalaena glacialis	FE	None	Unlikely to Occur
Sperm whale	*Physeter macrocephalus*	FE	None	Unlikely to Occur
Sei whale	*Balaenoptera borealis*	FE	None	Unlikely to Occur
Pinnipeds				
Guadalupe fur seal	*Arctocephalus townsendi*	FT	None	Unlikely to Occur

Status[1]

FE = Federally endangered

FT = Federally threatened

2.1 SPECIES ACCOUNTS

This section includes a discussion of the federally listed species that are known to occur or have potential to occur in the Project area based on habitat availability and known locations of species in the Project region. These include the following species: California least tern, green turtle, loggerhead turtle, olive ridley turtle, leatherback turtle, blue whale, fin whale, and humpback whale. Certain species, such as plant, invertebrate and fish, listed in Table 2-1 above, may occur within the quadrangle and/or within five miles of the Project area; however, suitable habitat for these species do not occur in the Project area and, therefore, were not included in the discussion below. Other species may have been eliminated from consideration because the Project area is beyond the recorded geographic, elevational, or water depth range for these species.

2.1.1 California Least Tern (*Sternula antillarum*)

2.1.1.1 Status

The California least tern was listed as a Federally endangered species in 1970 (USFWS, 2017b). No critical habitat has been designated.

2.1.1.2 Range and Habitat

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). The nearest nesting colony occurs at McGrath Beach, at the mouth of the Santa Clara River, approximately eight miles southeast of the Project area. During 2016 surveys, an estimated 57 breeding pairs and 62 nests were reported at the Santa Clara River/McGrath Beach colony (Frost, 2017).

2.1.1.3 Natural History

This species nest in colonies and utilize the upper portions of open beaches or inshore flat sandy areas that are free of vegetation. The typical colony size is 25 pairs. Most least terns begin breeding in their third year, and mating begins in April or May. The nest consists of a simple scrape in the sand or shell fragments and typically there are two eggs in a clutch. Egg incubation and care for the young are accomplished by both parents. Least terns can re-nest up to two times if eggs or chicks are lost early in the breeding season. At nesting colonies where feeding activities have been studied, the birds were documented foraging mostly within two miles (mi) (3.2 kilometers [km]) of the breeding area and primarily in nearshore ocean waters less than 60 feet deep (USFWS, 2006).

2.1.1.4 Population Trends

The species' population has increased from 600 in 1973 to roughly 7,100 pairs in 2005. The number of California least tern sites has nearly doubled since the time of listing. (USFWS, 2006).

2.1.2 Green Turtle (*Chelonia mydas*)

2.1.2.1 Status

The East Pacific distinct population segment (DPS) was listed as Federally threatened on April 6, 2016. Critical habitat has been designated for the species in Puerto Rico, but none in the Project area (NMFS, 2015).

2.1.2.2 Range and Habitat

Green turtles occur worldwide and are generally found in tropical and subtropical waters along continental coasts and islands between 30 degrees North and 30 degrees South. In the eastern North Pacific, green turtles have been sighted from Baja California to southern Alaska, but most commonly occur south of San Diego (NMFS, 2015).

2.1.2.3 Natural History

Green turtles can weigh 300 to 350 pounds (lbs) (135 to 160 kilograms [kg]) and are three feet (one meter) in length. They are herbivorous, feeding primarily on algae and sea grasses (NMFS, 2017c). Nesting season varies depending on location, but in the southeastern U.S., females generally nest in the summer between June and September; peak nesting occurs in June and July. During the nesting season, females nest at approximately two-week intervals, laying an average of five clutches. In Florida, green turtle nests contain an average of 135 eggs, which will incubate for approximately two months before hatching. Females will return to their natal beaches to lay eggs every two to four years. Sexual maturity in green turtles may occur anywhere between 20 and 50 years (NMFS, 2015). In the U.S., green turtles nest primarily along the central and southeast coast of Florida where an estimated 200 to 1,100 females nest annually. There are no known nesting sites along the west coast of the U.S., and the only known nesting location in the continental U.S. is on the east coast of Florida.

2.1.2.4 Population Trends

Recent minimum population estimates for green turtles indicate that at least 20,112 individuals are known to occur in the eastern Pacific (NMFS, 2015).

2.1.3 Loggerhead Turtle (*Caretta caretta*)

2.1.3.1 Status

The loggerhead was first listed as endangered throughout its range on July 28, 1978. In September 2011, NMFS and USFWS listed nine DPS of loggerhead turtles under the FESA. At that time, the North Pacific loggerhead turtle DPS was Federally listed as an endangered species (NMFS, 2011). Critical habitat is designated along the U.S. east coast for the Northwest Atlantic Ocean DPS. No critical habitat has been designated for the North Pacific DPS (NMFS, 2011).

2.1.3.2 Range and Habitat

Loggerheads are circumglobal, occurring throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans. Loggerheads are the most abundant species of sea turtle found in coastal waters. Within the North Pacific, loggerhead nesting has been documented only in Japan, although low level nesting may occur outside of Japan in areas surrounding the South China Sea. In the South Pacific, nesting beaches are restricted to eastern Australia and New Caledonia and, to a much lesser extent, Vanuatu and Tokelau (NMFS, 2011). Southern California is considered to be the northern limit of loggerhead turtle distribution in the eastern Pacific; however, loggerhead turtles have been stranded on beaches as far north as Alaska (NMFS 2011). In the U.S., nesting occurs only in Florida (NMFS, 2011).

2.1.3.3 Natural History

Loggerhead turtles primarily occur in subtropical to temperate waters and are generally found over the continental shelf (NMFS, 2009). In the southeastern U.S., mating occurs in late March to early June and females lay eggs between late April and early September. Females can lay three to five nests during a single nesting season. Loggerhead sea turtles are primarily carnivorous, although they do consume some plant matter as well (NMFS, 2009).

2.1.3.4 Population Trends

The north Pacific population of loggerhead turtles is declining (NMFS and USFWS, 2008).

2.1.4 Leatherback Turtle (*Dermochelys coriacea*)

2.1.4.1 Status

The leatherback turtle was listed as Federally endangered in 1970. NMFS designated critical habitat to provide protection for endangered leatherback sea turtles along the U.S. West Coast in January 2012 (NMFS, 2017c). Critical habitat within California extends 16,910 square miles (43,798 square kilometers [sq. km.]) stretching from Point Arena to Point Arguello, east of the 9,842-ft (3,000-m) depth contour. The Project area is not located designated critical habitat for leatherback turtle.

2.1.4.2 Range and Habitat

Leatherback turtles are the most common sea turtle off the west coast of the U.S. Leatherback turtles have been sighted as far north as Alaska and as far south as Chile (Dept. of the Navy, 2000; NMFS, 2013) and their extensive latitudinal range is due to their ability to maintain warmer body temperatures in colder waters (NMFS, 2013). Off the U.S. west coast, leatherback turtles are most abundant from July to September; however, their presence off the U.S. west coast is “two pronged” with sightings occurring in northern California, Oregon, Washington, and southern California, with few sightings occurring along the intermediate (central California) coastline. Among foraging turtles tagged in coastal waters off California, the majority moved north and spent time in areas offshore of northern California and Oregon before moving towards the equatorial eastern Pacific, then eventually westward, presumably towards western Pacific Ocean nesting beaches (NMFS, 2013).

2.1.4.3 Natural History

The leatherback turtle can reach 2,000 lbs (900 kg) and get 6.5 ft (2 m) in length (Sea Turtle Conservancy, 2019). Their lifespan and age of sexual maturity are both unknown. Leatherback turtles are omnivores, but feed principally on soft prey items such as jellyfish and planktonic chordates (e.g., salps) (Sea Turtle Conservancy, 2019). The leatherback turtle lacks a hard shell, and instead has a thick, leathery carapace consisting of connective tissue covering dermal bones. Female leatherbacks lay clutches of approximately 100 eggs on sandy, tropical beaches. Females nest several times during a nesting season, typically at eight to 12-day intervals. The eggs will incubate for 60-65 days before hatching (Sea Turtle Conservancy, 2019).

2.1.4.4 Population Trends

Recent leatherback turtle eastern Pacific population estimates indicate that at least 361 nesting females are known to occur (NMFS, 2007c). This population is believed to be decreasing worldwide (NMFS, 2019b).

2.1.5 Olive Ridley Turtle (*Lepidochelys olivacea*)

2.1.5.1 Status

In 1978, the breeding populations of the olive ridley turtle on the Pacific coast of Mexico were listed as Federally endangered while all other populations were listed as Federally threatened. No critical habitat has been designed for the species.

2.1.5.2 Range and Habitat

This species is considered to be the most common of the marine turtles and is distributed circumglobally (NMFS, 2014). Within the eastern Pacific Ocean, olive ridley turtles typically occur in tropical and subtropical waters, as far south as Peru and as far north as California, but occasionally have been documented as far north as Alaska (NMFS, 2014). The olive ridley is mainly a "pelagic" sea turtle, but has been known to inhabit coastal areas, including bays and estuaries.

2.1.5.3 Natural History

Olive ridley turtles weigh on average 100 lbs (45 kg) and are 22 to 31 in (55 to 80 cm) in length. Their lifespan is unknown, but they reach sexual maturity around 15 years. Vast numbers of turtles come ashore and nest in what is known as an "arribada" during which hundreds to thousands of females come ashore to lay their eggs. At many nesting beaches, the nesting density is so high that previously laid egg clutches are dug up by other females excavating the nest to lay their own eggs. Major nesting beaches are located on the Pacific coasts of Mexico and Costa Rica (NMFS, 2014).

2.1.5.4 Population Trends

At-sea abundance estimates appear to support an overall increase in the Endangered breeding colony populations on the Pacific coast of Mexico (NMFS, 2014).

2.1.6 Blue Whale (*Balaenoptera musculus*)

2.1.6.1 Status

The blue whale was listed as Federally endangered throughout its range in 1970 under the Endangered Species Conservation Act (ESCA) of 1969 prior to the passage of the FESA in 1973. No critical habitat has been designated.

2.1.6.2 Range and Habitat

Blue whales are distributed worldwide in circumpolar and temperate waters, and although they are found in coastal waters, they are thought to occur generally offshore compared to other baleen whales (Allen et al., 2011). Like most baleen whales, they migrate between warmer water breeding and calving areas in winter and high-latitude feeding grounds in the summer. Feeding grounds have been identified in coastal upwelling zones off the coast of California primarily within two patches near the Gulf of the Farallones and at the western part of the Channel Islands (Allen et al., 2011). They migrate seasonally between summer and winter, but some evidence suggests that individuals remain in certain areas year-round. Offshore California, sightings are made seasonally between June and December in the Southern California Bight (Allen et al*.,* 2011). Blue whales are frequently observed in the Santa Barbara Channel and around offshore oil platforms.

2.1.6.3 Natural History

Blue whales on average are 75 to 80 ft (21 to 24 m) in length and weigh 100 to 150 tons (90,700 to 136,000 kg) making it the largest animal on Earth (Allen et al., 2011). Blue whales have no known social structure and can be seen traveling alone or in groups of 19 to 80 individuals. Blue whales feed primarily on euphausiid shrimp (krill).

2.1.6.4 Population Trends

The most recent estimates of the blue whale indicate that a minimum of 1,551 individuals are known to occur off the west coast (NMFS, 2018a).

2.1.7 Fin Whale (*Balaenoptera physalus*)

2.1.7.1 Status

The fin whale was listed as a Federally endangered species in 1973, but no critical habitat has been identified for this species to date.

2.1.7.2 Range and Habitat

Fin whales are found in deep, offshore waters of all major oceans, primarily in temperate to polar latitudes, and less commonly in the tropics. Fin whales are migratory, moving seasonally into and out of high-latitude feeding areas and their wintering areas are not widely known (NMFS, 2017). They are mostly commonly seen feeding over the continental shelf in areas of high productivity. Peak abundances of fin whales in the Southern California Bight occur after periods of maximum upwelling, in summer and fall (Allen et. al., 2011).

2.1.7.3 Natural History

Fin whales are on average 59 ft (18 m) in length and weigh 50 to 70 tons (45,000 to 64,000 kg) (Allen et al., 2011). Little is known about the social and mating systems of fin whales. It is believed that males become sexually mature at six to ten years of age; and females at seven to

12 years of age. Physical maturity is attained at approximately 25 years for both sexes. Usually mating and birthing occurs in tropical and subtropical areas during midwinter. Fin whales feed on euphasiid shrimp, copepods, and small fish. Fin whales are usually found in groups of two to seven whales and are considered fast swimmers (NMFS, 2017a).

2.1.7.4 Population Trends

The most recent estimates of the fin whale population indicate that at least 8,127 individuals are known to occur off California, Oregon, and Washington (NMFS, 2017a).

2.1.8 Humpback Whale (*Megaptera novaeangliae*)

2.1.8.1 Status

The humpback whale was listed as Federally endangered in 1970. In September 2016, NMFS revised the FESA listing for the humpback whale to identify 14 DPS, list one as threatened, four as endangered, and identify nine others as not warranted for listing. The humpback whale Central America DPS is listed as Federally endangered and the Mexico DPS is listed as a Federally threatened population, both DPS feed offshore of Oregon (NMFS, 2018b). No critical habitat has been designated.

2.1.8.2 Range and Habitat

Humpback whales are distributed worldwide and travel great distance during their seasonal migration, the farthest migration of any animal. Humpback whales spend the winter and spring months offshore of Central America and Mexico for breeding and calving, and then migrate to their summer and fall range between California and southern British Columbia to feed (Allen et al., 2011). Although humpback whales typically travel over deep, oceanic waters during migration, their feeding and breeding habitats are in shallow, coastal waters over continental shelves. Cold and productive coastal waters characterize feeding grounds (NMFS, 2018b). In the North Pacific, the California/Oregon/Washington stock winters in coastal Central America and Mexico and migrates to areas ranging from the coast of California to southern British Columbia in summer/fall (NMFS, 2018b).

2.1.8.3 Natural History

Humpback whales are on average 42 ft (13 m) in length and weigh 25 to 40 tons (22,600 to 36,200 kg). Humpback whales are well known for their long pectoral fins, which can be up to 15 ft (4.6 m) long. These extensive fins give them increased maneuverability and they can be used to slow down or even go backwards. During the summer months, humpbacks spend the majority of their time feeding and building up fat stores that they will live off of during the winter. Humpbacks filter feed on tiny crustaceans (mostly krill), plankton, and small fish (Allen et al., 2011).

2.1.8.4 Population Trends

The most recent population estimates of humpback whales indicate that at least 1,876 individuals occur off California, Oregon, and Washington (NMFS, 2018b). This population appears to be increasing.

3.0 IMPACT ASSESSMENT

This Biological Assessment has been prepared to provide information to the Federal lead agencies, NMFS and the USFWS, to determine the potential to affect threatened or endangered species, based on one of three possible findings for each species potentially affected:

- No effect: the proposed action will not affect the listed species or critical habitat;
- Not likely to adversely affect: effects of the listed species are expected to be discountable (extremely unlikely to occur), insignificant (minimal impact without take), or beneficial; and
- Likely to adversely affect: adverse effect may occur as a direct or indirect result of the proposed action, and the effect is not discountable, insignificant or beneficial.

Potential impacts due to Project activities include temporary degradation of water quality or seafloor habitats during offshore segment removal and accidental collisions with marine wildlife. Potential impacts are described below.

3.1 ONSHORE SEGMENT GROUND DISTURBANCE

Heavy equipment operation and associated noise, dust from grading and excavation, and an increase in human presence have the potential to disrupt foraging activities of some wildlife, including special-status species. Wildlife using the proposed impact area during Project activities may be temporarily displaced into adjacent habitats and may experience greater competition for food and resources. Wildlife injury or mortality due to vehicle, equipment, or foot traffic may also occur during Project activities. However, due to the short-term nature of the Project and the implementation of mitigation measures, impacts are not likely to adversely affect federally protected wildlife.

3.2 WATER QUALITY

Offshore segment removal has the potential to create localized turbidity and affect nearby soft-bottomed seafloor habitat, and/or hard-bottom substrate. Potentially significant impacts could occur if removal creates turbidity that would decrease water clarity and reduce visibility for foraging fish and birds.

California least terns are known to forage in estuaries, harbors, coastal freshwater habitats, as well as in the open ocean. California least terns usually forage within six inches (15 cm) of the water's surface and are more likely to forage within two miles (3.2 km) from nesting sites (Keane and Smith, 2016); however, there is the potential they could occur within the Project area outside of nesting season. Project impacts are not expected to adversely affect the foraging success of California least terns based on their foraging ecology and limited disturbance to the sea floor. Any turbidity created by pipeline recovery will originate on the seafloor and have a limited range in shallow water depths. In addition, recent foraging studies of California least terns during and outside of dredging events suggest that the turbidity plums caused by dredging and disposal operations do not sustainably alter their foraging activity (Keane and Smith, 2016).

Each pipeline will be pulled along its existing alignment to reduce the likelihood of suspending sediments. Given the limited disturbance area and temporary nature of the Project,

pipeline recovery activities are not likely to adversely affect marine species and any impacts to foraging birds are expected to be minimal and temporary.

3.3 DISTURBANCE TO SEAFLOOR HABITATS

Organisms residing on the seafloor along the pipelines' corridors and adjacent to the recovery areas could be suspended in water, possibly exposing them to fish and macroinvertebrate predators during the removal process. Therefore, some mortality of benthic organisms residing within the seafloor sediments in areas within or adjacent to underwater excavations is assumed. Large, mobile organisms (e.g., fish, large crustaceans) are expected to depart the area during the disturbance and no Federally protected species were observed along the pipeline corridor; therefore, impacts are expected to have no effect on protected species.

Marine biological dive surveys were conducted of the three exposed pipelines and pipeline corridors in November 2018 (Padre, 2018). The nearshore marine habitats and biota are typical of those found in similar water depths along the Ventura County coastline. The seafloor habitat inshore of the 16-ft (4.9-m) isobath includes mixed substrate types consisting of medium-sized cobble (4 to 8-in [10 to 20-cm]-diameter) and small boulders (10 to 15-in [25 to 38-cm]-diameter), as well as low-relief sandstone bedrock and expanses of sand in between bedrock. Sand waves of less than one inch (2.5 cm) were observed within sandy-bottom areas. A bed of giant kelp (*Macrocystis pyrifera*) occurs offshore of the Project site, but its density becomes sparse southwest of pipelines' termini and was not established within the survey corridors during the November 2018 survey. Kelp bed density fluctuates with the seasons increasing during the summer months and decreasing after winter storms. Kelp is not present within the surf zone where wave action disturbs the seafloor.

During dive surveys, a patch of surf grass (*Phyllospadix* sp.) was observed growing on the top of the wastewater outfall pipeline at a water depth of 12 ft (3.7 m). The surfgrass patch was minimal and covered a total area of approximately five square feet (0.5 square meters). Neither surfgrass nor eelgrass (*Zostera marina*) was observed anywhere else within the survey corridor. In addition, no invasive species were identified (i.e., *Culerpa taxifolia* or *Sargassum horneri*). No abalone species were observed during dive surveys and the area appeared generally devoid of fish species although a few perch (Embiotocidae) and sculpin (Cottidae) species were present. There was no additional seagrass or kelp observed during the November 2018 dive surveys on the adjacent pipelines and the habitat is generally similar along all three pipelines.

Pipeline recovery impacts to hard-bottom can occur if offshore segments are pulled across and cut into sensitive habitats. However, the hard-bottom habitats that were observed beneath the pipelines were primarily devoid of vegetation due to their location in the surf zone where they are considered less sensitive because they are routinely subjected to natural disturbances (i.e., storm waves) and do not support vegetation or long-lived, slow-growing organisms that are particularly sensitive to disturbance.

The rocky substrate within the Project area appears to be routinely subjected to substantial sand scour and supports only a limited algal and invertebrate community. Damage could occur to the rocky substrate from anchoring of Project vessels or from diver activities. Seafloor disturbances from offshore decommissioning activities will be limited to a few isolated anchoring sites and a narrow corridor of sedimentary seafloor within which the pipelines will be removed.

The sedimentary bottom will be disturbed only during removal activities and any Project vessels will not anchor in hard bottom habitat or within areas of sensitive resources. Kelp beds were not observed to be established within the Project area; however, kelp beds that could potentially provide essential fish habitat (EFH) to groundfish and pelagic fish species are located are located adjacent to the Project area. Project activities are not likely to adversely affect sensitive seafloor habitats with the implementation of mitigation.

3.4 VESSEL COLLISION

Impacts from vessel operations can range from a change in the animal's travel route or time on the surface to direct mortality. During vessel transit and operations, there is the potential for incidental collisions with marine mammals and sea turtles. Such collisions have been documented in southern California; however, those collisions are typically associated with areas with higher population densities of marine wildlife, large ship interactions, and slow moving marine wildlife on the ocean surface.

The Project vessel(s) will transit each work day from Ventura Harbor to the Project site. While there is the potential to encounter whales and dolphins near shore, the smaller vessels can easily change course or reduce speed if marine wildlife if observed in the path of the vessel. With the exception of vessel transit for mobilization and demobilization, pipeline recovery operations will occur nearshore and within shallow water depths, so it is unlikely marine wildlife will be present within the Project area. Therefore, the potential for vessel collision impacts are not expected to adversely affect sensitive marine wildlife. In addition, CRC has proposed additional monitoring and mitigation measures to further reduce any potential impact.

3.5 OIL SPILL POTENTIAL

The unintentional release of petroleum from Project vessels into the marine environment from proposed Project activities could result in potentially significant impacts to the marine biota, particularly avifauna and early life stage forms of fish and invertebrates, which are sensitive to those chemicals. Refined products (i.e., diesel, gasoline.) are more toxic than heavier crude or Bunker-type products, and the loss of a substantial amount of fuel or lubricating oil during survey operations could affect the water column, seafloor, intertidal habitats, and associated biota, resulting in their mortality or substantial injury, and in alteration of the existing habitat quality. The release of petroleum into the marine environment is considered a potentially significant impact. A Project Oil Spill Response Plan (Appendix A) will be prepared and implemented as necessary for in water Project activities. The purpose of the offshore pipelines was to supply seawater and discharge treated, clean water back into the ocean and none of the pipelines were ever used for the transmission of hydrocarbon content; therefore, there is no risk of petroleum release from the pipelines during removal activities.

Although many marine organisms have created adaptive strategies to survive in their environment, when these marine organisms are introduced to oil, it adversely affects them physiologically. For example, physiological effects from oil spills on marine life could include the contamination of protective layers of fur or feathers, loss of buoyancy, and loss of locomotive capabilities. Direct lethal toxicity or sub-lethal irritation and temporary alteration of the chemical make-up of the ecosystem can also occur.

3.5.1 Turtles

Oil spills are not considered a high cause for mortality for sea turtles, although recent reports from the Gulf of Mexico Deepwater Horizon spill indicate a possible increase in strandings of oil impacted turtles. Since sea turtle species have been listed as threatened or endangered under the FESA, there is very little direct experimental evidence about the toxicity of oil to sea turtles. Sea turtles are negatively affected by oil at all life stages: eggs on the beach, post hatchings, young sea turtles in near shore habitats, migrating adults, and foraging grounds. Each life stage varies depending on the rate, severity, and effects of exposure.

Sea turtles are more vulnerable to oil impacts due to their biological and behavior characteristics including indiscriminate feeding in convergence zones, long pre-dive inhalations, and lack of avoidance behavior (Milton et al., 1984). A sea turtle's diving behavior puts individuals at risk because they inhale a large amount of air before diving and will resurface over time. During an oil spill, this would expose sea turtles to long periods of both physical exposure and petroleum vapors, which can be the most harmful during an oil spill.

3.5.2 Marine Birds

Marine birds can be affected by direct contact with oil in three ways: (1) thermal effects due to external oiling of plumage; (2) toxic effects of ingested oil as adults; and (3) effects on eggs, chicks, and reproductive abilities.

The loss of waterproofing is the primary external effect of oil on marine birds and buoyancy can be lost if the oiling is severe. A main issue with oil on marine birds is the damage oil does to the arrangement of feathers, which is responsible of water repellency (Fabricius, 1959). Without water repellency, the water can go through the dense layers of feathers to the skin exposing the bird to cold water temperatures. To survive, the bird must metabolize fat, sugar, and eventually skeletal muscle proteins to maintain body heat. The cause of oiled bird deaths can be the result from exposure and loss of these energy reserves as well as the toxic effects of ingested oil (Schultz et al., 1983). The internal effect of oil on marine birds varies. Anemia can be the result of bleeding from inflamed intestinal walls. Oil passing into the trachea and bronchi could result in the development of pneumonia. A bird's liver, kidney, and pancreatic functions can be disturbed due to internal oil exposure. Ingested oil can inhibit a bird's mechanism for salt excretion that enables seabirds to obtain fresh water from salt water and could result in dehydration (Holmes and Cronshaw, 1975).

A bird's vulnerability to an oil spill depends on each individual species' behavioral and other attributes. Some of the more vulnerable species are alcids and sea ducks due to the large amount of time they spend on the ocean surface, the fact that they dive when disturbed, and their gregarious behavior. Also, alcids and other birds have low reproductive rates, which result in a lengthy population recovery time. A bird's vulnerability depends on the season as well. For example, colonial seabirds are most vulnerable between early spring through autumn because they are tied to breeding colonies.

3.5.3 Marine Mammals

The impact of direct contact with oil on the animal's skin varies by species. Cetaceans have no fur; therefore, they are not susceptible to the insulation effects of hypothermia in other

mammals. However, external impacts to cetaceans from direct skin contract with oil could include: eye irritation, burns to mucous membranes of eyes and mouth, and increase vulnerability to infection.

Baleen whales skim the surface of water for feeding and are particularly vulnerable to ingesting oil and baleen fouling. Adult cetacean would most likely not suffer from oil fouling of their blowholes because they spout before inhalation, clearing the blowhole. Younger cetaceans are more vulnerable to inhale oil. Internal injury from oil is more likely for cetaceans due to oil. Oil inhaled could result in respiratory irritation, inflammation, emphysema, or pneumonia. Ingestion of oil could cause ulcers, bleeding, and disrupt digestive functions. Both inhalation and ingested chemicals could cause damage in the liver, kidney, lead to reproductive failure, death, or result in anemia and immune suppression.

The small size of Project vessels and limited amount of petroleum-fueled equipment on board greatly reduces the likelihood that a release would occur; therefore, impacts from the accidental release of petroleum are not likely to adversely affect threatened and endangered species. In order to reduce the potential impacts from oil spills, CRC has prepared an OSRP that will detail emergency response protocols in case of a petroleum release and the equipment and resources that will be available on the Project vessels (Appendix A).

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4.0 PROJECT INCORPORATED MEASURES

The applicant proposed mitigation measures detailed in the following section will be implemented to further minimize the potential disturbance of federally protected species during Project operations. The Project incorporates both design and operational procedures for minimizing potential impacts to special-status species.

4.1 PRE-ACTIVITY ENVIRONMENTAL ORIENTATION

A biologist will present an environmental orientation for all Project personnel prior to conducting work. The purpose of the orientation is to educate Project personnel on identification of wildlife in the Project area and to provide an overview of the mitigation measures that will be implemented during the Project. Specifically, the orientation will include, but not be limited to, the following:

- Identification of wildlife expected to occur in the Project area and periods of occurrence;
- Overview of the MMPA, FESA, and California Endangered Species Act (ESA), regulatory agencies responsible for enforcement of the regulations, and penalties associated with violations;
- Procedures to be followed during transit of Project vessels;
- Reporting requirements in the event of an inadvertent collision and/or injury to a marine wildlife or sensitive habitats; and
- Review of mitigation measures that must be implemented to avoid or minimize potential impacts to biological resources.

4.2 MONITORING

A qualified biological monitor shall be present on site to survey the work area prior to the commencement of Project activities to minimize the potential for impacts to any sensitive species or other wildlife that may be present during Project implementation. In addition, the biological monitor shall be on site at all times during Project operations. If at any time during Project operations special-status species (including but not limited to California least terns) are observed within the Project site, or within a predetermined radius surrounding the onshore portion of the Project site (as to be determined by the on-site biologist), all work shall be stopped or redirected to an area within the Project site that would not impact these species.

4.2.1 Marine Wildlife Contingency Plan

CRC will implement a Marine Wildlife Contingency Plan (MWCP) that includes measures designed to reduce the potential impacts on marine wildlife, particularly marine mammals, by the proposed offshore segment removal operations. The MWCP will be implemented by an experienced Protected Species Observer (PSO) who will be stationed onshore, above the high-high water line throughout the duration of the nearshore in water operations.

4.2.1.1 Monitoring Data

Information for each observation will be recorded by the PSO and will include the following data:

- Species, group size, age/size/sex categories (if determinable), behavior when first sighted and after initial sighting, heading (if determinable), distance from offshore operations, apparent reaction to activities (e.g., none, avoidance, approach, paralleling, etc.);
- Time and activity of the vessel, sea state, and visibility; and,
- The positions of other vessel(s) near the Project area.

The weather, distance of dive vessel from shore, sea state, and visibility will also be recorded at the start and end of each day, and whenever there is a substantial change in any of those variables. The PSO will record their observations onto datasheets or directly into handheld computers. Data will be summarized each day for reporting, and will facilitate transfer of the data to statistical, graphical, or other programs for further processing.

4.2.1.2 Protected Species Observers

Shore-based monitoring for marine wildlife will be performed by trained PSOs throughout the period of pipeline removal activities. The PSO will monitor the occurrence and behavior of marine wildlife near the Project vessel and in proximity to pipelines during all operations. PSO duties will include watching for and identifying marine wildlife; recording their numbers, distances, and reactions to the Project operations. One PSO will be present during all nearshore in water Project operations; however, if conditions change that reduce the PSOs ability to monitor the entire offshore Project area then additional PSOs will be retained to provide complete coverage.

The PSO will have the appropriate safety and monitoring equipment to conduct their observations, such as low light reticulated binoculars and spotting scope, as needed. The PSO may require a handheld radio for communication with the Project vessel, as necessary. In addition, cell phones, VHS radio, and email capabilities will be available to communicate with offshore personnel.

The PSO will coordinate with the captain of the Project vessel and the CRC Field Supervisor to select an appropriate monitoring position where they can monitor and will have a clear view of the area of ocean. The MWMs will observe marine wildlife and will request procedures to avoid potential collisions and/or entanglement with marine wildlife.

During active pipeline removal operations, the PSO shall establish avoidance Safety Zones around the primary work area for the protection of marine wildlife. A 500-ft (152-m)-radius avoidance Safety Zone will be implemented, and the Safety Zone will be based on the radial distance from either side of the pipeline corridor that is being actively removed. If the PSO should observe marine wildlife within the Safety Zone, the behavior of marine animal will be monitored, and the CRC Field Supervisor or Project Manager will be alerted of the potential for an imminent shut down. If the marine animal within the Safety Zone displays abnormal behaviors or distress, the monitor will immediately report that observation to the CRC Field Supervisor who will shut-down operations, if deemed necessary by the PSO, unless those actions will jeopardize the safety of the vessel or crew. Distress can be defined as any abnormal behavior that appears to be

related to Project operations such as sudden change in direction, rapid breathing, and sudden or erratic changes in behavior. The PSO will have the authority to stop any work that is perceived to be harming marine wildlife.

4.2.1.3 Reporting

Throughout the Project, observers will prepare a daily report summarizing the recent results of the monitoring program or at such other intervals as required by regulatory and resource agencies. The reports will summarize the species, number of marine wildlife sighted, and any required actions taken.

4.2.1.4 Injured or Dead Animals

If an injured or dead animal is sighted within Project area, activities will be shut down while the PSO conducts a brief investigation. Activities can resume after the PSO has (to the best of his/her ability) determined that the injury resulted from something other than pipeline recovery or Project vessel operations. After documenting those observations, including supporting documents (e.g., photographs or other evidence), the operations will resume. Within 24 hours of the observation, the PSO will notify NMFS and provide them with a copy of the written documentation. If the cause of injury or death cannot be immediately determined by the PSO, the incident will be reported immediately to either the NMFS Office of Protected Resources or the NMFS West Coast Regional Office.

4.3 MEASURES TO REDUCE POTENTIAL IMPACTS TO HARDBOTTOM HABITAT

An anchor pre-plot will be developed specific to the Project site and Project activities (Appendix B) which will be submitted with the Contractor Work Plan for review and approval by applicable agencies. Based on a recent geophysical survey of the Project area, the anchor plot illustrates the hard bottom areas that will be avoided during installation of moorings for the dive vessel. All mooring locations will be outside of established kelp beds.

Anchors will be lowered to the seafloor in a controlled manner and will be recovered using a crown line to pull it vertically through the water column reducing sediment resuspension, seafloor alteration, and potential damage to rocky substrate.

In addition, to reduce the likelihood of damage to seafloor habitats, each pipeline will be pulled along its existing alignment. The proposed Project has been engineered without the need for trenching or excavating because the pipeline has been observed to be exposed on top of the seafloor.

4.4 MEASURES TO REDUCE POTENTIAL VESSEL COLLISION IMPACTS ON MARINE WILDLIFE

During offshore segment removal, a dive support vessel will be stationary; therefore, collisions with marine wildlife are very unlikely in the immediate Project area. However, the potential exists for such collisions when transiting to the Project site. The following measures and procedures will be implemented to minimize the possibility of such collisions.

Vessel operators and on-board personnel will be watchful for marine mammals and turtles during vessel transit and Project activities. Slower moving and surface-dwelling turtles and larger

cetaceans could potentially be affected. More common marine mammals in the Project area, such as dolphins and pinnipeds, would be agile enough to avoid vessels. Regardless, all vessel operators shall observe the following guidelines:

- Make every effort to maintain the appropriate separation distance from sighted whales and other marine wildlife (e.g., sea turtles);
- Do not cross directly in front of (perpendicular to) migrating whales or any other marine mammal or turtle;
- When paralleling whales, vessels will operate at a constant speed that is not faster than that of the whales;
- Care will be taken to ensure that female whales are not be separated from their calves; and
- If a whale engages in evasive or defensive action, vessels will reduce speed or stop until the animal calms or moves out of the area.

If a collision with a marine mammal or turtle occurs, the vessel operator must document the conditions under which the accident occurred, including the following:

- Location of the vessel when the collision occurred (latitude and longitude);
- Date and time;
- Speed and heading of the vessel;
- Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog);
- Species of marine wildlife contacted;
- Whether an observer was standing watch for the presence of marine wildlife; and
- Name of vessel, operator (the company), and captain or officer in charge of the vessel at time of accident.

Following an unanticipated strike, the vessel will stop if safe to do so. The vessel is not obligated to stand by and may proceed after confirming that it will not further damage the animal by doing so. The vessel will then communicate by radio or telephone all details to the vessel's base of operations. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NMFS West Coast Region, Long Beach, California or other regulatory agency representatives to obtain instructions as required by Project permits.

Alternatively, the vessel captain may contact the NMFS' Stranding Coordinator directly using the marine operator to place the call or directly from an onboard telephone, if available. Under the MMPA, the vessel operator is not allowed to aid injured marine wildlife or recover the carcass unless requested to do so by the NMFS Stranding Coordinator. The Stranding Coordinator will then coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate. As proposed, and with the existing measures incorporated into the vessel operations, vessel strikes could, but are not likely to, affect Federally listed marine species.

4.5 MEASURES TO REDUCE POTENTIAL OIL SPILL IMPACTS

An oil spill prevention plan will be used to avoid any release of oil-based products into the marine environment, and the existing oil spill response and recovery plan will be used to reduce the effects of accidentally discharged petroleum by facilitating rapid response and cleanup operations. Any Project vessel will be subject to the requirements and guidelines included within the Project-specific Oil Spill Contingency Plan (Appendix A). All vessel discharges will comply with the requirements of the Clean Water Act under the U.S. Coast Guard (USCG) regulation including the proper treatment and monitoring of vessel effluents as necessary.

Potential spill sources of hydrocarbons during Project activities include releases from offshore equipment (including Project vessels) used during the pipeline recovery activities, and/or accidental discharges from onshore fuel storage and refueling operations of construction equipment. Any Project vessel will fuel itself in harbor, prior to departure to the offshore Project site and will not require bunkering during Project activities. All Project vessels will have some equipment requiring fuel on board; however, the potential for a release from diesel-powered equipment onboard the vessels is minimal due to the small volume of fuel contained within each piece of equipment. Equipment that is used on a day-to-day basis will be monitored for leaks; if a leak is observed, the faulty equipment will cease operation and appropriate clean-up and corrective measures will be implemented. All equipment will have drip pans under them, and sorbent pads will be available on the vessel for clean-up of minor hydrocarbon leaks from the deck equipment. All equipment refueling will be conducted over secondary containment to minimize the potential for fuel spillage. All hydrocarbon-based fluids stored onboard the vessels will be in appropriate containers and will include secondary containment structures.

In the event of a spill, notifications will be made to the Project team, emergency agencies, clean-up contractors (if required), and other interested parties. If a spill impacts navigable waters, notification of the National Response Center is mandatory and normally results in simultaneous notification of the USCG.

5.0 CUMULATIVE EFFECTS

FESA Regulations at 50 CFR 402.14(g)(3)(4) require Federal agencies to "evaluate the effects of the action and cumulative effects on the listed species or critical habitat" and "formulate its biological opinion as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat."

According to the Endangered Species Consultation Handbook (USFWS and NMFS, 1998), cumulative effects include the effects of future State, local or private actions that are reasonably certain to occur in the action area considered in a biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of FESA. Indicators of effects "reasonably certain to occur" may include but are not limited to: approval of the action by State or local agencies or governments (e.g., permits, grants); indications by granting authorities that an action is imminent; assurances by project sponsors that an action will proceed; the obligation of venture capital; and/or initiation of contracts. Speculative non-Federal actions that may never be implemented are not factored into cumulative effects analyses. The following is a summary of the other marine projects conducted or proposed in the Project area.

5.1 COMPLETED PROJECTS

There are no known completed projects in the region that would contribute to the cumulative effects of the Project.

5.2 PROPOSED PROEJCTS

There are no known proposed projects in the region that would contribute to the cumulative effects of the Project.

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6.0 CONCLUSION AND DETERMINATION

Implementation of the Project will involve potential impacts to marine species and habitats that could affect threatened and endangered species in the Project area. A total of 30 Federally listed species have been analyzed in this BA. Table 6-1 provides an analysis of the potential Project effects on the following: habitat loss, mortality, harassment, loss of prey, loss of shelter/cover, loss of access to habitats, noise and light effects, habitat fragmentation, urbanization, increased predation, and critical habitat.

The proposed Project may affect, but is not likely to adversely affect, the listed and proposed species for the following reasons:

- The Project would not involve temporary or permanent loss of habitat;
- The Project would be of limited geographic effect; and
- The Project will include avoidance, minimization, and mitigation measures, as detailed in Section 4.0, to avoid and minimize potential adverse effects.

Table 6-1. Potential Effects Matrix for Protected Species

Species	Loss of Habitat[1]	Mortality[2]	Harassment[3]	Loss of Prey[4]	Loss of Cover[5]	Loss of Access[6]	Noise/Light[7]	Habitat Fragmentation[8]	Urbanization[9]	Predation[10]	Critical Habitat[11]	Effect Determination[12]
California orcutt grass	a,b	a	a	a	a	a	a	a	a	a	a	a
Gambel's watercress	a,b	a	a	a	a	a	a	a	a	a	a	a
Marsh sandwort	a,b	a	a	a	a	a	a	a	a	a	a	a
Salt marsh bird's-beak	a,b	a	a	a	a	a	a	a	a	a	a	a
Spreading navarretia	a,b	a	a	a	a	a	a	a	a	a	b	a
Ventura marsh milk-vetch	a,b	a	a	a	a	a	a	a	a	a	b	a
Black abalone	a,b	a	a	a	a	a	a	a	a	a	b	a
White abalone	a,b	a	a	a	a	a	a	a	a	a	a	a
California condor	a,b	a	a	a	a	a	a	a	a	a	b	a
California least tern	b	c	b	b	b	b	b,c	b	a	b	a	b
Least Bell's vireo	a,b	a	a	a	a	a	a	a	a	a	b	a
Light-footed clapper rail	a,b	a	a	a	a	a	a	a	a	a	a	a
Marbled murrelet	a,b	a	a	a	a	a	a	a	a	a	b	a
Southwestern willow flycatcher	a,b	a	a	a	a	a	a	a	a	a	b	a
Western snowy plover	a,b	a	a	a	a	a	a	a	a	a	b	a
California red-legged frog	a,b	a	a	a	a	a	a	a	a	a	b	a
Green turtle	b	b,c	b	b	b	b	b	b	a	b	b	b

Species	Loss of Habitat[1]	Mortality[2]	Harassment[3]	Loss of Prey[4]	Loss of Cover[5]	Loss of Access[6]	Noise/Light[7]	Habitat Fragmentation[8]	Urbanization[9]	Predation[10]	Critical Habitat[11]	Effect Determination[12]
Loggerhead turtle	b	b,c	b	b	b	b	b	b	a	b	b	b
Leatherback turtle	b	b,c	b	b	b	b	b	b	a	b	b	b
Olive ridley turtle	b	b,c	b	b	b	b	b	b	a	b	a	b
Tidewater goby	a	a	a	a	a	a	a	a	a	a	b	a
Southern Steelhead	a	a	a	a	a	a	a	a	a	a	b	a
Green sturgeon	a	a	a	a	a	a	a	a	a	a	b	a
Blue whale	b	b,c	b	b	b	b	b	b	a	b	a	b
Fin whale	b	b,c	b	b	b	b	b	b	a	b	a	b
Humpback whale	b	b,c	b	b	b	b	b	b	a	b	a	b
Northern right whale	a	a	a	a	a	a	a	a	a	a	a	a
Sperm whale	a	a	a	a	a	a	a	a	a	a	a	a
Sei whale	a	a	a	a	a	a	a	a	a	a	a	a
Guadalupe fur seal	a	a	a	a	a	a	a	a	a	a	a	a

Potential Effects Codes

[1]Loss of Habitat Codes

a. Species not expected to occur in Project area.
b. No habitat will be temporarily or permanently lost.

[2]Mortality Codes

a. Species not expected to occur in Project area.
b. Collisions with vessels resulting in the death of listed species have occurred in the recent past. However, due to the Project's close proximity to shore, as

[3]Harassment

a. Species not expected to occur in Project area.
b. Project incorporated measures will eliminate the likelihood harassment will occur.

[4]Loss of Prey

a. Species not expected to occur in Project area.
b. No permanent loss of prey expected. Short-term displacement of prey from immediate area of operations could occur.

well as proposed mitigation measures, collisions are a low probability event.

c. Oil spills from the Project vessels is a low probability event based on the nature of the Project.

[5]Loss of Shelter/Cover

a. Species not expected to occur in Project area.
b. Temporary displacement during Project activities within immediate work area. No permanent loss of cover.

[6]Loss of Access

a. Species not expected to occur in Project area.
b. Temporary displacement during Project operations likely only when vessel is in immediate area. No permanent loss of access.

[7]Noise/Light Impacts

a. Species not expected to occur in Project area.
b. No anticipated light impact. Work is planned for daylight hours only.
c. General construction noise will be minimal and temporary.

[8]Habitat Fragmentation

a. Species not expected to occur in Project area.
b. No temporary or permanent loss of habitat will occur. Consequently, no fragmentation.

[9]Urbanization

a. Not applicable

[10]Increased Predation

a. Species not expected to occur in Project area.
b. Not likely to be vulnerable to increased predation due short duration of Project operations.

[11]Critical Habitat

a. No critical habitat designated for species.
b. Critical habitat designated for species, but none occurring in Project area.

[12]Effect Determination

a. No effect
b. May affect, but not likely to adversely affect
c. May affect and likely to adversely affect

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APPENDIX A

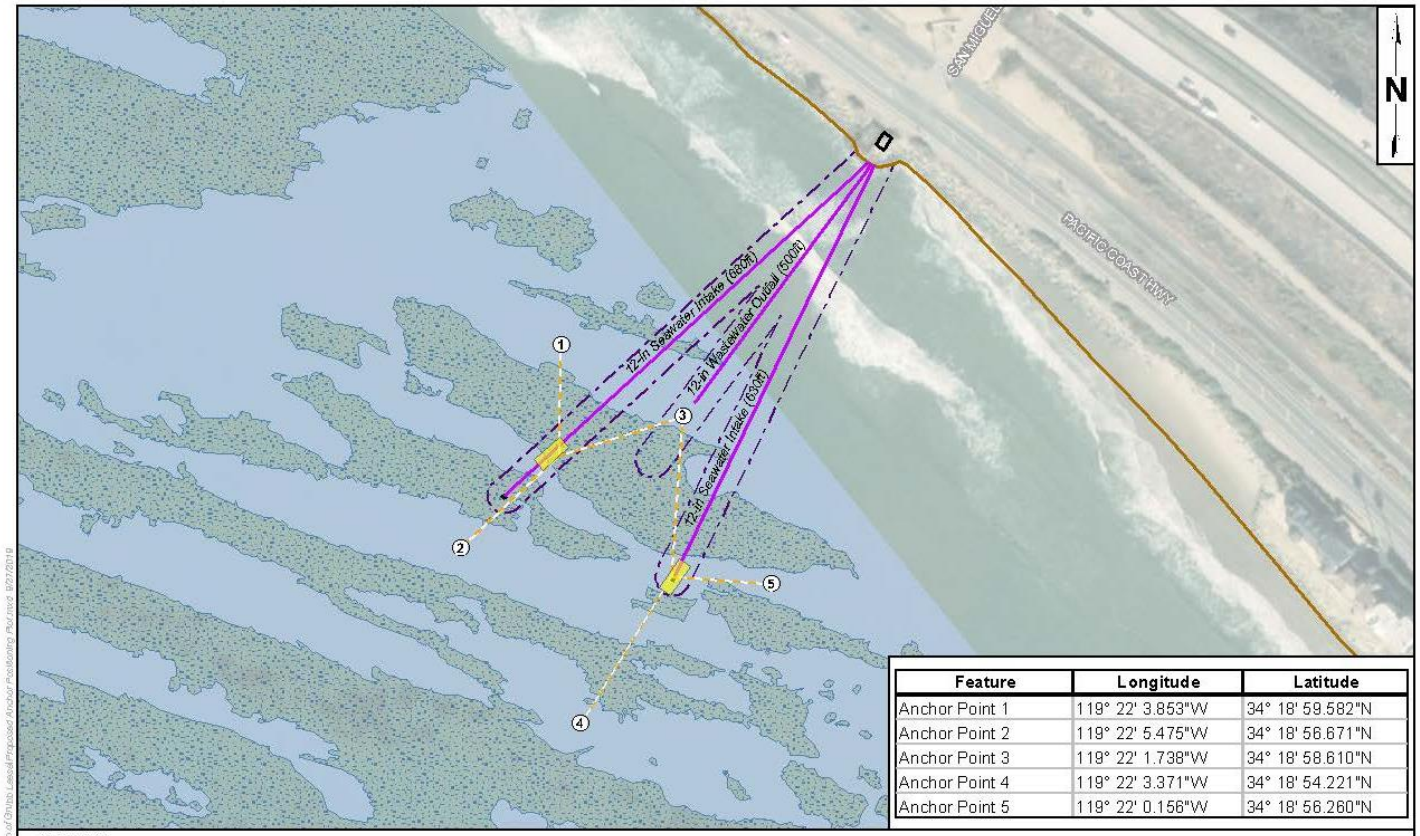
OIL SPILL RESPONSE PLAN

Plan in Progress

To Be Forwarded Once Completed

APPENDIX B

ANCHORING PLOT



Feature	Longitude	Latitude
Anchor Point 1	119° 22' 3.853"W	34° 18' 59.582"N
Anchor Point 2	119° 22' 5.475"W	34° 18' 56.671"N
Anchor Point 3	119° 22' 1.738"W	34° 18' 58.610"N
Anchor Point 4	119° 22' 3.371"W	34° 18' 54.221"N
Anchor Point 5	119° 22' 0.156"W	34° 18' 56.260"N

LEGEND:

- (#) Proposed Anchor Point Location
- Proposed Anchor Line
- Dive Vessel
- Approximate Pipeline Location (to be fully removed)
- 20'x14'x27' Concrete Vault
- 6ft x 6ft Concrete Lattice Box Structure
- Approximate Disturbance Area
- Rocky Outcropping
- Sand
- Mean High Water Mark (MHWM)

Source: Esri Online Imagery Basemap, NOAA, eTrac, Longitude 123
Coordinate System: NAD 1983 UTM Zone 11N
Notes: For the purposes of this map, the NOAA defined shoreline is assumed to be consistent with the MHWM line. No field studies were done to establish the MHWM line.
ft = Feet
This map was created for informational and display purposes only.

0 100 200
Feet

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CRC - DECOMMISSIONING OF GRUBB LEASE INTAKE/OUTFALL STRUCTURE VENTURA COUNTY, CA

PROJECT NUMBER: 1802-2271

DATE: September 2019

PROPOSED ANCHOR POSITIONING PLOT

Z:\GIS Projects\GIS Maps\Map Projects\CRC\Decom of Grubb Lease\Proposed Anchor Positioning Plot.mxd 9/27/2019

APPENDIX C

U.S. Fish and Wildlife Service Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958

In Reply Refer To:
Consultation Code: 08EVEN00-2019-SLI-0474
Event Code: 08EVEN00-2019-E-01126
Project Name: CRC Decommissioning of Grubb Lease Intake/Outfall Structures

April 24, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

Project Summary

Consultation Code: 08EVEN00-2019-SLI-0474

Event Code: 08EVEN00-2019-E-01126

Project Name: CRC Decommissioning of Grubb Lease Intake/Outfall Structures

Project Type: OIL OR GAS

Project Description: The Project objective is the removal of the pipelines and appurtenant facilities to fulfill the existing lease requirements and quit claim the lease. The Project site is comprised of two main segments; Onshore Segment and Offshore Segment. The Onshore Segment is approximately 325 feet in length and includes the onshore vault and a buried 36-inch casing. The Onshore Segment removal will require conventional construction equipment including bulldozer, excavators, front end loader, and crane. The Offshore Segment is approximately 635 feet in length and extends from the beach vault to the offshore ends of the three pipelines. The Offshore Segment removal will require a team of commercial divers, a dive support vessel, and onshore winch to pull each pipeline along its existing alignment toward the shore. The excavators working on the beach will cut the pipe into truckable sections and move the cut sections up to the laydown area.
Project operations have been proposed to take place in Fall or Winter 2019/2020 to take advantage of low-tide conditions during that time of year. It is expected that Project activities will be conducted during daylight hours (approximately 12 hours/day) for approximately 39 days.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/34.31639736496837N119.36744231896171W

Counties: Ventura, CA

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Light-footed Clapper Rail *Rallus longirostris levipes* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6035	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

Crustaceans

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
California Orcutt Grass *Orcuttia californica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4923	Endangered
Gambel's Watercress *Rorippa gambellii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4201	Endangered
Marsh Sandwort *Arenaria paludicola* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2229	Endangered
Salt Marsh Bird's-beak *Cordylanthus maritimus ssp. maritimus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6447	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened
Ventura Marsh Milk-vetch *Astragalus pycnostachyus var. lanosissimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1160	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.