

EXECUTIVE SUMMARY

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2 This Mitigated Negative Declaration (MND) has been prepared by the California State
3 Lands Commission (CSLC), as lead agency under the California Environmental Quality
4 Act (CEQA) (Pub. Resources Code, § 21000 et seq.), to analyze and disclose the
5 environmental effects associated with the proposed Cabrillo Power I LLC Encina Marine
6 Oil Terminal Decommissioning Project (Project). The Project would authorize Cabrillo
7 Power I LLC (Applicant) to decommission the non-operational Encina Marine Oil
8 Terminal (MOT), a component of the Encina Power Station (EPS), in accordance with
9 the terms and conditions of the Applicant's existing CSLC Lease PRC 791.1.

10 The proposed Project is located in and offshore of the City of Carlsbad, San Diego
11 County. The tidelands and submerged lands under lease from the CSLC lie immediately
12 west and offshore of Carlsbad State Beach south of Agua Hedionda (Figure ES-1), and
13 encompass a mooring area and pipeline corridor (Figure ES-2). The offshore leased
14 lands are located within the area represented on the San Luis Rey, California, U.S.
15 Geological Survey 7.5-minute quadrangle map, Township 12S, Range 4W, San
16 Bernardino baseline and meridian.

17 The EPS, which is located at 4600 Carlsbad Boulevard, is fronted by Carlsbad
18 Boulevard and Carlsbad State Beach and houses the onshore termination of an
19 approximately 3,855-foot-long fuel oil submarine pipeline and a beach valve pit (the fuel
20 oil submarine pipeline is the only subsea pipeline at the EPS that will be
21 decommissioned as part of this Project; the subsea intake and discharge pipelines for
22 the EPS and adjacent Poseidon desalination plant are not part of this Project). From the
23 EPS, the pipeline crosses under Carlsbad Boulevard through an underpass conduit and
24 underpass end structure and below Carlsbad State Beach and a riprap groin to its
25 offshore termination in approximately 60 feet of water. An onshore and beach site map
26 is shown in Figure ES-3 (see also Figure A1-1 in Appendix A for a large-scale site map).

27 The CSLC prepared an MND because, while the Initial Study identified potentially
28 significant impacts related to the decommissioning of the MOT, after analysis of all the
29 facts and circumstances, CSLC staff believes that measures have been incorporated
30 into the Project proposal and agreed to by Cabrillo Power I LLC that avoid or mitigate
31 those impacts to a point where no significant impacts would occur.

32 **PROPOSED PROJECT**

33 The Project is primarily comprised of the 10 decommissioning elements listed below.
34 Onsite decommissioning activities are expected to occur over two construction seasons
35 and are currently scheduled to begin in September 2016 and end in January 2018.

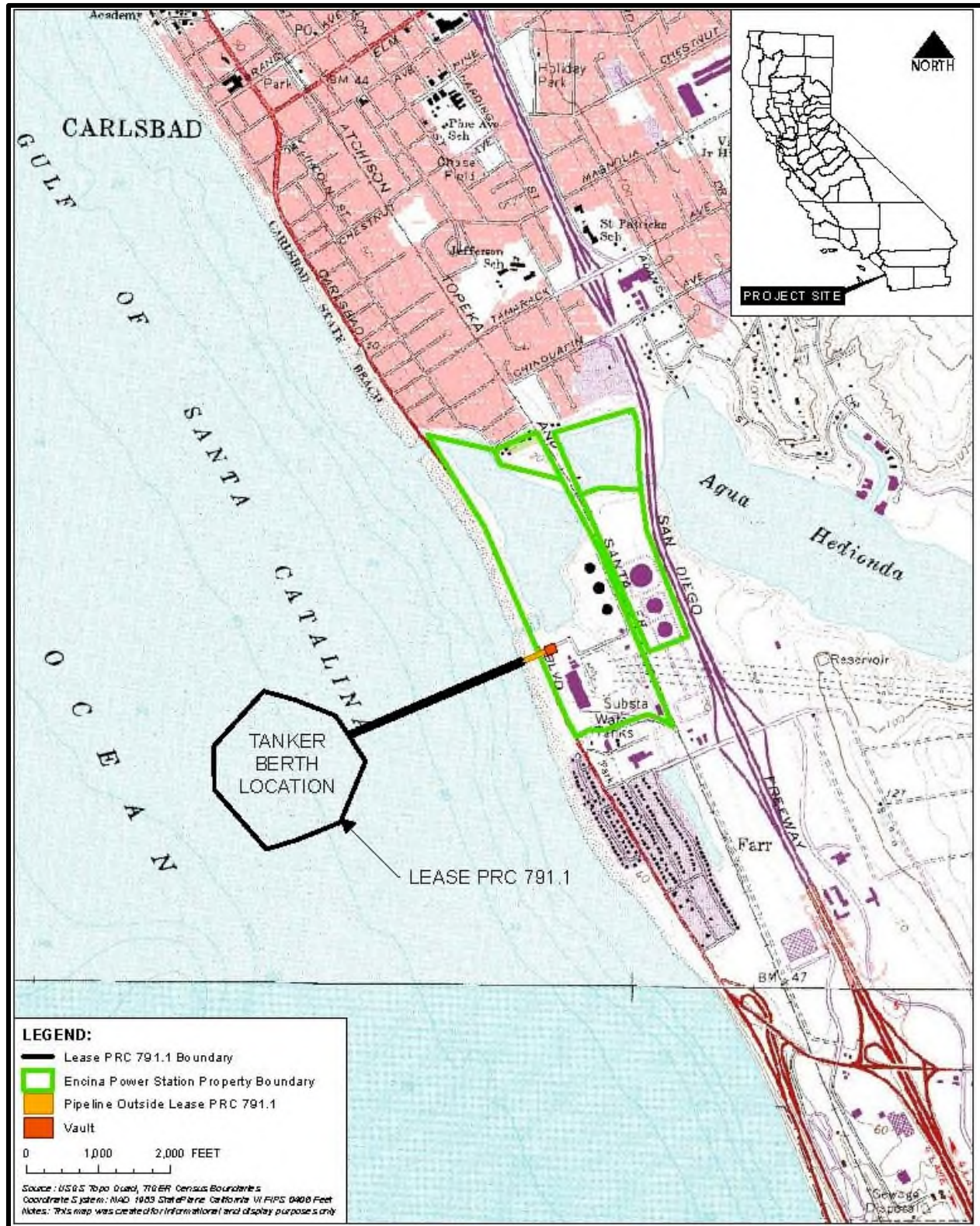


Figure ES-1. Project Site Location

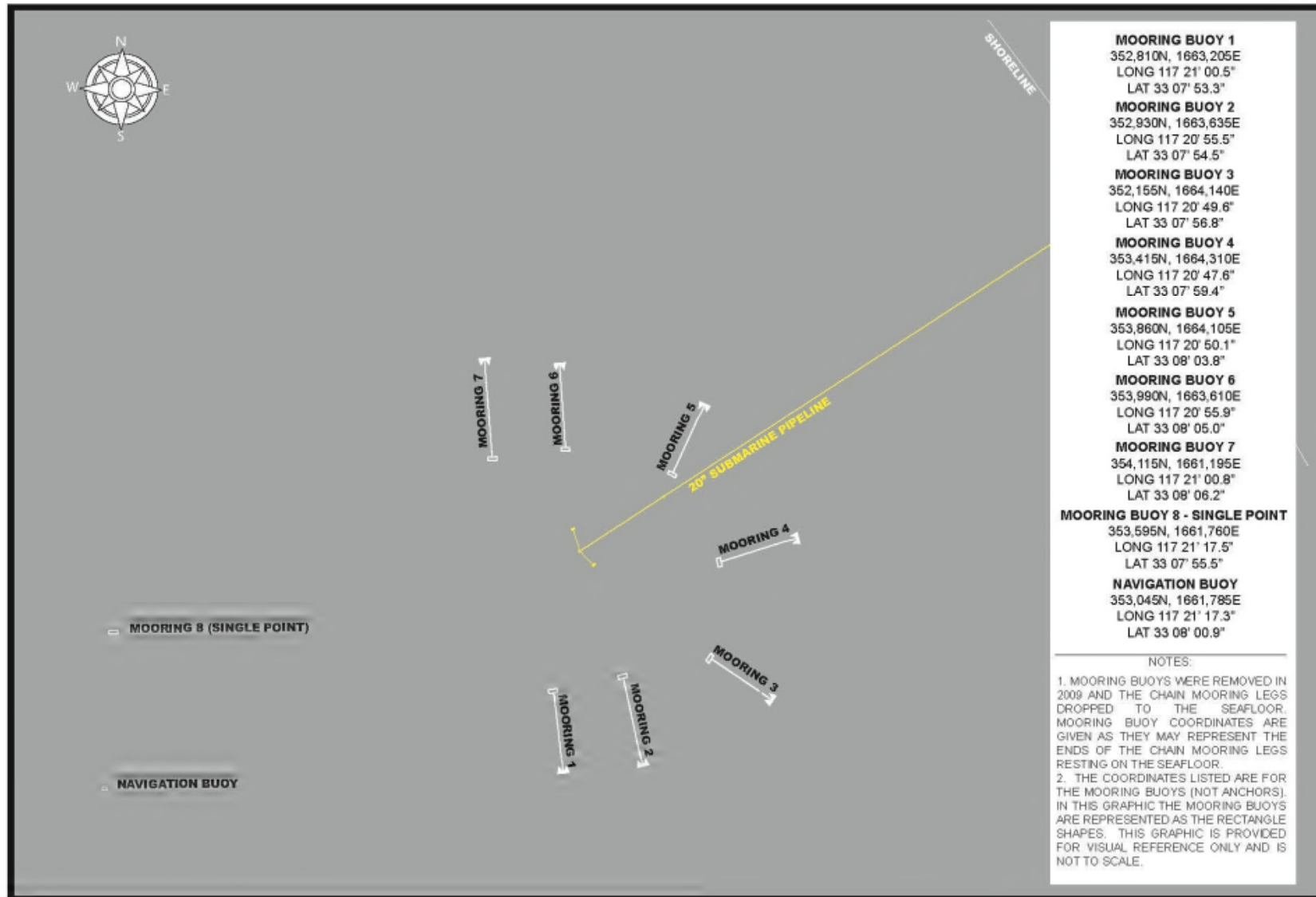


Figure ES-2. Mooring Area Detail



Figure ES-3. Onshore and Beach Site Map

- 1 1. Removal of the entire fuel oil submarine pipeline, two 14,000-pound Danforth
2 pipeline end anchors, and any remaining components of the pipeline termination
3 marker buoy;
- 4 2. Decommissioning of the beach valve pit and all associated electrical and piping
5 components;
- 6 3. Decommissioning of the underpass conduit;
- 7 4. Decommissioning of the underpass end structure;
- 8 5. Temporary removal of the riprap groin and restoration of the groin after the
9 underlying fuel oil submarine pipeline has been removed;
- 10 6. Restoration of the beach;
- 11 7. Removal of the remaining seven-point mooring system (chains and anchors);
- 12 8. Removal of the remaining single-point mooring (chain and anchor);
- 13 9. Removal of the remaining navigation buoy (chain and clump); and
- 14 10. Removal of all seafloor debris associated with the MOT operations.

15 For planning purposes, Project facilities are divided into four discrete segments of work
16 (onshore, beach, surf zone, and offshore segments) based on their location. The 3,855-
17 foot fuel oil submarine pipeline passes through all four segments, with each segment
18 requiring specific methods and equipment to perform the decommissioning work.

19 Onshore Segment

20 The onshore segment begins at the beach valve pit inside the EPS and extends
21 approximately 110 feet to the underpass end structure on the eastern edge of the
22 beach. Facilities located within this segment include a section of the fuel oil submarine
23 pipeline and fill line; the beach valve pit (including a reinforced concrete rectangular
24 vertical vault and horizontal shaft); the underpass conduit; the underpass end structure
25 (including a reinforced concrete rectangular vertical vault and horizontal shaft); all the
26 piping and electrical components; and appurtenances inside or attached to the outside
27 of these structures. Decommissioning work for this segment would be performed by
28 land-based crews and equipment and would include the following activities.

- 29 a) The entire fuel oil submarine pipeline would be removed from inside the beach
30 valve pit, the underpass conduit, and the underpass end structure. This section
31 of the pipeline would be extracted from the underpass through the beach valve
32 pit and into the existing EPS facility.
- 33 b) The fill line would be plugged with cement slurry. Once the cement slurry plug in
34 the fill line solidifies, the flanged end and pipe stub of the fill line (at the east wall

- 1 of the beach valve pit) would be removed and a permanent steel plate cap would
2 be welded on the cut end of the fill line.
- 3 c) At the beach valve pit, soil samples would be taken from underneath the floor. If
4 contaminated soil exceeding allowable limits is found, the floor of the beach valve
5 pit would be demolished and the underlying contaminated soil would be
6 remediated to comply with regulatory requirements. If the soil samples are not
7 contaminated, or if any contamination is less than allowable limits, the bottom
8 portion (5 feet below grade or deeper) of the beach valve pit would be left intact,
9 and the top portion (from the surface to 5 feet below grade) would be demolished
10 and broken down to 5 feet below existing contours or to the top of the horizontal
11 shaft of the beach valve pit, whichever is greater. The beach valve pit would then
12 be backfilled and compacted with native soil to existing grade.
- 13 d) The underpass conduit would be filled with a cement slurry plug and abandoned
14 in place.
- 15 e) The vertical vault portion of the underpass end structure would be excavated,
16 demolished, and removed in its entirety up to the transition point to the horizontal
17 shaft portion of the underpass end structure.
- 18 f) The horizontal shaft, wing walls, and a concrete footing of the underpass end
19 structure (located below the existing westerly sidewalk and westerly southbound
20 lane within the Carlsbad Boulevard right-of-way) would be abandoned in place.
- 21 g) The beach would be restored at the underpass end structure by backfilling the
22 excavation with native sand to current beach contours.
- 23 h) All recovered pipe, concrete, and steel debris would be disposed of or recycled
24 off-site.
- 25 i) All electrical and piping fixtures and appurtenances would be removed from
26 inside the beach valve pit, the underpass conduit, and the underpass end
27 structure, and abatement or removal of any contaminants including lead,
28 asbestos, and hydrocarbons that exceed allowable limits would be conducted.

29 Beach Segment

30 The beach segment begins at the west side of the underpass end structure and extends
31 approximately 220 feet into the intertidal zone near the mean low water line. Facilities
32 located within the beach segment include a section of the fuel oil submarine pipeline
33 and a riprap groin covering the pipeline. In order to excavate and remove the fuel oil
34 submarine pipeline, the riprap groin would need to be permanently or temporarily
35 removed. To determine potential near-field effects of removing the riprap groin (also
36 referred to as the South Beach Groin), Jenkins (2013) conducted a shoreline evolution
37 analysis (see Appendix L) to predict shoreline evolution over 20-year-long historic
38 periods of waves, tides, currents, and dredge disposal. The study showed that, although

1 removal would have no apparent short-term effect on shoreline change, long-term (10 to
2 20 years) cumulative impacts, generally erosional in nature, to the shoreline would
3 occur. Therefore, to retain the width of the existing shoreline, the riprap groin would be
4 restored to pre-Project contours following the removal of the fuel oil submarine pipeline.

5 Decommissioning work for this segment would be performed by land-based crews and
6 equipment, but limited to extreme low tide conditions when working in the intertidal
7 zone. Work in the beach segment would be accomplished as follows.

- 8 a) The riprap groin would be temporarily moved to expose the underlying fuel oil
9 submarine pipeline and stored on the beach during the pipeline removal process.
- 10 b) The fuel oil submarine pipeline would be removed in its entirety across the
11 beach. As the pipeline is excavated and exposed, it would be cut into sections
12 and trucked off-site, along with any associated debris, for disposal.
- 13 c) All excavations would be backfilled with native sand and the groin would be
14 restored to pre-project contours.

15 Surf Zone Segment

16 The surf zone segment begins at the approximate mean low water line and extends
17 approximately 750 feet offshore to the -15 foot bathymetric contour. Facilities located
18 within the surf zone segment include a section of the fuel oil submarine pipeline and
19 riprap groin. Excavation and removal of the submarine pipeline in the surf zone would
20 involve both land- and offshore-based crews and equipment. Land-based work would
21 be limited to extreme low tide conditions when working in the surf zone, and offshore-
22 based work would be limited by the shallowest depth (-15 foot bathymetric contour) at
23 which a barge or other floating support equipment can safely operate near the surf
24 zone. Work in the surf zone segment would be accomplished as follows.

- 25 • The riprap groin would be temporarily moved to expose the underlying fuel oil
26 submarine pipeline and stored on the beach during the pipeline removal process.
- 27 • The fuel oil submarine pipeline would be removed in its entirety. The pipeline
28 would be excavated and exposed from beneath the beach sand and riprap groin
29 and either removed using conventional, low-impact methods (Option 1) or
30 dynamic pipe ramming (Option 2). Both options are described in further detail in
31 Section 2.5.3.1. If either option is successful, this section of pipeline would be
32 pulled offshore and raised to the surface, cut into truckable sections to be
33 transported by barge to shore, and trucked to off-site disposal or recycling
34 facilities. If both options fail, the remaining segment would be abandoned in place
35 and the ends of the remaining pipeline would be opened to fill with sand.
- 36 • All required excavation would be backfilled with native sand and the groin would
37 be restored to pre-project contours.

1 Offshore Segment

2 The offshore segment begins at the backside of the surf zone (approximately -15 foot
3 bathymetric contour) and terminates approximately 2,525 feet offshore in approximately
4 60 feet of water. This segment includes the fuel oil submarine pipeline, remaining
5 mooring and navigation components, and all seafloor debris associated with the tanker
6 berth. Decommissioning work would be performed by offshore crews and equipment.
7 Work in the offshore segment would be accomplished as follows.

- 8 • The fuel oil submarine pipeline would be removed in its entirety. The pipeline
9 would be raised onto the deck of the derrick barge and cut it into sections (Option
10 1), or cut on the seafloor by divers and recovered (Option 2). Both options are
11 described in further detail in Section 2.5.4.2. In either case, this section of the
12 pipeline would be cut into truckable sections and transported by barge to shore to
13 be offloaded and trucked to off-site disposal or recycling facilities.
- 14 • The two 14,000-pound Danforth pipeline end anchors and mooring chains would
15 be recovered, transported off-site, and recycled at appropriate facilities.
- 16 • All remaining components of the tanker berth's seven-point mooring system,
17 single-point mooring, and pipeline marker and navigation buoys would be
18 completely removed, transported off-site, and recycled at appropriate facilities.
- 19 • All seafloor debris associated with the tanker berth and decommissioning
20 operations would be recovered and transported off-site for recycling or disposal.
21 Potential debris targets would be identified in the pre-decommissioning seafloor
22 debris survey and inspected by divers to determine their identity.

23 **EXISTING CONDITIONS**

24 The MOT is partially abandoned and was placed in "caretaker" status after
25 decommissioning/abandonment activities occurred in 2010. The 2010 decommissioning
26 activities and existing conditions are described below.

- 27 • The fuel oil submarine pipeline was pigged and flushed three times with potable
28 water to bring the hydrocarbon content of the water below non-detect limits. This
29 pipeline was then charged with a mixture of potable water and Nalco EC6106A
30 corrosion inhibitor to prevent internal corrosion of the pipeline. The pipeline has
31 since been under vacuum.
- 32 • The fuel oil cargo hose, hose buoy, and steel pipe reducer were removed when
33 the fuel oil submarine pipeline was pigged and flushed.
- 34 • Two 14,000-pound Danforth pipeline end anchors are located on either side of
35 the fuel oil submarine pipeline to anchor it in position and no decommissioning
36 work has been performed.

- 1 • Prior to 2010, the fuel oil submarine pipeline end marker buoy was lost. The
2 anchoring cable remains on the seafloor next to the end of the pipeline.
- 3 • The beach valve was removed from the onshore end of the fuel oil submarine
4 pipeline inside the beach valve pit, and the pipeline was blind flanged on both
5 ends and fitted with a flushing port. The bypass piping, which attaches the fuel oil
6 submarine pipeline to the fill line, remains intact and has also been blank flanged.
- 7 • The beach valve pit, underpass conduit, and underpass end structure remain
8 intact and in good condition and no decommissioning work has been performed.
- 9 • The riprap groin remains intact; no decommissioning work has been performed.
- 10 • The mooring buoys of the seven-point and single-point mooring systems were
11 removed, but the chains and anchors remain on the seafloor.
- 12 • The navigation buoy was removed, but its mooring chain and concrete clump
13 remain on the seafloor.

14 **ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES**

15 The environmental factors checked below in Table ES-1 would be potentially affected
16 by this Project; a checked box indicates that at least one impact would be a “Potentially
17 Significant Impact” except that the Applicant has agreed to Project revisions, including
18 the implementation of mitigation measures (MMs), that reduce the impact to “Less than
19 Significant with Mitigation,” as detailed in Section 3 of this MND. Table ES-2 lists
20 proposed MMs designed to reduce or avoid potentially significant impacts. With
21 implementation of the proposed MMs, all Project-related impacts would be reduced to
22 less than significant.

Table ES-1. Environmental Issues and Potentially Significant Impacts

<input checked="" type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forest Resources	<input type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources (Terrestrial and Marine)	<input checked="" type="checkbox"/> Cultural and Paleontological Resources	<input type="checkbox"/> Geology and Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Hazards and Hazardous Materials	<input checked="" type="checkbox"/> Hydrology and Water Quality
<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Population and Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Utilities and Service Systems	
<input checked="" type="checkbox"/> Mandatory Findings of Significance		
<input type="checkbox"/> Other Major Areas of Concern: Commercial Fishing and Environmental Justice		

Table ES-2. Summary of Proposed Project Mitigation Measures

Aesthetics
MM AES-1: Project Scheduling
MM AES-2: Night-Lighting Spillage Minimization
Biological Resources
MM BIO-1: Marine Wildlife Contingency Plan (MWCP)
MM BIO-2: Dynamic Pipe Ramming (DPR) Soft -Start and Ramp-Up Procedure
MM BIO-3: Dynamic Pipe Ramming (DPR) Sound Source Characterization
MM BIO-4: Marine Wildlife Monitoring During Sound Source Characterization and Dynamic Pipe Ramming (DPR)
MM BIO-5: Pre- and Post-Decommissioning Seafloor Debris Survey and Debris Removal
MM BIO-6: Final Marine Safety and Anchoring Plan (MSAP)
MM BIO-7: Oil Spill Response Plan (OSRP)
MM BIO-8: Flush Fuel Oil Submarine Pipeline
Cultural and Paleontological Resources
MM CUL-1: Cultural Resource Training
MM CUL-2: Archaeological and Tribal Cultural Resource Monitoring
MM CUL-3: Redirect Work if Previously Unknown Archaeological or Tribal Cultural Resources are Discovered
MM CUL-4: Paleontological Resource Evaluation and Mitigation Plan
MM CUL-5: Proper Disposition of Human Remains
Hazards and Hazardous Materials
MM HAZ-1: Use Certified Asbestos Abatement Contractor
MM HAZ-2: Use Licensed, Certified Lead-Based Paint (LBP) Contractor
MM HAZ-3a: Extended Phase I Environmental Site Assessment (ESA)
MM HAZ-3b: Use Personnel Trained to Work with Hazardous Substances
MM HAZ-4: Disposal of Total Petroleum Hydrocarbon (TPH)-Containing Soil
MM HAZ-5: Onshore Hazardous Materials Management and Contingency Plan Measures
Hydrology and Water Resources
MMs BIO-6, BIO-7, BIO-8, HAZ-3a, HAZ-3b, HAZ-4, and HAZ-5
Noise
MM NOI-1: Advanced Noticing
MM NOI-2: Shielding of Stationary Equipment
MM NOI-3: Advanced Notice to Swimmers and Divers
MM NOI-4: Observation and Removal of Divers and Swimmers from Waters in Project Area
Transportation/Traffic
MM TRA-1: Trucks Avoid Peak Hours
MM TRA-2: Carpooling
MM TRA-3: Construction Safety and Traffic Management/Control (CSTMC) Plan
MM TRA-4: Protect Infrastructure Improvements
MM TRA-5: Local Notice to Mariners