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9-19-0025 (SOUTHERN CALIFORNIA EDISON)

MARCH 7, 2019

EXHIBITS

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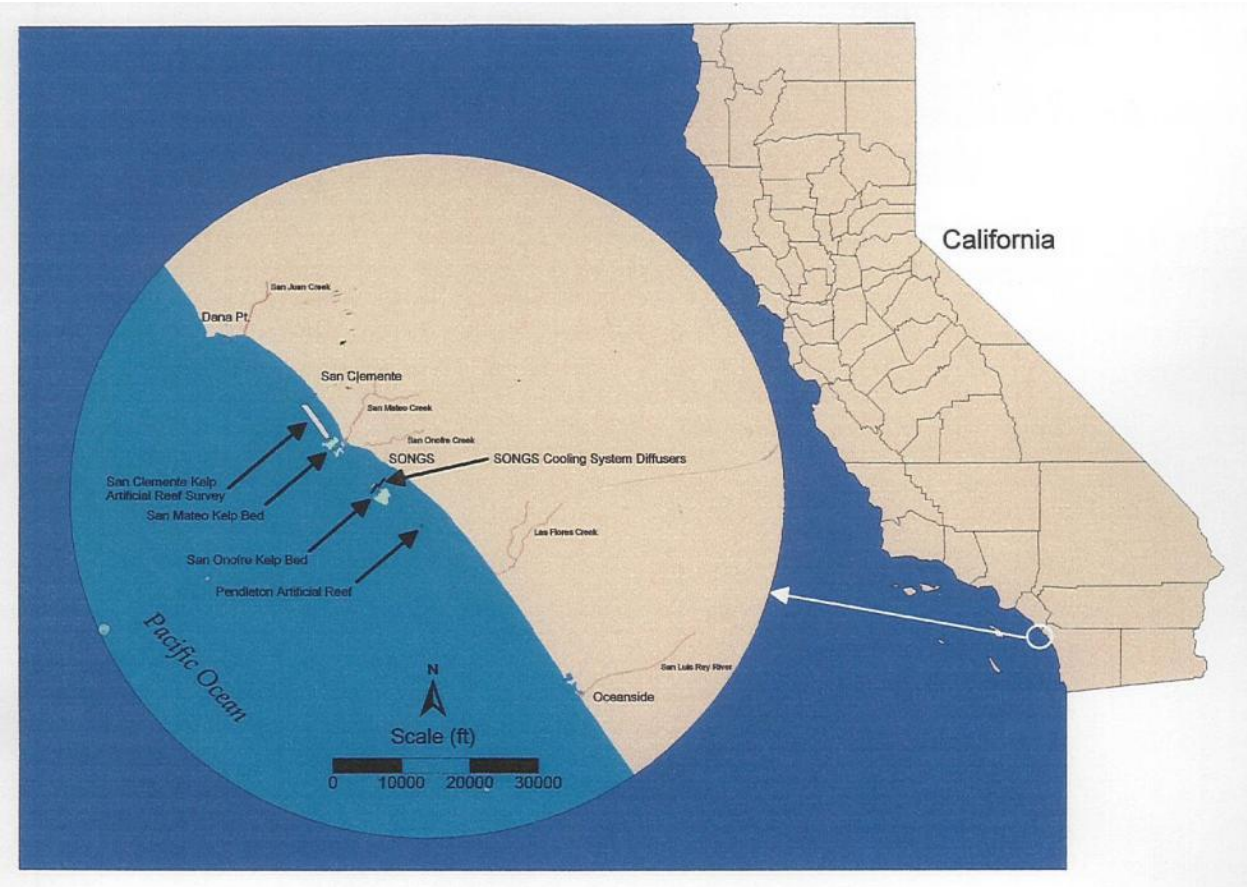

Figure 1-1. Location map of WNR site (project area).

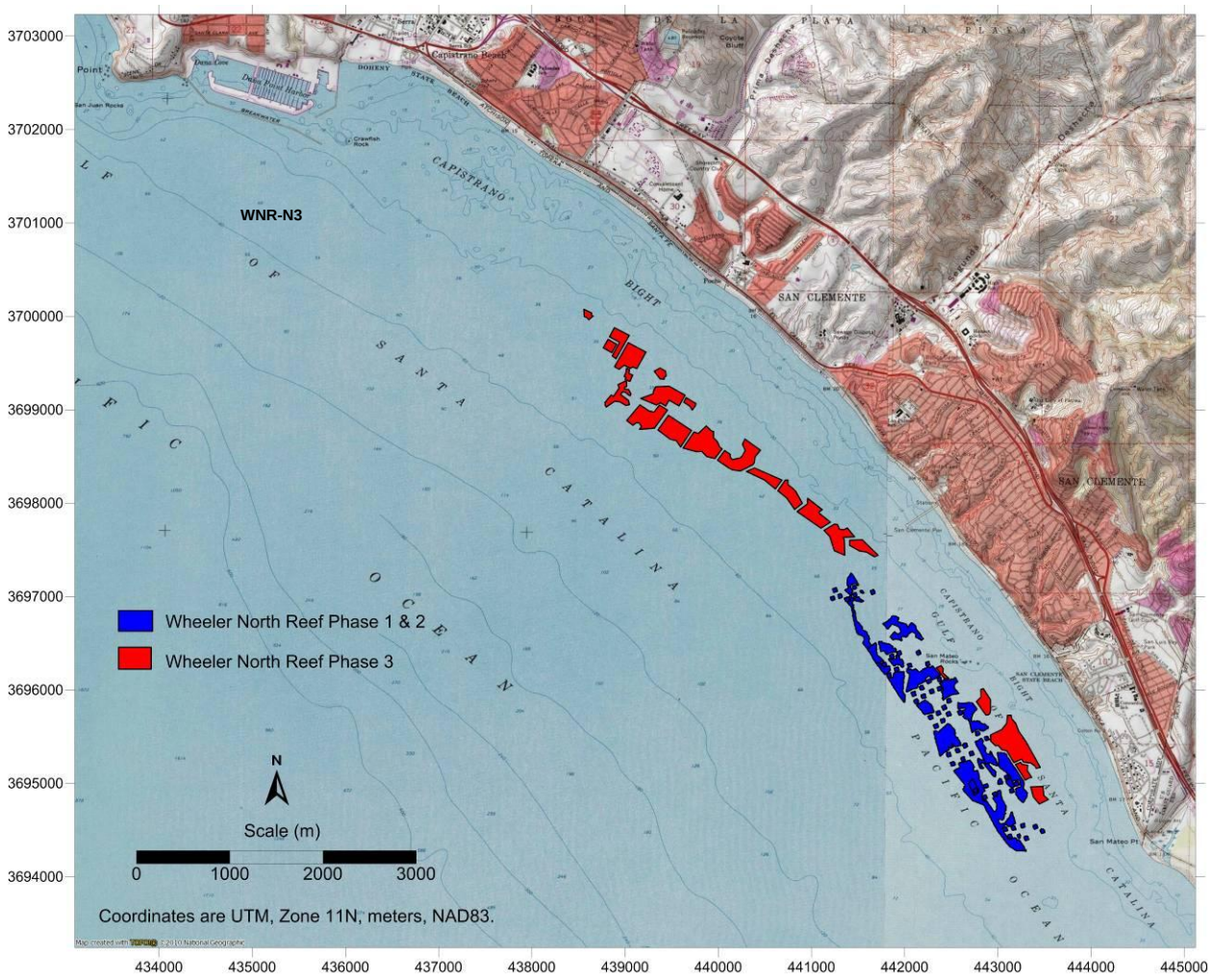

Figure 3-1. Proposed 210.6-acre Phase 3 WNR Expansion (red areas) and existing 176 acre WNR Phase 1&2 (blue areas).

B. CONDITION C: KELP REEF MITIGATION

NOTE: The following text of revised Condition C includes key elements of the Commission's 1991 permit condition. Site assessment, site selection, and performance standards and monitoring are substantially the same as the 1991 condition. The changes that the Commission approved on April 9, 1997 are:

1. Clarification and modification of the condition as it relates to the two phases of the reef (experimental and mitigation reef). These changes include more specifics about the goals of the experimental reef.

2. Reduction of the size of the reef required in the 1991 permit condition from 300 acres of medium-to high-density kelp to 150 acres of medium-to high-density kelp and the addition of $3.6 million to OREHP to fund a mariculture/fish hatchery program.

Mitigation for losses to kelp bed resources through the construction of an artificial reef will occur in two phases, an initial experimental phase followed by a mitigation phase.

1.0 EXPERIMENTAL REEF

The permittee shall, using qualified professionals and in consultation with the Executive Director, select a site and construct an experimental artificial reef for kelp to determine the optimal reef design for mitigating resource losses at the San Onofre Kelp bed (SOK) caused by SONGS' operation. The experimental reef shall test the design parameters necessary to provide a persistent giant kelp forest and associated ecosystem.

1.1 Site Assessment

The permittee shall select at least three potential sites and conduct pre-construction site assessments at these potential sites.

The permittee shall obtain sufficient information about each potential experimental reef site to allow the permittee to determine which site best meets the final site selection criteria described below. This information shall be used in both the site selection and design of the experimental reef. Necessary information shall include: (1) a description of existing biota at the site, (2) a reasonable prediction of the likelihood that a healthy kelp bed will be established and persist at the site, (3) a reasonable prediction of the extent of rock burial due to sediment deposition and/or sinking into soft sediment that could be expected at the site, and (4) a prediction of the effect of the proposed reef on local sand transport and local beach profiles.

1.2 Final Site Selection

Selection of the actual experimental reef site from among the potential sites shall be based on, but not limited to, the following criteria:

1. Location as close as possible to the SOK, and preferably between Dana Point (Orange Co.) and Carlsbad (San Diego Co.), but outside the influence of the SONGS discharge plume and water intake, and away from Camp Pendleton.
2. Minimal disruption of natural reef or cobble habitats and sensitive or rare biotic communities.
3. Suitable substrate with low mud and/or silt content (e.g., hard-packed fine to coarse grain sand, exposed cobble or bedrock without a persistent kelp biological community, or cobble or bedrock covered with a thin layer of sand).
4. Location at a depth locally suitable for kelp growth and recruitment.
5. Location near a persistent natural kelp bed.
6. Location away from sites of major sediment deposition.
7. Minimal interference with uses such as vessel traffic, vessel anchorages, commercial fishing, mariculture, mineral resource extraction, cable or pipeline corridors.
8. Location away from power plant discharges, waste discharges, dredge spoil deposition sites, and activities of the U. S. Marine Corps.
9. Location that will not interfere with or adversely affect resources of historical or cultural significance such as shipwrecks and archeological sites.

1.3 Experimental Reef Design and Final Plan

The permittee shall submit a preliminary plan describing the location and design of the experimental reef to the Executive Director for review and approval. Following the Executive Director's approval of the preliminary plan, but no later than June 30, 1997, the permittee shall apply for a coastal development permit for construction of an experimental reef for kelp. The coastal development permit application shall include an experimental reef plan that specifies the design and construction methods of the experimental reef. The design of the reef shall allow for identification of those parameters important to the establishment of a persistent, healthy giant kelp forest and associated ecosystem.

The primary goal of the experimental reef shall be to test several different substrate types and configurations to determine which of these can best provide: (1) adequate conditions for giant kelp recruitment, growth, and reproduction and (2) adequate conditions to

establish a community of reef-associated biota. Information gained from the experimental reef will be used in designing the mitigation phase of Condition C. This will help to ensure full compensation for kelp bed losses in a cost-effective manner.

The total areal extent (as measured at the ocean bottom and equal to the surface area within the perimeter of the reef's outermost hard substrate/sand interface area, as installed by the permittee) of the experimental reef shall be a minimum of 16.8 acres.

1.4 Experimental Reef Construction

The experimental reef shall be constructed within 12 months of approval of the coastal development permit for the experimental reef. A post-construction survey shall be carried out by the permittee to demonstrate that the experimental reef was built to approved specifications. If the Executive Director determines that the reef was not built to specifications, the permittee shall modify the reef to meet the approved specifications within 90 days of the post-construction survey. Extension of this time limit may be granted by the Executive Director for good cause.

1.5 Experimental Reef Monitoring

The experimental reef shall be monitored independent of the permittee (as per Condition D) for 5 years. A monitoring plan will be developed by Commission scientists pursuant to Condition D. The independent monitoring program for the experimental reef shall be designed to assess the effectiveness of alternative reef designs, materials and management techniques. Monitoring shall be conducted with funds provided by the permittee through Condition D and shall include the monitoring and management of any additional experiments deemed necessary by the Executive Director. Successful completion of the experimental reef does not depend on the achievement of performance standards. However, information on the performance of different module designs will be used to identify those designs that would be likely to meet the performance standards for the mitigation reef. This information will be used to design the most cost-effective mitigation reef that is likely to meet the performance standards listed in Section 2 below.

2.0 MITIGATION REEF

In addition to construction of the 16.8-acre experimental reef, the permittee shall be responsible for the construction of at least 133.2 acres of artificial reef (yielding a minimum of 150 acres of artificial reef hereafter referred to as the "mitigation reef") that meets the performance standards listed below as mitigation for the resource losses at the San Onofre Kelp bed (SOK) caused by operation of the SONGS. The larger artificial reef may be an expansion of the experimental reef or may be established in a different location, provided that the larger reef shall be located in the vicinity of SONGS, but outside

the influence of SONGS discharge plume and water intake. The selection of a site for the larger artificial reef shall be based on the final site selection criteria stated in Section 1.2 above.

The purpose of the mitigation reef is to provide kelp bed community resources to replace the resources lost due to the operation of SONGS Units 2 and 3. Thus, the mitigation reef shall be designed to replace the lost and damaged resources at the San Onofre kelp bed and result in production of a persistent giant kelp forest and associated ecosystem.

2.1 Mitigation Reef Design and Planning

Within six months after completion of independent monitoring of the experimental reef, the permittee shall submit a preliminary plan describing the location and design of the mitigation reef to the Executive Director for review and approval. The type of hard substrate and the percent cover of hard substrate proposed in the preliminary plan for the mitigation reef shall be determined by the Executive Director.

The Executive Director will consult with the Coastal Commission scientists, scientific advisors, resource agencies, and others as appropriate to evaluate whether the preliminary plan meets the goals set forth in Section 2.2 below. Within one month following the Executive Director's determination that the preliminary plan meets the specified criteria, the permittee shall initiate development of a final mitigation plan along with appropriate CEQA and/or NEPA environmental impact analyses necessary in connection with local, State or other agency approvals.

Within twelve months of the Executive Director's approval of a preliminary plan for the mitigation reef, the permittee shall submit a final mitigation plan to the Coastal Commission in the form of a coastal development permit application. The final plan shall specify location, depth, overall hard substrate coverage, size and dispersion of reef materials, and reef relief and shall substantially conform to the preliminary plan approved by the Executive Director.

2.2 Mitigation Reef Goals

The primary goals of the mitigation reef shall be to provide adequate conditions for a community of reef-associated biota similar in composition, diversity and abundance to the San Onofre kelp bed that compensate for the losses incurred by SONGS operations.

2.3 Mitigation Reef Construction

The permittee shall construct the reef in accordance with the final plan in the approved coastal development permit. The permittee shall begin construction of the reef no later

than 6 months after Commission approval of a coastal development permit for the reef. The permittee shall complete a post-construction survey to demonstrate that the reef was built to approved specifications. If the Executive Director determines that the reef was not built to specifications, the permittee shall modify the reef to meet the approved specifications within 90 days of the post-construction survey. Extension of this time limit may be granted by the Executive Director for good cause.

2.4 Monitoring

After construction of the mitigation reef is completed, the reef will be monitored, managed, and, if necessary, remediated. The following sections describe the basic tasks required for monitoring the mitigation reef pursuant to this Condition. Condition D specifies that the permittee shall provide funds to the Commission or an independent entity designated by the Executive Director for the purpose of completing the monitoring, as specified below.

A monitoring plan for the mitigation reef shall be developed by the Commission staff scientists pursuant to Condition D. The monitoring plan shall be completed within six months of approval of a coastal development permit for the mitigation reef proposed in a final plan developed pursuant to this condition. The monitoring plan shall provide an overall framework to guide the monitoring work. The monitoring plan shall describe the sampling methodology, analytical techniques, and methods for measuring performance of the mitigation reef relative to the performance standards identified below.

Monitoring independent of the permittee shall be implemented in accordance with Condition D to: (1) determine whether the performance standards of this condition are met (i.e., whether the mitigation reef successfully replaces the lost and damaged resources in the San Onofre Kelp bed), (2) if necessary, determine the reasons why any performance standard has not been met, and (3) develop recommendations for appropriate remedial measures. The permittee shall be responsible for fully implementing any remedial measures deemed necessary by the Executive Director.

Following completion of construction the mitigation reef shall be monitored for a period equivalent to the operating life of SONGS. The independent monitoring program for the mitigation reef shall be designed to assess whether the performance standards have been met. If these standards are met after ten years following the completion of construction, then monitoring can be reduced to annual site inspections. The permittee shall undertake necessary remedial actions based on the monitoring results and annual site inspections for the full operating life of the SONGS Units 2 and 3.

The following performance standards shall be used in measuring the success of the mitigation reef to determine whether remediation is necessary:

a. Substrate

1. The reefs shall be constructed of rock, concrete, or a combination of these materials, as determined from results of the experimental reef to be suitable for sustaining a kelp forest and a community of reef-associated biota similar in composition, diversity and abundance to the San Onofre kelp bed.

2. The total areal extent of the mitigation reef (including the experimental reef and all larger artificial reefs) shall be no less than 150 acres.

3. At least two-thirds (67 percent) of the 150-acre mitigation reef area shall be covered by exposed hard substrate. Should the results of the experimental reef indicate that a different coverage of hard substrate is necessary or adequate to meet this goal (as determined by the Executive Director), the Executive Director may change the coverage requirement.

4. At least 90 percent of the exposed hard substrate must remain available for attachment by reef biota. The permittee shall be required to add sufficient hard substrate to the mitigation reef to replace lost or unsuitable hard substrate, if at any time the Executive Director determines that more than 10 percent of the hard substrate within the reef has become covered by sediment, or has become unsuitable for growth of attached biota due to scouring, and there is no sign of recovery within three years. The Commission scientists in accordance with Condition D shall initiate surveys to monitor the amount and distribution of exposed hard substrate. These surveys shall begin immediately after construction is complete and continue for at least ten years.

b. Kelp bed

The artificial reef(s) shall sustain 150 acres of medium-to-high density giant kelp. For purposes of this condition, medium-to-high density giant kelp is defined as more than 4 adult *Macrocystis pyrifera* plants per 100 m^2 of substrate, as determined by down-looking sonar surveys or equivalent monitoring techniques in accordance with Condition D. If the average area of medium to high density giant kelp falls below 150 acres, then the reason for this failure shall be determined by independent monitoring overseen by Commission scientists. The permittee shall implement any remedial measures deemed necessary by the Executive Director.

The permittee's remediation requirement shall include the funding of independent studies that are necessary to determine the reasons for lack of kelp coverage as well as feasible corrective action, as determined by the Executive Director. If the failure is due to insufficient hard substrate, the corrective action shall entail the permittee adding more hard substrate to the reef.

If sufficient hard substrate appears to be available but kelp recruitment is low, then corrective action could include the permittee funding independent studies of kelp recruitment that are designed to determine the best method of establishing kelp on the reef. The Executive Director shall determine whether such studies are necessary.

The method determined by the Executive Director most likely to be a successful and reliable corrective action for low kelp abundance shall be implemented by the permittee until kelp coverage meets this performance standard; however, kelp establishment or augmentation methods shall not be required for more than a total of five years. If oceanographic conditions are unfavorable to kelp during part of this period, the Executive Director may defer the effort to establish kelp.

c. Fish

The standing stock of fish at the mitigation reef shall be at least 28 tons and the following performance standards shall hold:

1. The resident fish assemblage shall have a total density and number of species similar to natural reefs within the region.
2. Fish reproductive rates shall be similar to natural reefs within the region.
3. The total density and number of species of young-of-year fish (fish less than 1 year old) shall be similar to natural reefs within the region.
4. Fish production shall be similar to natural reefs within the region.

d. Benthos

1. The benthic community (both algae and macroinvertebrates) shall have coverage or density and number of species similar to natural reefs within the region.
2. The benthic community shall provide food-chain support for fish similar to natural reefs within the region.
3. The important functions of the reef shall not be impaired by undesirable or invasive benthic species (e.g., sea urchins or *Cryptoarachnidium*).

Independent monitoring data collected concurrently at natural kelp bed reference sites within the region shall be used by Commission scientists to determine the similarity for each variable listed above. The standard of comparison (i.e., the measure of similarity to be used and the method for determining the statistical significance of differences) shall be specified in the monitoring plan. If the standards listed above are not met within ten years after reef construction, then the permittee shall undertake those remedial actions the Executive Director deems appropriate and feasible.

The permittee shall insure that the performance standards and goals set forth in this condition will be met for at least the length of time equivalent to the full operating life of SONGS Units 2 and 3.[3] Upon completion of ten years of independent monitoring that demonstrate the mitigation reef is in compliance of the performance standards, the permittee shall be fully responsible for funding independent annual site inspections, which will serve to identify any noncompliance with the performance standards. The monitoring plan (specified above) shall describe the requirements and methods of the annual site inspections.

The Executive Director may also use any other information available to determine whether the performance standards are being met. If information from the annual site inspections or other sources suggests the performance standards are not being met, then the permittee shall be required to fund an independent study to collect the information necessary to determine what remediation is needed. The Executive Director shall determine the required remedial actions based on information from the independent study. The permittee shall be required to implement any remedial measures determined necessary by the Executive Director in consultation with state and federal resource agencies, as well as provide funds for independent monitoring that evaluates the success of the required remediation. As described under the funding option (Condition D) of this permit, the cost of remediation shall not be limited if the permittee elects to implement the mitigation reef.

3.0 FUNDING REQUIREMENT FOR MARICULTURE/FISH HATCHERY PROGRAM

No later than June 8, 1997, the permittee shall establish an interest-bearing account (internal or external) in the amount of $3.6 million for a mariculture/marine fish hatchery program operated by the State of California through the Ocean Resource Enhancement and Hatchery Program (OREHP) to compensate for losses to the kelp bed community that are not mitigated by the artificial reef. The California Department of Fish and Game, the Ocean Resources Enhancement Advisory Panel, and the Coastal Commission shall enter into a Memorandum of Agreement to direct the expenditure of these funds, including provisions for continuation of the Joint Panel to oversee including, but not limited to the evaluation and genetic quality assurance of the hatchery program. Within thirty (30) days after the permittee receives written notice from the Executive Director of the establishment of an account with either a private foundation, in the form of a restricted account, or with the OREHP account, neither of which may charge more than 5% in administrative overhead on expenditures, the permittee shall deposit the entire $3.6 million plus accrued interest in said account. Interest shall accrue from the date the permittee establishes its account. Until the permittee deposits the entire $3.6 million plus accrued interest in said account, the permittee shall calculate interest using rates equivalent to the Federal

[3] "Full operating life" as defined in this permit includes past and future years of operation of SONGS Units 2 and 3, including the decommissioning period to the extent there are continuing discharges.

Reserve Bank for 6-month U.S. Government Securities Treasury bills (discount rate). Interest shall be adjusted quarterly in accordance with the current rate and shall be compounded monthly.

4.0 FUNDING OPTION FOR KELP REEF MITIGATION

As part of the total funding option package provided in revised Condition D, the permittee has the option of satisfying the requirements of Sections 1 and 2 of Condition C by paying the amount specified for kelp bed mitigation in accordance with the provisions set forth in Sections 4.2 and 4.3 of Condition D.

C. CONDITION D: ADMINISTRATIVE STRUCTURE

NOTE: The following italicized text is the original version of the Commission's 1991 permit Condition D. The non-italicized text is the language added or revised by the 1997 amendment. In its April 9, 1997 action, the Commission revised Condition D to add an optional funding option package (D.4.0) to fully satisfy the permittee's responsibilities.

1.0 ADMINISTRATION[4]

Personnel with appropriate scientific or technical training and skills will, under the direction of the Executive Director, oversee the mitigation and monitoring functions identified and required by conditions II-A through C. The Executive Director will retain approximately two scientists and one administrative support staff to perform this function.

This technical staff will oversee the preconstruction and post-construction site assessments, mitigation project design and implementation (conducted by permittee), and monitoring activities (including plan preparation); the field work will be done by contractors under the Executive Director's direction. The contractors will be responsible for collecting the data, analyzing and interpreting it, and reporting to the Executive Director.

The Executive Director shall convene a scientific advisory panel to provide the Executive Director with scientific advice on the design, implementation and monitoring of the wetland restoration and artificial reef. The panel shall consist of recognized scientists, including a marine biologist, an ecologist, a statistician and a physical scientist.

2.0 BUDGET AND WORK PROGRAM

The funding necessary for the Commission and the Executive Director to perform their responsibilities pursuant to these conditions will be provided by the permittee in a form

[4] Text that is the same text as the 1991 Conditions is in italics.

and manner determined by the Executive Director to be consistent with requirements of State law, and which will ensure efficiency and minimize total costs to the permittee. The amount of funding will be determined by the Commission on a biennial basis and will be based on a proposed budget and work program, which will be prepared by the Executive Director in consultation with the permittee, and reviewed and approved by the Commission. If the permittee and the Executive Director cannot agree on the budget or work program, the disagreement will be submitted to the Commission for resolution.

The budget to be funded by the permittee will be for the purpose of reasonable and necessary costs to retain personnel with appropriate scientific or technical training and skills needed to assist the Commission and the Executive Director in carrying out the mitigation and lost resource compensation conditions (II-A through C) approved as part of this permit action. In addition, reasonable funding will be included in this budget for necessary support personnel, equipment, overhead, consultants, the retention of contractors needed to conduct identified studies, and to defray the costs of members of any scientific advisory panel(s) convened by the Executive Director for the purpose of implementing these conditions.

Costs for participation on any advisory panel shall be limited to travel, per diem, meeting time and reasonable preparation time and shall only be paid to the extent the participant is not otherwise entitled to reimbursement for such participation and preparation. Total costs for such advisory panel shall not exceed $100,000 per year adjusted annually by any increase in the consumer price index applicable to California.

The work program will include:

a. *A description of the studies to be conducted over the subsequent two year period, including the number and distribution of sampling stations and samples per station, methodology and statistical analysis (including the standard of comparison to be used in comparing the mitigation projects to the reference sites.)*

b. *A description of the status of the mitigation projects, and a summary of the results of the monitoring studies to that point.*

c. *A description of the performance standards that have been met, and those that have yet to be achieved.*

d. *A description of remedial measures or other necessary site interventions.*

e. *A description of staffing and contracting requirements.*

f. *A description of the Scientific Advisory Panel's role and time requirements in the two year period.*

The Executive Director may amend the work program at any time, subject to appeal to the Commission.

3.0 ANNUAL REVIEW

A duly noticed public workshop will be convened and conducted by the Executive Director or the Commission each year to review the status of the mitigation projects. The meeting will be attended by the contractors who are conducting the monitoring, appropriate members of the Scientific Advisory Panel, the permittee, Commission staff, representatives of the resource agencies (CDFG, NMFS, USFWS), and the public. Commission staff and the contractors will give presentations on the previous year's activities, overall status of the mitigation projects, identify problems and make recommendations for solving them, and review the next year's program. The permittee shall report on the status of the behavioral barrier devices.

The public review will include discussions on whether the artificial reef and wetland mitigation projects have met the performance standards, identified problems, and recommendations relative to corrective measures necessary to meet the performance standards. The Executive Director will utilize information presented at the annual public review, as well as any other relevant information, to determine whether any or all of the performance standards have been met, whether revisions to the standards are necessary, and whether remediation is required. Major revisions shall be subject to the Commission's review and approval.

The mitigation projects will be successful when all performance standards have been met each year for a three-year period. The Executive Director shall report to the Commission upon determining that all of the performance standards have been met for three years and that the project is deemed successful. If the Commission determines that the performance standards have been met and the project is successful, the monitoring program will be scaled down, as recommended by the Executive Director and approved by the Commission. A public review shall thereafter occur every five years, or sooner if called for by the Executive Director. The work program shall reflect the lower level of monitoring required. If subsequent monitoring shows that a standard is no longer being met, monitoring may be increased to previous levels, as determined necessary by the Executive Director.

The Executive Director may make a determination on the success or failure to meet the performance standards or necessary remediation and related monitoring at any time, not just at the time of the annual public review.

4.0 FUNDING OPTION PACKAGE

NOTE: The Commission imposed a new funding requirement that the permittee pay $3.6 million toward the OREHP mariculture/fish hatchery program, as described in Condition C, Section 3.0. The $3.6 million requirement is in addition to the costs in the funding option for the mitigation requirements of Conditions A, C, and D. The $3.6 million requirement is not optional and is therefore not included here in the funding option package. Refer to Appendix F for a full summary of the costs for SONGS mitigation.

The permittee has the option of satisfying the requirements of Condition A (wetland mitigation), Sections 1 and 2 of Condition C (kelp reef mitigation) and Sections 1.0 through 3.0 of Condition D by paying a total of $114.05 million plus interest in accordance with the provisions set forth in Sections 4.0 through 4.3 of Condition D. To elect this option, the permittee must, within 60 days of the Commission's approval of this permit amendment (CDP No. 6-81-330-A), and no later than June 8, 1997, inform the Executive Director in writing of the permittee's election of this option. The funding option must be elected in its entirety. The permittee's election of the funding option is irrevocable.

Following the permittee's election of this funding option, the Executive Director will develop one or more Implementing Proposals that specify:

(1) the Implementing Entities that will establish the Wetland Restoration Implementation Fund, the Kelp Reef Mitigation Implementation Fund, and the Independent Monitoring and Technical Oversight Fund (hereafter referred to as "the Funds"), which are described more fully in Sections 4.1 through 4.3 below, and

(2) the processes for expenditure of monies in the Funds.

The Implementing Proposals shall reflect the purposes of the Funds and deadlines for permittee's payment into the Funds as set forth in Sections 4.1 through 4.3 below, and shall stipulate that the Funds will be used to implement the requirements of Condition A, Sections 1 and 2 of Condition C, and Sections 1.0 through 3.0 of Condition D.

Within six months of the permittee's election of this funding option, the Executive Director shall present the Implementing Proposals to the Commission for review and approval. Within 30 days of the Commission's approval of Implementing Proposals, the permittee shall enter into agreement(s) with the Implementing Entities providing for payment in accordance with Sections 4.1 through 4.3. Such agreements shall be subject to review and approval of the Executive Director. At the same time the permittee shall enter into one or more irrevocable letters of credit on terms acceptable to the Executive Director. The

letter(s) of credit shall name as beneficiaries the Implementing Entities and shall be in the total amount of $114.05 million.

The permittee shall pay monies into the Funds in accordance with the deadlines set forth in Sections 4.1 through 4.3 below. The permittee must pay not only the $114.05 million but all interest that would have accrued had the total amount been paid on the date the permittee elects the option. The interest shall be calculated using rates equivalent to the Federal Reserve Bank rate for 6-month U.S. Government Securities Treasury bills (discount rate), and shall be adjusted quarterly in accordance with the current rate. Interest shall be compounded monthly. Thus, each payment of a portion of the $114.05 million shall include interest on that amount.

If the permittee fails to make a specified payment into a designated Fund by the applicable deadline, the permittee shall transfer into that Fund the entire remaining unpaid amount designated for that Fund. The permittee shall pay such entire amount within 10 days after the applicable deadline. The payment shall include the principal and all interest accrued as of that date on the remaining unpaid amount designated for that Fund.

The permittee may satisfy this funding option for Condition A, Sections 1 and 2 of Condition C, and Sections 1.0 through 3.0 of Condition D in full at any time by depositing into the Funds the entire amount ($114.05 million or the amount remaining after payments made in accordance with Sections 4.1 through 4.3 below) plus interest accrued as of that date. Monies shall be allocated to the Funds in accordance with Sections 4.1 through 4.3 below.

At least sixty (60) days prior to cessation of operation (other than temporary cessation for repair or maintenance) or transfer of ownership, management or operation of SONGS Units 2 and 3, or abandonment of either or both units, the permittee shall deposit into the Funds the entire remaining balance of principal plus interest accrued on the remaining amount as of that date. Monies shall be allocated to the Funds in accordance with Sections 4.1 through 4.3 below.

4.1 Wetland Restoration Implementation Fund

In accordance with Section 4.0 above, the permittee shall pay monies to a Wetland Restoration Implementation Fund (hereinafter referred to as "the Wetland Fund") established by an Implementing Entity pursuant to the Implementing Proposal. The purpose of the Wetland Fund will be to enable the Implementing Entity to implement the requirements of Condition A. The Wetland Fund shall cover the costs of implementation, which include, but are not limited to: project design, environmental review, and permitting costs, construction costs, including construction management and contingencies, project management and administrative costs, maintenance costs, and remediation costs. The

permittee shall pay $55.63 million into the Wetland Fund in accordance with Provision 4.0 above and in accordance with the following deadlines:

(1) Within thirty (30) days after the permittee receives written notice of the establishment of the Wetland Fund, the permittee shall pay $9.92 million plus interest accrued on that amount.

(2) Within thirty (30) days after the permittee receives written notice from the Implementing Entity that a request for construction bids has been scheduled, the permittee shall pay $32.22 million plus interest accrued on that amount.

(3) Within thirty (30) days after the permittee receives written notice from the Implementing Entity that construction has been completed, or by December 30, 2003, which ever occurs first, the permittee shall pay $13.49 million plus interest accrued on that amount.

When construction has been completed, those monies (principal and interest) allocated for construction costs remaining in the Wetland Fund, if any, shall be transferred to the Southern California Coastal Wetlands Clearinghouse, the State Coastal Conservancy or other entity designated by the Executive Director and approved by the Commission for the sole purpose of funding additional wetland restorations within the Southern California Bight. At the end of the remediation period all unspent monies (principal and interest) remaining in the Wetland Fund shall be returned to the permittee.

4.2 Kelp Reef Mitigation Implementation Fund

In accordance with Section 4.0 above, the permittee shall pay monies to a Kelp Reef Mitigation Implementation Fund (hereinafter referred to as "the Reef Fund") established by the Implementing Entity pursuant to an Implementing Proposal. The purpose of the Reef Fund will be to enable the Implementing Entity to implement the requirements of Section 1 (experimental reef) and Section 2 (mitigation reef) of Condition C. The Reef Fund shall cover the costs of implementing the experimental and mitigation kelp reefs. For the experimental reef these costs include but are not limited to: preconstruction site surveys, environmental review and permitting costs, and construction costs, including contractor mobilization (start-up) costs, contingencies and post-construction surveys. For the mitigation reef, implementing costs include but are not limited to: preconstruction site surveys, project design, environmental review, and permitting costs, construction costs, including contractor mobilization (start-up) costs and contingencies, construction and post-construction monitoring survey costs, project management and administration costs, and remediation costs.

The permittee shall pay $43.84 million into the Reef Fund in accordance with Section 4.0 above and in accordance with the following deadlines:

(1) Within thirty (30) days after the permittee receives written notice of the establishment of the Reef Fund, the permittee shall pay $2.7 million plus interest accrued on that amount.

(2) Within thirty (30) days after the permittee receives written notice from the Executive Director that independent monitoring of the experimental reef is complete, or by December 30, 2003, whichever occurs first, the permittee shall pay $41.14 million plus interest accrued on that amount.

When construction of the mitigation reef has been completed, those monies (principal and interest) allocated for construction costs remaining in the Reef Fund, if any, shall be transferred to the Department of Fish and Game or other entity designated by the Executive Director and approved by the Commission for the sole purpose of funding additional kelp reef creation. At the end of the remediation period all unspent monies (principal and interest) remaining in the Reef Fund shall be returned to the permittee.

4.3 Independent Monitoring and Technical Oversight Fund

In accordance with Section 4.0 above, the permittee shall pay monies to the Independent Monitoring and Technical Oversight Fund (hereinafter referred to as "the Monitoring and Oversight Fund") established by the Implementing Entity pursuant to an Implementing Proposal. The purpose of the Monitoring and Oversight Fund will be to enable the Implementing Entity to implement the requirements of Sections 1.0 through 3.0 of Condition D. The Monitoring and Oversight Fund shall cover the costs for: (1) independent monitoring of the mitigation projects as required by Conditions A and C, and (2) the Executive Director to retain persons with appropriate scientific or technical skills to assist the Commission's technical oversight of implementation, monitoring, and remediation of the mitigation projects as required by Condition A, Condition C, and Sections 1.0 through 3.0 of Condition D. Commission oversight costs include, but are not limited to the following: (1) review and evaluation of pre- and post-construction site assessment, project design, and project implementation, (2) development of monitoring plans, (3) oversight of monitoring activities, (4) evaluation of monitoring data for determining project compliance, (5) recommendations for remediation, if necessary, and (6) oversight of remediation. Commission oversight costs also include consultation with appropriate resources agencies and scientific experts, and the planning of and participation in annual public reviews on the status of the mitigation projects. Independent monitoring costs include costs for independent contractors to: (1) collect and manage the monitoring data, (2) transfer the data to the Commission, and (3) participate in annual public reviews on the status of the mitigation monitoring.

The permittee shall pay $14.58 million into the Monitoring and Oversight Fund in accordance with Section 4.0 above and in accordance with the following deadlines:

(1) Within thirty (30) days after the permittee receives written notice of the establishment of the Monitoring and Oversight Fund, the permittee shall pay $3.58 million plus interest accrued on that amount.

(2) On December 30 after the first payment, and on every December 30 for three years thereafter, the permittee shall pay $2.75 million plus interest accrued as of the date of the payment.

At the end of the remediation period, any monies (principal and interest) remaining in the Monitoring and Oversight Fund shall be returned to the permittee.

IV. FINDINGS AND DECLARATIONS IN SUPPORT OF AMENDMENTS TO CONDITIONS

A. BACKGROUND ON COASTAL COMMISSION ACTIONS RELATING TO THE SONGS

This section provides an overview of: (1) the project (i.e., the San Onofre Nuclear Generating Station (SONGS)); (2) the affected habitat and resources; and (3) the major events and decisions affecting SONGS, which involved the California Coastal Commission or its predecessor the California Coastal Zone Conservation Commission (CCZCC). For a more complete description of the background on SONGS see the findings for permit 6-81-330 (formerly 183-73).

1.0 THE PROJECT

The San Onofre Nuclear Generating Station (SONGS) is located in north San Diego County (see Exhibit 1). SONGS Unit 1, which generated up to 436 megawatts of electric power, began operation in 1968 and stopped operating in the early 1990s. Construction of SONGS Units 2 and 3 began in 1974 and was completed in 1981. Operation of Units 2 and 3 began in 1983 and 1984, respectively. Each unit generates up to 1,100 MW of electric power, and draws in seawater at a rate of 830,000 gallons per minute from an intake pipe 18 feet in diameter, originating 3,400 feet offshore. The plant draws in almost 700 billion gallons per year.

The discharge pipe for Unit 2 terminates 8,500 feet offshore, while the discharge pipe for Unit 3 terminates 6,150 feet offshore (see Exhibit 2).The last 2,500 feet of the discharge pipes for Units 2 and 3 each consist of a multiport diffuser that rapidly mixes the cooling water with the surrounding water. The diffusers contain 63 discharge ports angled offshore

EXHIBIT 4

Mitigation Measures Incorporated Into CDP 9-19-0025

from

California State Lands Commission's Final SEIR for the Construction and Management of an Artificial Reef in the Pacific Ocean near San Clemente, California: Wheeler North Reef Expansion Project (State Clearinghouse No.1998031027) (February 2019)

MM BIO-2: Prevent Import of Nonindigenous Species. In order to control the import of non-native species to the Project location, the following requirements shall be implemented as part of the detailed Project planning. All Project vessels shall:

- Originate from Oceanside Harbor, Dana Point Harbor, the Ports of Long Beach/Los Angeles, or San Diego Bay
- Be continuously based out of Oceanside Harbor, Dana Point Harbor, the Ports of Long Beach/Los Angeles, or San Diego Bay since last dry docking
- Have hulls with antifouling coatings
- Remain at ports no longer than 5 days

Underwater surfaces of barge vessels shall be subject to evaluation by California State Lands Commission (CSLC) Marine Invasive Species Program (MISP) staff, through a Risk Assessment process and pre-construction inspection prior to use for the construction. Pre-construction inspections shall include use of underwater remotely operated vehicles with cameras, or similarly detailed inspection methods, including but not limited to review of the vessel's dry dock and cleaning records, most recent application of antifouling hull coatings, review of Biofouling Removal and Hull Husbandry Reporting Forms, and any other measures to prevent the spread on non-native species. Should vessels fail to pass Risk Assessment or pre-construction inspection screening as determined by CSLC MISP, cleaning of vessels prior to construction may be required.

Additionally, and regardless of vessel size, ballast water for all Project vessels must be managed consistent with CSLC ballast management regulations, and Biofouling Removal and Hull Husbandry Reporting Forms shall be submitted to CSLC MISP staff. Further, as part of the Project kickoff meeting, a qualified marine biologist, approved by CSLC staff, shall provide information to all Project personnel about the spread of non-native species in California waters and the programs (i.e., CSLC Ballast Water Management Program and Biofouling Removal and Hull Husbandry Reporting) that would be implemented to minimize this hazard.

MM BIO-3: Marine Wildlife Monitoring Plan. A Marine Wildlife Monitoring Plan (Plan) shall be prepared by a qualified marine mammal biologist and submitted to California State Lands Commission (CSLC) staff for review and approval 60 days prior to commencement of activities. The Plan is intended to reduce the chance of a significant impact to marine mammals and sea turtles during construction activities. It may also form the basis of a permit application to the

relevant agencies (National Marine Fisheries Services and U.S. Fish and Wildlife Service). The Plan should include:

- Determination of the exclusion zone for eliminating the risk of crushing as a result of rockfall.
- Procedures for monitoring marine mammals and sea turtles and specifications for Marine Wildlife Observers (MWO) within the rockfall exclusion zone.
- Methods for communicating with contractors to stop work if there is a risk that any marine mammals or sea turtles active in the area may move closer to the construction site and inside a designated exclusion zone.
- Procedures for MWO monitoring of barge transport, if necessary.
- Methods for communicating with the ship's captain if there is a risk of collision with a marine mammal or sea turtle.
- Limitations that work occur only during daylight hours when visual monitoring of marine mammals and sea turtles can be conducted.

MM BIO-4: Spill and Grounding Contingency Plan. The Applicant shall prepare and submit for approval to California State Lands Commission staff at least 60 days prior to the commencement of construction activities a Spill and Grounding Plan that includes, at a minimum, the following features:

- A list of key contacts in the event of an accidental spill that will include senior Project management.
- Identification of potential pollutants used in the construction process. These are likely to include diesel fuel, lube oil, hydraulic oil, waste oil, and oil leaking from pipes on the vessels.
- Detailed procedures for averting and responding to a spill of these pollutants.
- Detailed procedures for addressing a vessel grounding scenario for both vessels underway and vessels that have broken free of moorings at the construction site.

MM AQ-1a: Nitrogen Oxides (NOX) Emission Reduction. Prior to the commencement of any construction activities, Southern California Edison or its designee shall provide evidence to California State Lands Commission staff that tugboats used for the Project meet or exceed the Tier 3 emission standards, if such tugboats with the capabilities to construct the project are available. If Tier 3 compliant tugboats with the capabilities to construct the project are not available, Tier 2 compliant tugboats may be used and the difference in NOx emissions shall be offset through purchase of additional NOx emission offset credits.

MM AQ-1b: Nitrogen Oxides (NOX) Emission Offset Credits. At least 30 days prior to the commencement of any construction activities, Southern California Edison or its designee shall provide evidence to California State Lands Commission staff and the South Coast Air Quality Management District that NOX emission offset credits have been purchased to offset the Project's NOX emissions below the South Coast Air Quality Management District construction threshold for NOX, in compliance with South Coast Air Quality Management District's Revised CEQA Policy and Procedure in Allowing the Use of Emission Credits to Mitigate Significant Air Quality Impacts from Construction Phase (as revised 2007). The Project's NOx emissions will be based on those calculated in the SEIR. At the discretion of the South Coast Air Quality Management District, at the end of each construction year Southern California Edison may

reconcile the amount of credits purchased with the amount of actual Project emissions subject to review and approval by California State Lands Commission and South Coast Air Quality Management District staff, and receive NOx emission credits based on the excess credits paid. Actual emissions would be calculated at the end of a year's construction, based on documentation of hours of construction operations, number of barge trips, types of equipment used, and other factors.

MM CR-1a: Archaeological and Tribal Monitoring. To ensure that impacts to archaeological and tribal cultural resources remain less than significant, the following will occur:

- A tribal monitor that is culturally affiliated with the area may be present during Project activities. For safety reasons, the monitor would not be able to be in the water during rock placement. During the first week of rock placement, the Applicant will make arrangements so that the tribal monitor can, if desired, dive on the areas where rock has been placed to examine the area and the effects of rock placement.
- The Applicant will conduct a post-reef expansion dive with interested tribes to re-assess the Project area and compare with data obtained from the eighteen reconnaissance survey dives; and,

The Applicant and CSLC will document the tribal consultation process and present it as professional paper to benefit future submerged projects.

MM CR-1b: Unanticipated Cultural/Tribal Resources. The Applicant shall prepare a Cultural Resources Management Plan (CRMP), subject to review and approval by CSLC. The CRMP shall be prepared in coordination with the CSLC and a California Native American tribe that is culturally affiliated to the Project site. The CRMP will include, at a minimum:

- Specific discussion on the process for identifying unanticipated discoveries in a submerged context, including how unanticipated tribal cultural resources are identified during project activities, when the project area is not visible.
- Specific procedures for handling, recording and treating unanticipated cultural or tribal cultural resources in the event they are found.
- Specific procedures for keeping the location of any such finds confidential and what measures will be taken to ensure that the area is secured to minimize site disturbance and potential vandalism.
- Discussion of the successful tribal cultural resource consultation process for future submerged project consultation efforts

To facilitate proper identification and treatment of potential resources that may be discovered, the Applicant shall retain both an archaeologist (approved by the CSLC) and a monitor from a California Native American tribe that is culturally-affiliated to the Project site for coordination, monitoring, and notification purposes. The Applicant shall provide a minimum 5-day notice to the archaeologist and tribal monitor prior to all scheduled activities. In addition, should intact cultural or tribal cultural deposits be uncovered during Project implementation, CSLC staff, the archaeologist, and the tribal monitor shall be contacted as soon as possible, and in no event later than 24 hours, to allow them to evaluate the nature, extent, and significance of the discovery. Impacts to previously unknown significant Tribal cultural resources shall be avoided through preservation in place if feasible.

MM CR-2: Unanticipated Paleontological Resources. The Applicant shall develop a Paleontological Resources Management Plan (PRMP), subject to review and approval by CSLC, which will include:

- Specific discussion procedures for on the identification of unanticipated discoveries in a submerged context, including how unanticipated paleontological resources are identified during project activities, when the Project area is not visible. The procedures must reduce the likelihood of disturbing unanticipated paleontological resources or unique geologic resources to the extent feasible, considering the difficulty of observing the submerged Project area during rock placement and that the rocks are likely to cap and preserve paleontological resources in place.
- Specific procedures for handling, recording and treating unanticipated paleontological resources in the event they are found. The procedures must include retaining a qualified paleontologist to evaluate the nature and significance of any discovery.

MM CR-3: Appropriate Treatment of Human Remains. In accordance with state law (Health & Saf. Code, § 7050.5; Pub. Resources Code, § 5097.98), if human remains are found, all ground disturbing activities shall halt within 165 feet (50 meters) of the discovery. The County Coroner will be notified within 24 hours of the discovery. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie potential remains shall occur until the County Coroner has determined whether the remains are subject to his or her authority. The County Coroner must make this determination within 2 working days of notification of the discovery (pursuant to Health & Saf. Code, § 7050.5 subd. (b)). If the County Coroner determines that the remains do not require an assessment of cause of death and that the remains are, or are believed to be Native American, the Coroner must notify the Native American Heritage Commission by telephone within 24 hours, which must in turn immediately notify those persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD shall complete its inspection and make recommendations within 48 hours of being granted access to the site. The MLD may recommend means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. California State Lands Commission staff will discuss and confer with the MLD regarding their recommendations (pursuant to Pub. Resources Code, § 5097.98 subds. (b) and (c)).

MM HAZ-1a: Spill Prevention and Response Plan.
At least 60 days prior to commencement of construction, a Spill Prevention and Response Plan for all Project vessels shall be prepared by Southern California Edison or its contractor and submitted to California State Lands Commission (CSLC) staff for review and approval. The plan shall include at a minimum the following elements:

- A list of all fuels and hazardous materials that will be used or might be used during construction, along with material safety data sheets for each material
- Specific protocols for monitoring and minimizing the use of fuel and hazardous materials during offshore construction Project operations, including best management practices that will be implemented to ensure minimal impacts to the environment
- An estimate of a reasonable worst-case release of fuel or other hazardous materials at the offshore construction Project site or into coastal waters resulting from the construction activities

- A list of all spill prevention and response equipment that will be maintained on the vessels performing the construction activities
- The designation of the on-site person with responsibility for implementing the plan
- A detailed response and clean-up plan in the event of a spill or accidental discharge or release of fuel or hazardous materials

A telephone contact list of all regulatory and trustee agencies, including CSLC and California Coastal Commission staffs, having authority over the development or Project site and its resources to be notified in the event of a spill or material release.

MM HAZ-1b: Prepare for Inclement Weather Condition. Southern California Edison (SCE) or its contractor shall tie down or provide secondary containment for any deck equipment that may discharge contaminants to minimize the potential for unanticipated release of pollutants due to inclement weather or rough sea conditions. In addition, SCE or its contractor shall monitor weather conditions and tsunami warnings and cease work if it they determine that existing or forecast sea states or weather conditions would create unsafe working conditions for personnel or equipment.

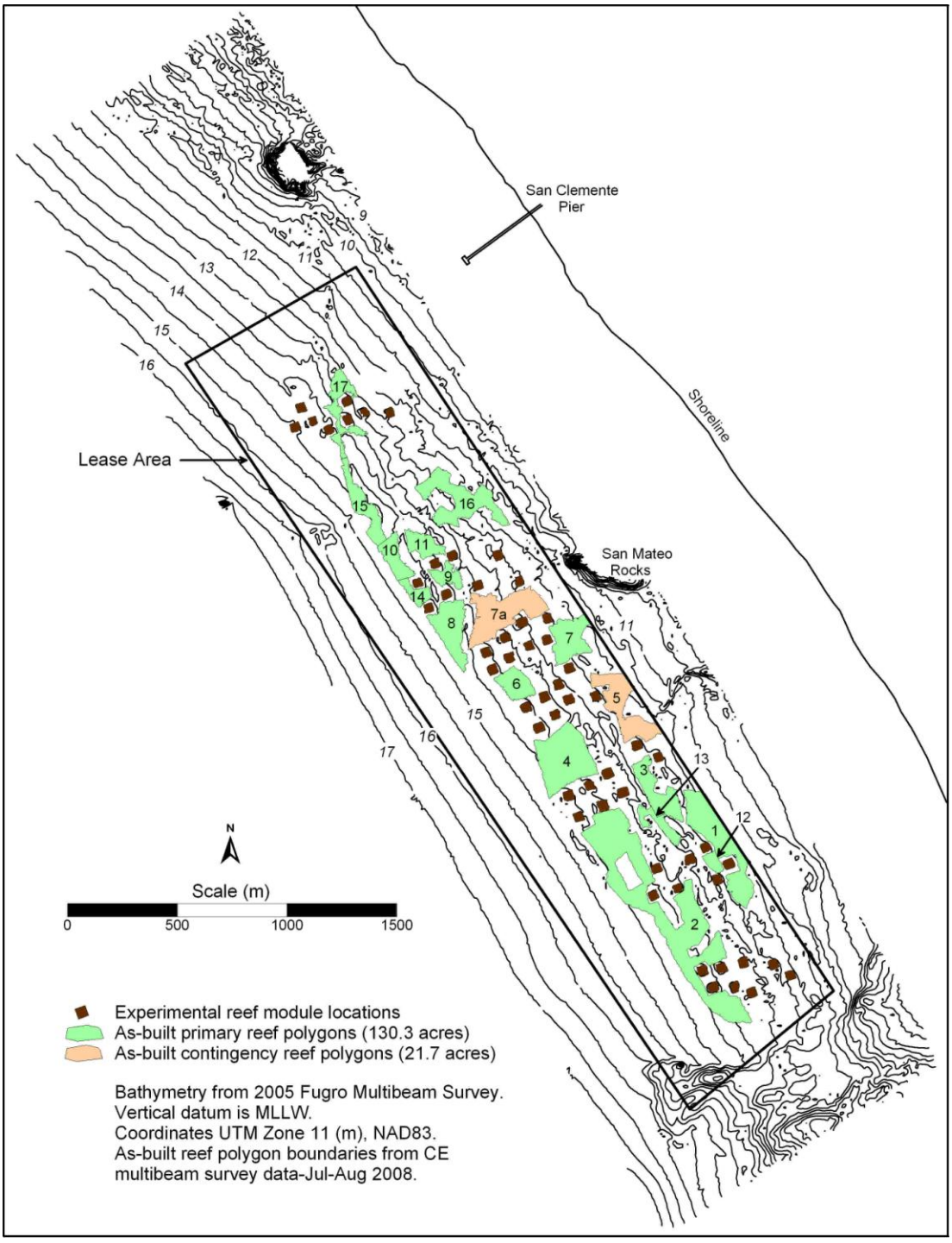

Figure 2-1. Map showing the WNR, the 862-acre lease area, the 56 modules of the Phase 1 experimental reef (small squares) grouped into seven blocks, and the 17 Phase 2 polygons.

EXHIBIT 6

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

May 24, 2016

Dr. David Kay
Southern California Edison Company
6040 North Irwindale Avenue
Irwindale, CA 91702

Re: Requirement to remediate Wheeler North Reef

Dear David:

On March 10, 2015, Coastal Commission staff sent you a letter documenting that the Wheeler North Reef (WNR) has not met the absolute performance standard for fish standing stock required by Coastal Development Permit (CDP) 6-81-330-A, issued to SCE for the construction and operation of the San Onofre Nuclear Generating Station (SONGS), and the conclusion by Commission staff, the Science Advisory Panel (SAP) and the University of California Santa Barbara (UCSB) independent monitoring team that the current size (174.42 acres) and configuration (low relief reef with an average of 47.6 % coverage of rock) of WNR is insufficient to consistently meet the permit requirement for a minimum fish standing stock of 28 US tons.

Attached to that letter was a paper entitled Report on the Causes of Low Fish Standing Stock at Wheeler North Reef and Possible Solutions for Remediation, written by the UCSB independent monitoring team in consultation with the Scientific Advisory Panel, that analyzed the reasons for WNR's inability to meet the fish standing stock requirement and provided estimates of additional reef needed to consistently meet the requirement. Since March 2015, our staff has met with your team several times to discuss the report and how to move forward to ensure compliance with CDP 6-81-330-A.

We appreciate the time that the Southern California Edison (SCE) team has spent with Commission staff, the SAP and the UCSB independent monitoring team discussing potential feasible remediation options. The purpose of this letter is to formally notify SCE of my determination as acting Executive Director that remediation of WNR is necessary to meet the requirements of CDP 6-81-330-A. CDP 6-81-330-A, Condition C, Section 2.4 includes the following condition:

> *Monitoring independent of the permittee shall be implemented in accordance with Condition D to: (1) determine whether the performance standards of this condition are met (i.e., whether the mitigation reef successfully replaces the lost and damaged resources in the San Onofre Kelp bed), (2) if necessary, determine the reasons why any performance standard has not been met, and (3) develop recommendations for appropriate remedial measures. The permittee shall be*

responsible for fully implementing any remedial measures deemed necessary by the Executive Director.

In accordance with Condition C of CDP 6-81-330-A, the UCSB independent monitoring team used monitoring data collected at the Phase I reef since 2000 to determine the area of different configurations of new reef needed for remediation. Results from these analyses, summarized in Table 1 below and further explained in the March 2015 report, indicate the area of additional reef needed for the WNR to meet the performance standard for fish standing stock. The acreage of additional reef varies for different configurations of relief and rock coverage and the level of statistical confidence that it will support an annual standing stock of at least 28 tons. Table 1 shows that for a given level of statistical confidence, the acreage of additional reef needed is highest for low relief and low cover and decreases as the relief and cover of the additional reef increases. The level of confidence in meeting the 28 ton standard also increases as the acreage of additional reef increases.

(a) Reef Configuration		(b) Level of Confidence	(c) Additional acres
Relief	Cover		
low	low	95%	200
low	medium	95%	125
low	high	95%	105
high	high	95%	30
low	low	99%	240
low	medium	99%	155
low	high	99%	140
high	high	99%	38

Table 1. Additional acreage required for WNR to consistently meet the 28 ton fish standing stock permit requirement as a function of reef design and level of confidence.

I have reviewed the analysis described above and concur that to comply with the requirements of CDP 6-81-330-A, SCE must remediate WNR by building new reef acreage that, at a minimum, meets the size, relief and cover requirements of one of the options described in Table 1. We hope SCE staff will work with us to move forward with the planning and implementation of remediation as quickly as possible.

Although WNR has provided substantial benefits to the marine ecosystem and has successfully met many of the permit requirements, WNR's inability to meet the fish standing stock requirement, a critical element of the mitigation plan, represents a significant loss to the marine biological community. SCE benefited from the operation of SONGS for over 30 years without fully mitigating its impacts, and thus it is critical that we move quickly to ensure that resources that have been damaged and lost are replaced and SCE is in full compliance with the SONGS permit.

To that end, please submit a Remediation Plan of Action to Commission staff within 45 days of the receipt of this letter. At a minimum, the Plan of Action should include a list of steps and a proposed timeline for implementation of remediation of WNR. My staff and I would be happy to meet with you and your team to discuss the Remediation Plan of Action or to address other questions or concerns you may have. We understand that SCE has engaged the CPUC on the issue of remediation, and we will also plan to coordinate with CPUC staff to ensure that they are informed of our process moving forward. Please let us know if you would like us to set up a joint meeting with the CPUC.

We look forward to working with you to bring WNR into compliance with Condition C of the SONGS permit. If you have questions or would like to discuss this determination, please call Susan Hansch, Chief Deputy Director, at (415) 904-5244 or Kate Huckelbridge at (415) 396-9708.

Sincerely,

John Ainsworth
Acting Executive Director

CC: Eric Greene, CPUC
Cy Oggins, SLC
Jennifer Lucchesi, SLC

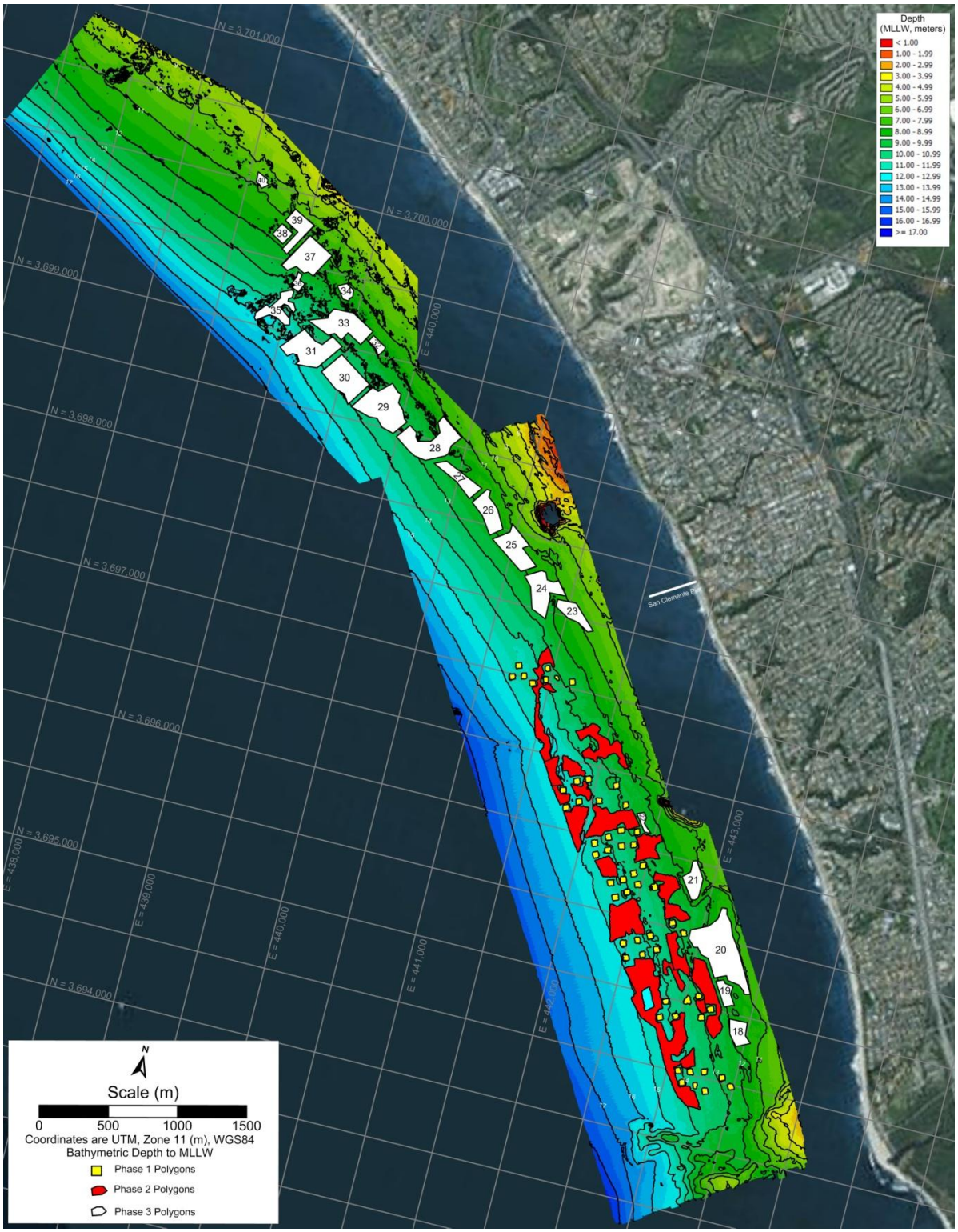

Figure 4-1. Phase 3 Expansion (210.6 acres), including 10 contingency acres, overlaid onto a seafloor bathymetric map.

Figure 6-1. Derrick barge.

Figure 6-2. Rock placement method: front-end loader/flat supply-barge "push off" method.

Figure 2-3. Proposed Construction Equipment and Configuration

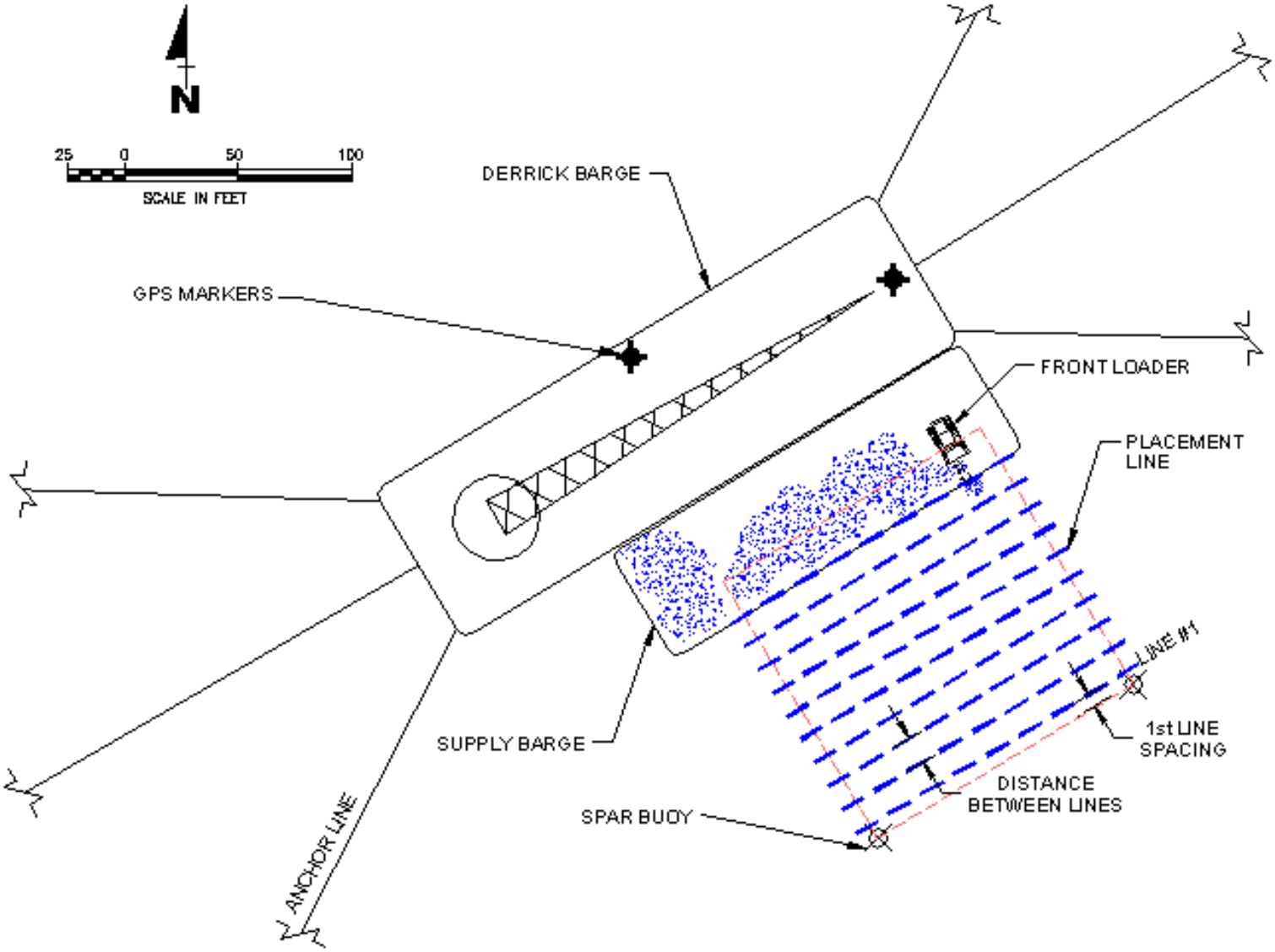

EXHIBIT 10

This map shows the locations of San Mateo and Barn relative to the Wheeler North Reef and SONGS

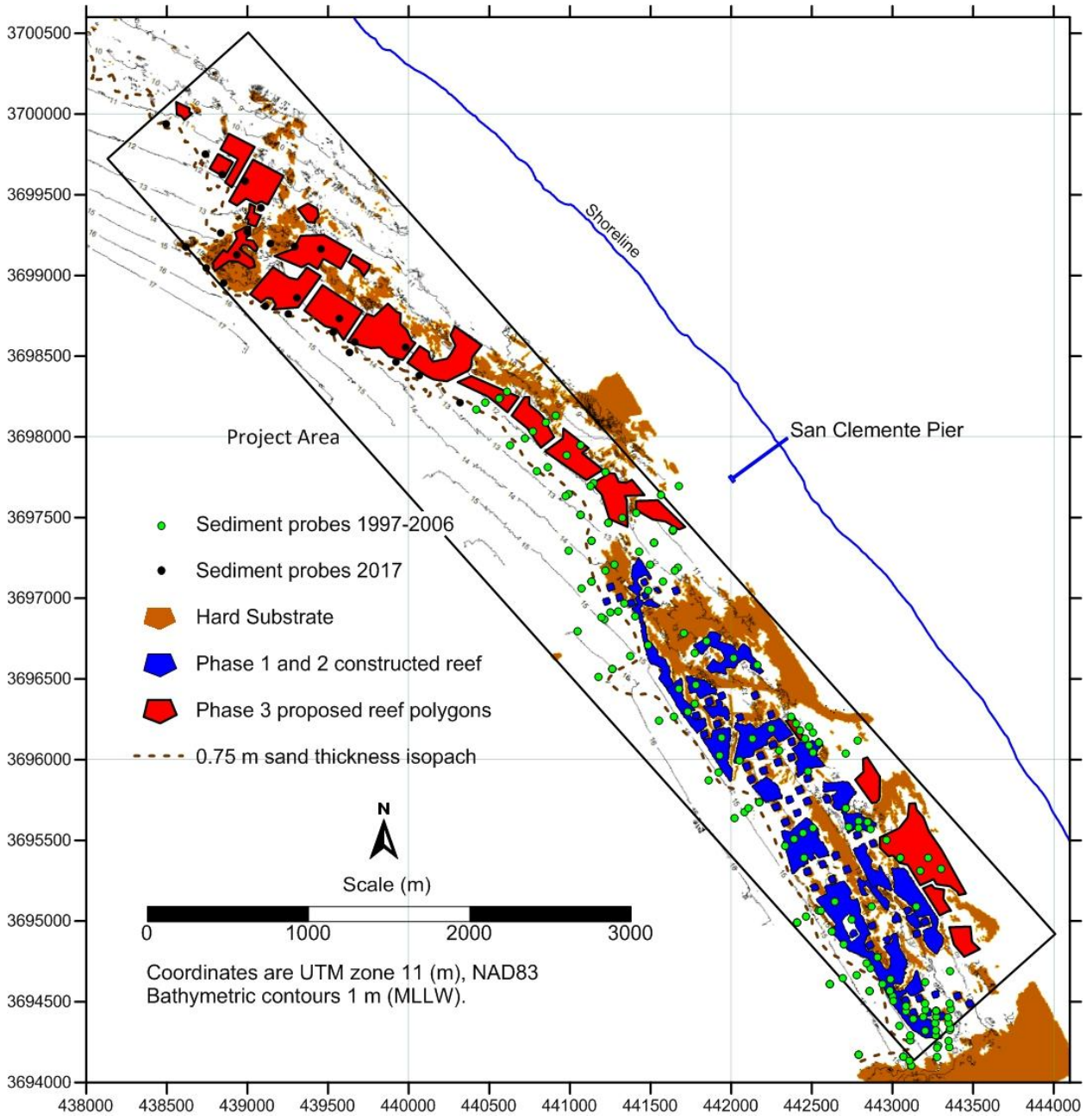

Figure 2-5. Composite of 2006 and 2017 survey data, showing bathymetric contours, hard substrate delineation (brown), and 0.75 m sediment thickness isopach. The Phase 1 & 2 constructed reefs are outlined in blue and the proposed Phase 3 polygons are shown in red. The 21 jet probes from 2017 (black circles) and the 179 probes from 1997-2006 (green circles) are also shown. The 1997-2006 data are from Ecosystems Management Associates, Inc. (1997).

EXHIBIT 12

SOUTHERN CALIFORNIA EDISON®

An *EDISON INTERNATIONAL®* Company

David W. Kay
Principal Manager,
Project Environmental Management

April 11, 2016

Ms. Susan M. Hansch
Chief Deputy Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Demarcation of Full Operating Life for SONGS Units 2/3 Coastal Development Permit

Dear Susan:

Pursuant to our meeting with you and staff on March 15, 2016, I have attached various references to document the end of the "Full Operating Life" for SONGS Units 2/3, for the purposes of the 1997 Coastal Development Permit (CDP) No. 6-81-330A. The 1997 CDP requires marine mitigation condition compliance for a period equal to the Full Operating Life of SONGS, including the decommissioning period to the extent that there are continuing discharges. While discharges do continue, we believe they are no longer relevant to the original intent of the CDP.

The Units 2 and 3 reactors were shut down in early 2012, but the primary circulating water pumps continued to operate until all were shut down by October 2013. Since that time, neither unit has operated a primary circulating water pump, all such pumps have been disabled, and only one saltwater cooling pump continues to operate within each unit. The saltwater cooling pump circulates about 25 MGD through each unit. The present condition represents a 97% reduction from the operating cooling water flow.

The attached documents include monthly NPDES Permit monitoring reports which document the timing of this flow reduction, and an additional report which calculates the reduced intake flow velocity (at either the offshore velocity cap or the onshore travelling screens) to be approximately 0.1 feet per second (FPS).

The reduced intake velocity is important because both the California Once-Through Cooling Water Policy and the U.S. EPA Cooling Water Intake Structure Rule (40 CFR Part 125.90) consider a cooling water intake velocity of less than 0.5 FPS as equivalent to closed-cycle cooling. That is, at intake velocities less than 0.5 FPS, no significant adverse environmental effects occur due to impingement or entrainment. The SONGS Marine Mitigation requirements for the San Dieguito Wetlands Restoration Project are based on impingement

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Irwindale, CA 91702
(626) 633-4839

and entrainment. Therefore, the significant impact being mitigated practically ceased in October 2013, even though discharges continue.

For the Wheeler North Reef Project, the environmental impact driving the mitigation requirement also practically ceased in October 2013, even though discharges continue. The reef mitigation compensates for impacts to the San Onofre Kelp Bed (SOK) due to a reduction in natural light caused by the turbidity plume produced by the SONGS diffusers during operation. The discharge ports along each units' discharge diffuser created a convection current which entrained naturally turbid bottom water into the discharge flow, creating a visible and measurable plume which moved over the SOK when currents moved in a southward direction. While we have not measured either turbidity or irradiance in the SONGS offshore area near SOK, the aerial photos in the attached NPDES offshore monitoring report clearly show no visible discharge plume emanating from the diffusers, as would be expected with a 97% reduction in cooling water flow.

Please review this information and consider our request to mark the end of SONGS' Full Operating Life as the end of year 2013. With Units 2 and 3 beginning operation in 1982 and 1983, respectively, we believe it is reasonable to define their Full Operating Life as 32 and 31 years.

Please let me know if you have any questions or require additional information.

Sincerely,

Attachments:

1. Letter to Johnathan Bishop, State Water Resources Control Board, November 27, 2013

2. Letter to Johnathan Bishop, State Water Resources Control Board, February 28, 2014

3. 2014 Marine Environmental Analysis and Interpretation Report, SONGS Units 2/3

Cc: Ms. Kate Huckelbridge, California Coastal Commission
Mr. Patrick Tennant, SCE
Mr. David Asti, SCE

water pumps were shut down and circulation water flows ceased for Unit 3. On October 1, 2013, the Unit 2 circulating water pumps were shut down and circulation water flows also ceased for Unit 2. At that point, only two SWC pumps continued to operate for the spent fuel pools and the intake flow rate was reduced to approximately 49 mgd, representing a decrease of approximately 96% from normal operating flows.[3] These reductions will be documented in upcoming Discharge Monitoring Reports (DMRs) to the San Diego Regional Water Quality Control Board for compliance with SONGS' existing National Pollutant Discharge Elimination System (NPDES) permits.

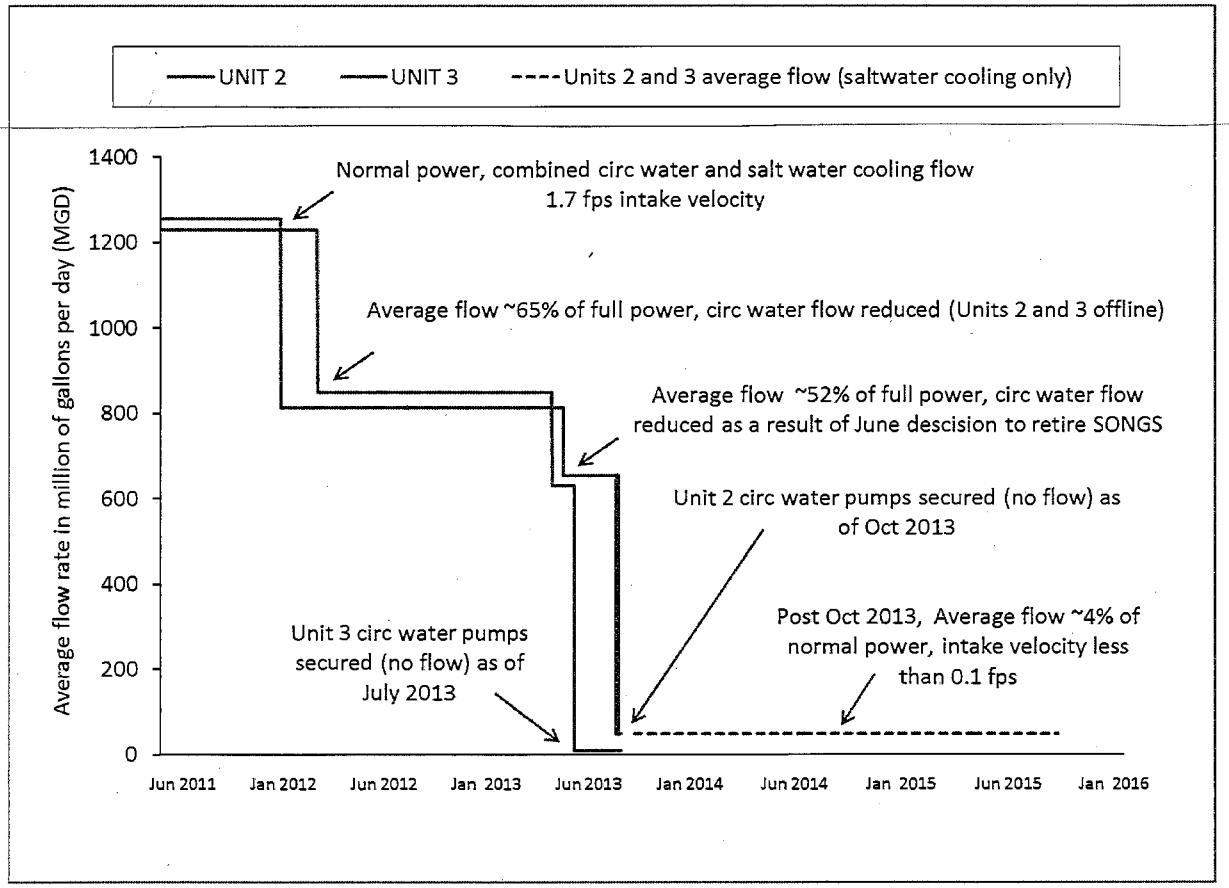

Figure 2. SONGS ocean water use and flow rate reduction from June 2011 and projected future flows. Intake flow velocity (at the offshore intake structures) is measured in feet per second (fps).

[3] Decommissioning may necessitate the operation of additional SWC pumps; however, the flow rate will continue to meet the minimum 93% reduction in intake flow rate and 0.5 fps through-screen intake velocity required for Track 1 compliance.