

1 **EXECUTIVE SUMMARY**

3 **PROJECT OBJECTIVES, PURPOSE AND NEED**

4 Southern California Edison (Applicant) is the owner and operator of the San Onofre
5 Nuclear Generating Station (SONGS). Currently, all onshore components of SONGS
6 Unit 1 at Marine Corps Base (MCB) Camp Pendleton are being decommissioned.
7 Under an existing Agreement with the California State Lands Commission (CSLC),
8 which allows the Applicant to use the offshore area for cooling water conduits, the
9 Applicant is required to remove the offshore conduits in their entirety once the power
10 plant has been retired. This Environmental Impact Report (EIR) has been prepared to
11 evaluate the potential environmental effects of the proposed disposition of the offshore
12 cooling water conduits at SONGS Unit 1 (Proposed Project). The CSLC is the Lead
13 Agency under the California Environmental Quality Act (CEQA), while the responsible
14 agencies are other State and local agencies with discretionary approval over the
15 Proposed Project.

16 The Applicant has defined the following project objectives for the Proposed Project:
17 remove the vertical structures at the terminus of the offshore cooling water conduits to
18 eliminate their risk as navigation hazards; retain the buried conduits in a safe
19 configuration that would prevent entry by humans and marine mammals; install a plug of
20 concrete in the onshore portions of the conduits; and terminate the Lease Agreement
21 and enter into a new Lease Termination/Abandonment Agreement.

22 **DESCRIPTION OF PROPOSED PROJECT**

23 The SONGS Unit 1 intake and discharge conduits run parallel to each other, extending
24 horizontally into the ocean environment from the decommissioned nuclear power plant.
25 Vertical terminal structures are located at the offshore terminus of each conduit in
26 approximately 25 to 30 feet (9.6 to 9.1 m) of water. Marker buoys are maintained at
27 each vertical terminal structure to mark the potential navigational obstacles to boaters.
28 In addition to the terminal structures, the conduits include nine manhole risers spaced
29 every 500 feet (152 m). The Proposed Project would remove the terminal structures,
30 the marker buoys, and the manhole risers and would plug the onshore portions of the
31 conduits. The conduits themselves would remain buried under the seafloor beneath
32 approximately 5 feet (1.5 m) of sand.

33 The terminal structures would be removed using a crane barge, a deck barge, and a
34 clamshell dredge that would be mobilized from the Port of Long Beach. The nearshore
35 manhole risers would be removed utilizing a skid-based surf sled vehicle connected to

1 the offshore crane barge and to an onshore pull winch on the beach. All materials
2 removed from the conduits would be placed by the crane on the deck barge and
3 transported to port for recycling.

4 Divers would plug the onshore portion of the conduits with concrete. The concrete
5 would be pumped into the conduits from existing manholes on the SONGS Unit 1 plant
6 site.

7 **ALTERNATIVES TO PROPOSED PROJECT**

8 Alternatives to the Proposed Project were primarily selected based on a review of the
9 Conceptual Engineering Evaluation Report prepared in 2003 for the project by Ben C.
10 Gerwick, Inc. on behalf of the Applicant. Several alternatives were evaluated and
11 eliminated from full evaluation, and five alternatives to the Proposed Project, including
12 the No Project Alternative, were fully evaluated in this EIR. These alternatives include
13 the Complete Removal Alternative, the Removal of Nearshore Portions of Conduits
14 Alternative, the Crush Conduits and Remove Terminal Structures Alternative, and the
15 Artificial Reef Alternative. All build alternatives would involve offshore disposition
16 activities, while all but the Artificial Reef Alternative would involve onshore disposition
17 activities and a conduit plug.

18 Under the No Project Alternative, the existing offshore structures would be retained in
19 place. The terminal structures would remain as navigational obstacles, marked by
20 buoys, and the terms of the agreement with the CSLC would not be met. The Applicant
21 would retain responsibility for maintenance of the offshore structures.

22 **ENVIRONMENTAL IMPACTS AND MITIGATION**

23 This EIR includes a detailed evaluation of the potentially significant environmental
24 effects that could result from implementation of the Proposed Project, including marine
25 biological resources; commercial fishing; marine water quality; recreation; air quality;
26 transportation; geology and soils; noise; hazards; cultural resources; and environmental
27 justice. Table ES-1 presents a summary of impacts and mitigation measures for the
28 Proposed Project. This table is presented by issue area. Within each issue area, each
29 impact is described and classified, and recommended mitigation is listed. All significant
30 adverse impacts that remain significant after mitigation (identified as Class I in this
31 document) are presented first, followed by significant adverse impacts that can be
32 eliminated or reduced below an issue's significance criteria (Class II). Lastly, adverse
33 impacts that do not meet or exceed an issue's significance criteria (Class III) are listed,
34 followed by beneficial impacts (Class IV).

1 **COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES**

2 As shown in Table ES-1, the potential environmental effects of the Proposed Project
3 can be mitigated to below a level of significance. Nevertheless, several other
4 alternatives were included in the EIR analysis even though they have the potential to
5 result in greater environmental effects than the Proposed Project. These alternatives
6 have been included for detailed analysis because they may comply more fully with the
7 original Agreement between the CSLC and the Applicant than does the Proposed
8 Project. During the review of the Application, the CSLC may require the Applicant to
9 remove offshore components in strict conformance with the Agreement. Therefore, the
10 Complete Removal Alternative, the Nearshore Removal Alternative, and the Crush
11 Conduits Alternative have been retained in the EIR to analyze the potential
12 environmental effects of these alternatives.

13 The CEQA Guidelines (Section 15126.6 (d)) require that an EIR include sufficient
14 information about each alternative to allow meaningful evaluation, analysis, and
15 comparison with the Proposed Project. A matrix displaying the major characteristics
16 and significant environmental effects of each alternative may be used to summarize the
17 comparison. Table ES-2 provides a comparison of the Proposed Project with each of
18 the alternatives evaluated in this document, including the No Project Alternative.

19 **ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

20 The State CEQA Guidelines [section 15126.6 (d)] require that an EIR include sufficient
21 information about each alternative to allow meaningful evaluation, analysis, and
22 comparison with the Proposed Project. The Guidelines [Section 15126.6 (e)(2)] further
23 state, in part, that "*If the environmentally superior alternative is the "No Project"*
24 *alternative*, the EIR shall also identify an environmentally superior alternative among the
25 other alternatives." (Emphasis added).

26 For this project, the No Project Alternative would avoid all environmental effects and
27 would be the Environmentally Superior Alternative. In addition, the Artificial Reef
28 Alternative would be the Environmentally Superior Alternative among the other
29 alternatives because it would accomplish the project objectives while avoiding and/or
30 lessening the environmental effects of the Proposed Project. The Artificial Reef
31 Alternative would not require dredging or beach disturbance; it would have a shorter
32 duration than any of the other build alternatives; it would provide a long-term benefit for
33 commercial fishing by creating an artificial reef; it would remove the marker buoys that
34 are currently obstacles to marine transportation and fishing; and it would retain the
35 conduits in a state that would be suitable for future reuse.

1 **Table ES.1. Summary of Environmental Impacts for the Proposed Project**

- 2 Impact Class I = Significant adverse impact that remains significant after mitigation.
 3 II = Significant adverse impact that can be eliminated or reduced below an issue's significance
 4 criteria.
 5 III = Adverse impact that does not meet or exceed an issue's significance criteria.
 6 IV = Beneficial impact.
 7

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
Section 4.1 – Marine Biological Resources			
BIO-1	Project activities could impact groundfish and pelagic Essential Fish Habitat by disturbing existing habitat from anchoring, excavation, and sedimentation.	II	WAT-1a. Use closed-cap dredge bucket. WAT-1b. Minimize sediment drop height to 10 feet (3 m) maximum. WAT-1c. Minimize spoil placement distance from excavation; create heightened spoil profile. WAT-1d. Minimize anchor dragging.
BIO-2	The Proposed Project could directly impact biologically significant habitats such as surfgrass beds and kelp forests by damaging the substrate, and increasing turbidity and sedimentation.	II	WAT-1a. Use closed-cap dredge bucket. WAT-1b. Minimize sediment drop height to 10 feet (3 m) maximum. WAT-1c. Minimize spoil placement distance from excavation; create heightened spoil profile. WAT-1d. Minimize anchor dragging.
BIO-3	Project activities could result in indirect impacts to sensitive habitat beyond the footprint of the Proposed Project.	II	WAT-1a. Use closed-cap dredge bucket. WAT-1b. Minimize sediment drop height to 10 feet (3 m) maximum. WAT-1c. Minimize spoil placement distance from excavation; create heightened spoil profile. WAT-1d. Minimize anchor dragging.
BIO-4	No impacts to habitat or populations of a rare, threatened, endangered, or species of concern are anticipated.	III	No mitigation required.
BIO-5	No impacts on marine mammals, sea turtles, or seabirds are anticipated.	III	No mitigation required.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
Section 4.2 – Commercial Fishing			
FSH-1	The Proposed Project would not result in significant loss of commercial species or their habitat.	III	No mitigation required.
FSH-2	The Proposed Project could substantially interfere with commercial fishing in the project area for more than 1 month during open fishing season(s) or preclude setting lobster or fish traps within a substantial area where it would otherwise be permitted.	II	FSH-2. Schedule offshore project activities to begin after the close of lobster season (the first Wednesday after March 15) and conclude 2 weeks prior to the opening of the subsequent lobster season (the first Wednesday in October).
FSH-3	No impacts resulting from toxic substance exposure are anticipated.	III	No mitigation required.
Section 4.3 – Marine Water Quality			
WAT-1	Turbidity impacts during project implementation would reduce water column light transmittance and clarity.	II	WAT-1a. Use closed-cap dredge bucket and surf sled vehicle. WAT-1b. Minimize sediment drop height to 10 feet (3 m) maximum. WAT-1c. Minimize spoil placement distance from excavation; create heightened spoil profile. WAT-1d. Minimize anchor dragging.
WAT-2	Uncontrolled releases of human-derived pollutants to the marine environment during project activities could impact local water quality and biota.	III	No mitigation required.
WAT-3	Construction impacts during project implementation could result in the release of seabed organics into the water column that would increase nutrients and reduce dissolved oxygen levels.	III	No mitigation required.
Section 4.4 – Recreation			
REC-1	Project activities could diminish the quality, result in the closure, or threaten the safety of onshore or nearshore recreational activities.	III	No mitigation required.
REC-2	Project activities could pose a safety hazard for recreational boaters.	III	No mitigation required. PM REC-2 U.S. Coast Guard Advisory Local Notice to Mariners.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
REC-3	Project activities could interfere with coastal recreational activities.	III	No mitigation required. PM REC-2 U.S. Coast Guard Advisory Local Notice to Mariners.
Section 4.5 –Air Quality			
AIR-1	The Proposed Project would not exceed SCAQMD's CEQA thresholds for emissions.	III	No mitigation required.
AIR-2	The Proposed Project would not exceed SDAPCD's air emissions thresholds established for the SDAB.	III	No mitigation required.
Section 4.6 – Transportation			
TRA-1	Project activities could create a short-term impacts to ground transportation in the project area.	III	No mitigation required.
TRA-2	Project activities could create a short-term hazard to waterborne navigation.	III	No mitigation required. PM REC-2. U.S. Coast Guard Advisory Local Notice to Mariners.
TRA-3	Project activities could disrupt ground traffic that would delay short-term normal movements.	III	No mitigation required.
TRA-4	Project activities could affect the short-term ease of maritime navigation or disrupt marine traffic causing a delay of normal movement.	III	No mitigation required.
Section 4.7 – Geology and Soils			
GEO-1	Dredging during project implementation would cause sedimentation effects in downcoast areas.	II	WAT-1a. Use closed-cap dredge bucket and SSV. WAT-1b. Minimize sediment drop height to 10 feet (3 m) maximum. WAT-1c. Minimize spoil placement distance from excavation; create heightened spoil profile. WAT-1d. Minimize anchor dragging.
GEO-2	Removal of conduits could lead to a loss of material available for beach replenishment or cause pieces of concrete to break off during project implementation and move onto the beach from wave action or ocean currents.	III	No mitigation required.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
Section 4.8 – Hazards			
HAZ-1	Project activities could expose people to potential hazards, including explosion, exposure to hazardous substances, and/or spills from marine vessels.	III	No mitigation required. PM REC-2. Notify Coast Guard of disposition activity details so project may be included on Local Notice to Mariners.
HAZ-2	Project activities could interfere with emergency response or evacuation plans.	III	No mitigation required. PM REC-2. Notify Coast Guard of disposition activity details so project may be included on Local Notice to Mariners.
HAZ-3	The area of the proposed project activities could be contaminated with nuclear waste or power generation related waste residue.	III	No mitigation required.
Section 4.9 – Noise			
NOI-1	Noise could exceed 75 dBA L _{eq} (hourly average) at any sensitive noise receptor.	III	No mitigation required.
NOI-2	The Proposed Project could generate noise levels that would be incompatible with designated land uses.	III	No mitigation required.
Section 4.10 Cultural Resources			
CUL-1	Project activities could damage, disrupt, or adversely affect a California Register of Historic Places (CRHR) property or diminish the quality of an important prehistoric or historic archaeological resource or a historical resource such that its integrity or eligibility for future CRHR listing would be diminished.	III	No mitigation required.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
Section 4.11 – Environmental Justice			
EJ-1	The Proposed Project would not have any disproportional or significant environmental, public health, or safety effects on minority populations or low-income populations.	III	No mitigation required.
EJ-2	The Proposed Project would not have any disproportional or significant employment or economic effects on minority populations or low-income populations.	III	No mitigation required.
EJ-3	The Proposed Project would not have any disproportional or significant effects on minority populations or low-income populations engaged in commercial fishing.	III	No mitigation required.

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1 **Table ES.2. Summary of Environmental Impacts for Proposed Project and Alternatives**

- 2 Impact Class I = Significant adverse impact that remains significant after mitigation.
 3 II = Significant adverse impact that can be eliminated or reduced below an issue's significance
 4 criteria.
 5 III = Adverse impact that does not meet or exceed an issue's significance criteria.
 6 IV = Beneficial impact.
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Impact No.	Impact Description	Proposed Project	Alt 1 Complete Removal	Alt 2 Nearshore Removal	Alt 3 Crush Conduits	Alt 4 Artificial Reef	No Project
Section 4.1 – Marine Biological Resources							
BIO-1	Project activities could impact groundfish and pelagic Essential Fish Habitat by disturbing existing habitat from anchoring, excavation, and sedimentation.	II	I	I	I	IV	III
BIO-2	The Proposed Project could directly impact biologically significant habitats such as surfgrass beds and kelp forests by damaging the substrate, and increasing turbidity and sedimentation.	II	I	I	I	IV	III
BIO-3	Project activities could result in indirect impacts to sensitive habitat beyond the footprint of the Proposed Project.	II	II	II	II	III	III
BIO-4	No impacts to habitat or populations of a rare, threatened, endangered, or species of concern are anticipated.	III	II	II	II	III	III
BIO-5	No impacts on marine mammals, sea turtles, or seabirds are anticipated.	III	III	III	III	III	III
Section 4.2 – Commercial Fishing							
FSH-1	The Proposed Project would not result in significant loss of commercial species or their habitat.	III	III	III	III	IV	III

Impact No.	Impact Description	Proposed Project	Alt 1 Complete Removal	Alt 2 Nearshore Removal	Alt 3 Crush Conduits	Alt 4 Artificial Reef	No Project
FSH-2	The Proposed Project could substantially interfere with commercial fishing in the disposition area for more than 1 month during open fishing season(s) or preclude setting lobster or fish traps within a substantial area where it would otherwise be permitted.	II	II	II	II	II	III
FSH-3	No impacts resulting from toxic substance exposure are anticipated.	III	III	III	III	III	III
Section 4.3 – Marine Water Quality							
WAT-1	Turbidity impacts during project implementation would reduce water column light transmittance and clarity.	II	II	II	II	III	III
WAT-2	Uncontrolled releases of human-derived pollutants to the marine environment during project activities could impact local water quality and biota.	III	III	III	III	III	III
WAT-3	Construction impacts during project implementation could result in the release of seabed organics into the water column that would increase nutrients and reduce dissolved oxygen levels.	III	III	III	III	III	III
Section 4.4 – Recreation							
REC-1	Project activities could diminish the quality, result in the closure, or threaten the safety of onshore or nearshore recreational activities.	III	I	II	II	III	III
REC-2	Project activities could pose a safety hazard for recreational boaters.	III	III	II/III	III	III	III
REC-3	Project activities could interfere with coastal recreational activities.	III	III	III	III	III	III
Section 4.5 – Air Quality							
AIR-1	The Proposed Project would not exceed SCAQMD's CEQA thresholds for emissions.	III	II	III	III	III	III
AIR-2	The Proposed Project would not exceed air emissions thresholds established for the SDAB.	III	II	III	III	III	III

Impact No.	Impact Description	Proposed Project	Alt 1 Complete Removal	Alt 2 Nearshore Removal	Alt 3 Crush Conduits	Alt 4 Artificial Reef	No Project
Section 4.6 – Transportation							
TRA-1	Project activities could create a short-term impacts to ground transportation in the project area..	III	I	II	II	III	III
TRA-2	Project activities could create a short-term hazard to waterborne navigation.	III	III	III	III	III	II
TRA-3	Project activities could disrupt ground traffic that would delay short-term normal movements.	III	III	III	III	III	III
TRA-4	Project activities could affect the short-term ease of maritime navigation or disrupt marine traffic causing a delay of normal movement.	III	III	III	III	III	II
Section 4.7 – Geology and Soils							
GEO-1	Dredging during project implementation would cause sedimentation effects in downcoast areas.	II	II	II	III	III	III
GEO-2	Removal of conduits could lead to a loss of material available for beach replenishment or cause pieces of concrete to break off during disposition and move onto the beach from wave action or ocean currents.	III	III	III	III	III	III
Section 4.8 – Hazards							
HAZ-1	Project activities could expose people to potential hazards, including explosion, exposure to hazardous substances, and/or spills from marine vessels.	III	III	III	III	III	II
HAZ-2	Project activities could interfere with emergency response or evacuation plans.	III	III	III	III	III	III
HAZ-3	The area of the proposed project activities could be contaminated with nuclear waste or power generation related waste residue.	III	III	III	III	III	III

Impact No.	Impact Description	Proposed Project	Alt 1 Complete Removal	Alt 2 Nearshore Removal	Alt 3 Crush Conduits	Alt 4 Artificial Reef	No Project
Section 4.9 – Noise							
NOI-1	Noise could exceed 75 dBA L_{eq} (hourly average) at any sensitive noise receptor.	III	III	III	III	III	III
NOI-2	The Proposed Project could generate noise levels that would be incompatible with designated land uses.	III	III	III	III	III	III
Section 4.10 – Cultural Resources							
CUL-1	Project activities could damage, disrupt, or adversely affect a CRHR property or diminish the quality of an important prehistoric or historic archaeological resource or a historical resource such that its integrity or eligibility for future CRHR listing would be diminished.	III	III	III	III	III	III
Section 4.11 – Environmental Justice							
EJ-1	The Proposed Project would not have any disproportional or significant environmental, public health, or safety effects on minority populations or low-income populations.	III	III	III	III	III	III
EJ-2	The Proposed Project would not have any disproportional or significant employment or economic effects on minority populations or low-income populations.	III	III	III	III	III	III
EJ-3	The Proposed Project would not have any disproportional or significant effects on minority populations or low-income populations engaged in commercial fishing.	III	III	III	III	III	III

1 KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

2 There are no known areas of controversy surrounding the Proposed Project. No
3 objections to the Proposed Project were raised at the public scoping meeting, and no
4 correspondence has been received challenging the project or its potential environmental
5 effects. Two regional water agencies have stated their potential interest in the future
6 reuse of the offshore conduits for a regional desalination facility on MCB Camp
7 Pendleton. The Proposed Project, the Artificial Reef Alternative and the No Project
8 Alternative would all retain the offshore conduits in a manner suitable for future reuse.
9 However, this EIR does not evaluate the desalination project as a reasonably
10 foreseeable project.

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