CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE (415) 904- 5200
FAX (415) 904- 5400
TDD (415) 597-5885

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Th12a

July 8, 2014

TO: Coastal Commissioners and Interested Parties

FROM: Alison Dettmer, Deputy Director
Joseph Street, Environmental Scientist

SUBJECT: **ADDENDUM** to Staff Report for Coastal Development Permit Application E-13-004 (Southern California Edison Company) – SONGS Unit 1Cooling Water Conduits Vertical Structure Removal & Decommissioning, offshore San Diego County

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This addendum provides correspondence received to date and recommends a revision to **Special Condition 5** in the June 20, 2014 staff report on SCE's project to remove vertical structures from and permanently abandon the offshore cooling water conduits that served the decommissioned Unit 1 power plant at the San Onofre Nuclear Generating Station (SONGS). The revisions include changes to **Special Condition 5** to allow for a limited amount of night-time work and minor corrections to reflect an updated project description. The revisions do not change staff's recommendation that the Commission **conditionally approve** the coastal development permit application.

CORRESPONDENCE RECEIVED

• Southern California Edison Company, July 2, 2014.

REVISIONS TO STAFF REPORT

Staff's recommended revisions are shown below in ~~double strikethrough~~ and **bold underline** text, with revisions to **Special Conditions** provided first, followed by revisions to the Findings.

REVISIONS TO STAFF'S RECOMMENDED SPECIAL CONDITIONS

Special Condition 5 part B (2), page 7. As initially proposed, **Special Condition 2**, part B (2) would restrict SCE to conducting the proposed project during daylight hours only, and limit the

amount of night lighting of project vessels remaining on site to the minimum necessary to maintain navigational safety and serve the nighttime site monitors present at the project site. SCE has requested that this condition be modified to allow for the possibility of a limited amount of night work that may become necessary in order for SCE to complete the project during the short project timeframe (July 15 – September 28, as proposed by SCE and incorporated into this permit under **Special Condition 4**), which is necessary to prevent adverse impacts to the local commercial lobster fishery. Specifically, SCE requests that the condition be modified to allow for the nighttime deployment of divers to cut, but not remove, the vertical riser structures. This work would not involve the use of heavy equipment (e.g., crane) or large vessels (e.g., derrick barge or tugboats) or the movement or removal of concrete debris from the risers. The only lighting used for the work would be the divers' headlamps. Staff believes that this limited set of nighttime activities can be performed without increasing the risk of significant adverse impacts to sensitive species or marine resources. Staff therefore recommends **Special Condition 5** be modified as follows:

"B. **Avoidance and Mitigation Measures.**

(1) SCE shall describe the procedures to be followed and measures to be taken should marine mammals, sea turtles or special-status bird species be sited in the project area during active operations. At a minimum, the biological monitor shall be granted the authority to temporarily halt project activities if those activities pose a threat to individuals of a special-status species, and to suspend project activities until the animals have left the area.

(2) Project work **involving (a) the movement or positioning of large vessels, including the derrick barge *D. B. Valhalla*, materials barges, and tugboats; (b) use of heavy equipment, including the crane; and (c) the lifting or moving of conduit riser debris** shall occur during daylight hours only. **Night-time work, if necessary, shall be limited to the deployment of divers to work on the cutting of the VCTS and/or MAPS risers. Artificial lighting associated with this work shall be limited to head-lamps or hand-held devices used by the divers, and necessary running or deck lights on diver support vessels.** Night lighting of project vessels remaining on site shall be limited to that necessary to maintain navigational safety and to serve the nighttime site monitors who will be present on board the *D. B. Valhalla*."

REVISIONS TO STAFF'S RECOMMENDED FINDINGS

Proposed Project, *Construction Methods, Equipment &* Schedule, page 10, first paragraph. Staff recommends the following addition to reflect recent changes in the project description:

"The project, including mobilization, all removal work, and demobilization, is proposed to be completed in two and a half months. The work is scheduled to begin on July 15, 2014 and conclude before September 28, 2014. **Most of the project work, including the transit, positioning, and anchoring of the derrick barge, any movement of other large vessels, including tugboats and materials barges, the movement of removed MAPS debris using floatation bags, and the movement or lifting of riser debris from the seafloor to the barges using the crane, will be performed during daylight hours. If necessary to**

maintain the project schedule, divers may be deployed at night to cut, but not move, the riser structures."

Marine Resources and Water Quality, **Project Impacts to Marine Wildlife**, page 17. The following changes are to reflect the recent changes to the project description and SCE's requested modifications to **Special Condition 5**.

Page 17, second paragraph:

"The offshore location of the proposed project places it within potential foraging and migration areas of marine mammal, turtle and bird species, raising the possibility that project activities (e.g., crane operation, boat movement, diving operations) could disturb or injure marine animals occurring in the vicinity. Another potential impact to marine mammals and sea turtles is collision with project vessels during marine operations associated with the proposed project, and in particular during transit between the project site and the home ports of the project vessels in Los Angeles, Long Beach and Dana Point. **The potential for adverse impacts to marine animals from project activities would be heightened during night work, when poor visibility would increase the risk of collisions and artificial lighting associated with the project could become an attractive nuisance or disrupt the behavior of sensitive species."**

Page 17, third paragraph, fifth sentence:

"**Special Condition 5** requires that SCE submit a Sensitive Species Monitoring and Mitigation Plan identifying qualified biological monitors to oversee project activities and describing reasonable avoidance and mitigation measures to minimize the project's potential to harm or disturb of marine mammal, sea turtle and special-status bird species. **These measures shall include restricting most project activities, including the operation of large vessels and heavy equipment, to the daylight hours, and the minimal use of night-lighting in the project area."**

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

July 2, 2014

Dr. Charles Lester
Executive Director
California Coastal Commission
Energy and Ocean Resources
45 Fremont St. Suite 2000
San Francisco, CA 94105-2219

Subject: Support of Coastal Commission Staff Report for the San Onofre Nuclear Generating Station (SONGS) Unit 1 Conduits Decommissioning Project (Application #: E-13-004)

Dear Dr. Lester:

Southern California Edison Company (SCE) has worked closely with your staff to develop a project description and generate a staff report with conditions that avoid and/or minimize permanent environmental impacts for the decommissioning of the SONGS Unit 1 offshore conduits.

SCE supports the staff report and its addendum.

Sincerely,

David Kay
Principal Manager
Project Environmental Management
Southern California Edison

CC: Alison Dettmer, CCC
Joe Street, CCC
Tom Luster, CCC
David Asti, SCE

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45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE (415) 904- 5200
FAX (415) 904- 5400
TDD (415) 597-5885

Th12a

Filed:	6/4/14
180th Day:	11/30/14
Staff:	J. Street-SF
Staff Report:	6/20/14
Hearing Date:	7/10/14

STAFF REPORT: REGULAR CALENDAR

Application No.:	**E-13-004**
Applicant:	**Southern California Edison Company**
Location:	Offshore of San Onofre Nuclear Generating Station, Camp Pendleton, San Diego County
Project Description:	Remove the manhole access port and vertical conduit terminal structures from the SONGS Unit 1 intake and discharge conduits and install steel gates over the openings to prevent large marine organisms from entering.
Staff Recommendation:	Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

Southern California Edison Company (SCE) proposes to remove the vertical structures from and permanently abandon the cooling water intake and discharge conduits that formerly served the retired Unit 1 reactor at San Onofre Nuclear Generating Station (SONGS). The proposed project involves (1) the removal of two vertical conduit terminal structures (VCTS), located at the ends of each conduit, and nine manhole access port structures (MAPS) occurring along the lengths of the conduits; (2) the installation of steel grates over the VCTS and MAPS openings; and (3) the in-place abandonment of the intake and outfall conduits, which would remain buried beneath the seafloor and, over time, fill in through natural sedimentation. The proposed project is necessary

to remove potential hazards to navigation posed by the vertical structures, which extend up to 15 feet above the seafloor in shallow water, to prevent access into the abandoned conduits by humans and large marine mammals, and to allow for the permanent decommissioning of the Unit 1 conduits. The proposed project is also required in order to comply with the terms of the California State Lands Commission lease agreement for the final disposition of the Unit 1 offshore cooling water conduits.

The project will take place within state waters immediately offshore of SONGS Unit 1 along the 3,200 foot long intake and 2,600 foot long discharge conduits. The removal work will include 489 cubic yards of sediment dredging and disposal to uncover buried portions of the VCTS and MAPS, temporary placement of the removed riser pieces on the seafloor, the anchoring of a large crane barge (used to lift the removed structures), and daily operations by several support vessels and dive teams. SCE plans to conduct the project between July 15 and September 28, 2014, which will allow it to avoid in-water work during the area's lobster fishing season.

The key Coastal Act issues raised by this project include potential adverse impacts to marine resources and commercial fishing. A minor amount of dredging and fill in open coastal waters associated with this project is unavoidable, due to the need for SCE to uncover the buried portions of the vertical structures to be removed. Dredging will temporarily disturb the soft-bottom benthic habitats surrounding the vertical structures, while the disposal of dredge spoils has the potential to bury sensitive hard-bottom habitats, including rocky reefs, cobble fields, kelp forest, and surf-grass beds which occur in the area. Without appropriate controls, sediment dredging and disposal can increase turbidity in the water column, to the detriment of marine organisms and water quality. The removal of the vertical conduit structures will also involve the temporary placement of concrete pieces on the seafloor, and will require the anchoring of a large crane barge above the project area, both of which could result in the disturbance or destruction of sensitive hard-bottom habitats. To address these potential adverse impacts, Commission staff is recommending **Special Conditions 1, 2** and **3**, which would require SCE to avoid naturally-occurring hard-bottom habitats during anchoring, project operations, and dredge spoil disposal, and to minimize the amount of turbidity generated during dredging through the use of a hydraulic pumping system.

Adverse impacts to commercial fishing and to special status species could occur due to the project's nearshore location, within local lobster fishing grounds and in suitable habitat for marine mammals, sea turtles, and endangered/threatened bird species. To mitigate for impacts to the commercial fishing, SCE is proposing to conduct all project activities between July 15 and September 28, prior to the opening of the lobster fishery. This timing would also avoid the gray whale migration season. To safe-guard this commitment, Commission staff is recommending **Special Condition 4**, which would require SCE to seek further Commission review of any futures changes to project timing. Staff is also recommending **Special Condition 5**, which requires SCE to retain the services of a qualified biological monitor to be present on-site during project operations, and to prepare a monitoring and mitigation plan containing measures designed to avoid and minimize impacts to special status species.

Commission staff recommends **approval** of coastal development permit application E-13-004, as conditioned.

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APPENDICES

EXHIBITS

I. MOTION AND RESOLUTION

Motion

*I move that the Commission **approve** Coastal Development Permit E-13-004 subject to the conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution

The Commission hereby approves Coastal Development Permit E-13-004 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Hard Substrate Habitat Avoidance Measures.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, SCE shall submit, for Executive Director review and approval, a Hard Substrate Impact Avoidance Plan demonstrating that the project is designed so that (a) no disposal of dredge spoils associated with project activities and (b) no placement of project-related equipment or structures and debris removed from the vertical conduit terminal structures (VCTS) or manhole access port structures (MAPS) will occur in hard substrate habitat areas, including but not limited to cobble and boulder fields and rocky outcrops and reefs. The submitted plan shall identify specific locations where dredge spoil disposal and structural debris storage may occur, in relation to the known, mapped locations of hard bottom habitat areas. SCE shall implement all project activities in accordance with these plans, as approved by the Executive Director. No sediment disposal, equipment placement, or debris placement/storage may occur outside the identified locations (though not all identified locations must be used).

2. **Turbidity Minimization and Monitoring.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, SCE shall submit, for Executive Director review and approval, a revised Turbidity Minimization and Monitoring Plan that is consistent with and includes those techniques and measures included in the April 2014 *Project Work Plan* and the *Turbidity Monitoring Plan* submitted with SCE's CDP application, that incorporates the following changes:

   A. SCE shall submit names of qualified observers who will be present at the project site to monitor for turbidity during dredging and vertical structure removal activities. The submittal shall include the qualifications each observer.

   B. Flow rates on the hydraulic pumping system shall be set as low as is practicable in order to minimize the generation of a suspended sediment plume during the disposal of dredged sediment.

   C. As per **Special Condition 1**, above, the locations of dredge spoil disposal and structural debris storage sites shall be provided.

   D. No changes to turbidity minimization measures included the approved project shall occur without a Commission amendment to this CDP, unless the Executive Director determines that no amendment is legally necessary.

3. **Revised Anchoring Plan.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, SCE shall submit, for Executive Director review and approval, a revised Offshore Anchoring Plan that is consistent with Section 5.0 and Attachment B of the submitted *Project Work Plan*, dated April 2014, and with the submitted *Subtidal Survey of Anchoring Sites* technical memo, dated April 25, 2014, but with the following modifications:

   A. **Anchor Stations A-1 and A-2.** The revised Plan shall identify and provide the coordinates of modified locations for anchor stations A-1 and A-2 which avoid the areas

of hard-substrate habitat in or near these stations, as identified in the submitted *Subtidal Survey of Anchoring Sites* technical memo, dated April 25, 2014. Station A-1 shall be relocated to the large sandy area occurring approximately 30 meters west of the current position, or another similarly suitable location. The alternate locations of stations A-1 and A-2 shall contain no hard substrate within a 15 meter radius of the central station coordinates.

B. **Anchor Station A-5.** The modified Plan shall identify and provide the coordinates of an alternate location for anchor station A-5 that minimizes adverse impacts to hard-substrate habitats, including but not limited to cobble and boulder fields, rock outcrops and reefs. Based on subtidal visual surveys, the modified Plan shall provide (i) a narrative description of the alternate anchor site, including the substrate, marine species and aquatic vegetation present, and (ii) an estimate of the percentages of soft- and hard-bottom seafloor within a 15 meter radius (30 m diameter) of the central station. The alternate location of station A-5 shall contain no more than 10% hard substrate, on an areal basis, within the 15 meter radius of the central station coordinates.

SCE shall implement the revised Offshore Anchoring Plan as approved by the Executive Director.

4. **Project Timing; Closed Areas**

A. **Project Timing.** As proposed by SCE, the project will begin on July 15, 2014 and be completed prior to September 28, 2014. No changes to the timing of the approved project shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally necessary.

B. **Closed Areas.** Open water areas closed to commercial fishing and recreational boating during project activities shall be minimized and limited to those areas necessary to maintain the safety of divers and other project personnel and the public. The U.S. Coast Guard shall be notified and a "Notice to Mariners" issued prior to all mobilizations of vessels and/or diving personnel to the offshore project site. All project vessels shall be marked and lighted so as to be visible to boaters, and sea surface areas above active underwater project operations shall be clearly and appropriately demarcated.

5. **Sensitive Species Monitoring and Mitigation Plan.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, SCE shall submit, for Executive Director review and approval, a Sensitive Species Monitoring Plan. At a minimum, the Plan shall include the following:

A. **Approved Biological Monitor(s).** SCE shall submit names of qualified biologists who will be present at the project site during all project activities. The submittal shall include the qualifications and proposed role of each biologist during monitoring activities. The selected biologists shall be able to identify the various marine mammal, sea turtle and special-status marine bird species (as identified in the project EIR) that have the potential to occur in the project area (as identified in the project EIR), and will have knowledge of the ecology and behavior of these species.

B. **Avoidance and Mitigation Measures.**

(1) SCE shall describe the procedures to be followed and measures to be taken should marine mammals, sea turtles or special-status bird species be sited in the project area during active operations. At a minimum, the biological monitor shall be granted the authority to temporarily halt project activities if those activities pose a threat to individuals of a special-status species, and to suspend project activities until the animals have left the area.

(2) Project work shall occur during daylight hours only. Night lighting of project vessels remaining on site shall be limited to that necessary to maintain navigational safety and to serve the nighttime site monitors who will be present on board the *D. B. Valhalla*.

C. **Marine Transportation**. In addition to on-site monitoring, the Plan will describe measures to be taken during the transportation of project vessels and equipment to the project site in order to minimize the risk of collisions with marine mammals and/or sea turtles. Such measures shall include, but are not limited to, restrictions on vessel speed.

6. **Other Agency Review and Approval.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the approved project have been granted by all applicable agencies, including the U.S. Army Corps of Engineers and the San Diego Regional Water Quality Control Board. Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally necessary.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

Background

SCE is the majority owner and operator of the San Onofre Nuclear Generating Station (SONGS), located on the Camp Pendleton Marine Corps Base in northern San Diego County (see **Exhibit 1**). The original SONGS power plant, Unit 1, operated from 1968 until its retirement in 1992. Two other power plants, Units 2 and 3, were started in 1983-84 and operated until 2012. Prior decommissioning activities at Unit 1, including the dismantling and removal of most onshore facilities, have been authorized under previous CDPs (#s E-00-001, E-00-001-A1).

SCE is allowed the use of the seafloor area offshore of Unit 1 for cooling water intake and discharge conduits pursuant to an easement lease agreement (PRC 3193.1) with the California State Lands Commission (CSLC), first executed in 1964, and amended in 2005 (**Exhibit 1**). The intake and discharge conduits extend horizontally from shore approximately 2,600 feet (discharge) and 3,200 feet (intake). Each conduit consists of 12-foot diameter steel-reinforced concrete pipe, installed beneath the seafloor and covered with approximately four feet of sandy

sediment. At the beach, the conduit pipes are buried beneath approximately 10-15 feet of sand. Water depths along the conduit path range up to about 30 ft. Since the retirement of Unit 1, the conduits have been plugged with concrete at a point inland of the SONGS seawall.

The seaward terminus of each cooling water conduit includes a vertical structure, known as a "vertical conduit terminal structure" (VCTS), consisting of a 1-ft thick concrete velocity cap set atop nine stacked, rectangular, reinforced concrete sections, and a foundation set about 30 feet below the ocean floor. Each VCTS has a horizontal footprint of 20 by 27.5 feet, and is protected at its base by a four-foot thick rip rap apron with a footprint of approximately 70 by 100 feet (7000 square feet), centered on the terminal structure. The intake structure rises 15.5 feet above the ocean floor. The discharge structure rises 11 feet above the ocean floor. **Exhibit 2** shows a cross-sectional view of the existing VCTS. The locations of the structures are marked by sea-surface buoys to alert boaters of the submerged navigational hazard.

Each conduit also includes a series of manhole access port structures (MAPS), spaced every 500 feet along the length of the conduit (five on the intake, four on the outfall), which are used to access the conduits for maintenance purposes. MAPS are constructed of 7-inch thick reinforced concrete with an outer diameter of approximately 2.6 feet. The MAPS originally extended between one and five feet above the seafloor, but have since been fully or partially buried by sediment. Cross-sectional views of the MAPS are shown in **Exhibit 2**.

Proposed Project

SCE proposes to carry out the final disposition of the offshore cooling water intake and outfall conduits that once supported the decommissioned SONGS Unit 1 power plant. The project consists of the removal of all vertical structures protruding above the seafloor, including the two VCTS at the ends of the conduits and the nine MAPS occurring along the lengths of the conduits. The openings to the conduits would then be fitted with steel access barrier grates that would exclude large marine organisms but allow natural sedimentation to fill the conduits. The conduit pipes themselves would be left in place, buried beneath the seafloor, which is consistent with terms of SCE's amended lease with the State Lands Commission (see below).

Sediment Dredging

In order to access the VCTS and MAPS for removal, accumulated sediment, consisting primarily of sand and gravel, will need to be excavated from the areas surrounding the structures. The sediment depth is estimated to vary from one to eight feet. Excavation will be performed by divers using a proprietary hydraulic pumping system, consisting of a 6-inch intake hose connected to a submersible hydraulic pump (tethered by cable to a dive boat) and a 6-inch discharge hose. This system is expected to minimize the suspension of sediment during dredging and disposal, and is considered a more precise method than the use of a clamshell bucket.
The excavated sediment will be disposed of a short distance (20-40 feet) away from the conduit structures, within the CSLC lease area. SCE estimates that excavation will be necessary within an 8 foot radius of the VCTS risers, to a depth of approximately four feet, yielding a total of 278 cubic yards of dredged sediment. For each of the five offshore MAPS risers, SCE anticipates excavating a 20-foot trench to a depth of eight feet, yielding a total of 75 cubic yards (15 CY per

riser). Removal of the four MAPS risers in the nearshore zone will require approximately 137 cubic yards of dredging. All told, SCE projects a total of 489 cubic yards of dredged sediment will be redistributed to the surrounding seafloor

Removal of Vertical Structures & Placement of Access Barriers

The proposed removal of the vertical conduit structures will begin with the MAPS risers. The MAPS will be fully dismantled to their intersections with the conduit pipes by teams of divers (**Exhibit 2**). The removed portions of the MAPS will then be attached to floatation bags and transported to a 20' x 20' (400 square foot) storage/staging area on the sandy seafloor within the CSLC lease boundaries to await removal to the surface. Seafloor storage of the MAPS risers will last for up to six weeks. The two VCTS risers located at the ends of the conduit pipes will be dismantled in segments, with assistance from a barge crane, down to the level of the rip rap blanket surrounding each structure; the lower, below-grade segments of the VCTS adjoining the conduit pipes will be left in place (**Exhibit 2**). The concrete and metal debris from the VCTS will be temporarily placed on the seafloor adjacent to the conduit termini, and then lifted by crane to barges along with the MAPS debris. All told, SCE expects to remove approximately 138 cubic yards of debris.

After the removal of the vertical structures, the openings to the conduits will be covered with prefabricated steel grates to preclude entrance into the structures by large marine organisms and humans (**Exhibit 2**). The access barriers are designed to allow for sand migration into and the eventual filling of the conduit openings, and are composed of materials designed to resist corrosion for a minimum of 20 years. Natural sedimentation and sand redistribution is expected to fill the openings to the conduits within five to ten years. The currently-deployed marker buoys above the VCTS risers would also be retrieved once the navigation hazards are removed.

Construction Methods, Equipment & Schedule

The proposed project will be conducted primarily from barges situated above the existing intake structures, and by divers on the seafloor immediately adjacent to the various VCTS and MAPS risers along the conduits. The removal of the vertical structures will be performed from the *D. B. Valhalla*, a 265-foot long marine derrick barge equipped with a crane. The *Valhalla* will be situated above the terminus of the existing intake conduit using a five-point anchoring system in which five 10 to 15-ton anchors (10' x 12' and/or 12' x 15' footprints) will be deployed from the barge in multiple directions (**Exhibit 3**), as governed by the offshore anchoring plan included in SCE's Project Work Plan. Accumulated debris from the removed risers will be lifted by the crane to one of several flat material barges (ranging from 180- to 250-feet long) which will be used to transport materials to and from the project site. Once loaded on the barges, the accumulated debris will be transported by tugboat to the dock of SCE's contractor at the Port of Los Angeles, and disposed of at a permitted inland site outside the Coastal Zone. The *Valhalla* and materials barges are expected to be anchored at the site for up to two weeks. Several other ocean-going workboats, operating out of Long Beach, will be used to support diving operations. A separate marine mammal and water quality monitoring vessel, operating out of Dana Point, will be present on site during project activities (*see* below). To the extent that the anchoring of other project vessels is necessary, they will be anchored at Station A-5 (**Exhibit 3).** No on-site refueling of project vessels is proposed.

The project, including mobilization, all removal work, and demobilization, is proposed to be completed in two and a half months. The work is scheduled to begin on July 15, 2014 and conclude before September 28, 2014.

Water Quality Maintenance & Marine Mammal Monitoring

In order to avoid, minimize and mitigate impacts to water quality during project activities, SCE proposes to use a hydraulic pump dredging system to excavate sediment from around the VCTS and MAPS risers and implement a Turbidity Monitoring Plan. This hydraulic pump system will allow a diver to vacuum up the sediment in a relatively precise manner and relocate it to a previously-selected disposal area. SCE anticipates that this dredging method will minimize both the area disrupted by dredging and the amount of turbidity generated. The Turbidity Monitoring Plan (**Exhibit 4**) assigns a qualified observer to be on site during all dredging and vertical structure removal activities to document levels of project-induced turbidity. If turbidity exceeds certain thresholds, the Turbidity Monitoring Plan will empower the monitor to modify or halt project activities, in consultation with responsible agencies, including the Coastal Commission, Regional Water Quality Control Board, and U.S. Army Corps of Engineers. SCE also proposes to implement an Oil Spill Response Plan, consisting of a U.S. Coast Guard-approved Shipboard Oil Pollution Emergency Plan (SOPEP) specific to the *D. B. Valhalla* and a general oil spill response protocol for the other support vessels. SCE also proposes to have a marine mammal monitor at the project site during all removal activities.

B. OTHER AGENCY APPROVALS

California State Lands Commission

The California State Lands Commission (CSLC) is the lead agency under the California Environmental Quality Act (CEQA) for the proposed project. The removal of the vertical VCTS and MAPS structures from the SONGS Unit 1 conduits, and the abandonment in-place of the conduits themselves, requires authorization from the CSLC. On December 9, 2005, the CSLC approved an amendment to its original easement lease agreement, allowing SCE to decommission the Unit 1 conduits by removing the vertical structures while leaving the pipes in place.

In February 2005 the CSLC published a Draft Environmental Impact Report (EIR) for the project. The CLSC considered public comments on the draft from several state and federal resource agencies and interested individuals, and on June 29, 2005, released a Final EIR for review. On July 22, 2005, prior to considering SCE's lease amendment application, CSLC adopted and certified the Final EIR.

United States Army Corps of Engineers

The U.S. Army Corps of Engineers (ACOE) has regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 (*33 U.S.C. 1344*) and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates the diking, filling and placement of structures in navigable waterways. Section 404 of the Clean Water Act regulates fill or discharge of materials into waters and ocean waters.

For the subject project, ACOE is considering the issuance of a Nationwide Permit 7 for Outfall Structures and Associated Intake Structures. SCE submitted an application to ACOE for a Nationwide Permit 7 on March 29, 2013. Pursuant to Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Coastal Commission's concurrence in a certification to the permitting agency that the project will be conducted consistent with California's approved coastal management program. Commission approval of this coastal development permit would serve as the consistency certification for this project under the CZMA, and ACOE would then be able to issue its Nationwide Permit 7 to SCE.

San Diego Regional Water Quality Control Board

The San Diego Regional Water Quality Control Board regulates pollutant discharges into receiving waters in the project area. SCE applied for a Clean Water Act Section 401 Water Quality Certification from the Regional Board on March 29, 2013; the certification is currently under review.

C. DREDGING AND PLACEMENT OF FILL IN COASTAL WATERS

Coastal Act section 30233(a) states in part:

> *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged depths on existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
>
> *(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
>
> *(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
>
> *(6) Restoration purposes.*
>
> *(7) Nature study, aquaculture, or similar resource dependent activities.*

The proposed excavation and redistribution of up to 489 cubic yards of seafloor sediment in order to uncover buried portions of the VCTS and MAPS risers constitutes dredging and the placement of fill in open coastal waters. Coastal Act Section 30233(a) restricts the Coastal Commission from authorizing a project that includes the dredging and fill of open coastal waters unless it meets three tests. The first test requires that the proposed activity must fit into one of seven use categories enumerated in Coastal Act Section 30233(a). The second test requires that there be no feasible less environmentally damaging alternative. The third and last test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

1) Allowable Use Test: One of the seven allowable uses of dredging and fill under 30233(a) is "incidental public service purposes." To qualify as an incidental public service purpose, the dredging and fill of coastal waters being undertaken must demonstrate that: (a) it provides a "public service" insofar as it confers benefits to the public, either at large, or to those served by the public entity; and (b) is "incidental," within the meaning of that term as it is used in the Coastal Act (i.e. is ancillary and appurtenant to an existing public service purpose). The example used in Section 30233(a)(4) also specifies that temporary effects, such as those associated with a pipeline burial, can qualify as "incidental." The proposed project would confer benefits to the public by removing existing hazards to navigation presented by the vertical conduit structures and by ensuring that the in-place abandonment of the existing conduit pipes will not present a safety hazard over the long term. In other words, the proposed project is necessary for the long-term maintenance of the existing conduits for public safety purposes. The proposed project's impacts would be temporary; the conduit pipes would remain buried, the excavated areas around removed vertical structures would be reburied over time by natural sedimentation, and the effects of the sediment relocation and the short-term placement of removed structures on the seafloor would also be temporary. The proposed project is incidental to an existing public service purpose because it would support the on-going process of safely decommissioning SONGS, an existing nuclear power plant that during its period of active operations provided electricity to the public throughout Southern California.

The Commission therefore finds that the proposed project meets the allowable use test of Section 30233(a).

2) Alternatives Test: Pursuant to Section 30233(a), the Commission must additionally find that there are no feasible less environmentally damaging alternatives to the proposed dredging and fill in open coastal waters. No known project alternatives would meet the objectives of the proposed project – to remove the vertical conduit structures, equip the conduit pipes for safe and permanent in-place abandonment, and so fulfill the terms of the CSLC easement lease – without a similar or greater amount of dredging and placement of fill in open coastal waters. For example, alternatives involving the complete or partial removal of both the vertical structures and the conduit pipes themselves would result in greater amounts of dredging, fill, seafloor disruption and turbidity than the proposed project. The project EIR estimated that the complete removal of the conduits would require up to 15,000 cubic yards of dredging, and the import and placement of an additional 12,000 cubic yards of additional fill materials; for comparison, the proposed project will require less than 500 cubic yards of dredging and spoils disposal, with no additional fill requirements. Another alternative proposing to dispose of the vertical conduit

structures on the seafloor as an "artificial reef" would require a similar amount of dredging as the proposed project, and the deposition of the concrete debris on the seafloor, which is not considered the most suitable material for constructing reef areas. A "no action" alternative, leaving the vertical conduit structures intact and requiring no dredging or fill, was considered, but would not achieve the project objectives of removing navigation hazards, minimizing long-term safety concerns, and meeting the requirements of the CSLC lease.

The Commission therefore finds that the proposed project is the least environmentally damaging feasible alternative, and therefore meets the second test of Section 30233(a).

3) Mitigation: The final requirement of Coastal Act Section 30233(a) is that the dredging and fill of coastal waters may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental effects associated with that fill. In other sections of this report, the Commission has identified feasible mitigation measures that will minimize the adverse environmental effects of the dredging and fill associated with the proposed project. Specifically, **Special Condition 1** requires SCE to avoid all hard-bottom habitats during the disposal of the dredge spoils, limiting such filling of coastal waters to pre-existing soft-bottom areas. **Special Condition 2** ensures that SCE will implement its proposed measures to minimize the amount of turbidity generated during dredge and fill operations, protecting water quality and biological resources. Additionally, the project will result in only temporary impacts to an area subject to ongoing sand movement. With the conditions of this permit, and implementation of the applicant-proposed measures described in the Project Work Plan, the Commission finds that the third test of Section 30233(a) has been met.

D. MARINE RESOURCES AND WATER QUALITY

Coastal Act section 30230 states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Coastal Act Section 30231 states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Impacts to Hard Bottom Habitats

Hard substrate is exposed rocky seafloor that provides habitat for a diverse group of plants and animals. Common organisms occurring in hard substrate areas vary based on depth, substrate composition, and substrate relief height. Along much of the California coast, there is a strong positive association between the types of plant and animal communities and the depths and substrate types in which they occur. Hard substrates, including exposed bedrock, rock outcroppings, rock crevices and boulder fields, provide habitat and shelter for numerous sessile organisms, fishes, and mobile invertebrates such as lobsters and crabs. Hard substrates also provide the necessary anchoring sites for macroalgae such as giant kelp (*Macrocystis pyrifera*), one of the more visible and iconic marine organisms of the California coast. The kelp forests of coastal Southern California are highly productive and species-rich, in large part due to the multi-layered vertical habitat they provide. Over 50 fish species, 130 species of plants and macroalgae and almost 800 species of invertebrates are known to inhabit Southern California kelp forests, making them both ecologically and economically important. The San Onofre Kelp Forest is located in the project vicinity, approximately 1500 - 2000 feet offshore and downcoast of the ends of the Unit 1 conduits (**Exhibit 5**). Smaller patches of giant kelp occur to the north and west of the project site.

Based on surveys conducted in 2003, 2005 and 2012, both hard- and soft-bottom benthic habitats occur in the area of the Unit 1 conduits (**Exhibit 6)**. The nearshore area up to approximately 2000 feet offshore consists predominantly of cobble and boulder fields and rock outcrops, with the exception of a 150 – 700 foot wide "channel" on either side of the buried conduit pipes. This channel was excavated in the 1960s when the conduits were installed, and now consists of soft-bottom habitat. Further offshore, the seafloor is predominantly sandy, with only scattered cobbles and outcrops. The areas surrounding the two conduit terminal structures are covered by quarry rock riprap, deposited following the construction of the conduits. Giant kelp is generally absent within the project area, with only a few isolated stalks, attached to cobbles, noted in the surveys; other forms of kelp and encrusting algae were more common. Medium to dense concentrations of surfgrass occur in patches in the nearshore zone, with a total coverage of about 750 square feet. Hard substrate areas on the project site provide foraging and sheltering habitat for a variety of fish species, including black serfperch, spotted kelpfish, rock wrasse, California halibut and garibaldi, and support a diverse array of marine invertebrates, in particular spiny lobster and sheep crab, sea fans, and encrusting bryozoans and tunicates.

Offshore of Southern California, hard substrate and its associated biota are relatively rare, and therefore any effect to them is potentially significant. Impacts to hard substrate in particular are significant because: (a) deepwater reefs are relatively rare along the Southern California coast; (b) they support a diverse assemblage of epifaunal invertebrates; (c) they attract fish as a nursery ground, food source, and as shelter; and (d) epibiota residing on rocky substrates are sensitive to mechanical disturbance and increased sediment loads.

The proposed project has the potential to adversely affect sensitive hard-bottom habitats and species due to (a) burial during the disposal of dredge spoils and/or the settling of suspended sediments mobilized during dredging operations; (b) the temporary placement of removed VCTS and MAPS debris on the seafloor; and (c) the setting or dragging of anchors during the situating of project vessels, in particular the large derrick barge. Staff also considered the potential

adverse effects of project alternatives, including the complete or partial removal of the conduit pipes, on hard-bottom habitats. In comparison to the proposed project, alternatives involving the removal of the conduit pipes would require a much larger amount of sediment dredging and disposal, generate more turbidity, result in the placement of more concrete debris on the seafloor, and extend the project duration, increasing the likelihood of damage to hard-bottom habitats.

In order to prevent the burial of hard bottom areas with dredge spoils and to minimize the amount of suspended sediment generated during dredging operations, the Commission is including **Special Condition 1**, which requires that the disposal of dredge spoils and the temporary storage of removed structural debris take place only in designated soft-bottom areas, avoiding all hard-bottom habitat, and **Special Condition 2**, which incorporates as a requirement of this permit SCE's proposal to use a hydraulic pump dredging system, as described in the submitted Project Work Plan, which is expected to reduce the amount of turbidity associated with dredging.

Subtidal surveys of the five proposed anchor sites for the *D.B. Valhalla* were completed in April 2014 (**Exhibit 3**). The results of the survey indicate that two of the sites are located in areas consisting entirely of sandy sediment, presenting minimal risk of anchor damage to hard bottom habitat. Anchor station A-1 is located on a low-relief rock reef, but is immediately adjacent to a large area of sandy bottom. The *Subtidal Survey of Anchoring Sites* technical memo submitted by SCE indicates that station A-1 can be relocated to this sand field. Station A-2 is located in an area of sandy seafloor with a small aggregation of small rocks occurring 15 meters away from the center coordinates. Anchor station A-5, which is proposed for use by both the *D.B. Valhalla* and other project vessels (tugboats, materials barges, etc.), is located in an area of seafloor with a mixture of sand and boulder substrates, including several rocks with attached kelp holdfasts. The placement and possible dragging of anchors at stations A-1, A-2 and A-5 has the potential to damage sensitive hard-bottom habitat and associated species, such as giant kelp. In order to avoid and minimize adverse impacts to these resources, the Commission is imposing **Special Condition 3**, which requires SCE to submit a revised Offshore Anchoring Plan identifying and describing alternate placements for anchor stations A-1, A-2 and A-5 in soft-bottom areas that will not result in significant damage to hard-bottom resources.

Soft Bottom Habitat Impacts

Soft bottom areas are unconsolidated sediments (e.g., gravel, coarse-grained and mixed sediments, sand, and mud) that provide habitat to epifaunal (surface living) and infaunal (below-surface living) organisms. As discussed above, most of the project area, including the areas immediately adjacent to the conduit pipes, is covered by soft bottom habitats, primarily sand-sized sediment (**Exhibit 6**). In contrast to the hard-bottom habitats discussed previously, soft-bottom benthos is generally a structurally unstable environment with relatively low species diversity and abundance. Bottom surveys of the soft-bottom areas of the project site in 2003 and 2012 showed that these habitats are dominated by polychaete and annelid worms, with sea stars (*Astropecten* spp.), hermit crabs (*Isocheles pilosus*) and spider crabs also found. Trawl surveys of sandy subtidal bottom habitats in the vicinity of SONGS have found a variety of bottom-dwelling fish species (e.g., white croaker, California halibut, etc.) at low abundance.

While some impacts to common invertebrate species that have been shown to be locally abundant in the areas around the Unit 1 cooling water conduits are expected, the soft-bottom habitat areas to be disturbed by the proposed project would be very small relative to the geographical extent of this habitat type offshore of the San Onofre area. The proposed dredging and fill activities would displace less than 500 cubic yards of sandy sediment in the areas immediately adjacent to the VCTS and MAPS risers, while the temporary storage of the riser debris on the seafloor prior to removal and the setting of the five anchors needed to stabilize the crane barge would disturb small areas of soft bottom habitat. Moreover, the disturbance to soft-bottom seafloor under the proposed project is small relative to other project alternatives, in particular those including the full or partial removal of the conduit pipes. As discussed above, the amount of soft-bottom dredging under the proposed project is 30 times less than that estimated for the full removal of the conduit pipes, and the amount of fill over 50 times less. The disturbance to soft-bottom habitats associated with the project would be temporary, ceasing at the end of the three-month project, and it is expected that over time the disturbed sediment would be redistributed over the project area by the same processes (wave action, currents, etc.) that are the primary source of natural disturbance in this dynamic environment. In addition, most soft substrate organisms are mobile and are expected to re-colonize and recover quickly after the initial project-related sediment disturbance.

The proposed dredging and fill activities, temporary storage of debris on the seafloor, and anchoring of project vessels is therefore not expected to result in significant adverse impacts to soft bottom habitats or organisms. Further, SCE's proposed use of the hydraulic pumping system for all dredging and sediment disposal, incorporated into this permit in **Special Condition 2**, will minimize the area of seafloor disturbance and protect against potential adverse impacts to soft substrate habitat and organisms.

Water Quality and Biological Productivity

Temporary increases in turbidity and suspended sediment associated with project activities, in particular the sediment dredging and disposal necessary to uncover buried portions of the vertical conduit structures, have the potential to adversely affect water quality and water-column biological productivity. On one hand, turbidity generated by project activities could reduce light penetration into the water column to the detriment of primary producers; on the other, the suspension of bottom sediments has the potential to release limiting nutrients (e.g., nitrogen, phosphorus) which could stimulate primary productivity. The extent to which these effects occur would depend on many factors, including but not limited to the amount of turbidity generated and the duration of the disturbance. Given that the potential positive effects of the increased turbidity are speculative and unquantifiable at this point, the Commission finds that Coastal Act Section 30231 requires maintaining as close to a natural state as possible, by limiting project-induced turbidity. As discussed above, **Special Condition 2** incorporates as a requirement of this permit SCE's proposals to use a hydraulic pump dredging system and employ an on-site turbidity monitor with the authority to modify project activities if turbidity levels exceed certain thresholds. The pump dredging system will minimize the amount of turbidity associated with dredging and disposal, and the monitor will ensure that any turbidity that is generated remains at acceptable levels. Thus, the project is expected to maintain the biological productivity and quality of coastal waters in accordance with Section 30231.

Project Impacts to Marine Wildlife

A number of special-status species occur in the nearshore areas of Southern California, and could be adversely affected by the proposed project. Among the marine mammals living in the Southern California Bight, California sea lions (*Zalophus californacus*), harbor seals (*Phoca vitulina*), bottlenose dolphins (*Tursiops truncatus*) and California gray whales (*Eschrichtius robustus*) were deemed in the project EIR to be the most likely to occur in the project area. California sea lions, harbor seals, and bottlenose dolphins inhabit coastal waters off of San Diego County on a year-round basis, while gray whales migrate through the area twice each year, between December – February (southern migration) and February – May (northern migration). Though extremely rare, leatherback, green and loggerhead sea turtles have also at times been observed off the Southern California coast and have the potential to occur in the project area. Among the 200 bird species that use the Southern California coastline are a number special-status species that have the potential to occur within the project area, including two federal and state-listed endangered species – the California brown pelican and California least tern – and several California Species of Special Concern, including the black storm petrel, double-crested cormorant, California gull, elegant tern and common loon.

The offshore location of the proposed project places it within potential foraging and migration areas of marine mammal, turtle and bird species, raising the possibility that project activities (e.g., crane operation, boat movement, diving operations) could disturb or injure marine animals occurring in the vicinity. Another potential impact to marine mammals and sea turtles is collision with project vessels during marine operations associated with the proposed project, and in particular during transit between the project site and the home ports of the project vessels in Los Angeles, Long Beach and Dana Point.

The Commission has determined in previous offshore projects that the most effective way to prevent disturbance of special status species in offshore areas, and to avoid marine mammal or sea turtle collisions with project vessels, is to monitor effectively for the presence of these species in the project area and during transit, and to time in-water activities so that they occur during daylight hours and, as much as possible, outside of known migratory seasons. To help assure that the timing of project activities is appropriate and monitoring is carried out, staff recommends that **Special Conditions 4** and **5** be included in the CDP. The project is currently proposed to be carried out between July 15 – September 28, 2014, a schedule which would avoid gray whale migration periods and thus minimize the potential for whale collisions with project vessels. **Special Condition 4** requires that any changes to the proposed timing of the project be submitted to the Commission for additional review as a CDP amendment. **Special Condition 5** requires that SCE submit a Sensitive Species Monitoring and Mitigation Plan identifying qualified biological monitors to oversee project activities and describing reasonable avoidance and mitigation measures to minimize the project's potential to harm or disturb of marine mammal, sea turtle and special-status bird species.

Conclusion

Based on the analysis presented above, the Commission finds that the proposed project, as modified by **Special Conditions 1 – 6**, will be carried out in a manner that maintains marine resources, and sustains the biological productivity and quality of coastal waters, and is therefore consistent with Coastal Act Sections 30230 and 30231.

E. SPILL PREVENTION AND RESPONSE

Section 30232 of the Coastal Act states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

The proposed project consists entirely of work in open coastal waters, supported by several barges, tug-boats, and other work-boats. The operation of these vessels during project activities and while in transit to and from the project site, as well as any refueling activities at the project site or in the home ports, could result in accidental spills or releases of fuel and other hazardous materials into coastal waters. The largest vessel to be used in the project, the derrick barge *D. B. Valhalla*, carries a variety of hazardous liquids on-board, including diesel fuel, lube oil, hydraulic oil, and waste oil. The Valhalla is covered by a U.S. Coast Guard-approved Shipboard Oil Pollution Emergency Plan (SOPEP), which contains information on the amounts of fuel, oil, and other hazardous materials present on-board the vessel, and on the cleanup equipment that will be immediately available in the event of a spill. The SOPEP also lays out protocols for responding to a spill quickly and effectively, including notification procedures to local spill responders. The other vessels to be used in the project, including the tugboat and dive-support vessels, carry much smaller quantities of fuel, oil and hazardous material, and are governed by a general Oil Spill Response plan developed by SCE's contractor. Similar to the SOPEP, this general plan lays out response, cleanup and notification procedures in the event of a spill, and also describes the quarterly oil spill response training undertaken by the contractor for all its vessels. During the project itself, no on-site refueling will be required for any of the vessels, reducing the risk of fuel spillage.

With these plans in place, the Commission finds that the proposed project would provide protection against the spillage of crude oil, gas, petroleum products, or hazardous substances, and effective containment and cleanup facilities and procedures for accidental spills that do occur, and is therefore consistent with Coastal Act Section 30232.

F. COMMERCIAL AND RECREATIONAL FISHING

Coastal Act Section 30234.5 states:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Commercial fishing is an important component of the regional economy in San Diego and Orange Counties. The proposed project is located in an area used for commercial fishing, falling within California Department of Fish and Wildlife (CDFW) Fish Block 756 and encompassing areas designated as Essential Fish Habitat (EFH) for the Pacific Coast Groundfish and Coastal Pelagic Species Fishery Management Plans under the federal Magnuson-Stevens Act. The highest value fisheries in Fish Block 756 are the lobster, crab, mackerel, prawn, sardine and sea urchin fisheries. In the immediate project vicinity, the lobster fishery is by far the most important; the offshore area surrounding the Unit 1 conduits is commonly used by lobster fishermen to set traps and harvest lobster species known to inhabit the hard-substrate benthic

habitats at the site. Lobster season off the San Diego County coastline extends from October through March, with the greater part of the catch historically occurring during the fall months. The project vicinity is also used occasionally by commercial fishermen targeting other species (e.g., sea urchins, finfish), as well as recreational fishermen.

The proposed project has the potential to adversely affect commercial and recreational fishing by (a) directly harming fished species during project operations; (b) damaging or altering the habitats (e.g., hard- or soft-bottom seafloor, kelp forest, surfgrass beds) that sustain fished species; and (c) precluding the use of an established fishing area for the duration of the project. While the area that would be closed to fishing as a result of the proposed project is small relative to the total area available for fishing along the San Diego County coastline, the exclusion within this area would necessarily be total while the project is occurring, in order to maintain a safe working environment. Potential adverse impacts to fish species and their habitats are discussed in detail in the marine resources section, and will be avoided and/or minimized by **Special Conditions 1 – 3**, which prohibit the filling or damaging of hard substrate habitats and incorporate into the permit measures to minimize turbidity and the disturbance to soft-bottom habitats. In order to address the potential for the project to restrict access to prime lobster grounds, SCE has proposed to conduct project activities between the dates of July 15 and September 28, 2014, completing the project prior to the beginning of the commercial lobster season. **Special Condition 4** requires SCE to seek a CDP amendment for any modification of or deviation from this project schedule, and limits the closure of open water areas during project activities to the minimum necessary to maintain the safety of project personnel and the public. Combined with the proposed project timing limitation, this condition ensures that the project will not result in any curtailment of the commercial lobster fishery, and limits the extent and duration of any interference with other commercial and recreational fisheries in the project area.

With these measures and special conditions in place, the Commission finds that commercial and recreational fishing activities will be protected in accordance with Coastal Act Section 30234.5.

G. PUBLIC ACCESS, RECREATION AND VISUAL RESOURCES

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30211 states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Coastal Act Section 30220 states:

> *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Coastal Act Section 30224 states, in relevant part:

> *Increased recreational boating use of coastal waters shall be encouraged . . .*

Section 30251 of the Coastal Act states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.*

The work proposed as a part of this project would take place largely underwater, up to 3,200 feet offshore, with no project activities occurring on land at SONGS or along the beach. Thus, the project will not adversely affect the public's right of access to the sea or impair any shoreline recreational opportunities or amenities. The underwater dismantling of the vertical conduit structures will require temporarily restricting access to the project site, essentially closing certain offshore areas to recreational boaters, fishermen, and divers for approximately two and a half months (July 15 – September 28) in the summer. **Special Condition 4** requires SCE to: (a) submit for Commission review any changes to the proposed project schedule; (b) limit the closure of open water areas to the minimum necessary to maintain the safety of project personnel and the public; (c) provide public notification of project activities in the offshore area per U.S. Coast Guard procedures; and (d) ensure that all project vessels and offshore project activities (such as diving operations) are clearly marked and demarcated at the sea surface. This condition of approval will ensure that construction associated with the proposed project does not significantly interfere with public access to the ocean, impede water-oriented recreational activities, or discourage recreational boating use of coastal waters.

The proposed abandonment of the conduit pipes would leave these structures buried in place beneath the seafloor and the beach area fronting the SONGS seawall. At present, the conduits are buried 13 – 14 feet below the mean low low water (MLLW) line, and 13- 20 feet beneath the sand surface at the shoreline, and do not present a barrier to public access. Since their installation in the mid-1960s, the trend has been toward sediment accumulation, rather than scouring, around the pipes, leading SCE to conclude that future exposure of the pipes and adverse impacts to public access are unlikely. While the possibility remains that future conditions, including sea level rise or extreme storms, could result in enough scouring to expose the conduit pipes, the position of the pipes below MLLW ensures that any such exposure would be subtidal. In other words, the amount of scouring necessary to unearth the conduits would also result in the complete removal of the beach. Thus, staff concludes that the proposed in-place abandonment of the conduit pipes will not interfere with public access or recreational opportunities along the shoreline.

The vessels and equipment (e.g., crane barge, support vessels) associated with this project will be visible from and along the shoreline, including from San Onofre State Beach and the public walkway fronting the SONGS seawall. However, any impacts to the scenic and visual qualities of the coastal areas will be temporary – lasting a maximum of three months, and with the exception of the crane barge *D. B. Valhalla,* will consist mostly of boats similar to those routinely sighted offshore the southern California coast. The *Valhalla* itself will be anchored at a fixed location approximately 3000 feet offshore, and will thus represent a fairly minor disruption of the natural view. The temporary visual impacts during project implementation are expected to be minimal and subordinate to existing scenic values, and no trace of the project will be visible from the shoreline upon completion.

Based on these considerations, the Commission concludes that the proposed project would not result in adverse impacts to public access, recreation or visual resources and is consistent with Sections 30210, 30211, 30220, 30224 and 30251 of the Coastal Act.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed development has been conditioned in order to be found consistent with the Coastal Act's Chapter 3 policies. Mitigation measures, including conditions addressing fill of open coastal waters, biological resources, water quality, commercial and recreational fishing and public access and recreation, will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

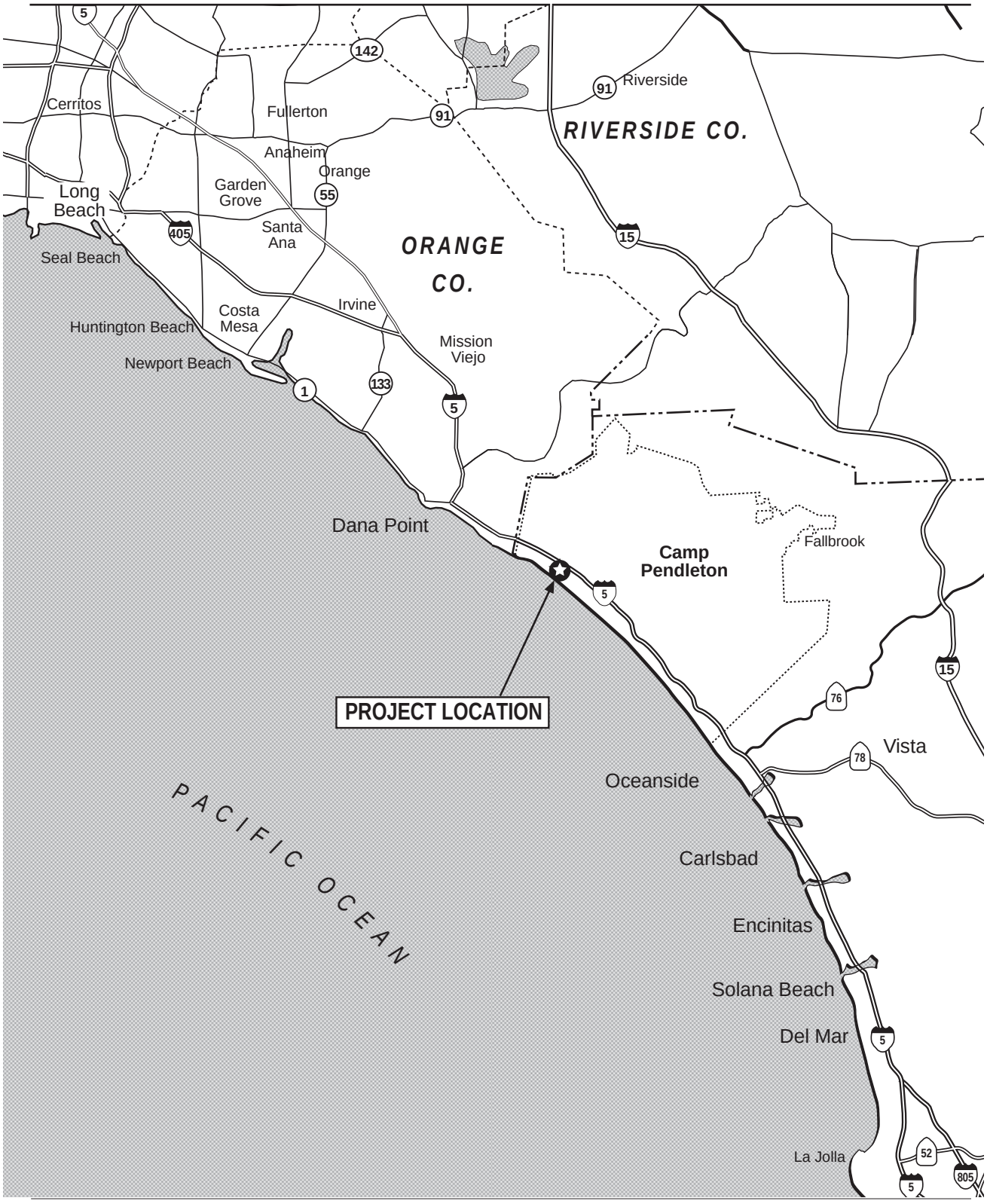
APPENDIX A: SUBSTANTIVE FILE DOCUMENTS

Coastal Development Permit Application Materials, including:

- Southern California Edison San Onofre Nuclear Generating Station Unit 1 MAPS and VCTS Decommissioning Project Work Plan, Manson Construction Co., April 2014.
- San Onofre Nuclear Generating Station Unit 1 Decommissioning: Subtidal Marine Biological Surveys, MBC Applied Environmental Sciences, January 25, 2013.
- SCE Turbidity Monitoring Plan, March 29, 2013.
- Subtidal Survey of Anchoring Sites Proposed for the Decommissioning of the San Onofre Nuclear Generating Station Unit 1 Intake and Discharge Conduits (Technical Memo), MBC Applied Environmental Sciences, April 25, 2014.
- Derrick Barge Valhalla Shipboard Oil Pollution Emergency Plan, 3rd Annual Review, April 19, 2013.
- Oil Spill Response Procedure, Manson Construction Co., September 9, 2013 revision.
- Correspondence from SCE, including:
  - 5/5/2014 letter from Kim Anthony;
  - 5/29/2014 e-mail message from Kim Anthony;
  - 5/30/2014 e-mail messages from Kim Anthony;
  - 6/11/2014 e-mail messages from Kim Anthony;
  - 6/17/2014 e-mail message from Kim Anthony;
  - 6/18/2014 e-mail message from Kim Anthony.

Other Documents:

- Disposition of Offshore Cooling Water Conduits, SONGS Unit 1 – Draft Environmental Impact Report (SCH #2004061092), California State Lands Commission, February 2005.
- Disposition of Offshore Cooling Water Conduits, SONGS Unit 1 – Final Environmental Impact Report (SCH #2004061092), California State Lands Commission, June 2005.



NORTH

No Scale

Source: Draft EIR

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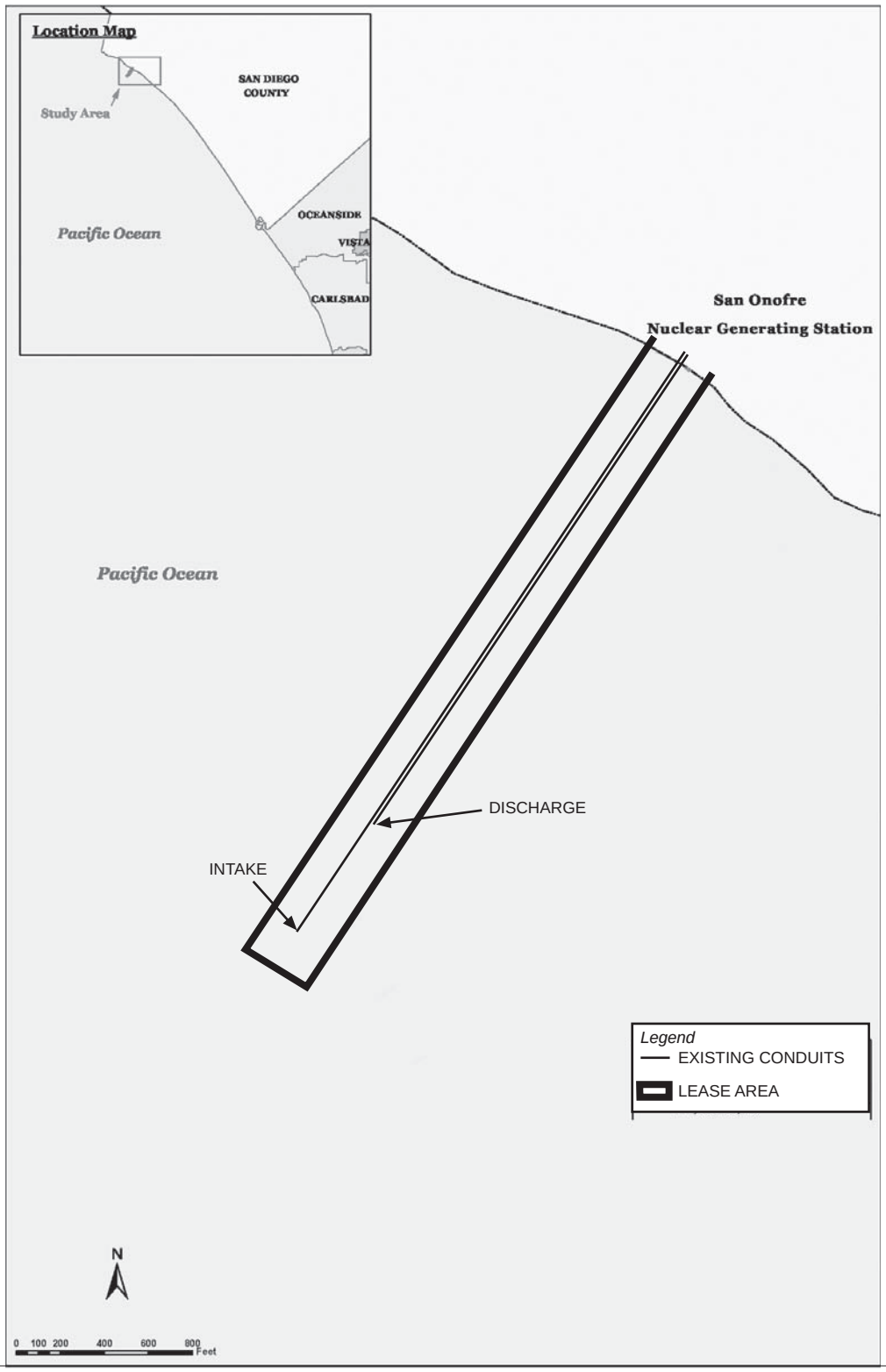

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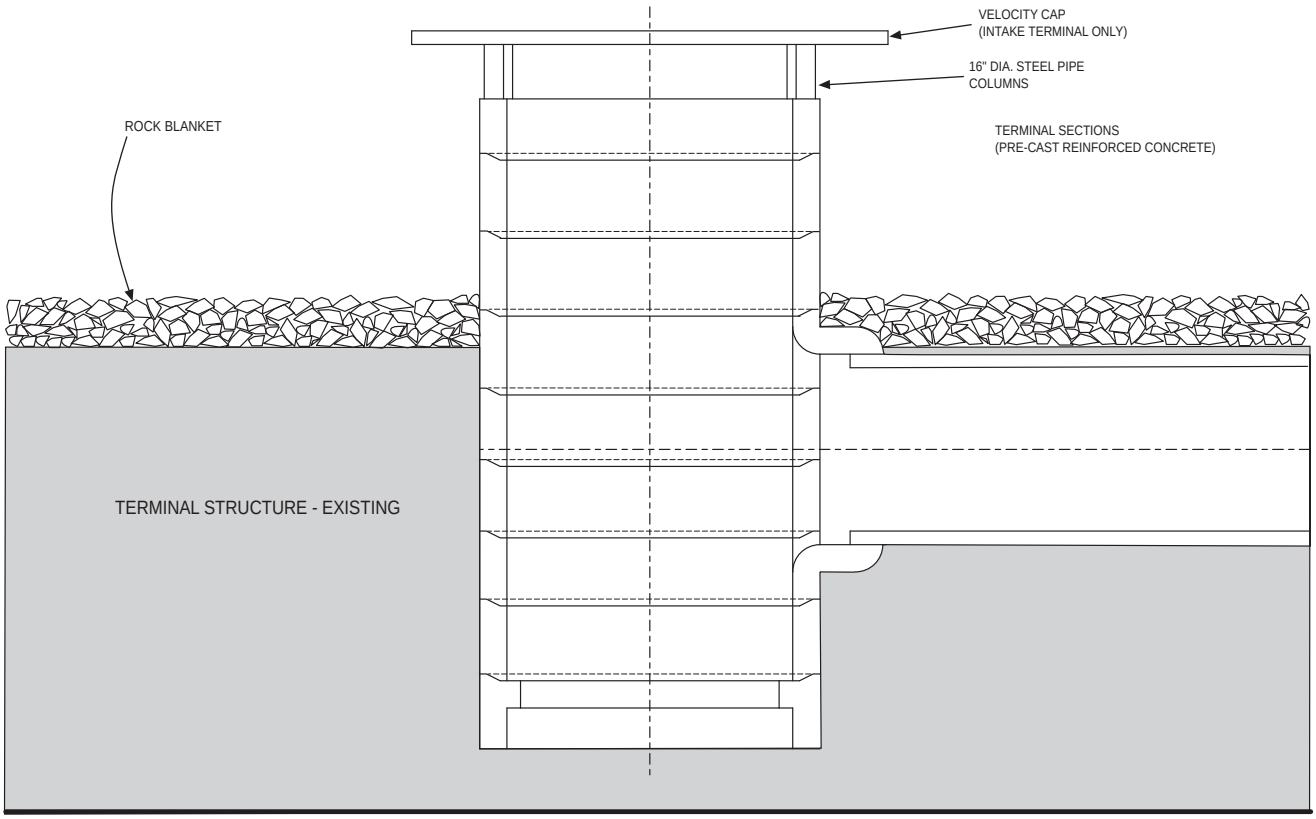
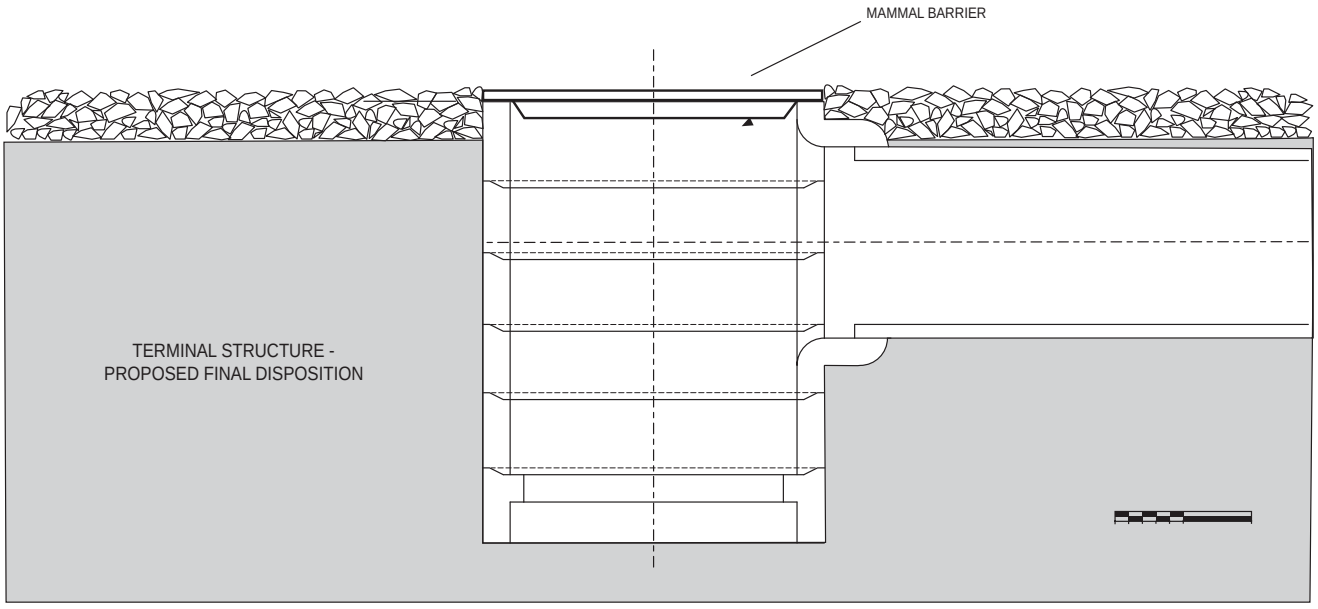
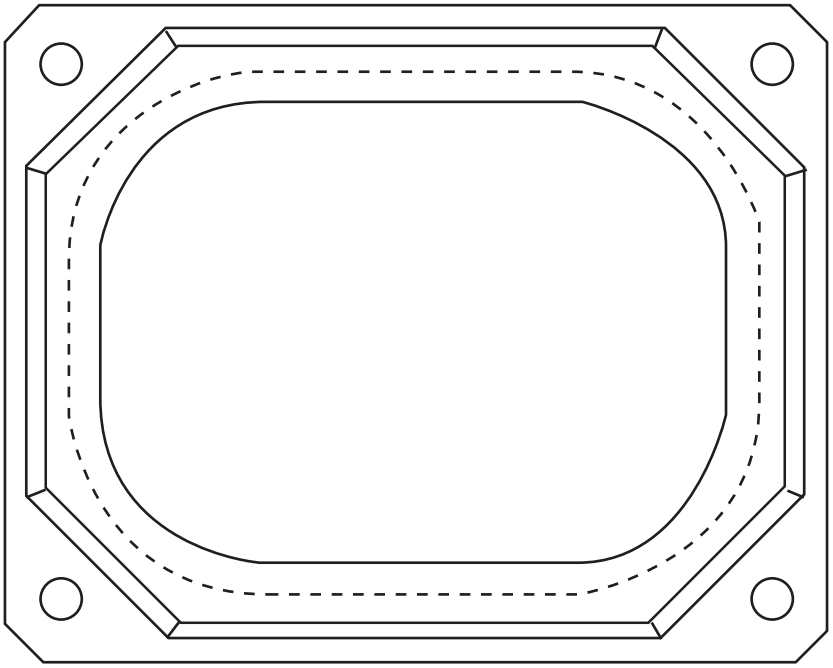
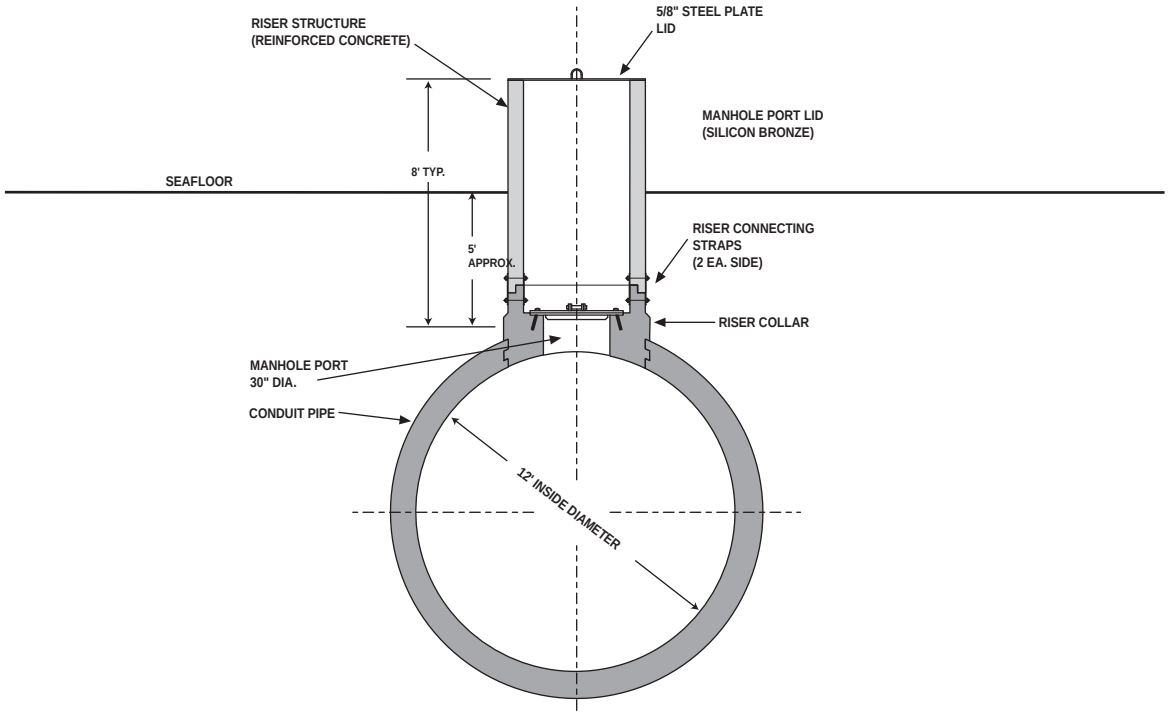




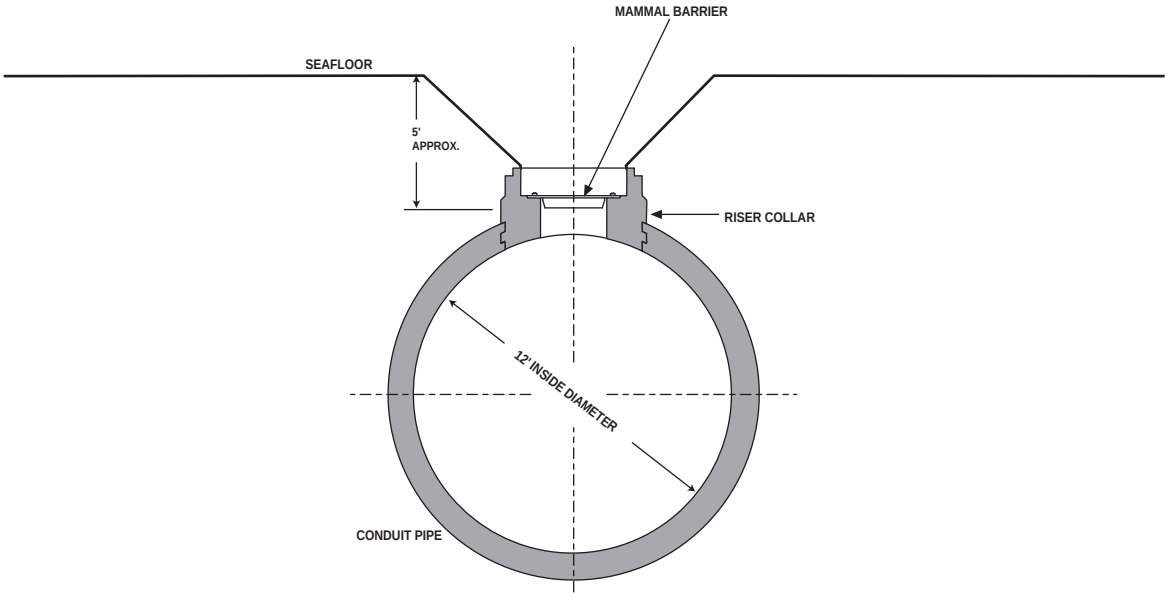
Cross Sections of Intake Terminal Structure
(Discharge Structure Identical Except for Velocity Cap)



Plan View of Terminal Structure without Velocity Cap



SECTIONAL VIEW
TYPICAL EXISTING RISER STRUCTURE



SECTIONAL VIEW
TYPICAL RISER STRUCTURE FINAL DISPOSITION

Manhole Risers

April 25, 2014

MBC

Ms. Kim Anthony
Southern California Edison
Corporate Environmental, Health and Safety
1218 South 5th Ave.
Monrovia, CA 91016

Technical Memo: Subtidal Survey of Anchoring Sites Proposed for the Decommissioning of the San Onofre Nuclear Generating Station Unit 1 Intake and Discharge Conduits.

Dear Ms. Anthony:

Biologist-divers completed the subtidal survey of all five proposed anchoring sites on 21 April 2014. The survey methodology is described below, and habitat characterizations for each proposed anchoring site are also provided.

Survey Methodology
GPS coordinates for the center of each anchor site are presented in Table 1, and they represent the converted values from the Easting and Northing coordinates provided by Manson (construction contractor). Circle searches were conducted by teams of two divers at each proposed anchoring site. Specific attention was given to identifying the presence of rocky reefs, sand dollar beds (*Dendraster* sp.), eelgrass (*Zostera marina*), surfgrass (*Phyllospadix* sp.), giant kelp (*Macrocystis pyrifera*), and habitat-dependent protected marine species (e.g. abalone or Garibaldi) within the areas surrounding each proposed anchoring sites.

Survey methods consisted of a series of incrementally increasing diameter circles at each site beginning at 5 m and continuing at 10 m, 15 m, 20 m, 25 m, and 30 m. A tape measure extended 31 m from the proposed anchor location site served as a visible cue when each circle was completed. This resulted in approximately 3,000 m^2 surveyed at each proposed anchoring site.

Table 1. Geographic location for each proposed anchoring site after conversion to latitude and longitude from the original Easting and Northing coordinates. Diving depths (feet) are presented but are not adjusted for swell height.

Station	Easting x	Northing y	Longitude		Latitude		Diving Depth
A-1	6160764.009	2079234.010	-117°	33.786	33°	21.948	21'
A-2	6161737.431	2078627.986	-117°	33.594	33°	21.846	21'
A-3	6158895.671	2077213.040	-117°	34.146	33°	21.606	37'
A-4	6160630.054	2076086.679	-117°	33.804	33°	21.426	38'
A-5	6159616.921	2076425.143	-117°	34.002	33°	21.480	37'

Proposed Anchoring Site Characterizations
Station A-1: Small (approximately 150 m^2), low-relief rock reef with large field of sand adjacent at a distance of approximately 30.5 m west of the current position. Relocation to this adjacent sand field can be made with no impacts to habitat. No submerged aquatic vegetation, sand dollars, or protected species were observed at this site.

Station A-2: Ninety-nine percent of the seafloor was covered in sand with a small aggregation of small (<0.5 m diameter) rocks occurring 15 m away from the center coordinates. The site sits approximately 40 m northwest of the fish return system discharge. Sandy habitat available offshore of current position if moving the anchor site is desirable. The anchoring site can be safely moved 30.5 m offshore and remain in sandy habitat. No submerged aquatic vegetation, sand dollars, or protected species were observed at this site.

Station A-3: One hundred percent of the seafloor was sand with no hard substrate encountered during the transects. No submerged aquatic vegetation, sand dollars, or protected species were observed at this site.

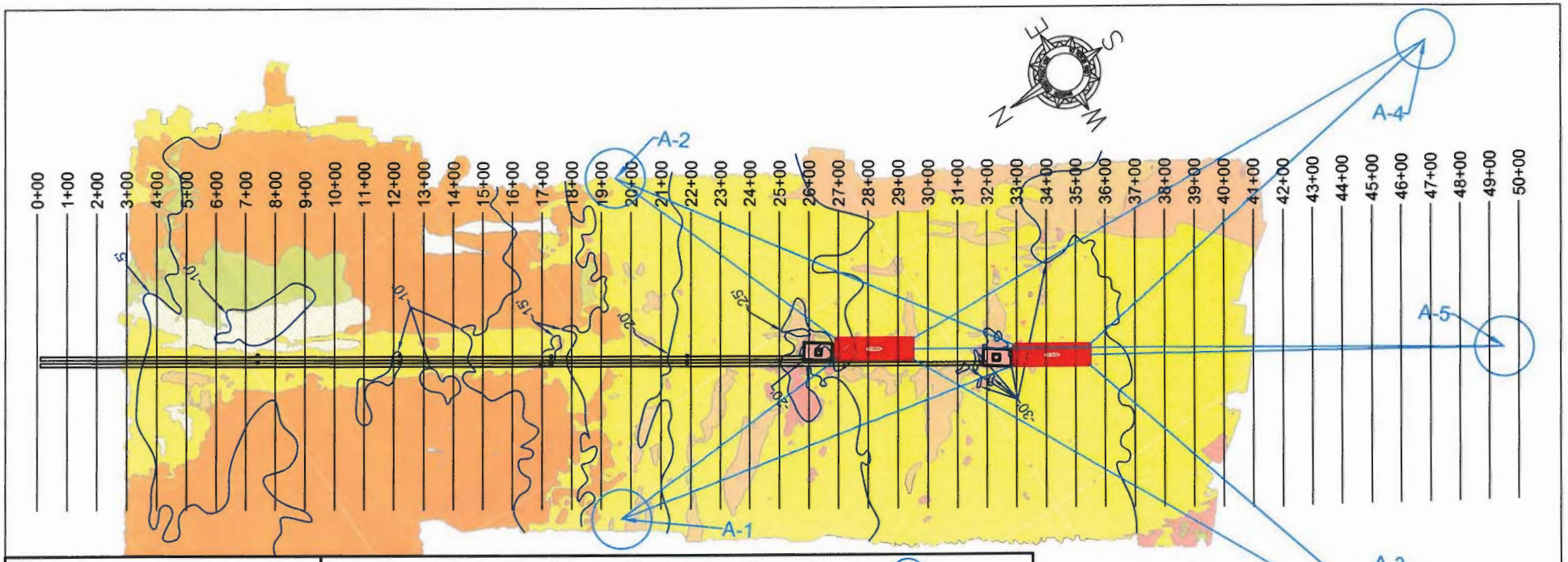
Station A-4: Nearly 100% of the seafloor was sand with two boulders (>0.5 m in diameter) encountered during the survey. No submerged aquatic vegetation, sand dollars, or protected species were observed at this site.

Station A-5: The seafloor was a mixture of sand (60%) and boulders (40% or approximately 1,200 m^2) with giant sea palm (*Pterogophera* sp.), feather boa kelp (*Egregia menziesii*), and individual giant kelp plants (*Macrocystis pyrifera*) observed floating with their holdfasts raising the attached rock(s) above the seafloor. No other submerged aquatic vegetation, sand dollars, or protected species were observed at this site.

Respectfully,

MBC *Applied Environmental Sciences*

Eric Miller
Senior Scientist



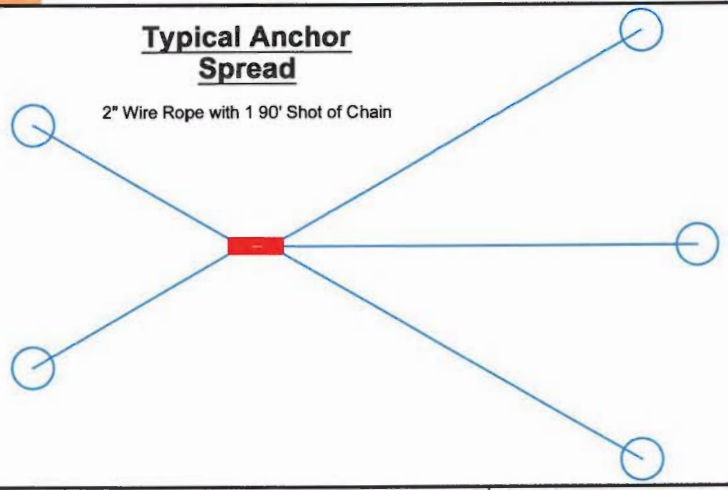
Legend

Seabed Features

- Rock or Rock Outcrop
- Rock or Rock Outcrop with Localized Sediment Ponds
- Coarse-Grained Sediment and Scattered Rocks
- Coarser-Grained Sediment
- Finer-Grained Sediments and Scattered Rock s
- Finer-Grained Sediments
- Sand Waves
- No Data
- Linear Feature
- Isolated Rock
- Conduit with Conduit Tower
- Manhole

Typical Anchor Spread

2" Wire Rope with 1 90' Shot of Chain



Anchor Position Table		
Point Name	NAD83 CA Zone 6	
	X - Easting	Y - Northing
A-1	6160764.009	2079234.010
A-2	6161737.431	2078627.986
A-3	6158895.671	2077213.040
A-4	6160630.054	2076086.679
A-5	6159616.921	2076425.143

NOT TO SCALE

SONGS Outfall Decommissioning

Date Drawn: 14/04/09
by MG

Anchor Spread Plan

Notes

NOT TO BE REFERENCED FOR NAVIGATIONAL PURPOSES

MANSON CONSTRUCTION CO.

Sheet 1 of 1

Exhibit 3
Application No. E-13-004
Southern California Edison
Anchoring Survey
Page 3 of 3

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Turbidity Monitoring Plan

Introduction

The re-deposition of sediments sidecast from the rip-rap blanket surrounding each vertical conduit terminal structures (VCTS), and other construction activities associated with the removal and decomissioning of VCTS and manhole access port structures (MAPS), and installation of barriers for large marine organisms may result in increased turbidity in the water column in the areas of the project site under active disturbance. Construction and dredging activities will be monitored to ensure construction activities do not cause turbidity plumes in excess of natural turbidity as compared to nearby, nearshore areas that did not receive a placement of sediments.

Monitoring

1. Surface turbidity shall be monitored by a qualified observer (hereafter, Turbidity Monitor) from a suitable vantage point, during each day of dredging and construction.
2. The observer shall maintain a daily log of project area conditions throughout all dredging and construction activities.
    a. The log shall include:
        i. Observer's name, company, and professional title,
        ii. Dates of activity,
        iii. A general description of the on-going construction activities,
        iv. A description of the prevailing environmental conditions in the area (sea state, wind, cloud cover, secchi disc depth,
        v. Presence of plume, as applicable, and
        vi. Plume location (coordinates) and approximate surface extent.
    b. The log shall be available to the San Diego Regional Water Quality Control Board (RWQCB)upon request.

3. The Turbidity Monitor shall photo-document all dredging and construction activities as a part of the daily log.
    a. Photographs shall be taken from fixed photo-point locations prior to the start of dredging or construction activities;
    b. Photographs shall be taken from fixed photo-point locations periodically throughout each day during dredging or construction activities;
        i. A minimum of 3 photographs should be taken per day (i.e., prior to start of work, mid-day, and end of work).
        ii. Additional photographs should be taken as necessary to document any increased turbidity is observed.
    c. Photo-documentation will become part of the daily log recorded.

4. If the Turbidity Monitor observes unacceptable conditions, they will notify the contractor, Project Biologist, and begin steps for Reporting or Remediation, if required.

Reporting

1. If visual monitoring indicates surface turbidity greater then ambient one-quarter mile from the discharge site at any time for two (2) consecutive days, then:
    a. The Turbidity Monitor shall immediately notify the RWQCB, U.S. Army Corps of Engineers (USACE), and the California Coastal Commission (CCC).
    b. The discharger shall comply with any measures identified by the RWQCB, in consultation with other responsible agencies as appropriate, to mitigate project-related turbidity, including modifying or halting dredging activity.
    c. Photographic documentation and GPS coordinate locations of each photograph shall be recorded for any surface turbidity plumes observed.

2. If surface turbidity persists on the third day, the monitor shall commence daily water clarity monitoring and reporting to the RWQCB, USACE, and CCC.

    a. Testing shall consist of measuring transmission of light through the water using a transmissometer. Daily measurements shall continue until no project-related turbidity is detectable (i.e., until offshore and downcoast reading return to ambient).

    b. Turbidity measurements shall be conducted to document the areal extent and concentration of the turbidity plume at the time of day it is most developed. Measurements shall be taken at mid-depth in the water column and each location shall be identified with GPS coordinates. A minimum four transmissivity measurements shall be taken:
        i. As close as practicable to the work area (i.e., intake/discharge structures, dredging location, or area affected),
        ii. One-quarter mile upcoast of the work area,
        iii. One-quarter mile offshore from the work area, and
        iv. One-quarter mile downcoast of the work area.

    These sampling protocols may be modified at the RWQCB direction or with RWQCB written approval.

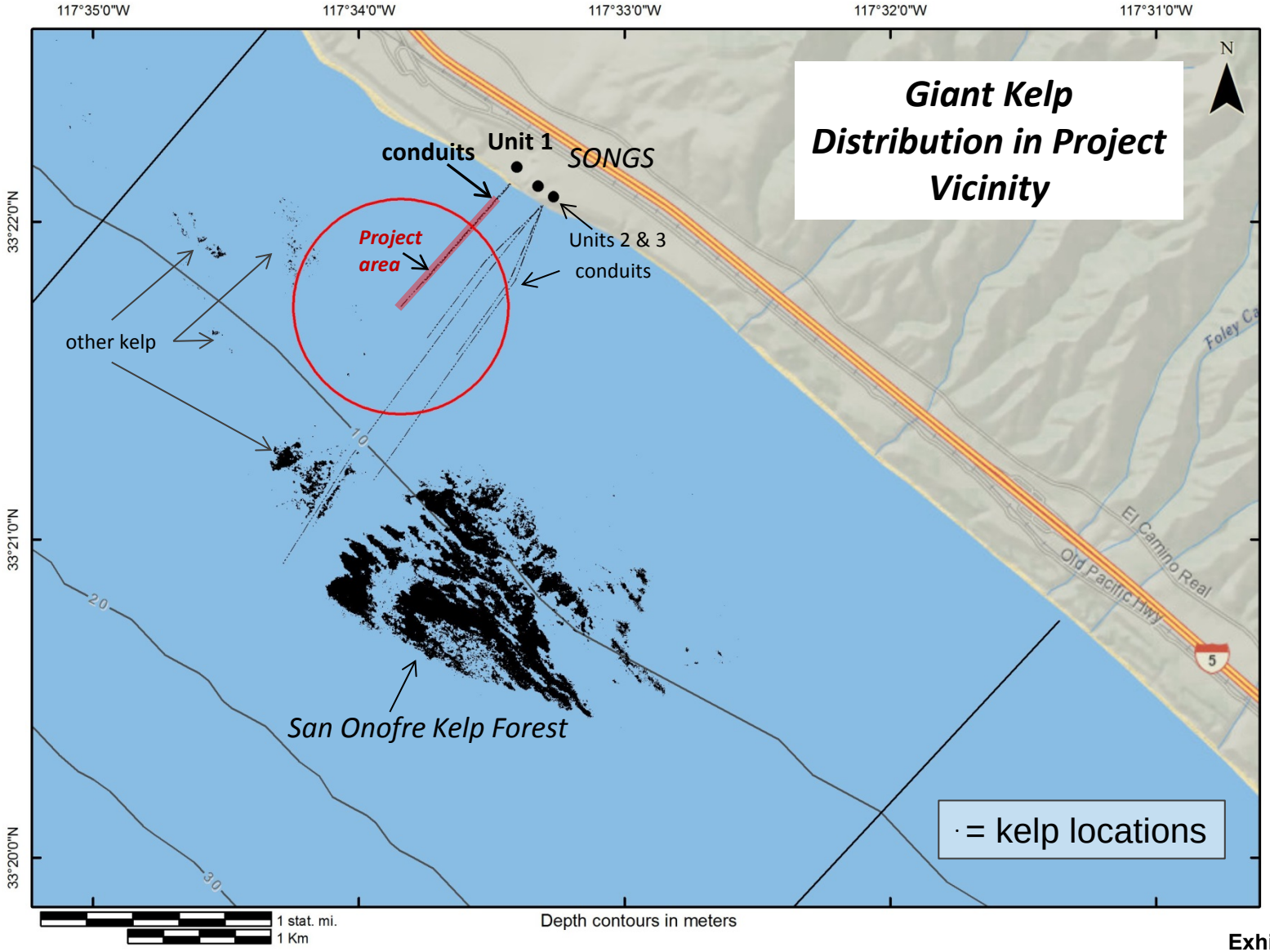
3. If turbidity is greater than ambient conditions one-quarter mile from the work area (either offshore, upcoast or downcoast) for five (5) consecutive days, the discharge shall be halted or modified to reduce turbidity.

Remediation

If excessive amount of turbidity is observed the contractor shall slow the pumping operation back to a level where turbidity is limited to the local discharge area. A noticeable plume on the surface waters shall dictate that dredging operations will be halted until such time when underwater conditions allow the operation to commence. Underwater observations of plume size, if any, will be performed at the start of the operations and a determination shall be made at that time whether additional measures are needed to slow or capture the dredge material in the following ways:

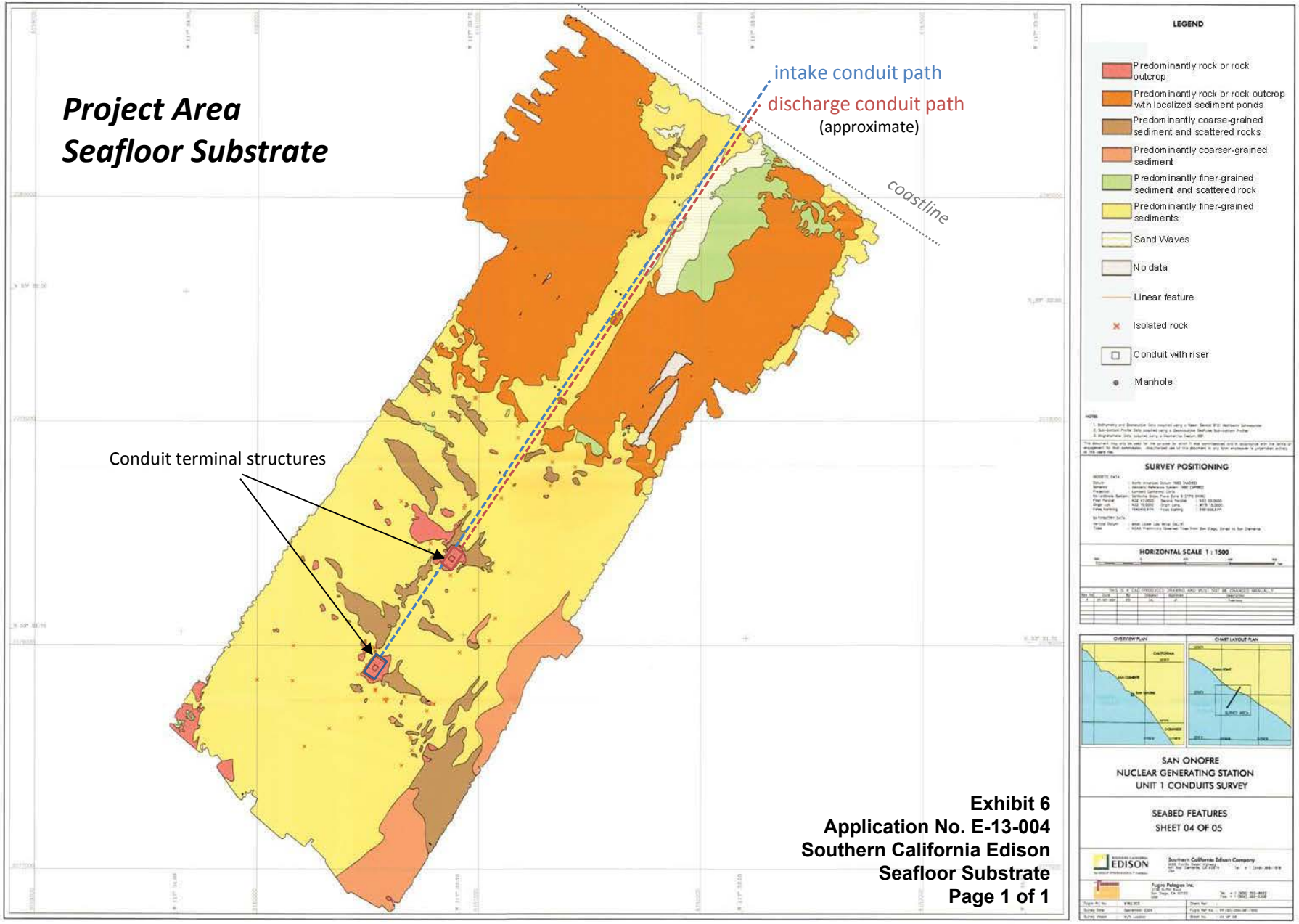
1. The contractor may elect to install an area of silt fence placed in the discharge location and secure this “Compound” to the sea floor using 4-6’ wood stakes. The effluent shall be pumped into this “compound” and be contained by the silt fenced “compound” while dredging operations are underway.

2. The contractor may elect to pump all dredge spoils in to drainage filter bags at least 8’ x 10’ in size. When bag is pumped full, divers shall cut open the bag and remove the filter bag from the site.



(*Source*: Southern California Edison)

Exhibit 5
Application No. E-13-004
Southern California Edison
Kelp Distribution
Page 1 of 1



Source: Southern California Edison