CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
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January 27, 2009

Dr. David Kay
Southern California Edison Company
P.O. Box 800
Rosemead, CA 91771

Mr. Craig Eaker, Project Manager
Southern California Edison Company
P.O. Box 800
Rosemead, CA 91771

Re: Notice of Acceptance—Condition Compliance for CDP #E-07-010 SONGS Mitigation Reef Special Condition #8 – Final Construction Report

Dear Dr. Kay and Mr. Eaker:

The Executive Director has reviewed the "*Final Construction Report for Wheeler North Reef at San Clemente, California*" submitted in compliance with Special Condition #8 of Coastal Development Permit #E-07-010 requiring compliance of the as-built Phase 2 Mitigation Reef to the design specifications laid out in Coastal Development Permit #6-81-330-A ("SONGS" permit), Special Condition C, and in SCE's "*Final Design Plan, Wheeler North Reef at San Clemente (SONGS Artificial Reef Project, Phase 2 Mitigation Reef*"), and found that it fulfills the requirements of that condition, as enumerated below.

Special Condition #8, Final Post-Construction Report:

Within 30 working days following construction of the Phase 2 Mitigation Reef, the permittee shall complete the As-built Construction Sonar Verification of all 11 polygons. Within 60 days following construction of the Phase 2 Mitigation Reef, the permittee shall submit a final post-construction survey report to the Executive Director. The report shall include:

- *a map showing the position and perimeter of each polygon;*
- *the average topographic relief and average percentage of the seafloor covered with quarry rock within each polygon;*
- *an estimate of the uniformity of rock coverage within the perimeter of each polygon as well as rock overlap; and*
- *the location, perimeter map, average relief and average percent cover of any polygon that is significantly different from the specifications set forth in the Final Design Plan.*

If, after consultation with the permittee, the Executive Director determines that the deviation(s) seriously compromise the value of the Phase 2 Mitigation Reef, then the permittee shall immediately prepare a construction remediation plan that will include alterations or additions necessary to correct the deviation(s). The permittee shall submit such construction remediation plan within 90 days of the final post-construction survey report for Commission approval as an amendment to this permit and shall implement the construction remediation plan as soon as is practicable following the Commission's approval.

Submitted in compliance with Special Condition #8:

Documents: The "*Final Construction Report for Wheeler North Reef at San Clemente,* California" *(Formerly The SONGS Artificial Reef Mitigation Project, Phase 2 Mitigation Reef) Volume I: Technical Report*, dated 4 November 2008 (Revised 12 December 2008) by Coastal Environments (CE Reference No. 08-33); "*Final Construction Report for Wheeler North Reef at San Clemente,* California" *(Formerly The SONGS Artificial Reef Mitigation Project, Phase 2 Mitigation Reef) Volume II: Data Report*, dated 5 November 2008 (Revised 12 December 2008) by Coastal Environments (CE Reference No. 08-34)

SONGS CDP #6-81-330-A requires the artificial reef to be constructed in two phases and requires the combined acreage of the Phase 1 Experimental Reef and the Phase 2 Mitigation Reef to be a minimum of 150 acres. The Phase 1 reef was constructed in 1999 and consists of 56 modules totaling 22.4 acres. Hence, compliance with the SONGS CDP requires that the Phase 2 reef be at least 127.6 acres.

Construction of the Phase 2 Wheeler North Reef (WNR) began on June 9, 2008 and was completed September 11, 2008. The Final Design Plan included both primary polygons intended to meet the acreage requirements for the Phase 2 reef as well as contingency polygons that could be constructed if needed either to substitute for the primary polygons or as future remediation for areas of any primary polygons that do not successfully meet the performance standards of the SONGS permit. SCE constructed all of the primary polygons as well as some contingency polygons identified in the *Final Design Plan*. The primary and contingency polygon acreage, as determined by high-resolution sonar, is 123.65 and 28.37 acres, respectively, for a total of 152.02 acres for the Phase 2 WNR, which exceeds the acreage requirement for the Phase 2 reef. This total acreage is within the range of 150 to 161 acres of artificial reef proposed by SCE in its *Final Design Plan* (127.6 for primary polygons and 22.4 to 33.4 acres of contingency polygons).

Both the SONGS permit (CDP #6-81-330-A) and permit to construct the Phase 2 reef (CDP #E-07-010) require that the Phase 2 Mitigation Reef be constructed of quarry rock distributed on the seafloor:

- at an average coverage between 42 to 86 percent;
- as a single-layer reef less than 1 meter in height with no more than 15 percent total overlap;
- in water depth between 11.5 to 15 meters; and

- within 10 feet (3.05 meters) of the designed polygon boundaries.

The average percent cover of quarry rock on the 152.02 acre Phase 2 reef (calculated as an average of all polygons weighted by polygon area) is 40.8 percent, which is slightly below the 42 percent minimum requirement specified in SCE's CDPs. To address this deficiency, SCE suggests using a subset of the constructed Phase 2 reef polygons that will result in the minimum 42 percent cover requirement, while still maintaining the 150-acre requirement for the combined Phase 1 and Phase 2 reefs. SCE presents three alternative scenarios in the *Final Construction Report* (Cases 2–4, pg 26). SCE recommends that the Executive Director accept Case 4 in determining which constructed polygons will be counted as meeting the Phase 2 reef requirements. Case 4 would *eliminate* all of primary polygon 5 (9.48 acres) and the north-western section of primary polygon 7 (12.20 acres) (shown as contingency reef polygons 5 and 7a on the attached figure) and *include instead* all constructed contingency polygons (now shown as primary reef polygons on the attached figure) for a total of 130.3 acres of Phase 2 WNR. The weighted average of the 130.3 acres of the Phase 2 reef totals 42.3 percent rock coverage. The Case 4 scenario of 130.3 acres, when combined with the 22.4 acre Phase 1 reef, totals 152.7 acres, and meets the permit requirement for a minimum of 150 acres with an average of at least 42% cover of rock.

The Executive Director agrees that the combination of acreage identified in Case 4 and shown as primary reef polygons on the attached figure fully meets the artificial substrate and acreage requirements for the artificial reef described in Condition C of SONGS CDP #6-81-330-A. Importantly, the acreage identified in Case 4 also meets all the other design specifications of the approved *Final Design Plan*, including that the Phase 2 reef consist of a single-layer reef less than 1 meter in height with no more than 15 percent total overlap, occur in water depth between 11.5 to 15 meters, and be within 10 feet of the designed polygon boundaries. Therefore, the completed Phase 2 WNR as identified in the Case 4 scenario and as shown on the attached figure as primary reef polygons meets all the SONGS permit and SCE *Final Design Plan* specifications listed above and required by CDP #E-07-010, Special Condition #8.

It is important to note that only those areas accepted as meeting the coverage requirement for the Phase 2 reef will be used to evaluate the success of the WNR. The constructed acreage of polygon 5 and the north-western section of polygon 7 (shown as contingency polygons 5 and 7a on the attached figure) do not meet the hard substrate requirement and therefore will not be used by staff to evaluate performance standards that measure the success of the WNR relative to natural reefs in the area. Nevertheless, the Commission contract staff will monitor these contingency polygons concurrently with the monitoring program for the accepted Phase 2 reef so that sufficient data will be available to the Executive Director to consider these contingency polygons for future remediation if needed to fulfill one or more of the permit performance standards. The Commission's 2008-2009 SONGS Mitigation Program budget may require an augmentation to accommodate the additional costs of sampling associated with these contingency polygons.

Your submitted material and a copy of this letter have been made a part of the permanent file. Construction of the Phase 2 Wheeler North Reef was a large undertaking and the Commission

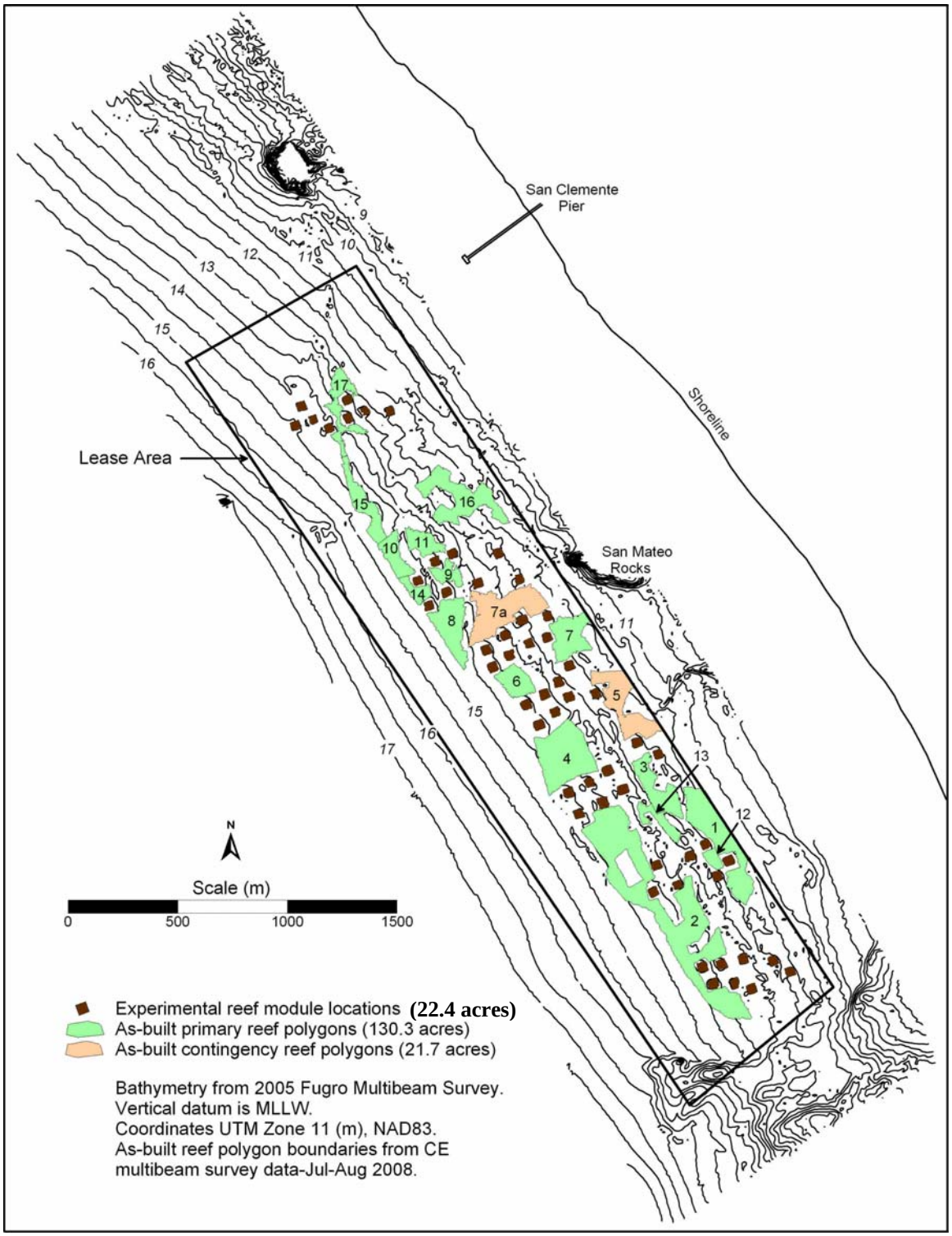
recognizes and commends the effort, attention to detail, and the success of this project to date. Thank you very much for your cooperation along the way. If you have any questions, please contact me at (805) 585-1821. We look forward to continued coordination in monitoring the Wheeler North Reef.

Sincerely,

Jonna D. Engel

Jonna D. Engel, Ph.D.
Ecologist

cc: Susan Hansch
Jody Loeffler
John Dixon
Robert Grove
Stephen Schroeter
Dan Reed
Mark Page



Phase 1 and 2 Mitigation Reef (WNR), consisting of the experimental modules (dark brown) and primary polygons (green) that combined equal 152.7 acres, approved by the CCC Executive Director as meeting the requirements of SONGS CDP #'s 6-81-330-A and E-07-010.