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W16a

RECOMMENDED REVISED CONDITION COMPLIANCE FINDINGS

November 21, 2008

To: To Commissioners and Interested Parties

From: Peter Douglas, Executive Director
Alison Dettmer, Deputy Director
Tom Luster, Staff Environmental Scientist

Regarding: **Condition Compliance for CDP No. E-06-013 –** Poseidon Resources (Channelside), LLC; **Special Condition 8**: Submittal of a Marine Life Mitigation Plan

Commissioners on Prevailing Side: Commissioners Achadjian, Blank, Burke, Hueso, Kram, Lowenthal, Neely, Potter, Reilly, Shallenberger, and Chair Kruer

Exhibit 1: Approved Marine Life Mitigation Plan (MLMP)

Exhibit 2: Staff's Proposed Draft MLMP Conditions (June 2008)

Exhibit 3: Poseidon's August 2, 2008 Proposed MLMP and attachments

Exhibit 4: Transcript of August 6, 2008 hearing (Commission deliberations only)

STAFF NOTE

Staff prepared these recommended Revised Findings to reflect the Commission's August 6, 2008 decision approving a Marine Life Mitigation Plan for the Poseidon desalination facility in Carlsbad, San Diego County. The Plan is required pursuant to ***Special Condition 8*** of Coastal Development Permit #E-06-013. The Commission's approval at the August hearing included modifications to the Plan proposed by both staff and Poseidon. Because the Commission's action differed from staff's recommendation, revised findings are necessary. The recommended Revised Findings herein support the Plan as approved by the Commission and are based on staff's review of the August 6, 2008 hearing transcript and the record before the Commission. Recommended changes from the August 6th document are shown in ~~strikethrough~~ and **bold underline** text.

Please note that the Commission required Poseidon to submit within 60 days of Commission approval a revised Plan for Executive Director review and approval that incorporates the Commission's approved modifications. Poseidon submitted a plan in early October 2008, which has been reviewed and approved by the Executive Director, and is attached as Exhibit 1.

SUMMARY

On November 15, 2007, the Commission conditionally approved CDP E-06-013 for Poseidon Resources (Channelside), LLC (Poseidon) for construction and operation of a desalination facility to be located adjacent to the Encina Power Plant in Carlsbad, San Diego County. As part of the Adopted Findings for its approval, the Commission imposed **Special Condition 8**, which required Poseidon to submit for further Commission review and approval, a Marine Life Mitigation Plan **(MLMP, or the Plan)**.[1]

In June 2008, Commission staff provided to Poseidon recommended conditions to include in its Plan (see Exhibit 2). On July 7, 2008, Poseidon submitted to Commission staff ~~its~~ **a** proposed Marine Life Mitigation Plan (the Plan). **On August 2, Poseidon submitted a revised version of that Plan (see Exhibit 3).** ~~This report provides staff's analysis of the Plan, staff's evaluation of whether the Plan conforms to the Adopted Findings and **Special Condition 8**, and staff's recommendation as to whether the Commission should approve the Plan.~~

~~In brief, staff's analysis shows that the Plan as submitted does not conform to the Adopted Findings and ***Special Condition 8***. However, if modified as described herein, staff believes the modified Plan would conform to the applicable Findings and ***Special Condition 8***. Staff therefore recommends the Commission **approve** the Plan, as modified herein. The modifications staff has identified as being necessary for Plan approval are summarized below and are further detailed in Sections 1.1 and 4.0 of this memorandum.~~ **At its August 6, 2008 hearing, the Commission approved a modified Plan. Because the Commission's action differed from staff's recommendation, revised findings are necessary.**

~~Staff recommends the Plan be modified to include the following~~**The Commission modified the Plan as follows**:

1) Poseidon ~~shall~~ **is to** create or restore ~~between~~ **up to** 55.4 ~~and 68~~ acres of coastal estuarine wetland habitat within the Southern California Bight. **For Phase I, within 10 months of issuance of the desalination facility's coastal development permit (CDP), Poseidon must submit proposed site(s) and a Preliminary Restoration Plan for Commission review and approval. Within two years of issuance of the CDP for the desalination facility, Poseidon must submit a complete CDP application to restore at least 37**

[1] The Commission's approval of this CDP also included **Special Condition 10**, which required Poseidon to submit for Commission review and approval an Energy Minimization and Greenhouse Gas Reduction Plan. ~~That Special Condition and Poseidon's submitted plan are evaluated in a separate staff report under Item W5a of the August 6, 2008 Commission hearing.~~ **The Commission approved the Energy Minimization and Greenhouse Gas Emission Reduction Plan at its August 6, 2008 hearing. The recommended Revised Findings for that Plan are on the Commission's December 2008 hearing agenda as Item W16b.**

acres of estuarine wetlands. For Phase II, Poseidon must within five years of issuance of the Phase I CDP submit a complete CDP application either to restore an additional 18.4 acres of estuarine wetlands or to propose reducing or eliminating this Phase II restoration requirement by instead implementing technologies not currently available or feasible that would reduce entrainment levels below currently anticipated levels or by undertaking dredging in Agua Hedionda Lagoon in a manner that warrants mitigation credit. Poseidon may apply to do all 55.4 acres of restoration during Phase I.

2) Poseidon shall implement its Marine Life Mitigation Plan in conformity to the conditions provided in Exhibit 2 of ~~this memorandum~~ **these Findings**.

3) Within 60 days of the Commission's approval of ~~this modified~~ **the** Plan **(i.e., as approved at the August 6, 2008 hearing)**, Poseidon shall submit for the Executive Director's review and approval a revised Plan that includes these modifications.

The first ~~recommendation~~ **modification** is based on a review of Poseidon's proposed Plan by staff and the Commission's independent scientific experts.[2] Poseidon's entrainment study identified impacts that these reviewers believe require more mitigation than Poseidon ~~has~~ **had** proposed. ~~Staff further believes that t~~**T**his amount of mitigation is necessary to ensure the project conforms to **Special Condition 8** and Sections 30230, 30231, and 30260 of the Coastal Act. Based on results from Poseidon's entrainment study, ~~this range in acreage – from 55 to 68 acres – represents the range in statistical confidence that would~~ **55.4 acres of wetland restoration will** provide the Commission with 80% ~~(i.e., 55 acres) to 95%~~ confidence ~~(i.e., 68 acres)~~ that the mitigation ~~would~~ **will** fully mitigate the impacts identified in the study. Section 4.2 of ~~this memorandum~~ **these Findings** provides a more detailed discussion.[3]

The second ~~recommendation is meant to~~ **modification** ensure**s** that mitigation is timely and successful. It ~~would~~ require**s** Poseidon to implement its mitigation subject to the conditions similar to those the Commission required of Southern California Edison at its San Dieguito Restoration Project (see, for example CDPs #183-73 and #6-04-88). Although Poseidon's current Plan does not commit to provide mitigation at a particular site, Poseidon had previously identified a mitigation site in San Dieguito Lagoon adjacent to Edison's as ~~the best~~ **its preferred** location to mitigate for its entrainment impacts. ~~Staff recommends the two projects be held to similar standards.~~ The Commission's scientific experts ~~concur with this recommendation~~ **recommend that the two restoration projects be subject to similar standards (see Exhibit 1 – Approved Conditions for Marine Life Mitigation Plan)**. Section 4.2 provides a more detailed discussion of this ~~recommendation~~ **modification**.

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[2] Staff consulted with members of the Commission's ~~Marine Review Committee~~ **Scientific Advisory Panel (SAP)**. Committee members are identified in Section 3.0 of this memorandum.

[3] ~~As an alternative to staff's recommendation, the Commission may wish to require mitigation in a manner similar to past decisions in which it applied a mitigation ratio to the identified level of impact. If the Commission selects this alternative approach, staff recommend mitigation be provided at between a 2:1 to 3:1 ratio, which would result in from 85 to 127.5 acres of coastal estuarine wetland habitat as mitigation.~~

The third ~~recommendation~~ **modification** is ~~meant~~ to help **ensure** Poseidon ~~and the Commission~~ implement**s** the ~~approved~~ mitigation plan **as approved**. Additionally, the 60-day deadline in the recommendation ~~would be~~ **is** consistent with the requirement imposed by the San Diego Regional Water Quality Control Board that Poseidon provide a mitigation plan for Board approval by October 9, 2008.[4]

~~With these recommended modifications, staff believes Poseidon's Plan would conform to applicable provisions of **Special Condition 8.**~~

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1.0 MOTION & RESOLUTION

Motion:

*"~~I move that the Commission approve the Marine Life Mitigation Plan attached to the staff recommendation as Exhibit 1 if modified as shown in Section 1.1 below and Exhibit 2 of this memorandum, as compliant with **Special Condition 8** of CDP E-06-013.~~ **I move that the Commission adopt the revised findings in support of the Commission's action on August 6, 2008 to approve the Marine Life Mitigation Plan as compliant with Special Condition 8 of CDP E-06-013.**"*

[4] The Regional Board's Order, adopted on April 9, 2008 requires, in part: "*Within six months of adoption of this resolution, Poseidon shall submit to the Regional Board Executive Officer, for approval by the Regional Board an amendment to the Plan that includes a specific proposal for mitigation of the impacts, by impingement and entrainment upon marine organisms resulting from the intake of seawater from Agua Hedionda Lagoon, as required by Section VI.C.2(e) of Order No. R9-2006-0065; and shall resolve the concerns identified in the Regional Board's February 19, 2008 letter to Poseidon Resources, and the following additional concerns:*

a) Identification of impacts from impingement and entrainment;
b) Adequate monitoring data to determine the impacts from impingement and entrainment;
c) Coordination among participating agencies for the amendment of the Plan as required by Section 13225 of the California Water Code;
d) Adequacy of mitigation; and
e) Commitment to fully implement the amendment to the Plan.

Resolution to Approve:

~~*The Commission hereby finds that the compliance plan titled "Marine Life Mitigation Plan" prepared and submitted by the permittee, Poseidon Resources (Channelside) LLC, dated July 3, 2008, if modified as shown in Section 1.1 and Exhibit 2 of the July 24, 2008 Commission staff report, is adequate, if fully implemented to comply with **Special Condition 8** of CDP E-06-013.*~~ ***The Commission hereby adopts the findings set forth below for the Commission's approval of the Marine Life Mitigation Plan as compliant with Special Condition 8 of CDP E-06-013 on the ground that the findings support the Commission's decision made on August 6, 2008 and accurately reflect the reasons for it.***

Staff Recommendation:

~~Staff recommends a "**YES**" vote, which will result in the **approval** of the modified plan as compliant with the Adopted Findings and **Special Condition 8** and adoption of the motion, resolution, and findings herein. The motion passes only by an affirmative vote of a majority of the Commissioners present. Staff's recommended modifications are provided in Section 1.1 below, and further detailed in Section 4.0 of this memorandum. If these recommended modifications are not incorporated into the Plan, staff recommends the Commission find the Plan, as submitted, does not conform to **Special Condition 8** and staff would therefore recommend the Plan be denied.~~ **Staff recommends a "YES" vote on the motion. Passage of the motion will result in the adoption of revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the revised findings hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action are eligible to vote on the revised findings.**

1.1 ~~RECOMMENDED~~ MODIFICATIONS

1) Poseidon shall create or restore ~~between~~ **up to** 55**.4** ~~and 68~~ acres of coastal estuarine wetland habitat within the Southern California Bight. **For Phase I, within 10 months of issuance of the desalination facility's coastal development permit (CDP), Poseidon must submit proposed site(s) and a Preliminary Restoration Plan for Commission review and approval. Within two years of issuance of the CDP for the desalination facility, Poseidon must submit a complete CDP application to restore at least 37 acres of estuarine wetlands. For Phase II, Poseidon must within five years of issuance of the Phase I CDP submit a complete CDP application either to restore an additional 18.4 acres of estuarine wetlands or to propose reducing or eliminating this Phase II restoration requirement by instead implementing technologies not currently available or feasible that would reduce entrainment levels below currently anticipated levels or by undertaking dredging in Agua Hedionda Lagoon in a manner that warrants mitigation credit. Poseidon may apply to do all 55.4 acres of restoration during Phase I.**

2) Poseidon shall implement its Marine Life Mitigation Plan in conformity to the conditions provided in Exhibit 2 of ~~this memorandum~~ **these Findings**.

3) Within 60 days of the Commission's approval of ~~this modified~~ the Plan **(i.e., as approved at the August 6, 2008 hearing)**, Poseidon shall submit for the Executive Director's review and approval a revised Plan that includes these modifications.

2.0 STANDARD OF REVIEW

The ~~Commission must determine whether the~~ subject plan **must** conform~~s~~ to **Special Condition 8 of CDP E-06-013**, which states:

*"**Marine Life Mitigation Plan:** PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to and obtain from the Commission approval of a Marine Life Mitigation Plan (the Plan) that complies with the following:*

a) Documentation of the project's expected impacts to marine life due to entrainment and impingement caused by the facility's intake of water from Agua Hedionda Lagoon. This requirement can be satisfied by submitting a full copy of the Permittee's Entrainment Study conducted in 2004-2005 for this project.
b) To the maximum extent feasible, the mitigation shall take the form of creation, enhancement, or restoration of aquatic and wetland habitat.
c) Goals, objectives and performance criteria for each of the proposed mitigation sites. It shall identify specific creation, restoration, or enhancement measures that will be used at each site, including grading and planting plans, the timing of the mitigation measures, monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. The Plan shall also identify contingency measures that will be implemented should any of the mitigation sites not meet performance criteria.
d) Requires submittals of "as-built" plans for each site and annual monitoring reports for no less than five years or until the sites meet performance criteria.
e) Defines legal mechanism(s) proposed to ensure permanent protection of each site – e.g., conservation easements, deed restriction, or other methods.

The Permittee shall comply with the approved Plan. Prior to implementing the Plan, the Permittee shall submit a proposed wetlands restoration project that complies with the Plan in the form of a separate coastal development permit application for the planned wetlands restoration project."

The Commission's **Permit** Findings supporting **Special Condition 8** state that the Plan is **to** ensure that all project-related entrainment impacts will be fully mitigated and that marine resources and the biological productivity of coastal waters, wetlands, and estuaries, will be enhanced and restored in compliance with Coastal Act Sections 30230 and 30231. The **Permit** Findings further state that the Plan must provide mitigation to the maximum extent feasible through creating, enhancing, or restoring aquatic and wetland habitat and must include acceptable performance standards, monitoring, contingency measures, and legal mechanisms to ensure permanent protection of the proposed mitigation sites.

3.0 PLAN DEVELOPMENT AND REVIEW

On November 15, 2007, the Commission approved CDP No. E-06-013 for Poseidon's proposal to construct and operate a desalination facility in Carlsbad, San Diego County. As part of that approval, the Commission required Poseidon, through **Special Condition 8**, to submit for additional Commission review and approval a Marine Life Mitigation Plan addressing the impacts that will be caused by the facility's use of estuarine water and entrainment of marine organisms.

~~Since~~ **After** the Commission's project approval in November 2007, staff and Poseidon ~~have~~ worked to develop a Plan that would meet the requirements of ***Special Condition 8*** and would be consistent with the Commission's **Permit** Findings. In March 2008, and as required by ***Special Condition 8***, Poseidon provided a copy of its entrainment study for Commission staff review. Staff provided the study to Dr. Pete Raimondi, an independent scientist with expertise in evaluating entrainment studies, for his review and recommendations (described in more detail in Section 4.0 below).[5] Dr. Raimondi provided the initial results of his review and recommendations to Poseidon in April 2008. In May 2008, staff conducted with Poseidon an interagency meeting with representatives from state and local agencies to determine what mitigation options might be available and feasible for Poseidon to include as part of its Plan.

Attendees include**d** representatives from:

California Department of Fish and Game	City of Carlsbad
California Department of Transportation	City of Vista
California State Lands Commission	U.S. Fish and Wildlife Service
San Diego Regional Water Quality Control Board	

In June 2008, based in part on concerns Poseidon expressed about Dr. Raimondi's review and recommendations, staff asked the Commission's ~~Marine Review Committee (MRC)~~ **Scientific Advisory Panel (SAP)**[6] to review Dr. Raimondi's conclusions and make further

[5] Dr. Raimondi is Professor and Chair of Ecology and Evolutionary Biology at the University of California, Santa Cruz Center for Ocean Health, Long Marine Lab. Dr. Raimondi is considered by many to be California's leading expert on entrainment analysis. He has been a key participant and reviewer of most of the entrainment studies done along the California coast during the past decade, including those done for the Diablo Canyon Nuclear Power Plant, the Huntington Beach Generating Station, Morro Bay Power Plant, and Moss Landing Power Plant. He is also a member of the Coastal Commission's ~~Marine Review Committee~~ **Scientific Advisory Panel (SAP)** responsible for determining mitigation needed for the San Onofre Nuclear Generating Station (SONGS) and providing review and oversight for the SONGS mitigation work at San Dieguito Lagoon.

[6] The ~~Marine Review Committee~~ **SAP** is a team of independent scientists that provides guidance and oversight to the Commission on ecological issues associated with the San Dieguito Restoration Project. That Project is being implemented by Southern California Edison pursuant to requirements of coastal development permits issued by the Commission and is meant to mitigate for marine resources losses caused by the San Onofre Nuclear Generating Station (SONGS). The ~~Marine Review Committee~~ **SAP currently** consists of ***Dr. Richard Ambrose***, Professor and Director of Environmental Science & Engineering Program, Department of Environmental Health Sciences, University of California Los Angeles; ***Dr. John Dixon***, Senior Ecologist, California Coastal Commission; ***Dr. Mark Page***, Marine Science Institute, University of California at Santa Barbara; ***Dr. Pete Raimondi***, Professor and Chair of Ecology and Evolutionary Biology, University of California at Santa Cruz; ***Dr. Dan Reed***, Marine Science Institute, University of California at Santa Barbara; ***Dr. Steve Schroeter***, Marine Science Institute, University of

recommendations for Poseidon to include in its proposed Plan. The ~~MRC~~ **SAP** review is described in more detail in Section 4.0.

Also in June 2008, staff provided Poseidon a copy of the conditions the Commission had required of Southern California Edison (Edison) for its wetland restoration project at San Dieguito Lagoon **(see Exhibit 2)**. Until June, Poseidon had been proposing a site adjacent to Edison's as ~~the best~~ **its preferred** site for ~~its~~ mitigation. Based on the Commission's **Permit** Findings and discussion at the November 2007 hearing, staff recommended to Poseidon that it incorporate modified versions of the Edison conditions into its proposed Plan to ensure the two adjacent mitigation sites would be subject to compatible and consistent mitigation requirements. These conditions are in Exhibit 2**1**.

On July 7, 2008, staff received Poseidon's ~~currently~~ proposed Plan for review by the Commission ~~(see Exhibit 1)~~. On July 14, 2008, staff again consulted with the ~~MRC~~ **SAP** to evaluate changes Poseidon had proposed in this most recent submittal. **On August 2, 2008, Poseidon submitted a revised** ~~Poseidon's current~~ proposed Plan~~,~~ **(see Exhibit 3).** ~~and t~~**T**he results of reviews by staff, Dr. Raimondi, and the ~~MRC~~ **SAP** are described in Section 4.0 below.

4.0 ANALYSIS FOR CONFORMITY TO SPECIAL CONDITION 8

~~Staff's evaluation of the proposed Plan shows that the~~**Poseidon's proposed** Plan, as submitted, ~~does~~ **did** not ensure conformity to ***Special Condition 8***. ~~Staff recommends the Plan be modified~~ **The Commission therefore required modifications to the Plan** to address two main areas in which the Plan ~~does not yet~~ **did not** conform to the condition: 1) the adequacy of mitigation proposed in the Plan; and, 2) assurances that the Plan will result in successful mitigation being implemented in a timely manner.

Section 4.1 below describes the submitted Plan's key elements **and the Commission's adopted modifications (shown in Exhibit 1)**. Sections 4.2 and 4.3 evaluate elements of the Plan that ~~staff believes~~ require modification. ~~Staff's recommendations~~ **The modifications** are based on review by staff and by members of the Commission's ~~Marine Review Committee (MRC)~~ **Scientific Advisory Panel (SAP)**, as described in Section 3.0. They also reflect comments received from other agencies, including the U.S. Fish and Wildlife Service and the California State Lands Commission. ~~The discussions below also identify concerns Poseidon expressed about staff's recommendations and staff's response to those concerns. Staff believes its third recommendation~~ **The third modification**, which ~~would~~ require**s** Poseidon to submit a revised Plan that incorporates these modifications, ~~would~~ help**s ensure** ~~the Commission and~~ Poseidon ~~in implementing~~ **implements** the modified Plan.

California at Santa Barbara; and, ***Dr. Russ Schmitt***, Director of Coastal Research Center, University of California at Santa Barbara.

4.1 PLAN DESCRIPTION

Poseidon's proposed Plan include~~s~~**d** the following main elements:

- **Phased Mitigation Approach:** Poseidon propose~~s~~**d** that it implement necessary mitigation in two phases. Phase I would result in 37 acres of wetland restoration or creation within the Southern California Bight. During this phase, Poseidon would also conduct technology review to determine whether new or developing technologies would be reasonably feasible to reduce entrainment. It would also conduct a new entrainment study ten years after beginning operations to determine whether additional mitigation is needed for the facility's entrainment impacts. Phase I would apply during the time Poseidon's desalination facility operations are concurrent with operations of the power plant's cooling water system.

  Phase II would occur if the power plant stops operating or, for three consecutive years, operates at a level that provides less than 15% of the water Poseidon needs to operate the desalination facility (i.e., about 16.6 billion gallons per year)[7]. This amount would be based on the power plant's average water use over any three-year period. Under Phase II, Poseidon would conduct a new entrainment analysis and evaluate potential new technologies, similar to the review described in Phase I. Poseidon would then provide the results of those analyses to the Commission for review. If the Commission determines the analyses show a need for additional mitigation or the evaluations show certain technologies might reduce entrainment impacts, Poseidon would request its Plan be amended to require those changes. If additional mitigation is needed, Poseidon would propose one of the following:
  - Assume dredging obligations for Agua Hedionda Lagoon from the power plant and obtain mitigation credit of up to 81 acres of restoration credit for conducting dredging; or,
  - Provide additional wetland mitigation of up to 5.5 acres.

- **Suggested Conditions:** ~~The~~ **Poseidon's proposed** Plan include~~s~~**d** suggested conditions that Poseidon would use to implement further studies, evaluate new technologies, select its mitigation site(s), and implement mitigation options. Many of these are modified versions of conditions the Commission required Edison use to implement its mitigation measures for the impacts to marine life from the San Onofre Nuclear Generating Station. These are discussed in Section 4.3 below.

In adopting the final MLMP, the Commission incorporated several concepts from Poseidon's proposed Plan with a number of modifications, including:

- **Entrainment impacts: The Commission determined that Poseidon's entrainment impacts resulted in a loss of marine organisms equivalent to that produced in a 55.4-acre area of estuarine and nearshore habitat (see Sections 4.2.1 & 4.2.2 below for details).**

[7] Poseidon's average withdrawal of 304 million gallons per day would equal almost 111 billion gallons per year. 15% of that amount is about 16.6 billion gallons, or about 45 million gallons per day.

- **Phased mitigation: The Commission required mitigation in up to two phases:**
  - **During Phase I, Poseidon is to create or restore at least 37 acres of coastal estuarine wetland habitat in one or two sites within the Southern California Bight. Within 10 months of issuance of the CDP for the desalination facility, Poseidon is to submit a preliminary site selection and restoration plan for Commission approval, and with 24 months of issuance of that CDP, Poseidon is to submit a complete CDP application for restoration of at least 37 acres of estuarine wetlands. Poseidon may choose to restore the full 55.4 acres of wetlands during Phase I.**

  - **For Phase II, Poseidon must within five years of issuance of the Phase I CDP submit a complete CDP application to restore an additional 18.4 acres of estuarine wetlands, or as part of that application may request to reduce or eliminate this Phase II restoration requirement by instead implementing technologies that are not currently available or feasible to reduce entrainment impacts below currently anticipated levels or undertaking dredging in Agua Hedionda lagoon in a manner that warrants mitigation credit.**

- **Required conditions: Poseidon is to implement its Marine Life Mitigation Plan as modified by the Commission and in conformity to the conditions provided in Exhibit 1 of these Findings. Those modifications require Poseidon to submit within sixty days of the Commission's August 6, 2008 approval a revised Plan that includes all required conditions and modifications for the Executive Director's review and approval.**

4.2 ANALYSIS – ADEQUACY OF MITIGATION

This section evaluates the following elements of Poseidon's proposed Plan:

Section 4.2.1: Analysis of Poseidon's entrainment study
Section 4.2.2: Determining the mitigation needed to address identified impacts
Section 4.2.3: Analysis of Poseidon's phased approach
Section 4.2.4: Analysis of dredging as proposed mitigation

4.2.1 Analysis of Poseidon's Entrainment Study

Special Condition 8 required Poseidon to submit its entrainment study for Commission staff review. In March 2008, Poseidon submitted data and modeling results from its study. The study was conducted using the Empirical Transport Model (ETM), which is used to identify the level of adverse effect caused by entrainment. The model compares the portion of a population at risk of entrainment to the portion of that population actually entrained. It calculates this proportional mortality for each of the main species subject to entrainment, and uses the source water area of each species – that is, the total volume or area of water in which species are at risk of being entrained – to calculate the Area of Production Foregone (APF), which provides an estimate of the average area of habitat that would be needed to produce the organisms lost to entrainment. As shown below, this APF provides the basis for determining the amount of mitigation needed to address entrainment impacts.

As described in Section 3 above, staff provided Poseidon's data and study results to Dr. Raimondi for review. In reviewing the study, Dr. Raimondi concluded the following:

- **Adequacy of Study:** Dr. Raimondi found that, as submitted, Poseidon's study could not be evaluated for its technical merits or its estimates of impacts. However, by reviewing additional relevant Poseidon documents and documents from the associated power plant's entrainment study, and by working with the consultants that had conducted Poseidon's study (Tenera Consultants), Dr. Raimondi was able to determine that the study's sampling and data collection methods were consistent with those used in other recent studies conducted in California pursuant to the protocols and guidelines used by the U.S. EPA, Regional Water Quality Control Boards, California Energy Commission, and Coastal Commission.

  Dr. Raimondi also found that the study provided adequate data to determine the types and numbers of organisms that would be subject to entrainment and to determine the area of the source water bodies – that is, the area of Agua Hedionda and nearshore ocean waters where entrainable organisms would be subject to entrainment. The study identified a source water area within Agua Hedionda of 302 acres and a nearshore source water area of about 22,000 acres. Poseidon's calculations were generally consistent with those used in other recent studies, although the calculations Poseidon used to determine its source water areas differed from those used in other recent studies to reflect the tidal exchange between Agua Hedionda Lagoon and the nearshore ocean environment.

- **Determining the Effects of Poseidon's Entrainment:** Poseidon concluded that the entrainment caused by 302 MGD of water withdrawal by the desalination facility would result in an APF of 37 acres in Agua Hedionda Lagoon. Dr. Raimondi's review revealed that Poseidon's APF calculation was accurate, albeit at the 50% confidence level – that is, the 37-acre APF represented the area for which the study could assure **with** at least 50% confidence that the area reflected the full extent of Poseidon's entrainment impacts in the Lagoon. This calculation is based on applying standard statistical techniques to the error rates Poseidon generated in its study. Dr. Raimondi also used those error rates to calculate APFs at the 80% and 95% confidence levels – that is, the number of acres for which the area of full entrainment impacts could be described with at least 80% or 95% confidence. This resulted in APFs of 49 and 61 acres, respectively.

  Poseidon's study did not include an APF for the area of nearshore ocean waters that would be affected by entrainment; therefore, using Poseidon's data, Dr. Raimondi calculated an APF for the entrainment effects Poseidon would cause in these nearshore waters. At the same 50%, 80%, and 95% confidence levels, the APFs would be 55, 64, and 72 acres, respectively. The APFs for both source water areas and each confidence level are shown in Table 1 below.

Table 1: APF Totals

Source water areas:	**APF (in acres) at three levels of confidence:**		
	50%	***80%***	***95%***
Estuarine: 302 acres of source water	37	49	61
Nearshore: 22,000 acres of source water	55	64	72
Total APF	**92 acres**	**113 acres**	**133 acres**

In its July 3, 2008 proposed MLMP submittal, Poseidon raised a number of concerns with staff's and Dr. Raimondi's review (see **also** Exhibit B of **Poseidon's August 2, 2008 submittal in Exhibit 3** ~~of the MLMP~~). In response, and to supplement Dr. Raimondi's review, Commission staff requested that the ~~MRC~~ **SAP** assess the review and respond to Poseidon's concerns.

Poseidon stated its study made a number of conservative assumptions that result in an overestimate of the mitigation needed**.** ~~and that t~~**T**hose ~~conservative~~ assumptions**, and the SAP's response,** include:

- *The study overestimated the number of larvae in the lagoon and assumed a greater amount of entrainable larvae than are actually present*. In response, Dr. Raimondi and the ~~MRC~~ **SAP** noted that this type of study is based on actual sampling data, not estimates. The data reviewed were those Poseidon provided from its sampling efforts, so there should be no overestimate or assumption of a greater number of larvae than were actually sampled. If Poseidon believes the data are incorrect, that would suggest either that the raw data should be re-evaluated or the study should be run again. Further, if Poseidon's contention were true – that is, if the study overstated the number of larvae in the Lagoon – this would result in a higher APF and would therefore result in a need for *more* mitigation.[8]

- *The study assumes the project will render all affected acreage (i.e., the APF) non-functional, even though that acreage would only be partially affected and would continue to allow numerous other species to function*. In response, the ~~MRC~~ **SAP** reiterated that these entrainment studies do not assume the complete loss of ecosystem function within an area of APF; instead, they identify only the area that would be needed to replace the numbers and types of species identified in the study as subject to entrainment. The APF is used to determine impacts to only those species most affected by entrainment, and the mitigation resulting from the APF is meant to account only for those effects.

[8] To provide a simple example, the APF is based in part on proportional mortality, which is the ratio of the number of organisms entrained compared to those at risk of being entrained. Assuming the number of entrained organisms remains the same, the fewer organisms in the Lagoon, the higher the proportion of those organisms entrained – therefore, Poseidon's contention results in a higher proportional impact area.

- *The study protocols assume 100% mortality for entrained organisms; however, Poseidon believes actual mortality will be significantly lower. Poseidon also contends that it should be required to provide less mitigation based on its contention of a lower mortality rate.* In response, the ~~MRC~~ **SAP** noted that the protocols used in these entrainment studies include an assumption of 100% mortality based on guidance from the U.S. EPA and reflecting the practice of California's State and Regional Water Boards, the California Energy Commission, and the Coastal Commission in conducting and evaluating these studies. This assumption applies to these studies regardless of the type of intake and discharge system being evaluated. For example, although each power plant or desalination facility may use different water volumes, have different and variable water velocities and levels of turbulence, use different types of screens, pumps, and other equipment, and draw in a different mix of organisms, all entrainment studies similar to Poseidon's have used this same 100% mortality rate. Further, there are no peer-reviewed scientific studies that support using a lower mortality rate for different types of power plant or desalination systems that cause entrainment. In the case of Poseidon's desalination facility, entrained organisms will be subject to a number of stressors – including high pressures, significant changes in salinity, possible high temperature differences if the power plant is operating, etc. – and they will then be discharged to a different environment than is found in Agua Hedionda. Any one or a combination of these stressors could result in mortality.

  Poseidon's proposed phased mitigation approach, which is based in part on its contention of lower mortality rates, is evaluated in more detail below. One element of this approach, however, is that Poseidon states it might use alternative screening systems to reduce entrainment or entrainment mortality. ~~However, staff considers this only speculative at this time, and notes that screening systems that have been tested for reducing entrainment have not been found effective in the marine environment. The current scientific understanding is that entrainment impacts are based on an assumption of 100% mortality of organisms present in the full volume of water drawn into an intake system, and that is the basis of the analysis herein.~~ **Pursuant to the Commission's action, if Poseidon proposes to adopt alternative technologies that are not currently available or feasible to reduce entrainment, it may apply for reduced mitigation requirements as part of its Phase II CDP application.**

Based on the above, and on the reviews conducted by Dr. Raimondi and the SAP, the Commission concurs with the conclusions of the scientific reviews showing that the facility's expected entrainment impacts result in the above-referenced APFs and incorporates those conclusions into its approval of the Plan.

4.2.2 Determining the mitigation needed to address identified impacts

The APFs generated from the study and shown in Table 1 identify the extent of expected entrainment impacts, and also serve as the basis for identifying the type and amount of mitigation needed to address those impacts. Past entrainment studies have generally used the 50% confidence level APF as the basis for mitigation and applied a mitigation ratio (e.g., 1:1, 2:1, 3:1, etc.) to compensate for mitigation occurring at a distance from the affected area, to reflect a temporal loss of habitat functions caused by the impact, to reflect mitigation that provides a different type of habitat than the affected area, or other concerns. This option is described briefly later in this Section.

For this review, however, Dr. Raimondi provided an alternative approach to determine the amount of mitigation needed, based on two main assumptions:

- First, that any mitigation provided would be in the form of restored habitat similar to the types of habitat that produced or supported the affected entrained organisms – that is, that mitigation would consist of tidally-influence salt marsh or shallow water areas similar to those found in Agua Hedionda Lagoon.

- Second, that the mitigation provided would be fully successful – that is, the mitigation site would provide fully functioning habitat that would meet required performance standards, contingency plans, etc., required for such projects to ensure success. This was based on an additional assumption – that Poseidon would be providing mitigation at a site in San Dieguito Lagoon adjacent to Edison's restoration site and would be subject to the same conditions the Commission required of Edison. Dr. Raimondi and the ~~MRC~~ **SAP** believe the conditions required of Edison provide a high level of certainty that Edison's restoration efforts will be successful and that they would provide a similar level of certainty for Poseidon's mitigation at this location.

Using the above assumptions, and using the APF figures noted above, Dr. Raimondi concluded with at least 50% confidence that creating or restoring 37 acres of suitable and fully functioning estuarine habitat would fully replace the lost productivity of Agua Hedionda Lagoon, that 49 acres would be needed to provide an 80% level of certainty, and that 61 acres would be needed to reach a 95% level of certainty. By applying the same approach to the nearshore APFs, Dr. Raimondi concluded that creating or restoring 55 acres of open water habitat would be needed to provide at least 50% certainty that that entrainment effects in that source water area would be fully mitigated, that 64 acres were needed to provide 80% certainty, and 72 acres would provide 95% certainty. However, in recognition of the impracticality of creating 55 to 72 acres of offshore open water habitat and recognizing the relatively greater productivity rates per acre of estuarine wetland habitats, Dr. Raimondi suggested that these offshore impacts be "converted" to estuarine mitigation areas. That is, by assuming that successfully restored wetland habitat would be ten times more productive than a similar area of nearshore ocean waters, every ten acres of nearshore impacts could be mitigated by creating or restoring one acre of estuarine habitat.[9] Applying this 10:1 ratio to the nearshore APFs results in 5.5, 6.4, and 7.2 acres, respectively. Although this approach would result in "out of kind" mitigation, it is also expected to produce overall better mitigation – not only is it not practicable to create nearshore, open water habitat, that habitat type is already well-represented along the shoreline, whereas creating or restoring coastal estuarine habitat types would support a long-recognized need to increase the amount of those habitat types in Southern California.[10] These totals are shown Table 2 below.

[9] This approach – converting offshore entrainment impacts to areas of wetland mitigation – has been used to help determine mitigation in several recent California power plant siting cases, including Huntington Beach (00-AFC-13), Morro Bay (00-AFC-12), and others.

[10] See, for example, the Southern California Wetlands Recovery Project at http://www.scwrp.org/index.htm

Table 2: Adjusted APF Totals

Habitat Type	APF (in acres) at three levels of confidence			Conversion ratio	Resulting APF (in acres) at three levels of confidence		
	50%	***80%***	***95%***		***50%***	***80%***	***95%***
Estuarine	37	49	61	1:1	37	49	61
Nearshore	55	64	72	10:1	5.5	6.4	7.2
Total Mitigation					**42.5**	**55.4**	**68.2**

In sum, Dr. Raimondi concluded that creating 55.4 to 68.2 acres of fully functioning estuarine habitat similar to habitat in Agua Hedionda Lagoon would provide between 80 to 95% confidence that Poseidon's entrainment impacts would be fully mitigated. This conclusion is also based on Poseidon's mitigation being subject to conditions similar to Edison's, which is discussed in more detail in Section 4.2.3 below.

Poseidon contends that ~~Dr. Raimondi's~~ **staff's** recommendation to apply an 80-95% level of certainty for mitigation is "extraordinary and unprecedented" and would result in excess mitigation for the project's expected impacts. In response, Dr. Raimondi and the ~~MRC~~ **SAP** state that ~~the confidence levels used are based on the error rates Poseidon calculated as part of its study, and generating these calculations is a standard practice for this type of entrainment study~~ **considering uncertainty is a standard practice in data analysis and that such consideration provides a context for understanding the likelihood that a particular amount of mitigation will provide full compensation for identified impacts. Staff notes that Poseidon's entrainment study included error rates that Dr. Raimondi used initially to calculate a higher estuarine APF of 87 acres at the 80% confidence level. Dr. Raimondi then used a different error rate, which he considered more appropriate for this study, to calculate an APF of 49 acres at the 80% confidence level**.[11]

Dr. Raimondi's recommendation of using the 80-95% confidence level is "unprecedented" only in that past studies have used the 50% confidence level **to describe the expected impact** and then applied a mitigation ratio, such as 2:1 or 3:1, to reflect the lower confidence level**,** ~~and~~ to include consideration of mitigation that may be "out of kind"**,** ~~or~~ provided at some distance from the affected area**, or may not be fully successful**. Dr. Raimondi's proposal, as supported by the ~~MRC~~ **SAP** and Commission staff, would actually result in less mitigation acreage than that standard mitigation approach, but it would have higher certainty of success.

~~Staff recognizes that the Commission could apply a mitigation ratio to the identified level of impact, consistent with past mitigation determinations for wetland impacts. For example, applying a 2:1 ratio to the 50% 42.5 acre total APF would yield 85 acres of restored coastal wetland habitat, and applying a 3:1 ratio would yield 127.5 acres of habitat. If the Commission selects this approach, staff believes these ratios would be appropriate minimums to apply to reflect that the Plan does not identify specific mitigation sites and the site(s) selected could be more than a hundred miles from the impact site at and near Agua Hedionda.~~

[11] Poseidon's study included error rates based on source water sampling, which Dr. Raimondi believed were unreasonably high. He instead calculated an error rate based on the proportional mortality of each species being an independent replicate, which he believes better meshes with the logic behind the use of the APF to determine impacts.

~~However, as described previously, Commission staff believes that Dr. Raimondi's proposed approach of creating 55.4 to 68.2 acres would be an adequate and preferable approach – if Poseidon's proposed Plan is also modified to include staff's other recommended modifications, including the one described in the next section of this memorandum.~~

Based on the discussion above and on the record, the Commission finds that requiring 55.4 acres of estuarine wetland restoration in the Southern California Bight subject to the conditions shown in Exhibit 1 provides a sufficient degree of certainty that the facility's entrainment impacts will be fully mitigated and brings the Plan into conformity to Special Condition 8 and the Coastal Act's marine life protection policies.

4.2.3 Analysis of Proposed Mitigation Phasing

As noted above, Poseidon's Plan includes a proposed phased approach to mitigation, which would be based on changes in power plant operations or possible changes in technology. **Because of the possibility that Poseidon might in the future adopt technologies that are not currently available or feasible to reduce entrainment and because of uncertainty regarding future power plant operations, the Commission finds that it is appropriate to allow phasing of the mitigation. For the first phase, Poseidon must submit within two years of the issuance of the CDP for the desalination facility a complete CDP application for wetland restoration of at least 37 acres. Poseidon may apply during Phase I to implement the entire 55.4 acres of wetland restoration. For the second phase, Poseidon must within five years of issuance of the Phase I CDP submit a complete CDP application to restore the additional 18.4 acres of restoration, or as part of that application request the Commission reduce or eliminate the amount of required restoration if Poseidon implements the above-referenced technologies that result in reduced entrainment or if, as explained below, Poseidon performs dredging in Agua Hedionda Lagoon in a manner that warrants mitigation credit.** ~~For several reasons, staff recommends the Commission not accept this aspect of the Plan and instead require a specific type and amount of mitigation as described above. The entrainment impacts described in the Commission's Findings were based on Poseidon application to withdraw 304 million gallons per day of estuarine water to operate its desalination facility, and staff recommends the Commission use this as the basis for its decision on the amount of mitigation needed to address this impact.~~

~~Staff believes this phasing approach is speculative in that it is tied to unknown future operations of the power plant. Additionally, information in the record shows that the power plant owner expects to replace the existing power plant within the next few years and to operate the existing plant only at very low levels or on a back-up basis until it is no longer needed to support the regional electrical power grid. More recently, the power plant owner announced that it would consider constructing its own desalination facility to provide water for its proposed new power plant. If built, this facility would use only about one percent of the water Poseidon proposes to use, and so would likely have a relatively minor affect on the overall mitigation needed to adequately address the impacts of both facilities.~~

~~Staff also believes that tying Poseidon's mitigation to power plant operations would be inappropriate for purposes of the coastal development permit and the Commission's Findings. Poseidon's coastal development permit application did not include the power plant owner as a co-applicant, and the Commission has made no determinations about how the power plant should or may operate.~~

4.2.4 Analysis of dredging as project mitigation

~~Similarly, staff recommends the Commission not approve Poseidon's proposal to allow it to use as mitigation during Phase II the dredging activities now being conducted by the power plant owner.~~ Poseidon proposes a formula by which it could obtain up to 81 acres of credit for conducting dredging in Agua Hedionda Lagoon. **The Commission does not accept this formula because it does not currently have sufficient information to evaluate the purpose, nature, or extent of potential dredging, or whether Poseidon would be able to conduct the proposed dredging. It is possible, however, that Poseidon might carry out future dredging in a manner that warrants mitigation credit. Poseidon may therefore apply as part of its Phase II mitigation CDP application for a reduction in restoration requirements in exchange for mitigation credits that the Commission may consider for Poseidon's dredging activities.** ~~However, the Commission has not considered dredging in and of itself to be mitigation. Dredging that the power plant has conducted in the past has been done to maintain its intake channel, and similarly, Poseidon's main purpose for dredging would be to maintain that channel. The Commission has considered habitat benefits resulting from dredging for that primary purpose as merely incidental to the primary purpose of the dredging activities rather than mitigation. Had those dredging activities instead been considered mitigation, the power plant owner may have been required to continue dredging to maintain the area of mitigation, regardless of the need for an intake structure.~~

~~Further, as noted in the Findings, the power plant owner also owns the Lagoon and has expressed its intentions to maintain the Lagoon for the foreseeable future. Additionally, the power plant owner is not a permit co-applicant with Poseidon, and the permit record includes no agreement between Poseidon and the owner regarding dredging, so staff believes it would not be appropriate for the Commission to approve a plan that may create an expectation that Poseidon would take on these activities on the owner's property without landowner approval.~~

~~As Poseidon notes in its Plan, the Commission accepted as part of Edison's San Dieguito restoration project a commitment by Edison to maintain the San Dieguito tidal inlet in an open condition in perpetuity. However, in that instance, dredging was necessary for that project to support the more than 100 acres of restored tidal wetlands Edison had created as a substantial portion of the mitigation required pursuant to its SONGS coastal development permit. The Commission's acceptance of that mitigation element was also based on multiple years of study by the MRC, whose recommendation the Commission used in its decision. The MRC has not made a similar recommendation for Poseidon's proposal. Further, Poseidon has not proposed mitigation within Agua Hedionda that would require dredging.~~

~~Finally, Poseidon's proposal would not meet the provision of **Special Condition 8** requiring mitigation to be in the form of creation, enhancement, or restoration of aquatic and wetland habitat, to the maximum extent feasible. As noted above, there are wetland mitigation opportunities within the Southern California Bight well in excess of the amount needed to mitigate for this project's impacts, and Poseidon has not shown that it would be infeasible to provide the required type of mitigation.~~

4.3 ANALYSIS – ASSURANCE THAT MITIGATION WILL SUCCEED

Until recently, Poseidon had proposed that it provide wetland restoration at a site in San Dieguito Lagoon, adjacent to Edison's restoration project. Review by staff, Dr. Raimondi, and the ~~MRC~~ **SAP** had been based on determining whether that site would provide suitable mitigation. In April 2008, Dr. Raimondi concluded that Poseidon's proposed San Dieguito site would likely provide suitable habitat for the losses of estuarine larvae at Agua Hedionda if the restored habitat was similar to the habitat affected at Agua Hedionda. In June 2008, Dr. Raimondi and the ~~MRC~~ **SAP** also concluded that the San Dieguito site would also provide at least partial mitigation for some species affected in Poseidon's nearshore impact area. Also in June, staff provided Poseidon with a modified version of the conditions the Commission required Edison to meet for conducting its site selection, construction, monitoring, and other aspects of its restoration plan, and recommended that Poseidon include these conditions as part of its proposed Plan. These are provided in Exhibit 2.

~~Since then,~~ **Several weeks before the August 2008 hearing,** Poseidon altered its Plan so that San Dieguito ~~is~~ **was** no longer necessarily Poseidon's preferred site. The Plan instead proposes that Poseidon select a site or sites somewhere within the Southern California Bight that meet conditions shown in Sections 3.1 and 3.2 of the Plan. Those conditions include**d** further modifications to the conditions staff provided in June.

Staff asked the ~~MRC~~ **SAP** to review Poseidon's two proposed changes – that is, its proposal to consider sites other than San Dieguito and the modifications in its Plan to staff's previously recommended conditions. Regarding, staff's proposed conditions, the ~~MRC~~ **SAP** believes those conditions – i.e., Exhibit 2 – would generally provide adequate assurance of success for a restoration project to be implemented in most coastal estuarine areas of Southern California, although a higher degree of assurance would result if specific sites were identified. The ~~MRC~~ **SAP** also determined that the changes Poseidon proposed to staff's conditions and included in its Plan would result in lesser mitigation standards than those required of Edison and would not provide equal assurance of mitigation success. The changes Poseidon proposed include the following:[12]

- Staff recommended that Poseidon submit a complete coastal development permit application for its Final Restoration Plan within 24 months of Commission approval of its Preliminary Plan (i.e., the Plan being reviewed herein). Poseidon **proposed** modif~~ied~~**ying** that recommendation in Section 4 of its Plan to allow submittal of that application either 24 months after issuance of the project coastal development permit or commencement of

[12] For a full comparison, see **Exhibit 3,** ~~Section 3 of~~ Poseidon's **proposed** Plan**,** and Exhibit 2 showing staff's originally recommended conditions.

commercial operations of the desalination facility, whichever is later. This could substantially delay the implementation of mitigation and could result in several years of impacts occurring without mitigation.

- A proposed change to Poseidon's Plan at Section 3.1(d) and at Section 3.2(c) would **allow the Executive Director or Commission to** reduce the required buffer zone at its mitigation sites from ~~no less than~~ **at least** 100 feet wide to an average that could be ~~much~~ less than 100 feet **wide**.
- ~~A proposed change at Section 3.1(i) would allow the Plan to affect endangered species in a way not allowed under the Edison requirements.~~
- Poseidon proposes to change Section 3.3(c) to allow mitigation to occur in up to four sites, rather than up to two sites, as required of Edison, which could fragment the mitigation and reduce its overall value.
- ~~Poseidon also proposed deleting a requirement at Section 5.4 that would require a designed tidal prism be maintained to ensure the wetland mitigation site has adequate tidal action.~~
- ~~Poseidon proposes that any fees it pays for coastal development permits or amendments be credited against the budget needed to implement the mitigation plan.~~

Staff and the ~~MRC~~ **SAP** reviewed these proposed changes and believe they would result in inadequate assurance that successful mitigation would be conducted in a timely manner**, and the Commission did not include those proposed revisions in its Plan approval**. ~~Staff's recommendation, therefore, is~~ **The Commission finds** that the Plan be modified to include the conditions in Exhibit 2.

CONCLUSION

The Commission finds that, as modified as described above and with the conditions in Exhibit 1, the Marine Life Mitigation Plan complies with *Special Condition 8* and the marine life protection policies of the Coastal Act. The Commission further finds that implementation of the Plan will ensure the project's entrainment-related impacts will be fully mitigated and will enhance and restore the marine resources and biological productivity of coastal waters in conformity to Coastal Acts Sections 30230 and 30231.

Item W16a
Exhibit 1

Approved Marine Life Mitigation Plan (MLMP)

Item W16a – Exhibit 1
Special Condition 8 of E-06-013 – Poseidon Resources
November 21, 2008

APPROVED MARINE LIFE MITIGATION PLAN

INTRODUCTION

Poseidon's Carlsbad desalination facility will be co-located with the Encina Power Station and will use the power plant's once-through cooling intake and outfall structures. The desalination facility is expected to use about 304 million gallons per day (mgd) of estuarine water drawn through the structure. The facility will operate both when the power plant is using its once-through cooling system and when it is not.

This Marine Life Mitigation Plan (the Plan) will result in mitigation necessary to address the entrainment impacts caused by the facility's use of estuarine water. The Plan includes two phases of mitigation – Poseidon is required during Phase I to provide at least 37 acres of estuarine wetland restoration, as described below. In Phase II, Poseidon is required to provide an additional 18.4 acres of estuarine wetland restoration. However, as described below, Poseidon may choose to provide all 55.4 acres of restoration during Phase I. Poseidon may also choose during Phase II to apply for a CDP to reduce or eliminate the required 18.4 acres of mitigation and instead conduct alternative mitigation by implementing new entrainment reduction technology or obtaining mitigation credit for conducting dredging.

CONDITION A: WETLAND RESTORATION MITIGATION

The permittee shall develop, implement and fund a wetland restoration project that compensates for marine life impacts from Poseidon's Carlsbad desalination facility.

1.0 PHASED IMPLEMENTATION

Phase I: Poseidon is to provide at least 37 acres of estuarine wetland restoration. Within two years of issuance of the desalination facility's coastal development permit (CDP), Poseidon is to submit a complete CDP application for a proposed restoration project, as described below.

Phase II: Within five years of issuance of the Phase I CDP, Poseidon is to submit a complete CDP application proposing up to 18.4 acres of additional estuarine wetland restoration, subject to reduction as described in Section 6.0 below.

2.0 SITE SELECTION

In consultation with Commission staff, the permittee shall select a wetland restoration site or sites for mitigation in accordance with the following process and terms.

Within 10 months of the effective date of this permit, the permittee shall submit the proposed site(s) and preliminary wetland restoration plan to the Commission for its review and approval or disapproval.

The location of the wetland restoration project(s) shall be within the Southern California Bight. The permittee shall select from sites including, but not limited to, the following eleven sites: Tijuana Estuary in San Diego County; San Dieguito River Valley in San Diego County; Agua Hedionda Lagoon in San Diego County; San Elijo Lagoon in San Diego County; Buena Vista Lagoon in San Diego County; Huntington Beach Wetland in Orange County, Anaheim Bay in Orange County, Santa Ana River in Orange County, Los Cerritos Wetland in Los Angeles County, Ballona Wetland in Los Angeles County, and Ormond Beach in Ventura County. The permittee may also consider any sites that may be recommended by the California Department of Fish & Game as high priority wetlands restoration projects. Other sites proposed by the permittee may be added to this list with the Executive Director's approval.

The basis for the selection shall be an evaluation of the site(s) against the minimum standards and objectives set forth in subsections 3.1 and 3.2 below. The permittee shall take into account and give serious consideration to the advice and recommendations of the Scientific Advisory Panel (SAP) established and convened by the Executive Director pursuant to Condition B.1.0. The permittee shall select the site(s) that meet the minimum standards and best meet the objectives.

3.0 PLAN REQUIREMENTS

In consultation with Commission staff, the permittee shall develop a wetland restoration plan for the wetland site(s) identified through the site selection process. The wetland restoration plan shall meet the minimum standards and incorporate as many as feasible of the objectives in subsections 3.1 and 3.2, respectively.

3.1 Minimum Standards

The wetland restoration project site(s) and preliminary plan(s) must meet the following minimum standards:

a. Location within Southern California Bight;

b. Potential for restoration as tidal wetland, with extensive intertidal and subtidal areas;

c. Creates or substantially restores a minimum of 37 acres and up to at least 55.4 acres of habitat similar to the affected habitats in Agua Hedionda Lagoon, excluding buffer zone and upland transition area;

d. Provides a buffer zone of a size adequate to ensure protection of wetland values, and at least 100 feet wide, as measured from the upland edge of the transition area.

e. Any existing site contamination problems would be controlled or remediated and would not hinder restoration;

f. Site preservation is guaranteed in perpetuity (through appropriate public agency or nonprofit ownership, or other means approved by the Executive Director), to protect against future degradation or incompatible land use;

g. Feasible methods are available to protect the long-term wetland values on the site(s), in perpetuity;

h. Does not result in a net loss of existing wetlands; and

i. Does not result in an adverse impact on endangered animal species or an adverse unmitigated impact on endangered plant species.

3.2 Objectives

The following objectives represent the factors that will contribute to the overall value of the wetland. The selected site(s) shall be determined to achieve these objectives. These objectives shall also guide preparation of the restoration plan.

a. Provides maximum overall ecosystem benefits, e.g. maximum upland buffer, enhancement of downstream fish values, provides regionally scarce habitat, potential for local ecosystem diversity;

b. Provides substantial fish habitat compatible with other wetland values at the site(s);

c. Provides a buffer zone of an average of at least 300 feet wide, and not less than 100 feet wide, as measured from the upland edge of the transition area.

d. Provides maximum upland transition areas (in addition to buffer zones);

e. Restoration involves minimum adverse impacts on existing functioning wetlands and other sensitive habitats;

f. Site selection and restoration plan reflect a consideration of site specific and regional wetland restoration goals;

g. Restoration design is that most likely to produce and support wetland-dependent resources;

h. Provides rare or endangered species habitat;

i. Provides for restoration of reproductively isolated populations of native California species;

j. Results in an increase in the aggregate acreage of wetland in the Southern California Bight;

k. Requires minimum maintenance;

l. Restoration project can be accomplished in a reasonably timely fashion; and,

m. Site(s) in proximity to the Carlsbad desalination facility.

3.3 Restrictions

a. The permittee may propose a wetland restoration project larger than the minimum necessary size specified in subsection 3.1(c) above, if biologically appropriate for the site(s), but the additional acreage must (1) be clearly identified, and (2) must not be the portion of the project best satisfying the standards and objectives listed above.

b. If the permittee jointly enters into a restoration project with another party: (1) the permittee's portion of the project must be clearly specified, (2) any other party involved cannot gain mitigation credit for the permittee's portion of the project, and (3) the permittee may not receive mitigation credit for the other party's portion of the project.

c. The permittee may propose to divide the mitigation requirement between a maximum of two wetland restoration sites, unless there is a compelling argument, approved by the Executive Director, that the standards and objectives of subsections 3.1 and 3.2 will be better met at more than two sites.

4.0 PLAN IMPLEMENTATION

4.1 Coastal Development Permit Applications

The permittee shall submit complete Coastal Development Permit applications for the Phase I and Phase II restoration plan(s) that include CEQA documentation and local or other state agency approvals. The CDP application for Phase I shall be submitted within 24 months following the issuance of the Coastal Development Permit for the Carlsbad desalination facility. The CDP application for Phase II shall be submitted within 5 years of issuance of the CDP for Phase I. The Executive Director may grant an extension to these time periods at the request of and upon a demonstration of good cause by the permittee. The restoration plans shall substantially conform to Section 3.0 above and shall include, but not be limited to the following elements:

a. Detailed review of existing physical, biological, and hydrological conditions; ownership, land use and regulation;

b. Evaluation of site-specific and regional restoration goals and compatibility with the goal of mitigating for Poseidon's marine life impacts;

c. Identification of site opportunities and constraints;

d. Schematic restoration design, including:

   1. Proposed cut and fill, water control structures, control measures for stormwater, buffers and transition areas, management and maintenance requirements;
   2. Planting program, including removal of exotic species, sources of plants and or seeds (local, if possible), protection of existing salt marsh plants, methods for preserving top soil and augmenting soils with nitrogen and other necessary soil amendments before planting, timing of planting, plans for irrigation until established, and location of planting and elevations on the topographic drawings;
   3. Proposed habitat types (including approximate size and location);
   4. Assessment of significant impacts of design (especially on existing habitat values) and net habitat benefits;
   5. Location, alignment and specifications for public access facilities, if feasible;
   6. Evaluation of steps for implementation e.g. permits and approvals, development agreements, acquisition of property rights;
   7. Cost estimates;
   8. Topographic drawings for final restoration plan at 1" = 100 foot scale, one foot contour interval; and
   9. Drawings shall be directly translatable into final working drawings.

e. Detailed information about how monitoring and maintenance will be implemented;

f. Detailed information about construction methods to be used;

g. Defined final success criteria for each habitat type and methods to be used to determine success;

h. Detailed information about how Poseidon will coordinate with the Scientific Advisory Panel including its role in independent monitoring, contingency planning review, cost recovery, etc.;

i. Detailed information about contingency measures that will be implemented if mitigation does not meet the approved goals, objectives, performance standards, or other criteria; and,

j. Submittal of "as-built" plans showing final grading, planting, hydrological features, etc. within 60 days of completing initial mitigation site construction.

4.2 Wetland Construction Phase

Within 6 months of approval of the Phase I restoration plan, subject to the permittee's obtaining the necessary permits, the permittee shall commence the construction phase of the wetland restoration project. The permittee shall be responsible for ensuring that construction is carried out in accordance with the specifications and within the timeframes specified in the approved final restoration plan and shall be responsible for any remedial work or other intervention necessary to comply with final plan requirements.

4.3 Timeframe for Resubmittal of Project Elements

If the Commission does not approve any element of the project (i.e. site selection, restoration plan), the Commission will specify the time limits for compliance relative to selection of another site or revisions to the restoration plan.

5.0 WETLAND MONITORING, MANAGEMENT AND REMEDIATION

Monitoring, management (including maintenance), and remediation shall be conducted over the "full operating life" of Poseidon's desalination facility, which shall be 30 years from the date "as-built" plans are submitted pursuant to subsection 4.1(l).

The following section describes the basic tasks required for monitoring, management and remediation. Condition B specifies the administrative structure for carrying out these tasks, including the roles of the permittee and Commission staff.

5.1 Monitoring and Management Plan

A monitoring and management plan will be developed in consultation with the permittee and appropriate wildlife agencies, concurrently with the preparation of the restoration plan to provide an overall framework to guide the monitoring work. It will include an overall description of the studies to be conducted over the course of the monitoring program and a description of management tasks that are anticipated, such as trash removal. Details of the monitoring studies and management tasks will be set forth in a work program (see Condition B).

5.2 Pre-restoration site monitoring

Pre-restoration site monitoring shall be conducted to collect baseline data on the wetland attributes to be monitored. This information will be incorporated into and may result in modification to the overall monitoring plan.

5.3 Construction Monitoring

Monitoring shall be conducted during and immediately after each stage of construction of the wetland restoration project to ensure that the work is conducted according to plans.

5.4 Post-Restoration Monitoring and Remediation

Upon completion of construction of the wetland(s), monitoring shall be conducted to measure the success of the wetland(s) in achieving stated restoration goals (as specified in the restoration plan(s)) and in achieving performance standards, specified below. The permittee shall be fully responsible for any failure to meet these goals and standards during the facility's full operational years. Upon determining that the goals or standards are not achieved, the Executive Director shall prescribe remedial measures, after consultation with the permittee, which shall be immediately implemented by the permittee with Commission staff direction. If the permittee does not agree that remediation is necessary, the matter may be set for hearing and disposition by the Commission.

Successful achievement of the performance standards shall (in some cases) be measured relative to approximately four reference sites, which shall be relatively undisturbed, natural tidal wetlands within the Southern California Bight. The Executive Director shall select the reference sites. The standard of comparison, i.e., the measure of similarity to be used (e.g., within the range, or within the 95% confidence interval) shall be specified in the work program.

In measuring the performance of the wetland project, the following physical and biological performance standards will be used:

a. **Longterm Physical Standards.** The following long-term standards shall be maintained over the full operative life of the desalination facility:

    1. ***Topography.*** The wetland(s) shall not undergo major topographic degradation (such as excessive erosion or sedimentation);
    2. ***Water Quality.*** Water quality variables [to be specified] shall be similar to reference wetlands;
    3. ***Tidal prism.*** If the mitigation site(s) require dredging, the tidal prism shall be maintained and tidal flushing shall not be interrupted; and,
    4. ***Habitat Areas.*** The area of different habitats shall not vary by more than 10% from the areas indicated in the restoration plan(s).

b. **Biological Performance Standards.** The following biological performance standards shall be used to determine whether the restoration project is successful. Table 1, below, indicates suggested sampling locations for each of the following biological attributes; actual locations will be specified in the work program:

    1. ***Biological Communities.*** Within 4 years of construction, the total densities and number of species of fish, macroinvertebrates and birds (see Table 1) shall be similar to the densities and number of species in similar habitats in the reference wetlands;
    2. ***Vegetation.*** The proportion of total vegetation cover and open space in the marsh shall be similar to those proportions found in the reference sites. The percent cover of algae shall be similar to the percent cover found in the reference sites;
    3. ***Spartina Canopy Architecture.*** The restored wetland shall have a canopy architecture that is similar in distribution to the reference sites, with an equivalent proportion of stems over 3 feet tall;

4. ***Reproductive Success.*** Certain plant species, as specified by in the work program, shall have demonstrated reproduction (i.e. seed set) at least once in three years;
5. ***Food Chain Support.*** The food chain support provided to birds shall be similar to that provided by the reference sites, as determined by feeding activity of the birds; and,
6. ***Exotics.*** The important functions of the wetland shall not be impaired by exotic species.

Table 1: Suggested Sampling Locations

	Salt Marsh			Open Water			Tidal
	Spartina	Salicornia	Upper	Lagoon	Eelgrass	Mudflat	Creeks
1) Density/spp:							
– Fish				X	X	X	X
– Macroinvert-ebrates				X	X	X	X
– Birds	X	X	X	X		X	X
2) % Cover							
Vegetation	X	X	X		X		
algae	X	X				X	
3) Spartina architecture	X						
4) Reproductive success	X	X	X				
5) Bird feeding				X		X	X
6) Exotics	X	X	X	X	X	X	X

6.0 ALTERNATIVE MITIGATION

As part of Phase II, Poseidon may propose in its CDP application alternatives to reduce or eliminate the required 18.4 acres of mitigation. The alternative mitigation proposed may be in the form of implementing new entrainment reduction technology or may be mitigation credits for conducting dredging, either of which could reduce or eliminate the 18.4 acres of mitigation.

CONDITION B: ADMINISTRATIVE STRUCTURE

1.0 ADMINISTRATION

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 Condition A. The Executive Director will retain scientific and administrative support staff needed to perform this function, as specified in the work program.

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. 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 and manner reasonably 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 in conjunction with its review of the restoration plan. 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. 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. 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 in conjunction

with its review of the restoration plan. 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. 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 project 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 four reference sites;

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

e. A description of remedial measures or other necessary site interventions;

f. A description of staffing and contracting requirements; and,

g. 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 AND PUBLIC WORKSHOP REVIEW

The permittee shall submit a written review of the status of the mitigation project to the Executive Director no later than April 30 each year for the prior calendar year. The written review will discuss the previous year's activities and overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next year's program.

To review the status of the mitigation project, the Executive Director will convene and conduct a duly noticed public workshop during the first year of the project and every other year thereafter unless the Executive Director deems it unnecessary. 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 biennial work program's activities**,** overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next upcoming period's biennial work program.

The public review will include discussions on whether the wetland mitigation project has met the performance standards, identified problems, and recommendations relative to corrective measures necessary to meet the performance standards. The Executive Director will use information presented at the 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 project 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 workshop review.

4.0 ADDITIONAL PROCEDURES

4.1 Dispute Resolution

In the event that the permittee and the Executive Director cannot reach agreement regarding the terms contained in or the implementation of any part of this Plan, the matter may be set for hearing and disposition by the Commission.

4.2 Extensions

Any of the time limits established under this Plan may be extended by the Executive Director at the request of the permittee and upon a showing of good cause.

CONDITION C: SAP DATA MAINTENANCE

The permittee shall make available on a publicly-accessible website all scientific data collected as part of the project. The website and the presentation of data shall be subject to Executive Director review and approval.

Item W16a
Exhibit 2

Staff's Proposed Draft MLMP Conditions (June 2008)

CDP E-06-013
Condition Compliance
Special Condition 8

EXHIBIT NO. 2
APPLICATION NO. E-06-013
Condition Compliance
Special Condition 8

Exhibit 2

July 24, 2008

Staff's Proposed Draft MLMP Conditions

This is a modified version of conditions the Commission required of Southern California Edison in implementing its wetland restoration project at San Dieguito Lagoon pursuant to Coastal Development Permit xx

Staff provided these conditions to Poseidon on June 20, 2008 and recommended Poseidon include them in its Marine Life Mitigation Plan to present to the Commission. The modifications shown in ~~strikethrough~~ and underline reflect differences between Poseidon's proposal and Edison's and provide updated wetland mitigation standards since the Commission's approval of Edison's project. Staff's notes to Poseidon are shown in [***brackets and bold italics***].

CONDITION A: WETLAND RESTORATION MITIGATION

The permittee shall develop, implement and fund a wetland restoration project that compensates for ~~past, present and future fish~~ marine life impacts from ~~SONGS Units 2 and 3, as identified by the Marine Review Committee~~ Poseidon's Carlsbad desalination facility.

1.0 SITE SELECTION AND PRELIMINARY PLAN

In consultation with Commission staff, the permittee shall select a wetland restoration site and develop a preliminary plan in accordance with the following process and terms.

Within 9 months of the effective date of this permit, the permittee shall submit the proposed site and preliminary wetland restoration plan to the Commission for its review and approval or disapproval.

1.1 Site Selection

The location of the wetland restoration project shall be within the Southern California Bight. The permittee shall evaluate and select from sites including, but not limited to, the following eight sites: Tijuana Estuary in San Diego County, San Dieguito River Valley in San Diego County, Huntington Beach Wetland in Orange County, Anaheim Bay in Orange County, Santa Ana River in Orange County, Los Cerritos Wetland in Los Angeles County, Ballona Wetland in Los Angeles County, and Ormond Beach in Ventura County. Other sites proposed by the permittee may be added to this list with the Executive Director's approval.

The basis for the selection shall be an evaluation of the sites against the minimum standards and objectives set forth in subsections 1.3 and 1.4 below. The permittee shall take into account and give serious consideration to the advice and recommendations of an Interagency Wetland Advisory Panel, established and convened by the Executive Director. The permittee shall select the site that meets the minimum standards and best meets the objectives.

1.2 Preliminary Restoration Plan

[***Note: This is the type of Preliminary Plan we anticipate you'll provide for the August hearing. The Plan should include the elements in Sections 1.2 – 1.4 below.***]

In consultation with Commission staff, the permittee shall develop a preliminary wetland restoration plan for the wetland site identified through the site selection process. The preliminary wetland restoration plan shall meet the minimum standards and incorporate as many as possible of the objectives in subsections 1.3 and 1.4, respectively.

The preliminary wetland restoration plan shall include the following elements:

a. Review of existing physical, biological, and hydrological conditions; ownership, land use and regulation.

b. Site-specific and regional restoration goals and compatibility with the goal of mitigating for ~~SONGS impact to fish~~ Poseidon's marine life impacts.

c. Identification of site opportunities and constraints.

d. Conceptual restoration design, including:

   1. Proposed grading and excavation; water control structures; planting; integration of public access, if feasible; buffers and transition areas; management and maintenance requirements.

   2. Proposed habitat types (including approximate size and location).

3. Preliminary assessment of significant impacts of design (especially on existing habitat values) and net habitat benefits.

4. Evaluation of steps for implementation e.g. permits and approvals, development agreements, acquisition of property interests.

5. A graphic depiction of proposed plan.

[***Note: As part of the elements above, the Preliminary Plan should describe the current and anticipated relationship between Poseidon's proposed mitigation and Edison's, including applicable conditions of the MOA and any written agreements between Poseidon, Edison, and/or the JPA, measures included that will ensure Poseidon's mitigation will not adversely affect Edison's mitigation, coordination with Edison's Scientific Advisory Panel, etc.]***

1.3 Minimum Standards

The wetland restoration project site and preliminary plan must meet the following minimum standards:

a. Location within Southern California Bight.

b. Potential for restoration as tidal wetland, with extensive intertidal and subtidal areas;

c. Creates or substantially restores a minimum of ~~150 acres (60 hectares)~~ 55.4 to 68.2 acres of ~~wetlands~~ habitat similar to the affected habitats in Agua Hedionda Lagoon, excluding buffer zone and upland transition area; [***Note: the acreage figures are from Pete Raimondi's evaluation at the 80% and 95% confidence levels.***]

d. Provides a buffer zone of a size adequate to ensure protection of wetland values, and not less than at least 100 feet wide, as measured from the upland edge of the transition area.

e. Any existing site contamination problems would be controlled or remediated and would not hinder restoration.

f. Site preservation is guaranteed in perpetuity (through appropriate public agency or nonprofit ownership, or other means approved by the Executive Director), to protect against future degradation or incompatible land use.

g. Feasible methods are available to protect the longterm wetland values on the site, in perpetuity.

h. Does not result in loss of existing wetlands.

i. Does not result in impact on endangered species.

1.4 Objectives

The following objectives represent the factors that will contribute to the overall value of the wetland. The selected site shall be that with the best potential to achieve these objectives. These objectives shall also guide preparation of the restoration plan.

a. Provides maximum overall ecosystem benefits e.g. maximum upland buffer, enhancement of downstream fish values, provides regionally scarce habitat, potential for local ecosystem diversity.

b. Provides substantial fish habitat compatible with other wetland values at the site.

c. Provides a buffer zone of an average of at least 300 feet wide, and not less than 100 feet wide, as measured from the upland edge of the transition area.

d. Provides maximum upland transition areas (in addition to buffer zones);

e. Restoration involves minimum adverse impacts on existing functioning wetlands and other sensitive habitats.

f. Site selection and restoration plan reflect a consideration of site specific and regional wetland restoration goals.

g. Restoration design is that most likely to produce and support wetland-dependent resources.

h. Provides rare or endangered species habitat.

i. Provides for restoration of reproductively isolated populations of native California species.

j. Results in an increase in the aggregate acreage of wetland in the Southern California Bight.

k. Requires minimum maintenance.

l. Restoration project can be accomplished in a timely fashion.

m. Site is in proximity to ~~SONGS~~ the Carlsbad desalination facility.

1.6 Restrictions

(a) The permittee may propose a wetland restoration project larger than the minimum necessary size specified in subsection 1.3(c) above, if biologically appropriate for the site, but the additional acreage must (1) be clearly identified, and (2) must not be the portion of the project best satisfying the standards and objectives listed above.

(b) If the permittee jointly enters into a restoration project with another party: (1) the permittee's portion of the project must be clearly specified, (2) any other party involved cannot gain mitigation credit for the permittee's portion of the project, and (3) the permittee may not receive mitigation credit for the other party's portion of the project.

(c) The permittee may propose to divide the mitigation requirement between a maximum of two wetland restoration sites, unless there is a compelling argument, approved by the Executive Director, that the standards and objectives of subsections 1.3 and 1.4 will be better met at more than two sites.

[***Note: We'll probably recommend the text below, or similar, as conditions for the Commission to adopt in August to determine what will be required as follow-up to the Preliminary Plan to ensure it results in an adequate Final Plan – that is, while you may include them in your Plan for August, we'll probably handle them as conditions for approval.***]

2.0 FINAL PLAN AND PLAN IMPLEMENTATION

2.1 Final Restoration Plan

Within ~~12~~ 24 months [***Note: based on anticipated 18-month CEQA process***] following the Commission's approval of a site selection and preliminary restoration plan, the permittee shall submit a complete Coastal Development Permit application for a final restoration plan along with CEQA documentation ~~generated in connection with~~ and local or other state agency approvals~~, to the Executive Director of the Coastal Commission for review and approval~~. [***Note: the changes above reflect a difference between SONGS and Poseidon's processes. With SONGS, Edison applied for a CDP for its Preliminary Plan after Marine Resource Committee review and Commission approval of the selected site and applied for a CDP for its Final Plan. With Poseidon, your CDP application for the mitigation site work will come after CEQA is done and after other approvals are obtained.***] The final restoration plan shall substantially conform to the approved preliminary restoration plan as originally submitted or as amended by the Commission pursuant to a request by the permittee. The final restoration plan shall include, but not be limited to the following elements:

a. Detailed review of existing physical, biological, and hydrological conditions; ownership, land use and regulation.

b. Evaluation of site-specific and regional restoration goals and compatibility with the goal of mitigating for ~~SONGS impacts to fish~~ Poseidon's marine life impacts.

c. Identification of site opportunities and constraints.

[***Note: the above three elements should include a complete description of the relationship between Poseidon's mitigation and Edison's, and any legal/contractual relationships between***

Poseidon, Edison, the JPA, and other involved entities. This should also describe how Poseidon's ongoing sampling, monitoring, maintenance, contingency planning, etc. may be associated with Edison's.]

d. Schematic restoration design, including:

1. Proposed cut and fill, water control structures, control measures for stormwater, buffers and transition areas, management and maintenance requirements.

2. Planting Program, including removal of exotic species, sources of plants and or seeds (local, if possible), protection of existing salt marsh plants, methods for preserving top soil and augmenting soils with nitrogen and other necessary soil amendments before planting, timing of planting, plans for irrigation until established, and location of planting and elevations on the topographic drawings.

3. Proposed habitat types (including approximate size and location).

4. Assessment of significant impacts of design (especially on existing habitat values) and net habitat benefits. [***Note: this should include a description of any effects on existing habitat values within Poseidon's mitigation site (e.g., are there existing wetlands within your site that would be altered by your project?) and Edison's site, along with proposed measures to mitigate those impacts – e.g., methods, locations, etc.***]

5. Location, alignment and specifications for public access facilities, if feasible.

6. Evaluation of steps for implementation e.g. permits and approvals, development agreements, acquisition of property rights.

7. Cost estimates.

8. Topographic drawings for final restoration plan at 1" = 100 foot scale, one foot contour interval.

9. Drawings shall be directly translatable into final working drawings.

g. Detailed information about how monitoring and maintenance will be implemented.

h. Detailed information about construction methods to be used.

i. Defined final success criteria for each habitat type and methods to be used to determine success.

j. Detailed information about how Poseidon will coordinate with the SONGS Scientific Advisory Panel, including its role in independent monitoring, contingency planning review, cost recovery, etc.

k. Detailed information about contingency measures that will be implemented if mitigation does not meet the approved goals, objectives, performance standards, or other criteria.

l. Submittal of "as-built" plans showing final grading, planting, hydrological features, etc. within 60 days of completing initial mitigation site construction.

[***Note: the additions above reflect conditions generally included in more recent mitigation plans or needed to coordinate with Edison's efforts.***]

2.2 Wetland Construction Phase

Within 6 months of approval of the final restoration plan, subject to the permittee's obtaining the necessary permits, the permittee shall commence the construction phase of the wetland restoration project. The permittee shall be responsible for ensuring that construction is carried out in accordance with the specifications and within the timeframes specified in the approved final restoration plan and shall be responsible for any remedial work or other intervention necessary to comply with final plan requirements.

2.3 Timeframe for Resubmittal of Project Elements

If the Commission does not approve any element of the project (i.e. site selection, restoration plan), the Commission will specify the time limits for compliance relative to selection of another site or revisions to the restoration plan.

3.0 WETLAND MONITORING, MANAGEMENT AND REMEDIATION

Monitoring, management (including maintenance), and remediation shall be conducted over the "full operating life" of ~~SONGS Units 2 and 3~~ Poseidon's desalination facility. ~~"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. The number of past operating years at the time the wetland is ultimately constructed, shall be added to the number of future operating years and decommission period, to determine the length of the monitoring, management and remediation requirement.~~

The following section describes the basic tasks required for monitoring, management and remediation. Condition II-D specifies the administrative structure for carrying out these tasks, including the roles of the permittee and Commission staff.

3.1 Monitoring and Management Plan

A monitoring and management plan will be developed in consultation with the permittee and appropriate wildlife agencies, concurrently with the preparation of the restoration plan, to

provide an overall framework to guide the monitoring work. It will include an overall description of the studies to be conducted over the course of the monitoring program and a description of management tasks that are anticipated, such as trash removal. Details of the monitoring studies and management tasks will be set forth in a work program (see Section II-D).

3.2 Pre-restoration site monitoring

Pre-restoration site monitoring shall be conducted to collect baseline data on the wetland attributes to be monitored. This information will be incorporated into and may result in modification to the overall monitoring plan.

3.3 Construction Monitoring

Monitoring shall be conducted during and immediately after each stage of construction of the wetland restoration project to ensure that the work is conducted according to plans.

3.4 Post-Restoration Monitoring and Remediation

Upon completion of construction of the wetland, monitoring shall be conducted to measure the success of the wetland in achieving stated restoration goals (as specified in restoration plan) and in achieving performance standards, specified below. The permittee shall be fully responsible for any failure to meet these goals and standards during the facility's full operational years ~~of SONGS Units 2 and 3~~. Upon determining that the goals or standards are not achieved, the Executive Director shall prescribe remedial measures, after consultation with the permittee, which shall be immediately implemented by the permittee with Commission staff direction. If the permittee does not agree that remediation is necessary, the matter may be set for hearing and disposition by the Commission.

Successful achievement of the performance standards shall (in some cases) be measured relative to approximately four reference sites, which shall be relatively undisturbed, natural tidal wetlands within the Southern California Bight. The Executive Director shall select the reference sites. The standard of comparison i.e. the measure of similarity to be used (e.g. within the range, or within the 95% confidence interval) shall be specified in the work program.

In measuring the performance of the wetland project, the following physical and biological performance standards will be utilized:

a. Longterm Physical Standards. The following longterm standards shall be maintained over the full operative life of ~~SONGS Units 2 and 3~~ the desalination facility.

   1) Topography. The wetland shall not undergo major topographic degradation (such as excessive erosion or sedimentation).

2) Water Quality. Water quality variables (to be specified) shall be similar to reference wetlands.

3) ~~Tidal prism. The designed tidal prism shall be maintained, and tidal flushing shall not be interrupted~~. [***Note: this is Edison's requirement, but could be part of Poseidon's obligiation based on the agreement you develop with Edison.***]

4) Habitat Areas. The area of different habitats shall not vary by more than 10% from the areas indicated in the final restoration plan.

b. Biological Performance Standards. The following biological performance standards shall be used to determine whether the restoration project is successful. Table 1, below, indicates suggested sampling locations for each of the following biological attributes; actual locations will be specified in the work program.

1) Biological Communities. Within 4 years of construction, the total densities and number of species of fish, macroinvertebrates and birds (see table 1) shall be similar to the densities and number of species in similar habitats in the reference wetlands.

2) Vegetation. The proportion of total vegetation cover and open space in the marsh shall be similar to those proportions found in the reference sites. The percent cover of algae shall be similar to the percent cover found in the reference sites.

3) Spartina Canopy Architecture. The restored wetland shall have a canopy architecture that is similar in distribution to the reference sites, with an equivalent proportion of stems over 3 feet tall.

4) Reproductive Success. Certain plant species, as specified by in the work program, shall have demonstrated reproduction (i.e. seed set) at least once in three years.

5) Food Chain Support. The food chain support provided to birds shall be similar to that provided by the reference sites, as determined by feeding activity of the birds.

6) Exotics. The important functions of the wetland shall not be impaired by exotic species.

Table 1: Suggested Sampling Locations

	Salt Marsh			Open Water			Tidal
	Spartina	Salicornia	Upper	Lagoon	Eelgrass	Mudflat	Creeks
1) Density/spp:							
Fish				X	X	X	X
Macroinverts				X	X	X	X
Birds	X	X	X	X		X	X
2) % Cover							
Vegetation	X	X	X		X		
algae	X	X				X	
3) Spar. arch.	X						
4) Repro. suc.	X	X	X				
5) Bird feeding				X		X	X
6) Exotics	X	X	X	X	X	X	X

...

CONDITION D: ADMINISTRATIVE STRUCTURE

[***Note: The conditions below will likely vary based on the relationship you develop with Edison and the JPA regarding monitoring, review, administration, etc.***]

1.0 ADMINISTRATION

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 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.

CONDITION E: MRC DATA MAINTENANCE

The scientific data collected by the MRC will be stored in the Commission library in San Francisco, and at the Los Angeles County Museum of Natural Science, or at an alternative location in Southern California, as determined by the Executive Director; and will be made available for public use. The permittee shall purchase the necessary computer equipment for the Commission and the Southern California location to store and retrieve the data, and shall fund appropriate staff training on data storage and retrieval at both locations.

Item W16a
Exhibit 3

Poseidon's August 2, 2008 Proposed MLMP and attachments

POSEIDON RESOURCES

August 2, 2008

Agenda Item
W 5b

VIA OVERNIGHT DELIVERY

Chairman Kruer and Honorable Commissioners
California Coastal Commission
North Central Coast District
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Re: Carlsbad Desalination Project CDP Application No. E-06-013
Special Condition 8: Marine Life Mitigation Plan

Dear Chairman Kruer and Honorable Commissioners:

Poseidon Resources (Channelside) LLC ("Poseidon") requests that the Commission approve Poseidon's proposed Marine Life Mitigation Plan ("MLMP") attached hereto as Exhibit A, which Poseidon has prepared pursuant to Special Condition 8 of the above-referenced Coastal Development Permit (the "Permit") for the Carlsbad Seawater Desalination Facility (the "Project"). The Commission approved the Permit at its November 15, 2007 hearing, including Special Condition 8, which requires the Applicant to submit a Marine Life Mitigation Plan for Commission review and approval before the Permit will issue.

Following months of extensive collaboration with experts, Commission Staff, and state and local agencies,[1] Poseidon submitted its MLMP to the Commission on July 3, 2008. The MLMP contains the following elements that ensure Poseidon will implement and fund a wetland restoration project or projects that not only fully mitigate any Project impacts to marine life, but also provide additional mitigation that creates, enhances, and restores aquatic and wetland habitat consistent with Coastal Act Sections 30230 and 30231 and Special Condition 8:

- Contains **performance standards and objectives** that are consistent with those applied in Edison's San Onofre Nuclear Generating Station ("SONGS") project;

[1] Poseidon has consulted with the Department of Fish and Game, the Department of Transportation, the State Lands Commission, the San Diego Regional Water Quality Control Board, the City of Carlsbad, Coastal Commission Staff, and the U.S. Fish and Wildlife Service, among others.

Poseidon Resources Corporation
501 West Broadway, Suite 840, San Diego, CA 92101, USA
619-595-7802 Fax: 619-595-7892
Project Office: 4600 Carlsbad Boulevard, Carlsbad, CA 92008

- Provides for up to **42.5 acres of wetland restoration**, which is consistent with California Energy Commission ("CEC") methodology and Commission precedent;

- Implements a **phased mitigation program** to ensure that Poseidon is incentivized to incorporate emerging technologies that are not currently available into Project operations **to further reduce marine impacts**;

- Requires Poseidon to submit a new Coastal Development Permit application for Phase I of the restoration project **within 24 months** of MLMP approval;

- Ensures long-term **performance, monitoring, and protection** of the mitigation measures; and

- Allows for the Commission **to determine in the future** whether Lagoon dredging should entitle Poseidon to restoration credit applicable to all or part of its Phase II mitigation obligations.

On July 24, 2008, Commission Staff released its Staff Report recommending approval of the MLMP if it is modified and amended to include Staff's recommendations. In response to the Staff Report, Poseidon revised the MLMP to address substantially all of Staff's concerns (excluding the three issues discussed in the remainder of this letter), and to ensure that the MLMP substantially complies with Staff's recommendations.[2] For the Commission's convenience, we have attached as Exhibit B a document that sets forth the issues raised in the Staff Report and how Poseidon responded to those issues, including citations to the changes made to the MLMP. Poseidon's proposed MLMP is attached hereto as Exhibit A in redline format showing all of the changes made in response to the Staff Report that are discussed in Exhibit B. These documents demonstrate that Poseidon has made significant compromises to its positions regarding the MLMP to address and resolve Staff's concerns.

A. Key Differences With Staff Report

Poseidon believes there remain only three key differences between Poseidon's MLMP and Staff's position in the Staff Report that require the Commission's further consideration, including:

- (1) the amount of mitigation acreage;

- (2) whether mitigation may be phased; and

[2] Poseidon forwarded these revisions to Staff on July 31, 2008 and hoped to have Staff confirm, prior to finalizing this letter, that these revisions addressed their concerns, but Staff cancelled the planned conference call to discuss these changes.

- (3) whether the Commission should have the discretion to decide at a later date if Poseidon may receive restoration credit for dredging the Agua Hedionda Lagoon (the "Lagoon").

Poseidon contends that the MLMP's proposed 42.5 acres of mitigation is soundly based on CEC methodology; that the phased approach to mitigation ensures the Project's marine life impacts will be fully mitigated during all Project operating scenarios; and that the Commission should be allowed to determine whether Poseidon may receive restoration credit for evidence demonstrating the environmental benefits attributable to Lagoon dredging at the time Poseidon actually requests such credit (if ever) for its Phase II obligations. Accordingly, for those reasons and the reasons summarized below and set forth in detail in Exhibit C ("Marine Life Mitigation Rationale"), Poseidon requests that the Commission not adopt Staff's recommended modifications and instead adopt Poseidon's MLMP as revised and attached hereto as Exhibit A.

B. Poseidon's Restoration Acreage is Consistent with Commission Practice

Independent review has confirmed that Poseidon's proposed 42.5 acres is sufficient restoration to fully mitigate the Project's marine life impacts, consistent with Coastal Act Sections 30230 and 30231. Poseidon's entrainment study, which provides the basis for Poseidon's proposed 42.5 acres of wetland restoration, was reviewed by the Coastal Commission's independent expert, Dr. Pete Raimondi of UC Santa Cruz. Dr. Raimondi confirmed, among other things, that: (1) Poseidon's study design is consistent with recent entrainment studies conducted in California;[3] and (2) using CEC methodology, the habitat restoration required to mitigate the Project's "stand-alone" operations would be 42.5 acres. This methodology is also consistent with the peer-reviewed and approved methodology the CEC applied to the Morro Bay Power Plant and the Moss Landing Power Plant.

Notably, Commission Staff originally recommended that Poseidon use CEC methodology to determine Project mitigation acreage, but Staff is now recommending a substantial *increase* in the mitigation acreage by *applying a new standard that has never been peer-reviewed and which adjusts variables in the modeling estimates*. Specifically, Dr. Raimondi suggested that in order to provide a *greater* level of assurance that impacts to lagoon and ocean species will be mitigated, Poseidon could restore a total of 55.4 to 68.2 acres, which would provide an unprecedented level of mitigation for the Project's "stand-alone" impacts that the Commission has never applied before. This "enhanced mitigation" proposal is not consistent with CEC methodology and established, peer-reviewed methodology and precedent. Notably, Dr. Raimondi has not advocated that the Commission should apply the "enhanced mitigation" methodology, and has appropriately left to the Commission the decision of which methodology should be used.

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[3] As Set forth in the Staff Report, "Dr. Raimondi was able to determine that the study's sampling and data collection methods were consistent with those used in other recent entrainment studies conducted in California pursuant to the protocols and guidelines used by the U.S. EPA, Regional Water Quality Control Boards, California Energy Commission, and Coastal Commission." (*Staff Report re: Condition Compliance for CDP No. E-06-013; Special Condition 8: Submittal of Marine Life Mitigation Plan*, July 24, 2008, at p. 8.)

C. Phased Mitigation is Appropriate for this Project

Poseidon's phased approach to mitigation would fully compensate for the Project's impacts to marine life under either of the power plant's operating scenarios. The initial phase would provide 37 acres of wetland restoration, which would fully compensate for Project-related impacts during the period when both the Encina Power Station ("EPS") and the Project are operating ("Phase I"). The second phase would provide up to 5.5 acres of additional restoration to address any additional unmitigated impacts occurring if the Project ever operates "stand-alone"; that is, when the EPS is decommissioned or when the EPS is providing less than 15% of the water needed for the Project based on the EPS's average water use over any three-year period ("Phase II").

- **Phase I Substantially Over-mitigates Project Impacts.** The 37 acres provided under Phase I would fully mitigate the Project's impacts as long as at least 13% of the Project's seawater requirements are provided by the EPS. In the last 18 months, the EPS would have provided over 65% of the water needed for the Project. Based on that number, the 37 acres provided by Poseidon under Phase I would have been about 2.5 times the mitigation actually required. Through the phased approach to mitigation, Poseidon will substantially over-mitigate its impacts while the EPS continues to operate.

- **Phase II Mitigation Provides New Opportunities to Reduce Impacts.** Under Phase II, the MLMP ensures that Poseidon will fully mitigate its "stand-alone" impacts by requiring Poseidon to: (1) analyze the environmental effects of ongoing Project operations; (2) use that analysis to investigate and evaluate reasonably feasible technologies that are unavailable today, which may reduce any marine life impacts; (3) provide its analysis of environmental effects and its evaluation of any reasonably feasible technologies to reduce impacts to the Commission; and (4) undertake Lagoon dredging obligations, if feasible. The Commission will then be able to determine if actual Project operations have less of an impact to marine life than originally estimated, if Poseidon can further reduce the Project's impacts through reasonably feasible technologies, or if Poseidon should receive restoration credit for demonstrated environmental benefits attributable to dredging (as discussed further in Section D below). Based on these determinations, the Commission may proportionally reduce Poseidon's habitat restoration obligation for Phase II mitigation. Accordingly, phased mitigation will incentivize Poseidon to investigate new technologies that are not available today to reduce impacts so that it can potentially reduce its restoration obligation, and it will enable the Commission to make mitigation decisions based on the Project's actual operational impacts rather than estimates. If the mitigation obligation is not reduced, the MLMP requires Poseidon to restore an additional 5.5 acres of wetland habitat subject to the same performance standards and objectives required under Phase I.

D. Lagoon Dredging Credit Should Be Evaluated in the Future

Pursuant to Poseidon's MLMP, the Commission may decide at a later date whether Poseidon should receive any restoration credit for assuming Lagoon dredging obligations. Poseidon has not requested that dredging credit be applied to its mitigation obligations now; on the contrary, Poseidon is asking the Commission only to leave open the possibility of allowing such credit in the future if Poseidon assumes dredging obligations. The Staff Report, however, recommends that the Commission should decide *now* that Poseidon's potential dredging is not subject to restoration credit because dredging is inconsistent with Special Condition 8's requirement that mitigation be in the form of creation, enhancement or restoration of wetland habitat.

The Staff Report, however, fails to acknowledge that Lagoon dredging is necessary to preserve the Lagoon's beneficial uses, and that sand dredged from the Lagoon would be used to maintain, restore and enhance habitat for grunion spawning and enhance opportunities for public access and recreation along the shoreline. Moreover, the Commission has applied dredging credit in the past for the SONGS project. Further, approval of the MLMP would not constitute approval of a particular dredging proposal or grant of dredging credit. Rather, any dredging proposal would require a separate Coastal Development Permit pursuant to Special Condition 12, so it would be premature for the Commission to analyze dredging that Poseidon cannot perform. Accordingly, it is perfectly appropriate for the Commission to determine whether Poseidon should receive restoration credit for dredging at the time it applies for such credit in the future (if ever).

We appreciate the Commission's consideration of these important issues and respectfully request that the Commission approve Poseidon's proposed Marine Life Mitigation Plan attached hereto as Exhibit A at its August 6, 2008 meeting.

Sincerely,

Peter MacLaggan
Poseidon Resources

Attachments

cc: Tom Luster;
Rick Zbur, Esq.

POSEIDON RESOURCES

Agenda Item
W 5b

EXHIBITS TO POSEIDON'S

AUGUST 2, 2008

RESPONSE TO STAFF REPORT

REGARDING THE

MARINE LIFE MITIGATION PLAN

Exhibit A Marine Life Mitigation Plan

Exhibit B Responses to Issues Identified in July 24, 2008 Staff Report

Exhibit C Marine Life Mitigation Plan Rationale

These materials have been provided to California Coastal Commission Staff

EXHIBIT A

MARINE LIFE MITIGATION PLAN

CONDITION A: WETLAND RESTORATION MITIGATION

The permittee shall develop, implement and fund a wetland restoration project that compensates for marine life impacts from Poseidon's Carlsbad desalination facility.

1.0 PHASED IMPLEMENTATION

Poseidon's Carlsbad desalination facility will function under two operating scenarios: (1) using the Encina Power Station's seawater intake while the Power Station continues to operate ("Phase I "); and (2) as a stand-alone facility ("Phase II"). The permittee's restoration project shall be phased to address marine life impacts from each of the applicable operating scenarios.

To mitigate marine life impacts for Phase I operations, the permittee shall develop, implement and fund a 37-acre wetland restoration project consistent with the terms and conditions set forth in this Plan. The permittee's additional obligations to mitigate marine life impacts for Phase II operations, which may include up to 5.5 acres of additional wetland restoration, are set forth in section 6.0. Combined, mitigation for Phase I and Phase II would require up to 42.5 acres of wetland restoration.

1.1 Technology Review During Phase I Operations

On or before April 30 of each year following the commencement of the Carlsbad desalination facility's commercial operations, the permittee shall provide the Executive Director with data demonstrating the Encina Power Station's cooling water intake for the prior calendar year. On or before April 30 following the first three years of the Carlsbad desalination facility's commercial operations, the permittee shall also provide the Executive Director with the calculation demonstrating the Power Station's average water use during the prior three-year period. The permittee shall thereafter provide the Executive Director with that calculation annually, on or before April 30, until either of the occurrence of either of the "Phase II Pre-Conditions," as defined in subsection 1.2 below.

Consistent with the permittee's approvals from the State Lands Commission, the permittee shall perform the following ten years after the commencement of commercial operations, unless either of the "Phase II Pre-Conditions" occur before that time (as defined in subsection 1.2 below):

a. Conduct a new analysis of the environmental effects of ongoing desalination facility operations ten years after the commencement of commercial operations. The analysis

shall provide information about the project's actual impacts from operations, taking into account all project features and mitigation measures;

b. Using that analysis, the permittee shall investigate and evaluate new and developing technologies that are reasonably feasible and unavailable today, which may further reduce any marine life impacts; and

c. Within 24 months of the date that the permittee commenced its analysis of the environmental effects of ongoing desalination facility operations, the permittee shall provide that analysis and its evaluation of potential and reasonably feasible technologies to the Commission for review. The determination of feasibility shall consider costs, potential impacts, and acceptability to the Encina Power Station, among other things.

Upon receiving the analysis of environmental effects of ongoing desalination facility operations and the evaluation of new and available technologies from the permittee, the Commission may request a hearing to determine whether those technologies are reasonably feasible and whether the permittee can implement any of the technologies to reduce marine life impacts. If the Commission determines that any such technologies are reasonably feasible and may further reduce marine impacts, this Marine Life Mitigation Plan may, after a public hearing before the Commission, be amended to require implementation of reasonably feasible technologies.

1.2 Implementation of Phase II Mitigation

The permittee's Phase I mitigation obligations will not be affected by whether or not the permittee is ultimately required to undertake mitigation for Phase II. If either the Encina Power Station stops using its existing seawater intake for cooling water, or the Encina Power Station's use of its seawater intake provides less than 15% of Poseidon's needed water based on the Power Station's average water use over any three-year period ("Phase II Pre-Conditions"), then the permittee shall also undertake the Phase II mitigation obligations set forth in section 6.0.

2.0 PHASE I SITE SELECTION

In consultation with Commission staff, the permittee shall select a wetland restoration site for Phase I mitigation in accordance with the following process and terms.

Within 10 months of the effective date of this permit, the permittee shall submit the proposed site and preliminary Phase I restoration plan to the Commission for its review and approval or disapproval.

The location of the wetland restoration project shall be within the Southern California Bight. The permittee shall select from sites including, but not limited to, the following eleven sites:

Tijuana Estuary in San Diego County; San Dieguito River Valley in San Diego County; Agua Hedionda Lagoon in San Diego County; San Elijo Lagoon in San Diego County; Buena Vista Lagoon in San Diego County; Huntington Beach Wetland in Orange County, Anaheim Bay in Orange County, Santa Ana River in Orange County, Los Cerritos Wetland in Los Angeles County, Ballona Wetland in Los Angeles County, and Ormond Beach in Ventura County. The permittee may also consider any sites that may be recommended by the California Department of Fish & Game as high priority wetlands restoration projects.

The basis for the selected site shall be an evaluation of the site against the minimum standards and objectives set forth in subsections 3.1 and 3.2 below. The permittee shall take into account and give consideration to the advice and recommendations of the scientific advisory panel established and convened by the Executive Director pursuant to Condition B.1.0. The permittee shall select the site that meets the minimum standards and best meets the objectives.

2.1 Preliminary Phase I Restoration Plan

In consultation with Commission staff, the permittee shall develop a preliminary wetland restoration plan for Phase I mitigation of the wetland site identified through the site selection process. The preliminary Phase I restoration plan shall meet the minimum standards and incorporate as many as possible of the objectives in subsections 3.1 and 3.2, respectively.

The preliminary Phase I restoration plan shall include the following elements:

a. Review of existing physical, biological, and hydrological conditions; ownership, land use and regulation.

b. Site-specific and regional restoration goals and compatibility with the goal of mitigating Poseidon's marine life impacts.

c. Identification of site opportunities and constraints.

d. Conceptual restoration design, including:

1. Proposed grading and excavation; water control structures; planting; integration of public access, if feasible; buffers and transition areas; management and maintenance requirements.

2. Proposed habitat types (including approximate size and location).

3. Preliminary assessment of significant impacts of design (especially on existing habitat values) and net habitat benefits.

4. **Evaluation of steps for implementation e.g. permits and approvals, development agreements, acquisition of property interests.**

5. **A graphic depiction of proposed plan.**

3.0 PHASE I PLAN REQUIREMENTS

In consultation with Commission staff, the permittee shall develop a **final** wetland restoration plan for the wetland site ~~identified through the site selection process for Phase I. The wetland restoration~~**based on the preliminary Phase I plan, which the permittee shall submit to the Commission as part of the Coastal Development Permit Application described in Section 4.0. The final** plan shall **also** meet the minimum standards and incorporate as many as feasible of the objectives in subsections 3.1 and 3.2, respectively.

3.1 Minimum Standards

The Phase I wetland restoration project site and preliminary plan must meet the following minimum standards:

a. Location within Southern California Bight;

b. Potential for restoration as tidal wetland, with extensive intertidal and subtidal areas;

c. Creates or substantially restores a minimum of 37 acres of habitat similar to the affected habitats in Agua Hedionda Lagoon, excluding buffer zone and upland transition area;

d. Provides a buffer zone of a size adequate to ensure protection of wetland values, and ~~substantially~~ at least 100 feet wide, as measured from the upland edge of the transition area. The Executive Director or the Commission may make exceptions to the 100-foot buffer requirement in certain locations if they determine that the exceptions are de minimis, or that a lesser buffer is sited and/or designed to prevent impacts that would significantly degrade wetland areas and that they are compatible with the continuance of those areas;

e. Any existing site contamination problems would be controlled or remediated and would not hinder restoration;

f. Site preservation is guaranteed in perpetuity (through appropriate public agency or nonprofit ownership, or other means approved by the Executive Director), to protect against future degradation or incompatible land use;

g. Feasible methods are available to protect the long-term wetland values on the site, in perpetuity;

h. Does not result in a net loss of existing wetlands; and

i. Does not result in an adverse~~,~~ **impact on endangered animal species, or an adverse** unmitigated impact on endangered **plant** species.

3.2 Objectives

The following objectives represent the factors that will contribute to the overall value of the wetland. The selected site shall be determined to achieve these objectives. These objectives shall also guide preparation of the restoration plan.

a. Provides ~~substantial~~**maximum** overall ecosystem benefits, e.g. ~~substantial~~**maximum** upland buffer, enhancement of downstream fish values, provides regionally scarce habitat, potential for local ecosystem diversity;

b. Provides substantial fish habitat compatible with other wetland values at the site;

c. Provides a buffer zone of ~~at least~~**an average of at least 300 feet wide, depending on the feasibility at the selected site(s), and not less than** 100 feet wide, as measured from the upland edge of the transition area, subject to the exemptions set forth in subsection 3.1(d);

d. Provides ~~substantial~~**maximum** upland transition areas (in addition to buffer zones);

e. Restoration involves minimum adverse impacts on existing functioning wetlands and other sensitive habitats;

f. Site selection and restoration plan reflect a consideration of site specific and regional wetland restoration goals;

g. Restoration design is that most likely to produce and support wetland-dependent resources;

h. Provides potential habitat for rare or endangered species;

i. Provides for restoration of reproductively isolated populations of native California species;

j. Results in an increase in the aggregate acreage of wetland in the Southern California Bight;

k. Requires minimum maintenance;

l. Restoration project can be accomplished in a reasonably timely fashion; and

m. Site is in proximity to the Carlsbad desalination facility.

3.3 Restrictions

(a) The permittee may propose a wetland restoration project larger than the minimum necessary size specified in subsection 3.1(c) above, if biologically appropriate for the site, but the additional acreage must (1) be clearly identified, and (2) must not be the portion of the project best satisfying the standards and objectives listed above.

(b) If the permittee jointly enters into a restoration project with another party: (1) the permittee's portion of the project must be clearly specified, (2) any other party involved cannot gain mitigation credit for the permittee's portion of the project, and (3) the permittee may not receive mitigation credit for the other party's portion of the project.

(c) The permittee may propose to divide the mitigation requirement between a maximum of ~~four~~two wetland restoration sites, unless the Executive Director determines that the standards and objectives of subsections 3.1 and 3.2 will be better met at more than ~~four~~two sites.

4.0 PHASE I PLAN IMPLEMENTATION

4.1 Coastal Development Permit Application

The permittee shall submit a complete Coastal Development Permit application for the Phase I restoration plan along with CEQA documentation and local or other state agency approvals by either 24 months following the issuance of the Coastal Development Permit for the Carlsbad desalination facility~~, or the commencement of commercial operations at the facility, whichever is later~~. The Executive Director may grant an extension to this time period at the request of and upon a demonstration of good cause by the permittee. The restoration plan shall substantially conform to Section 3.0 above and shall include, but not be limited to the following elements:

a. Detailed review of existing physical, biological, and hydrological conditions; ownership, land use and regulation;

b. Evaluation of site-specific and regional restoration goals and compatibility with the goal of mitigating for Poseidon's marine life impacts;

c. Identification of site opportunities and constraints;

d. Schematic restoration design, including:

   1. Proposed cut and fill, water control structures, control measures for stormwater, buffers and transition areas, management and maintenance requirements;

   2. Planting Program, including removal of exotic species, sources of plants and or seeds (local, if possible), protection of existing salt marsh plants, methods for preserving

top soil and augmenting soils with nitrogen and other necessary soil amendments before planting, timing of planting, plans for irrigation until established, and location of planting and elevations on the topographic drawings;

3. Proposed habitat types (including approximate size and location);
4. Assessment of significant impacts of design (especially on existing habitat values) and net habitat benefits;
5. Location, alignment and specifications for public access facilities, if feasible;
6. Evaluation of steps for implementation e.g. permits and approvals, development agreements, acquisition of property rights;
7. Cost estimates;
8. Topographic drawings for final restoration plan at 1" = 100 foot scale, one foot contour interval; and
9. Drawings shall be directly translatable into final working drawings.

g. Detailed information about how monitoring and maintenance will be implemented;

h. Detailed information about construction methods to be used;

i. Defined final success criteria for each habitat type and methods to be used to determine success;

j. Detailed information about how Poseidon will coordinate with any other agency or panel that will have a role in implementing and monitoring the restoration plan, including the respective roles of the parties in independent monitoring, contingency planning review, cost recovery, etc.;

k. Detailed information about contingency measures that will be implemented if mitigation does not meet the approved goals, objectives, performance standards, or other criteria; and

l. Submittal of "as-built" plans showing final grading, planting, hydrological features, etc. within 60 days of completing mitigation site construction.

4.2 Wetland Construction Phase

Within 12 months of approval of the Phase I restoration plan, subject to the permittee's obtaining the necessary permits, the permittee shall commence the construction phase of the wetland restoration project. The permittee shall be responsible for ensuring that construction is carried out in accordance with the specifications and within the timeframes specified in the approved

restoration plan and shall be responsible for any remedial work or other intervention necessary to comply with plan requirements.

4.3 Timeframe for Resubmittal of Project Elements

If the Commission does not approve any element of the project (i.e. site selection, restoration plan), the Commission will specify the time limits for compliance relative to selection of another site or revisions to the restoration plan.

5.0 PHASE I WETLAND MONITORING, MANAGEMENT AND REMEDIATION

Monitoring, management (including maintenance), and remediation shall be conducted over the "full operating life" of Poseidon's desalination facility, which shall be 30 years from the date "as-built" plans are submitted pursuant to subsection 4.1(*l*).

The following section describes the basic tasks required for monitoring, management and remediation for Phase I. Condition B specifies the administrative structure for carrying out these tasks, including the roles of the permittee and Commission staff.

5.1 Monitoring and Management Plan

A monitoring and management plan will be developed in consultation with the permittee and appropriate wildlife agencies, concurrently with the preparation of the restoration plan for Phase I, to provide an overall framework to guide the monitoring work. It will include an overall description of the studies to be conducted over the course of the monitoring program and a description of management tasks that are anticipated, such as trash removal. Details of the monitoring studies and management tasks will be set forth in a work program (see Condition B).

5.2 Pre-restoration site monitoring

Pre-restoration site monitoring shall be conducted to collect baseline data on the wetland attributes to be monitored. This information will be incorporated into and may result in modification to the overall monitoring plan.

5.3 Construction Monitoring

Monitoring shall be conducted during and immediately after each stage of construction of the wetland restoration project to ensure that the work is conducted according to plans.

5.4 Post-Restoration Monitoring and Remediation

Upon completion of construction of the wetland, monitoring shall be conducted to measure the success of the wetland in achieving stated restoration goals (as specified in restoration plan) and in achieving performance standards, specified below. The permittee shall be fully responsible for any failure to meet these goals and standards during the facility's full operational years. Upon determining that the goals or standards are not achieved, the Executive Director shall prescribe remedial measures, after consultation with the permittee, which shall be implemented by the permittee as soon as practicable with Commission staff direction. If the permittee does not agree with the remedial measures prescribed by the Executive Director, or that remediation is necessary, the matter may be set for hearing and disposition by the Commission.

Successful achievement of the performance standards shall (in some cases) be measured relative to approximately four reference sites, which shall be relatively undisturbed, natural tidal wetlands within the Southern California Bight. The reference sites and the standard of comparison, i.e. the measure of similarity to be used, shall be specified in the work program.

In measuring the performance of the wetland project, the following physical and biological performance standards will be utilized:

a. Longterm Physical Standards. The following long-term standards shall be maintained over the full operative life of the desalination facility:

   1) Topography. The wetland shall not undergo major topographic degradation (such as excessive erosion or sedimentation);

   2) Water Quality. Water quality variables [to be specified] shall be similar to reference wetlands; and

   3) Tidal Prism. If the plan requires dredging, the permittee shall provide such dredging for the duration of the "full operating life" of the project (as defined in Section 5.0), in exchange for a dredging credit consistent with the credit provided to Edison for the SONGS restoration project, and any designed tidal prism shall be maintained, and tidal flushing shall not be interrupted.

   4) ~~3)~~ Habitat Areas. The area of different habitats shall not vary by more than 10% from the areas indicated in the restoration plan.

b. Biological Performance Standards. The following biological performance standards shall be used to determine whether the restoration project is successful. Table 1, below, indicates suggested sampling locations for each of the following biological attributes; actual locations will be specified in the work program:

1) Biological Communities. Within 4 years of construction, the total densities and number of species of fish, macroinvertebrates and birds (see Table 1) shall be similar to the densities and number of species in similar habitats in the reference wetlands;

2) Vegetation. The proportion of total vegetation cover and open space in the marsh shall be similar to those proportions found in the reference sites. The percent cover of algae shall be similar to the percent cover found in the reference sites;

3) Spartina Canopy Architecture. The restored wetland shall have a canopy architecture that is similar in distribution to the reference sites, with an equivalent proportion of stems over 3 feet tall;

4) Reproductive Success. Certain plant species, as specified by in the work program, shall have demonstrated reproduction (i.e. seed set) at least once in three years;

5) Food Chain Support. The food chain support provided to birds shall be similar to that provided by the reference sites, as determined by feeding activity of the birds; and

6) Exotics. The important functions of the wetland shall not be impaired by exotic species.

Table 1: Suggested Sampling Locations

	Salt Marsh			Open Water		Mudflat	Tidal Creeks
	Spartina	Salicornia	Upper	Lagoon	Eelgrass		
1) Density/spp:							
Fish				X	X	X	X
Macroinverts				X	X	X	X
Birds	X	X	X	X		X	X
2) % Cover							
Vegetation	X	X	X		X		
Algae	X	X				X	
3) Spar. arch.	X						
4) Repro. suc.	X	X	X				
5) Bird feeding				X		X	X
6) Exotics	X	X	X	X	X	X	X

6.0 MITIGATION REQUIRED AFTER PHASE II PRECONDITION

6.1 Reasonably Feasible Technologies

Following the occurrence of either of the Phase II Pre-Conditions, as defined in subsection 1.1, the permittee shall:

a. Conduct a new analysis of the environmental effects of ongoing desalination facility operations. The analysis shall provide information about the project's actual impacts from operations, taking into account all project features and mitigation measures;

b. Using that analysis, the permittee shall investigate and evaluate new and developing technologies that are reasonably feasible and unavailable today, which may further reduce any marine life impacts;

c. Within 24 months of the occurrence of the applicable Phase II pre-condition, the permittee shall provide that analysis and its evaluation of potential and reasonably feasible technologies to the Commission for review. The determination of feasibility shall consider costs, potential impacts, and acceptability to the Encina Power Station, among other things; and

d. The analysis and evaluation provided to the Commission shall also include an evaluation of whether the 37 acres of wetland restoration implemented by the permittee has fully or only partially mitigated marine life impacts for stand-alone operations, taking into account actual operating conditions from facility operations for Phase I and potential reductions to impacts that would occur as a result of any new and reasonably feasible technologies that the permittee may implement pursuant to this subsection 6.1.

Upon receiving the evaluation of new and available technologies from the permittee, the Commission may request a hearing to determine whether those technologies are reasonably feasible and whether the permittee can implement any of the technologies to reduce marine life impacts. If the Commission determines that any such technologies are reasonably feasible and may further reduce marine impacts, this Marine Life Mitigation Plan may be amended after a public hearing before the Commission to require implementation of reasonably feasible technologies. The Commission also may determine the additional mitigation, if any, required after implementation of available technologies to reduce marine life impacts from Phase II operations.

6.2 Additional Mitigation

The permittee also shall comply with the following mitigation measures after the occurrence of either Phase II Pre-Condition:

a. If within 24 months of the occurrence of the applicable Phase II Pre-Condition, the permittee assumes dredging obligations of the Agua Hedionda Lagoon from the Encina Power Station or other applicable entity, the permittee shall provide evidence to the Executive Director in the form of a contract or other agreement that demonstrates the permittee's assumption of dredging obligations, along with an evaluation of the permittee's dredging activities and supporting documentation for the proposed mitigation credit the permittee is seeking for this activity. Pursuant to Special Condition 12 of this Permit, the permittee shall not dredge the Agua Hedionda Lagoon without obtaining a new Coastal Development Permit approval from the Commission for dredging activities. If such dredging obligations are assumed, the Commission shall evaluate and determine the mitigation credit the permittee is entitled to receive for Lagoon dredging using substantially the same methodology the Commission used for the San Onofre Nuclear Generating Station's dredging approvals. If the Commission's evaluation set forth in subsection 6.1 determines that there is any remaining mitigation obligation following the implementation of reasonably feasible technologies to reduce marine impacts, the credit for Lagoon dredging shall be applied to satisfy any remaining mitigation obligation of the permittee; or

b. If the permittee does not assume the dredging obligations for the Agua Hedionda Lagoon (for any reason other than delays by the Commission in issuing the Coastal Development Permit for dredging) and the analysis and evaluation set forth in subsection 6.1 identifies that additional wetland restoration is necessary to mitigate Phase II impacts not fully mitigated by the 37-acre restoration project, then within 24 months of the occurrence of the applicable Phase II Pre-Condition, the permittee shall apply for a new Coastal Development Permit to perform additional wetland mitigation to mitigate marine life impacts for Phase II operations that meets the following criteria:

   (i) the Phase II wetland mitigation shall credit the 37-acres of restoration required under this Plan for Phase I, and may require additional mitigation of up to an additional 5.5 acres. The Commission shall proportionally reduce the potential 5.5 acre restoration requirement based on: (1) any reduction to marine life impacts caused by the permittee's implementation of reasonably feasible technologies, as set forth in subsection 6.1; and (2) any demonstration that actual plant operations have caused less marine life impacts than originally anticipated during the project's initial evaluation;

   (ii) the permittee shall apply for a new Coastal Development Permit to perform the wetland restoration, and the restoration shall be of habitat similar to the affected habitats in Agua Hedionda Lagoon, excluding buffer zone and upland transition area, and consistent with the objectives and restrictions in subsections 3.1 (excluding subsection 3.1(c)), 3.2 and 3.3 above;

(iii) the permittee shall select a wetland restoration site for Phase II mitigation in a manner generally in accordance with section 2.0 above;

(iv) the restoration plan for Phase II mitigation shall be generally in accordance with the requirements in section 4.0 above, and shall be monitored in a manner generally in accordance with that set forth in section 5.0 above; and

(v) Phase II wetland restoration shall be included in and administered as part of the same administrative structure created for Phase I mitigation and set forth in Condition B of this Plan.

CONDITION B: ADMINISTRATIVE STRUCTURE

1.0 ADMINISTRATION

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 Condition A. The Executive Director will retain scientific and administrative support staff to perform this function, as specified in the work program.

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. 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 and manner reasonably 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 in conjunction with its review of the restoration plan. ~~Permit application fees paid by the permittee for Coastal~~

~~Development Permits (or amendments thereto) for the restoration program shall be credited against the budget to be funded by the permittee.~~ 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. 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. 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 in conjunction with its review of the restoration plan. **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.** 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 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 project 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 up to four reference sites;

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

e. A description of remedial measures or other necessary site interventions;

f. A description of staffing and contracting requirements; and

g. A description of the scientific advisory panel's role and time requirements in the two year period.

~~Any amendment to the work program requested by the permittee shall require an amendment to the Coastal Development Permit for the restoration plan, unless the Executive Director determines that no Coastal Development Permit amendment is necessary or required. Any amendment to the work program proposed by the Executive Director shall be made in consultation with the permittee. If the permittee and the Executive Director cannot agree on an amendment to the work program, the disagreement will be submitted to the Commission for resolution.~~

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

3.0 ANNUAL REVIEW AND PUBLIC WORKSHOP REVIEW

The permittee shall submit a written review of the status of the mitigation project to the Executive Director each year on April 30 for the prior calendar year. The written review will discuss the previous year's activities and overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next year's program.

Every fifth year, the Executive Director or the Commission shall also convene and conduct a duly noticed public workshop to review the status of the mitigation project. 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 five years' activities and the overall status of the mitigation project, identify problems and make recommendations for solving them, and review the next period's program.

The workshop review will include discussions on whether the wetland mitigation project has 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 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 project 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. 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 ~~Commission~~**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 workshop review.

4.0 ADDITIONAL PROCEDURES

4.1 Dispute Resolution

In the event that the permittee and the Executive Director cannot reach agreement regarding the terms contained in or the implementation of any part of this Plan, the matter may be set for hearing and disposition by the Commission.

4.2 Extensions

Any of the time limits established under this Plan may be extended by the Executive Driector at the request of the permittee and upon a showing of good cause.

EXHIBIT B

RESPONSES TO ISSUES IDENTIFIED IN JULY 24, 2008 STAFF REPORT

In response to Commission Staff's specific concerns regarding Poseidon's proposed Marine Life Mitigation Plan ("MLMP"), as identified on page 15 of the July 24, 2008 Staff Report, Poseidon has modified its MLMP to address Staff's concerns. Below we have listed each of Staff's identified concerns, followed by Poseidon's response. In addition to the responses herein, Exhibit A is a redline of Poseidon's MLMP that shows the changes Poseidon has made in response to Staff's concerns. Note that this document does not address the three issues discussed in Poseidon's letter responding to the Staff Report: mitigation acreage, phased mitigation and restoration credit for lagoon dredging.

I. Responses to Bullet Points on Page 15: In this section, Poseidon has responded to each of the bullet points listed on page 15 of the Staff Report.

Issue 1: *Staff recommended that Poseidon submit a complete coastal development permit application for its Final Restoration Plan within 24 months of Commission approval of its Preliminary Plan (i.e., the Plan being reviewed herein). Poseidon modified that recommendation in Section 4 of its Plan to allow submittal of that application either 24 months after issuance of the project coastal development permit or commencement of commercial operations of the desalination facility, whichever is later. This could substantially delay the implementation of mitigation and could result in several years of impacts occurring without mitigation.*

- **Poseidon Response to Issue 1:** In Section 4.1 of Poseidon's MLMP, Poseidon has revised its Plan so that the Coastal Development Permit for the Final Restoration Plan will be submitted within 24 months of Commission approval of its Preliminary Plan.

Issue 2: *A proposed change to Poseidon's Plan at Section 3.1(d) and at Section 3.2(c) would reduce the required buffer zone at its mitigation sites from no less than 100 feet wide to an average that could be much less than 100 feet.*

- **Poseidon Response to Issue 2:** Poseidon has removed the word "substantially" from Section 3.1(d) so that it is evident that buffer zones will be at least 100 feet wide. (See Poseidon's MLMP, Page 4 of 16.)

Issue 3: *A proposed change to Section 3.1(i) would allow the Plan to affect endangered species in a way not allowed under the Edison requirements.*

- **Poseidon Response to Issue 3:** Poseidon has revised Section 3.1(i) to indicate that Poseidon's Plan will not result in an adverse impact on endangered animal species, and that it will require mitigation for Plan impacts on endangered plant species. (See Poseidon's MLMP, Page 5 of 16.) The formulation of this provision in the Edison plan does not take into account that substantially all wetlands restoration projects will have impacts on sensitive plant species, which would likely be mitigated through relocation

to upland areas. The Edison plan's formulation would not allow mitigation in any area where there is a sensitive plant. Accordingly, Poseidon modified this language to ensure there are no adverse impacts to endangered animals, but to allow for mitigation and relocation of sensitive plants.

Issue 4: *Poseidon proposes to change Section 3.3(c) to allow mitigation to occur in up to four sites, rather than up to two sites, as required of Edison, which could fragment the mitigation and reduce its overall value.*

- **Poseidon Response to Issue 4:** Poseidon has revised Section 3.3(c) to allow mitigation to occur only at up to two sites without Executive Director approval. (See Poseidon's MLMP, Page 6 of 16.)

Issue 5: *Poseidon also proposed deleting a requirement at Section 5.4 that would require a designed tidal prism to be maintained to ensure the wetland mitigation site has adequate tidal action.*

- **Poseidon Response to Issue 5:** Poseidon has revised its Plan to include a requirement at Section 5.4(a)(3) that would require a designed tidal prism be maintained if the Plan requires dredging. (See Poseidon's MLMP, Page 9 of 16.)

Issue 6: *Poseidon Proposes that any fees it pays for coastal development permits or amendments be credited against the budget needed to implement the mitigation plan.*

- **Poseidon Response to Issue 6:** Poseidon has revised Condition B, Section 2.0 to remove its proposal regarding the crediting of fees paid for coastal development permits or amendments. (See Poseidon's MLMP, Pages 13-14 of 16.)

II. <u>Responses to Staff's Recommendation to Include Conditions in Exhibit 2</u>: In this section we have responded to Staff's comment on page 15 of the Staff Report that Poseidon's Plan should be modified to include the conditions in Exhibit 2 by identifying each of the differences between Poseidon's Plan and Staff's Exhibit 2, followed by Poseidon's response.

- Poseidon's Plan removes the requirement in Section 2.0 that would require Poseidon to submit the proposed site and preliminary plan to the Commission within 9 months of the effective date of the approval, and removes Exhibit 2's "Preliminary Plan" requirements set forth in Staff's Exhibit 2 at §1.2.
    - **Poseidon Response:** Poseidon has revised its Plan to include the "Preliminary Plan" requirements (Poseidon's MLMP § 2.1, Pages 3-4 of 16.) and has modified its Plan so that a proposed site and preliminary plan will be submitted to the Commission within 10 months of the effective date of the approval. (See Poseidon's MLMP § 2.0, Page 2 of 16.)
- Poseidon's Plan adds three potential restoration sites (Agua Hedionda, San Elijo, and Buena Vista) for a total of 11 sites in Section 2.0.

- **Poseidon Response:** This remains part of Poseidon's proposal because these sites are in close proximity to the Project site, and have been recommended as potential mitigation sites by local and state agencies.

- Poseidon's Plan allows Poseidon to consider other sites that may be recommended by the Department of Fish and Game ("DFG") as high-priority wetlands restoration projects, while Staff's MLMP only allows additional sites to be considered with approval from the Executive Director. (Section 2.0.)

    - **Poseidon Response:** This remains part of Poseidon's proposal to allow consideration of sites that could be proposed by DFG.

- Poseidon's MLMP has objectives of providing "substantial' upland buffer and upland transition areas, as compared to Staff's objective of providing "maximum" upland buffer and upland transition areas. (See Poseidon's MLMP §§ 3.2(a),(d).)

    - **Poseidon Response:** Poseidon has revised Sections 3.2(a) and (d) of its Plan to incorporate Staff's proposed "maximum" language. (See Poseidon's MLMP, Page 5 of 16.)

- Poseidon's Plan deletes Staff's Objective in Section 3.2(c) of providing a buffer zone of an average of at least 300 feet wide, and includes a 100 feet-wide Objective.

    - **Poseidon Response:** Poseidon has revised Section 3.2(c) so that the Objective provides for a buffer zone that is an average of 300 feet wide, depending on the feasibility at the selected site(s), and not less than 100 feet wide. (See Poseidon's MLMP, Page 5 of 16.) This modification addresses Staff's concerns and will allow Poseidon to have necessary flexibility in selecting the mitigation site(s).

- Poseidon proposes commencing restoration construction within 12 months of approval of the restoration plan (Poseidon's MLMP § 4.2), while Staff proposes construction within 6 months of approval of the restoration plan (Staff's Exhibit 2 at § 2.2).

    - **Poseidon Response:** This remains part of Poseidon's proposal because it is a more reasonable estimate of time that will be required to undertake the restoration efforts.

- Poseidon's Plan adds a provision to assure that the mitigation is in place for 30 years, and therefore adds a definition of the facility's "full operating life" of 30 years from the date as-built plans are submitted. (See Poseidon's MLMP § 5.0)

    - **Poseidon Response:** This remains part of Poseidon's proposal because it provides clarity for Poseidon's responsibilities and obligations under the Plan.

- Poseidon modifies the requirement that the Executive Director will retain approximately two scientists and one administrative support staff to oversee the plan's mitigation and monitoring functions, and provides that the Executive Director shall retain staff as set forth in the "work program." (See Poseidon's MLMP Condition B § 1.0, Page 13 of 16.)

- **Poseidon Response:** This remains part of Poseidon's proposal because Poseidon does not believe this amount of staffing is necessary given the significantly smaller scope of Poseidon's restoration obligations compared to SONGS. Poseidon's proposal provides that the work program will identify the necessary staffing.

- Poseidon's Plan removes the cap on total costs for the advisory panel of $100,000 per year contained in Staff's Exhibit 2, and requires the Executive Director to submit a proposed budget for the advisory panel to the Commission for approval on a biennial basis, and provides that any disagreement over the budget to be submitted to the Commission for resolution. (Poseidon's MLMP Condition B § 2.0.)

    - **Poseidon Response:** Poseidon has revised Condition B Section 2.0 to include Staff's language regarding the $100,000 cap, but has retained its procedures for the budget due to the fact that the scope of Poseidon's restoration obligations will be significantly smaller than Edison's, and the budget for the advisory panel should bear a reasonable relationship to the scope of restoration. (See Poseidon's MLMP, Page 14 of 16.)

- Poseidon's Plan modifies the Executive Director's ability to amend the work program. (Poseidon's MLMP Condition B § 2.0.)

    - **Poseidon Response:** Poseidon has modified Condition B, § 2.0 so that it is now consistent with the language in Staff's Exhibit 2. (See Poseidon's MLMP, Page 15 of 16.)

- Poseidon's Plan requires submission of a written review of the restoration project's previous year by April 30 instead of an annual public workshop. Poseidon provides for a public workshop every fifth year, regardless of whether the project's performance standards have been met. (Poseidon's MLMP Condition B § 3.0, Pages 15-16 of 16.) Staff's Exhibit 2 provides for an annual public workshop, and would lower the frequency of this obligation to a five year review once performance standards are achieved.

    - **Poseidon Response:** This remains part of Poseidon's proposal because of the substantially limited size of the Poseidon's restoration project as compared to Edison's SONGS restoration project, and the significant cost already imposed on Poseidon's mitigation program.

- Poseidon's Plan gives the Commission, rather than the Executive Director, the authority to determine the success or failure to meet the performance standards, or necessary remediation and related monitoring.

    - **Poseidon Response:** Poseidon has modified Condition B, § 3.0 so that it is consistent with the language in Staff's Exhibit 2. (See Poseidon's MLMP, Page 10 of 16.)

- Poseidon's Plan adds a general dispute resolution provision that would allow any disputes to be heard by the Commission. (Poseidon's MLMP Condition B § 4.1, Page 16 of 16.)

- **Poseidon Response:** This remains part of Poseidon's proposal because it retains and states the permittee's implicit rights.

- Poseidon's MLMP allows for time extensions by the Executive Director at Poseidon's request upon a showing of good cause. Poseidon's MLMP Condition B § 4.2, Page 16 of 16.)

    - **Poseidon's Response:** This remains part of Poseidon's proposal.

EXHIBIT C

MARINE LIFE MITIGATION PLAN RATIONALE

In addition to the reasons set forth in Poseidon's letter to the Commission, below Poseidon has provided more detailed support for its position that the Commission should accept Poseidon's arguments concerning mitigation acreage, mitigation phasing and dredging over those offered by Staff. Accordingly, and for the following reasons, Poseidon respectfully asks the Commission to adopt Poseidon's Marine Life Mitigation Plan ("MLMP") as amended and set forth in Exhibit A, and without Staff's requested modifications from the Staff Report.

I. POSEIDON'S RESTORATION ACREAGE IS CONSISTENT WITH COMMISSION PRACTICE

Independent review has confirmed that Poseidon's proposed 42.5 acres is sufficient restoration to fully mitigate the Project's marine life impacts. Poseidon's entrainment study, which provides the basis for Poseidon's proposed 42.5 acres of wetland restoration, was reviewed by the Coastal Commission's independent expert, Dr. Pete Raimondi of UC Santa Cruz. Dr. Raimondi confirmed, among other things, that: (1) Poseidon's study design is consistent with recent entrainment studies conducted in California; (2) using CEC methodology and Coastal Commission precedent, the habitat restoration required to mitigate the Project's "stand-alone" operations would be 42.5 acres (37 acres to compensate for Agua Hedionda Lagoon ("Lagoon") species impacts, and 5.5 acres to compensate for open ocean species impacts); and (3) habitat mix for mitigation should include mudflat/tidal channel and open water habitat. This methodology is also consistent with the peer-reviewed and approved methodology the CEC applied to the Morro Bay Power Plant and the Moss Landing Power Plant.

Notably, Commission Staff originally recommended that Poseidon use CEC methodology to determine the Project's mitigation requirement. Staff, however, is now recommending a substantial *increase* in the mitigation acreage by applying a new standard that has not been peer-reviewed and which adjusts variables in the modeling estimates. Specifically, Dr. Raimondi suggested that in order to provide an even *greater* level of assurance that impacts to lagoon and ocean species will be mitigated, Poseidon could restore 12.9 to 25.7 acres above the 42.5 acres required under CEC methodology – for a total of 55.4 to 68.2 acres – to provide an unprecedented level of mitigation for the Project's "stand-alone" impacts that the Commission has never applied before. This "enhanced mitigation" proposal is inconsistent with CEC methodology and established, peer-reviewed methodology and precedent. Notably, Dr. Raimondi has not advocated that the Commission should apply the "enhanced mitigation" methodology, and has appropriately left to the Commission the decision of which methodology should be used.

In contrast to the "enhanced mitigation" proposal, Poseidon's restoration acreage methodology conforms entirely to Commission-accepted precedent, and Staff has not identified any mitigation projects using this methodology that have resulted in under-compensation for marine impacts. Poseidon's Area Production Foregone ("APF") calculation is extremely conservative because it assumes that the proportional mortality resulting from entrainment occur

across the entire area of the Lagoon. In fact, the habitat areas in the Lagoon for the three species used to calculate the APF estimate are all much smaller than the entire Lagoon. Accordingly, an averaging approach was used because it accounts for the uncertainty associated with the estimates of the exact areas of habitat associated for each species. This methodology is considered conservative and conforms entirely to standards and procedures used for APF determination at the Moss Landing project.

Staff has also suggested that if Poseidon does not use Staff's "enhanced mitigation" proposal, that Poseidon should be required to apply a mitigation ratio (such as 2:1 or 3:1) to its mitigation acreage so that Poseidon considers mitigation that may be "out of kind" or provided at some distance from the affected area. Staff, however, has not and cannot provide examples of any California entrainment mitigations that have applied a mitigation ratio on top of a conservative "in-kind" approach to mitigation that is consistent with CEC methodology, such as the mitigation acreage contained in the MLMP. Moreover, the MLMP ensures that Poseidon will provide "in-kind" restoration in the Southern California Bight similar to the affected area in the Lagoon.

For these reasons, Poseidon asks the Commission to approve its 42.5 acreage calculation over that proposed by Staff to ensure that the Project's mitigation is consistent with prior Commission approvals rather than subject to an obligation that is based on un-proven methodology.

II. PHASED MITIGATION IS APPROPRIATE FOR THIS PROJECT

Poseidon's phased approach to mitigation would fully compensate for the Project's impacts to marine life under either of the power plant's operating scenarios. The initial phase of the mitigation plan would provide 37 acres of wetland restoration, which would fully compensate for Project-related impacts during the period when both the Encina Power Station ("EPS") and the Project are operating ("Phase I"). The second phase would provide up to 5.5 acres of additional restoration to address any additional unmitigated impacts occurring from Project operations when the EPS is decommissioned or when the EPS is providing less than 15% of the water needed for the Project based on the EPS's average water use over any three-year period[1] ("Phase II"). Below, Poseidon has identified the benefits of phased mitigation for this Project and explained why Staff's arguments against phasing are unsupported and inconsistent with the benefits that phasing would provide.

A. Phase I Mitigation Over-mitigates Project Impacts

Under Phase I, Poseidon would restore 37 acres of wetland habitat similar to the affected habitats in Agua Hedionda Lagoon. Using CEC and prior Coastal Commission methodology, the Phase I mitigation would mitigate 87% of the total requirements for the Project's "stand alone" operations (when the EPS has ceased operating). Accordingly, the Phase I mitigation

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[1] This threshold is very conservative. The Phase I restoration project would fully mitigate the Project's impacts as long as at least 13% of the Project's seawater requirements are provided by the EPS. Poseidon's MLMP is conservative in that it requires Poseidon to implement Phase II mitigation if the EPS is providing an average of less than 15% of the Project's seawater requirements over a three-year period.

would fully mitigate the Project's impacts as long as at least 13% of the Project's seawater requirements are provided by the EPS. By providing this level of mitigation while the Project and the power plant are both operating, Poseidon will perform more mitigation than what is necessary to mitigate this stage of the Project's operations. For example, in the last 18 months the EPS would have provided over 65% of the water needed for the Project. Based on that number, Poseidon would have been required to provide only 14.9 acres of mitigation using CEC methodology and Commission precedent. Poseidon's Phase I restoration of 37 acres would be approximately 2.5 times the mitigation actually required. Therefore, through the phased approach to mitigation, Poseidon is actually providing the substantial majority of the mitigation required for the Project's stand-alone operations up front.

B. Phase II Mitigation Provides New Opportunities to Reduce Impacts

The MLMP requires Poseidon to implement mitigation measures for Phase II (including up to 5.5 acres of additional restoration) if the EPS stops using its existing seawater intakes for cooling purposes, or if the intakes provide less than 15% of Poseidon's needed water based on the EPS' average water use over any three-year period ("Phase II Pre-Conditions"). To ensure that the Commission is aware of the amount of water the EPS is providing to the Project, and when Phase II mitigation should commence, the MLMP requires Poseidon to submit that information to the Executive Director annually.

Wetland habitat restoration under Phase II would credit the 37 acres of restoration already provided for under Phase I, and provide assurances that stand-alone operations are fully mitigated in Phase II. Once either of the Phase II Pre-Conductions occur, the MLMP requires Poseidon to: (1) analyze the environmental effects of ongoing Project operations; (2) use that analysis to investigate and evaluate reasonably feasible technologies that are unavailable today, which may reduce any marine life impacts; and (3) provide its analysis of environmental effects and its evaluation of any reasonably feasible technologies to reduce marine life impacts to the Commission within 24 months. Accordingly, the Commission will be able to determine if Poseidon can further reduce the Project's impacts to marine life through reasonably feasible technologies, and may proportionally reduce Poseidon's habitat restoration obligation for Phase II mitigation based on that mitigation.[2]

In addition, Poseidon may assume dredging obligations of the Agua Hedionda Lagoon from the EPS within 24 months of the occurrence of either Phase II Pre-Condition, if feasible.[3] If Poseidon assumes dredging obligations, it will provide evidence of its obligations to the Commission, along with an analysis of how Lagoon dredging is beneficial to the Lagoon and

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[2] Note that in the event the Phase II Pre-Conditions do not occur, Poseidon's approval from the State Lands Commission requires Poseidon to undertake a substantially similar evaluation of environmental effects of ongoing Project operations and to investigate and evaluate new and developing technologies that are unavailable today to reduce any marine life impacts ten years after Project operations commence. Accordingly, if the State Lands Commission requires Poseidon to implement any such technologies that constitute "development", such development would be subject to Coastal Commission review and approval.

[3] Since Special Condition 12 of the Project's Coastal Development Permit requires Poseidon to obtain a new Permit approval from the Coastal Commission for any dredging activities, the Commission shall have oversight over any Lagoon dredging.

how such dredging activities may entitle Poseidon to some amount of restoration credit. (See Section C below).

In the event that Poseidon does not assume Lagoon dredging obligations (for example, if the EPS never fully ceases use of its intakes but operates the intakes at very low levels and continues to dredge the Lagoon), Poseidon's MLMP requires it to develop a plan within 24 months in which: (1) the Commission shall evaluate whether Poseidon's 37 acres of wetland restoration under Phase I has fully mitigated the Project's stand-alone operations; and (2) the Commission may reduce Poseidon's Phase II restoration based on the reduction to marine impacts caused by Poseidon's implementation of new, reasonably feasible technologies (as discussed above).

Accordingly, phased MLMP implementation would provide a tremendous incentive for Poseidon to investigate and invest in new technologies and opportunities to further reduce Project impacts and avoid additional mitigation costs. If Poseidon is required to provide all of the mitigation for the "stand-alone" operations upfront, there is substantially less incentive to invest in additional avoidance measures. In addition, the opportunity for the Commission to consider these issues once Project operations have commenced is another valuable benefit of phased implementation of the MLMP: with phased mitigation, Poseidon, the Commission and other regulatory agencies would have an opportunity to measure the actual impacts of the Project, and to evaluate new opportunities to further reduce the impacts and refine the scope of the Phase II mitigation as necessary to ensure the "stand-alone" Project impacts are fully mitigated.

If the Commission determines that none of the above-opportunities are feasible or if these opportunities in combination with the Phase I mitigation plan do not fully mitigate the "stand-alone" Project impacts, then the MLMP requires Poseidon to restore up to an additional 5.5 acres consistent with the performance standards and objectives used for the 37 acres provided under Phase I restoration.

C. Phased Mitigation is Not Speculative

Commission Staff argue in the Staff Report that the Commission should require Poseidon to provide all mitigation up-front, rather than in two phases, because it considers "phasing to be speculative in that it is tied to unknown future operations of the power plant." Staff's argument is without merit. As set forth in MLMP Section 1.1, Poseidon will be obligated to provide the Executive Director annually with data demonstrating the power plant's seawater intake for the prior year, which will ensure that the Commission is always informed of the power plant's operations. Since the MLMP requires Poseidon to undertake Phase II mitigation when the power plant is decommissioned or when it provides less than 15% of the Project's water over a three-year period, the Commission will have the necessary data about power plant operations so that it will not need to "speculate" about when Poseidon will need to implement Phase II mitigation.

Staff also contends in the Staff Report that tying phased mitigation to the power plant's operations would be "inappropriate" because the power plant is not a co-applicant on the Project's Permit. Poseidon's Permit application and the Commission's approval, however, provide that the desalination facility's intake would be connected to the power plant's discharge

channel. Accordingly, the discharge from the power plant, to the extent it is available, will serve the Project's needs. In the past 18 months, the power plant would have provided over 65% of the water needed for the Project. It is both appropriate and there is no prohibition on allowing the phased approach proposed by Poseidon.

In addition to the reasons discussed above, a phased approach to mitigation for this Project is based on sound policy for the following three reasons:

- (1) EPS will operate indefinitely: As discussed above, while the EPS continues to operate, it will provide a significant portion of the seawater required for the Project, and the need for Project mitigation would be proportionally reduced. The power plant's generating capacity is subject to "Reliability Must Run" status, as contracted by the California Independent System Operator (Cal-ISO), which is meant to provide electrical grid reliability. At the October 2007 State Lands Commission meeting, an EPS representative testified that the units will remain in service indefinitely and that Cal-ISO would determine when they are no longer needed for grid stability. Further, in a July 12, 2007 letter to the Commission, EPS stated that at least two of its generating units "can be reliably operated for the foreseeable future." Because the power plant will continue to operate in some capacity and provide water to the Project, requiring more than 37 acres of mitigation up-front would substantially over-mitigate the Project's impacts for many years.

- (2) Phasing allows the Commission to retain authority and evaluate impacts: Due to the phased approach, the Commission would have ongoing involvement in the implementation of the MLMP alongside other regulatory agencies. This will allow the Commission to evaluate the impacts of the Project's *actual* operations, rather than relying on estimates, and will enable the Commission to more accurately determine what additional mitigation should be required to fully mitigate the Project's marine impacts (if any).

- (3) Other regulatory agencies retain authority to evaluate and address impacts: The Regional Water Quality Control Board ("Regional Board") and the State Lands Commission have indicated that upon decommissioning of the power plant, they will undertake an environmental review of the Project to determine what, if any, additional design, technology or mitigation measures should be required. Further, and to the extent that there are modifications to the Project as a result of power plant decommissioning or to comply with State Lands Commission or Regional Board requirements, such modifications would also be subject to review by the Coastal Commission for Coastal Act compliance.

For these reasons, Poseidon asks the Commission to reject Staff's argument about phasing, and to approve Poseidon's MLMP as set forth in Exhibit A, without Staff's recommended changes from the Staff Report.

III. LAGOON DREDGING CREDIT SHOULD BE EVALUATED IN THE FUTURE

Pursuant to Poseidon's proposed MLMP, the Commission may decide at a later date whether Poseidon should receive any restoration credit for assuming dredging obligations of the Agua Hedionda Lagoon. Poseidon has not requested that dredging credit be applied to its mitigation obligations now; on the contrary, Poseidon is asking the Commission only to leave open the possibility of allowing such credit in the future if Poseidon assumes dredging obligations. Staff argues, however, that the Commission should decide now that Poseidon's potential dredging is not subject to restoration credit – even though approval of the MLMP does not involve any dredging approval.

Staff argues that Lagoon dredging would be inconsistent with Special Condition 8's requirement that mitigation be in the form of creation, enhancement or restoration of wetland habitat, but that argument is not supported by the evidence. The Lagoon supports a wide range of beneficial uses, including over 300 acres of marine wetlands and a variety of recreational activities, and needs to be dredged for those uses to continue. The sand dredged from the Lagoon would be placed on adjacent beaches so as to maintain, restore and enhance habitat for grunion spawning and enhance opportunities for public access and recreation along the shoreline. In recognition of the value these uses, the Commission previously granted wetlands restoration credit for inlet maintenance for Edison's SONGS project, and this precedent allowed one acre of restoration credit for every 3.3 acres of tidally exchanged wetlands supported by dredging. As applied to Poseidon, such credit would represent seventeen times the required 5.5 acres of mitigation required under Phase II. The MLMP does not specify the amount of restoration credit Poseidon should receive for dredging, and ultimately the Commission would need to determine the amount of credit to which Poseidon is entitled (if any) if Poseidon applies for such credit.

Finally, Staff argues that credit for dredging cannot be granted because EPS is obligated to dredge the Lagoon, and there is neither an agreement with EPS for Poseidon to undertake dredging nor is EPS a co-applicant for the Project. As discussed above, Poseidon is not asking for dredging credit now, only the possibility of such credit in the future, and Poseidon would provide the Commission with any dredging agreement with EPS, or a new Coastal Development Permit Application that may include EPS as a co-applicant, at the time it requests such credit. Accordingly, Staff's argument is without merit, and Poseidon asks the Commission to approve the MLMP as proposed by Poseidon in Exhibit A.

Item W16a
Exhibit 4

Transcript of August 6, 2008 hearing (Commission deliberations only)

whoever makes the motion.

CHAIR KRUER: Exactly.

EXECUTIVE DIRECTOR DOUGLAS: Right.

CHAIR KRUER: Exactly, and your process sounds rational, but then it might even take longer. I am not sure.

EXECUTIVE DIRECTOR DOUGLAS: Yes, those are the points of differences, right.

CHAIR KRUER: Okay.

You don't get to speak, Mr. Geever.

MR. GEEVER: Mr. Chairman, I am going to ask you for an exception.

CHAIR KRUER: No, I am not going to give any exceptions tonight, at this hour, no, sir, cannot do it.

MR. GEEVER: I wanted to take issue with --

CHAIR KRUER: Well, you are not entitled to rebuttal. We have closed the public hearing, first of all.

MR. GEEVER: Okay.

CHAIR KRUER: Thank you, sir.

Okay, Commissioner Hueso.

[**MOTION**]

COMMISSIONER HUESO: Thank you.

I am going to move that we approve the Marine Life Mitigation Plan attached to the staff recommendation, as Exhibit 1, if modified as shown in Section 1.1 below, and Exhibit 2 of this memorandum as compliant with Special

Condition 8 of CDP E-06-013.

And, I will have some modifications.

CHAIR KRUER: Okay, it has been moved by Commissioner Hueso, seconded by --

Is there a "seconded" to your motion?

Anyone want to "seconded" it.

COMMISSIONER LOWENTHAL: Second.

CHAIR KRUER: Seconded by Commissioner Lowenthal.

Would you like to speak to your motion?

COMMISSIONER HUESO: I would actually like to go through some of the modifications with staff, and maybe go over some of their recommendations that they have made, just to understand how they apply it.

We have gone over this in the discussion, but I would like to go over, for example, Modification No. 1, says Poseidon shall create or restore between 55 and 68 acres of coastal estuarine wetland habitat within the Southern California bite.

My question to staff about that, I mean, there were a lot of complaints about there not being a specific area, and staff also followed up that there aren't really expressed locations, in terms of where this mitigation will take place. In your recommendation, is that still the condition, in terms of we don't know where this is going to take place?

ENVIRONMENTAL SPECIALIST LUSTER: Staff consulted with the SONGS Scientific Advisory Panel, and our recommendation is based on input we got from the panel.

The conditions that the Commission imposed on Edison for the San Dieguito site, those were issued before Edison had selected its site, and so we feel that if Poseidon meets the same conditions that Edison was held to, and selects a site within the Southern California bite, that would provide adequate assurance that subsequent plans that come to you would be sufficient.

COMMISSIONER HUESO: So, we can still work out locations, in terms of optimizing the location, and there is the benefit of the improvements.

ENVIRONMENTAL SPECIALIST LUSTER: Right, as long as they are held to the same conditions SONGS was.

COMMISSIONER HUESO: And, getting to this specific acreage, you put a range of 55 to 68, that was your recommendation. Now, that is not a very, very specific number. Is that based on, again, putting the burden on the applicant to come back with a plan that mitigates the impacts of the project?

ENVIRONMENTAL SPECIALIST LUSTER: Staff felt that that was a decision for the Commission.

The two figures are based on the levels of confidence that derive from the study. If the Commission

wants 80 percent confidence that they would insure full mitigation for the impacts, the 55 acres, staff believes, would be sufficient. If you want 95 percent confidence in your decision, then you go with the higher number.

So, the Commission could either decide on a specific figure, this evening, or if Poseidon came back later, with a mitigation proposal, somewhere within that range, that would be the other option.

COMMISSIONER HUESO: So, is it so accurate, is it possible to get 95 percent with 37 acres? You are saying, is it impossible? is it improbable? is it that accurate? in terms of the possibility of getting the kind of mitigation that we want within a certain amount of acreage? Can that be achieved through a very intense mitigation monitoring of a specific acreage amount?

ENVIRONMENTAL SPECIALIST LUSTER: If you don't mind I will ask Dr. Raimondi to answer that.

COMMISSIONER HUESO: Sure.

ENVIRONMENTAL SPECIALIST LUSTER: He has far more expertise.

MR. RAIMONDI: There are really two issues here, you have addressed one of the. One of them is the amount of acreage that is required, and the other is insuring that it works, because, clearly, you could put in 50, 70, 100 acres and if it doesn't work, you get no compensation.

The key thing here is using the information that Poseidon provided, and just using what I laid out there -- and again, we are not using any data that didn't come from Poseidon -- the 80 percent really is 55 acres, and the 95 really is 68. In addition, you would still need to monitor it, to make sure that it works, because 68 acres of garbage is no compensation.

So, there are two issue, really.

COMMISSIONER HUESO: So, in terms of maybe hearing from Poseidon's representatives, in terms of what they can guarantee, in terms of providing the adequate mitigation for the project, you are saying you can do it with 42.5 acres is the claim that you are making?

MR. ZBUR: Yes, I mean I think we think that based upon the standards that were used for the Morro Bay Plant, and for the Moss Landing Plant, that the acreage amount consistent with that would be 42.5 acres.

COMMISSIONER HUESO: And, what level of mitigation would 42 acres provide?

MR. ZBUR: It would provide --

COMMISSIONER HUESO: In terms of a percentage?

MR. ZBUR: It would present 100 percent mitigation for the stand-alone operations.

COMMISSIONER HUESO: If monitoring showed that it didn't, would that mean that you are not let off the hook.

You would have to come back and do some work?

MR. ZBUR: Well, I think that one of the concerns that we have about the adoption of the staff recommendation is that it, basically, is just a very vague recommendation, if we conform it to the SONGS approach, which had a lot of details, which were related to a much, much larger restoration program, including very significant costs.

So, one of the things that we were hoping you would do is to use the -- start with the Poseidon plan, and if you wanted to make changes with respect to the acreage, and I think we want -- phasing is an important thing. Not having any phasing, really restricts the number of sites that we can do, that we can get entitled and ready to go on line, within the 24 months that the plan has required.

I mean, one of the things that is very important for us is that we are able to not delay the operation of the plant, and in order to not delay the operation of the plant, we need as broad a number of sites, as possible, and obviously, we are requiring all of that up front, so it potentially restricts the number of sites, and that makes it less likely --

COMMISSIONER HUESO: And, that would be required to come back to the Coastal Commission for approval, for each project?

MR. ZBUR: What the Poseidon proposal does is it

would require 37 acres up front. We would have to come back to the Coastal Commission within 24 months for a CDP for that project, at least 37 acres.

COMMISSIONER HUESO: That is 24 for the 37 acres? and, then?

MR. ZBUR: And, then, the Poseidon proposal was that we would have to do the additional acreage at the time that there was stand alone operations occurring, which would be that the power plant would completely shut down, or provides less than 15 percent of the water.

And, I actually wanted to dispute, there is a lot of information on the record which we can site, that provides explanation as to what the basis was of those figures.

COMMISSIONER HUESO: So, how did you come up with the 42.5? that is the 37 plus the 5.5 acres?

MR. ZBUR: Yes, the 37 plus the 5.5 acres. The 42 acres is using the CEC methodology that was used for the Morro Bay and Moss Landing. The 37 acres was, in part, picked because the San Dieguito site, which is not the site that we will, necessarily, go to -- there are still issues with respect to permitting on that site -- but, we know that we can get 37 acres out of the San Dieguito site, if we can resolve issues with the JPA and some of the other entities involved in the site.

COMMISSIONER HUESO: So, under of the staff's

recommended modifications, now where it says, under 1.1 on 1 we have to come up with a determination on the acres, and on No. 2 in conformity with Exhibit 2 -- and we will get to that a little bit later -- and in No. 3 it says when the 60 days of the Commission's approval of the modified plan, Poseidon shall submit for Executive Director's review an approval and review -- excuse me -- of a revised plan that includes these modifications.

So, that is not necessarily -- you are asking for 24 months, as opposed to 60 days? does that condition apply to that?

MR. ZBUR: I didn't think we had any disagreement with the staff on the timing of when the CDP had to come back.

ENVIRONMENTAL SPECIALIST LUSTER: Right, and the 60 days refers to once we decide on a plan this evening, that Poseidon returns within 60 days, and that incorporates all of the changes that are made. If we end up with some conditions, some Poseidon has proposed, and some staff has proposed, that there is one plan that encapsulates all of that.

COMMISSIONER HUESO: So, that would be taken care of by No. 3? there is no disagreement on timing for that?

ENVIRONMENTAL SPECIALIST LUSTER: I don't think there is any disagreement.

COMMISSIONER HUESO: Special Condition No. 2, that refers to Exhibit 2, are there any disagreements on Item No. 2?

ENVIRONMENTAL SPECIALIST LUSTER: Yes, staff's recommendation in Exhibit 2, those are the conditions that the Commission required of SONGS. Staff modified some of those conditions to reflect some updates, and mitigation approaches, and you know, removed references to SONGS and Edison and replaced them with Poseidon.

COMMISSIONER HUESO: Why are we referencing SONGS, specifically, because of their approach to the mitigation? what you are doing is recommending that exact same approach?

ENVIRONMENTAL SPECIALIST LUSTER: Yes, going back a ways, over the last several months we have been working with Poseidon and up until about a month ago, Poseidon's proposal was to mitigate at San Dieguito adjacent to the SONGS restoration site, and they had come up with a very detailed preliminary plan, showing the number of acres of the different types of habitat, hydraulic analyses, showing the change in tidal flows, that sort of thing. And, so we were basing our approach, up until then on consistency with the adjacent SONGS restoration site. It all changed in the last month.

We now no longer have that site as the selected mitigation area, but in consulting with the SONGS scientists,

we believe that the conditions that SONGS was held to would be applicable to Poseidon if they did estuarine restoration somewhere else in the Southern California bite.

So, that is how we ended up with proposing the SONGS conditions.

COMMISSIONER HUESO: Okay, and what part of those conditions can't you achieve?

MR. ZBUR: The SONGS conditions?

COMMISSIONER HUESO: Yes.

MR. ZBUR: I think what you have attached to the motion that we suggested that you make, included many things to respond to the staff's concerns relating to the inconsistencies within the SONGS plan. I don't think that there are very many, but I am trying to figure out what they are, frankly.

I think the only change, really, is with respect to how significant the funding and -- you know, the SONGS plan required the funding of a number of scientists, and really very frequent reports back to the Commission about the restoration plan. And, I think our plan, because it is a much smaller restoration effort, did not anticipate imposing that kind of costs, I mean, the number of scientists that would be employed full time with annual reports -- workshops, it wasn't even reports -- workshops back to the Commission.

So, I think that is the major change that remains

isn't it? plus the phasing and the number of acres.

COMMISSIONER HUESO: Couldn't you propose that as part of your mitigation plan? I mean, tell me here where it is that specific, where it calls out a specific number of scientists, and project management staff, and the other things you alluded to?

MR. ZBUR: Well, basically, it is not in our plan. It is in, basically, the old SONGS plan. There is a general recommendation, and a staff recommendation that we make this consistent with the SONGS plan.

It is in Section 1.0 Administration, and 2.0 Budget and Work Program. There are differences between the SONGS approach, which required --

EXECUTIVE DIRECTOR DOUGLAS: Mr. Chairman, if I may, I think this is going to be virtually impossible for us to work through tonight.

COMMISSIONER HUESO: I agree, I mean --

EXECUTIVE DIRECTOR DOUGLAS: I think, if you would just work on major issues --

COMMISSIONER HUESO: Exactly.

EXECUTIVE DIRECTOR DOUGLAS: -- and then ask us to work with Poseidon, in terms of how we implement it, I think that is what everybody is looking to at the end of the day.

You know what our recommendations are on the points of contention. If you go with our recommendation on

acreage, fine, we will work through what the nature of the plan will have to be. If you go through each one of these, at least you will be able to act on the plan tonight, and we then come back and work through some of the details of what exactly has to be in the plan, relative to whether or not it is exactly tracking with the SONGS approach, or not.

But, that is something that we can work out. You have to decide the fundamental questions here, and if we have a dispute over any of those other items, we can bring those back to you, too. But, at least, in terms of what you have got before you, and what you have asked us to bring to you, was something that you could act on today that would lead to the issuance of the permit, and we were trying to do that.

I think the best way for you to go through it is to address the issues in contention.

MR. ZBUR: I think we would be comfortable in working out the issues with the staff, in terms of consistent with the SONGS, as they really are not that different.

I think the one thing we would ask that the Commission consider as part of the motion is that the detail with respect to the budget is something that we could work out with the staff, and potentially that would be -- the budget, in terms of how much we have to spend could be determined at the time the CDP comes forward.

COMMISSIONER HUESO: And, would you like a

specific acreage amount to be decided today? or could that be done through your discussions with the applicant?

EXECUTIVE DIRECTOR DOUGLAS: I think that is pretty fundamental. I get the sense, from talking with them, that that is what they want you to decide, and we would like that guidance, too.

COMMISSIONER HUESO: Well, I am going to propose then, a --

CHAIR KRUER: Well, you have prefaced your --

COMMISSIONER HUESO: Okay.

COMMISSIONER LOWENTHAL: [Inaudible]

COMMISSIONER POTTER: Mr. Chair, if I might, I am prepared to move through these items in an amending form, and then we can give direction accordingly.

CHAIR KRUER: Well, just a --

Yes, go ahead, sir.

COMMISSIONER LOWENTHAL: [Inaudible]

COMMISSIONER POTTER: Unless there is the desire to belabor this kind of conversation, anyway.

CHAIR KRUER: Commissioner Lowenthal, you don't have a problem with Commissioner Potter going?

COMMISSIONER LOWENTHAL: No.

CHAIR KRUER: Okay, thank you.

[**MOTION**]

COMMISSIONER POTTER: Okay, I offer an amending

motion that the restoration acreage be 55.4 acres.

I need a "second" and then I will speak to it, briefly.

COMMISSIONER HUESO: I'll second it.

CHAIR KRUER: It has been moved by Commissioner Potter, seconded by Commissioner Hueso.

COMMISSIONER POTTER: My concern is that wetland restoration, I am compelled by the testimony by staff that the higher percentage of success is with the 55 or 68 number. That said, I also am concerned that this deal of like-kind restoration, that they not get credit for a restoration project that is not similar to this wetland.

The attachment that is here, Exhibit A, it does go through a fairly involved criteria, with minimum standards and objectives. I believe that that incorporated with the increased acreage would get us to a successful wetland mitigation project. That is my logic.

CHAIR KRUER: Okay, and the "seconder" Commissioner Hueso, no question, please. Do you want to speak to it?

COMMISSIONER HUESO: No.

CHAIR KRUER: Okay, any other Commissioners?

Yes, Commissioner Shallenberger.

COMMISSIONER SHALLENBERGER: Question to the maker of the motion. If it turns out that this doesn't adequately

-- I mean, are there any performance standards that you are proposing to put in so that we know whether or not at the end of monitoring that 55.4 has, in fact, mitigated it?

COMMISSIONER POTTER: I think the CDP that comes in is going to be conditioned for the project, is due in 24 months, and is going to have all of those necessary standards as part of that CDP application, that is my belief.

COMMISSIONER SHALLENBERGER: My question is which one rules? In other words, if we adopt the 5.4 now, and --

COMMISSIONER POTTER: It is 55.4.

COMMISSIONER SHALLENBERGER: -- 55.4, sorry, and right you are, and when we, in 24 months when we get the CDP, and the performance standard show that maybe that doesn't --

COMMISSIONER POTTER: It is proposed --

EXECUTIVE DIRECTOR DOUGLAS: No, if I may.

CHAIR KRUER: Yes, Director Douglas.

EXECUTIVE DIRECTOR DOUGLAS: The way that I understand this would work is that 55.4 acres is what they have to restore. There are performance standards that have to be met, and to the extent that those performance standards aren't met, they have to take remedial action, but that doesn't necessarily mean an increase. It means that they have to go back and make the changes that are necessary to make it function to the level that it meets the performance standards. And, that is built into the --

COMMISSIONER POTTER: And, specific to that, the 5.0 in here, with the wetlands monitoring management remediation, reads monitoring management remediation shall be conducted over the full operating life of Poseidon's desalination facility, which shall be 30 years.

So, there is never going to be a lapse of non-monitoring or mitigation.

CHAIR KRUER: Okay.

Commissioner Wan.

COMMISSIONER WAN: Yeah, along the lines of what Commissioner Shallenberger was talking about, you know, I don't have -- I think the problem here is that, as it has been pointed out, we don't really have the plan in front of us. We have the elements here of what will be a plan, and that makes things very difficult and very uncomfortable, because you can say, well, they will come in in 24 months, and they will be required to do 55.4 acres of restoration, and there will be some performance standards, of which I don't know what they are now.

There will be monitoring, of which I, essentially, don't know what that monitoring is, and then they will be required to meet these performance standards on these 55.4 acres, but what happens if it turns out that they can't? what happens if it turns out that after all is said and done, because at this point, we do not even know where these acres

are going to be located, so it is very difficult to really know if it is adequate. What happens then? and there is where I am really uncomfortable with what we am doing now.

I was going to talk about the total issue of uncertainty, and whether you use 50 percent uncertainty, or 80 percent in the 50 percent, plus mitigation.

But, even if you go with the 55.4 it is the uncertainty because we don't have a plan in front of us now. We are putting off the actual plan for 24 months that I don't know how you can do it.

CHAIR KRUER: Okay.

Commissioner Reilly.

COMMISSIONER REILLY: Well, the uncertainty isn't with performance standards or whether they are going to be able to do it. The uncertainty has to do with the impact of their project. And, it is not going to change.

Whatever performance standards we put on their mitigation, for success, is not going to change the analysis or the level of confidence that this Commission needs to be able to set mitigation acreage, so those are two separate issues, I believe.

And, you know, when this comes back, and you know a couple of us were here for Edison -- little grayer than we were then -- but, we were here, and when this comes back what is going to be before the Commission is adoption of an entire

restoration plan, you know, agreement on baselines, agreement on what performance standards we are going to use on this, and I am sure we are going to go back to some of the ones we have done before, and take a look at that. We are going to make decision on status reports. We are going to make decision on workshops and what period of time we do them over, and so all of those things will be before us, along with we will have an identification, hopefully, by then, of the sites that are involved, and but none of that has to do with setting the acreage. The acreage is based on the analysis, and the percentage level of confidence we have based on uncertainties.

I don't have a problem with going forward with this.

CHAIR KRUER: Okay, thank you, Commissioner Reilly.

EXECUTIVE DIRECTOR DOUGLAS: And, this is the approach that we took in San Onofre.

CHAIR KRUER: And, I am going to call for the question.

COMMISSIONER HUESO: I do want to include the concept of phasing into --

COMMISSIONER POTTER: I am going to move each one individually.

CHAIR KRUER: Phasing is in there.

Okay, with that, again the maker and seconder are asking for a "Yes" vote on the amending motion.

Would the Clerk call the roll.

SECRETARY MILLER: Commissioner Blank?

COMMISSIONER BLANK: Yes.

SECRETARY MILLER: Commissioner Burke?

COMMISSIONER BURKE: Yes.

SECRETARY MILLER: Commissioner Lowenthal?

COMMISSIONER LOWENTHAL: Yes.

SECRETARY MILLER: Commissioner Hueso?

COMMISSIONER HUESO: Yes.

SECRETARY MILLER: Commissioner Kram?

COMMISSIONER KRAM: [Absent]

SECRETARY MILLER: Commissioner Neely?

VICE CHAIR NEELY: Yes.

SECRETARY MILLER: Commissioner Potter?

COMMISSIONER POTTER: Aye.

SECRETARY MILLER: Commissioner Reilly?

COMMISSIONER REILLY: Yes.

SECRETARY MILLER: Commissioner Shallenberger?

COMMISSIONER SHALLENBERGER: No.

SECRETARY MILLER: Commissioner Wan?

COMMISSIONER WAN: No.

SECRETARY MILLER: Commissioner Achadjian?

COMMISSIONER ACHADJIAN: Aye.

SECRETARY MILLER: Chairman Kruer?

CHAIR KRUER: Yes.

SECRETARY MILLER: Nine, two.

CHAIR KRUER: Nine, two, the motion passes.

Next, on this.

COMMISSIONER POTTER: Yes, Mr. Chair --

CHAIR KRUER: Yes, Commissioner Potter.

[**MOTION**]

COMMISSIONER POTTER: -- before the tech crew took away the chart of options, and decided it was better to look at us -- okay, there we go.

I believe the next issue was the phased implementation, and I am prepared to move the phased implementation approach, that is proposed in the Poseidon recommendation, and if I get a "second" I'll speak to it.

COMMISSIONER HUESO: Second.

COMMISSIONER POTTER: The original approach was to take the 37.5 and then the balance up to the 42 and phase that. I am under the impression that they can do the 37 in the 2-year period, so then it leaves, basically, the balance between the 37 and 55, so whatever that is -- and my math says it is 18.4, so that would be the second phase.

And, the details of that is to be worked out by staff. What staff wanted was direction on these items, and so for that reason I would throw that out as the approach.

CHAIR KRUER: Okay, Commissioner Hueso?

Commissioner Reilly.

COMMISSIONER REILLY: I would be willing to support that if the Phase 2 had a time certain placed on it. And, you know, we are talking about bringing it back within 2 years. They are anxious to get this project up and going, I understand, and in their concern, they may not be able to get -- well, they were concerned that they weren't going to be able to get 42.5 acres, I am assuming they are concerned they are not going to be able get 55.4 within a 2-year period.

I am willing to let them come back with 37 on a Phase 1, but from the time of that approval of Phase 1, I don't think we should let more than 5 years pass before we require the Phase 2 to come back.

COMMISSIONER POTTER: And, I would include that --

CHAIR KRUER: Is that okay with you, Commissioner Potter, as the maker of the motion?

COMMISSIONER POTTER: -- in my recommendation.

CHAIR KRUER: Commissioner Hueso, is that okay with you?

COMMISSIONER HUESO: Yes.

CHAIR KRUER: Okay, is there anyone else who wants to speak to that amending motion?

Commissioner Lowenthal.

COMMISSIONER LOWENTHAL: So, with the acreage

change to 55.4 what would Phase 2 acreage be?

COMMISSIONER POTTER: It would be 18.4.

COMMISSIONER LOWENTHAL: So, it will be clearly the difference as what is in the report?

COMMISSIONER POTTER: Yes.

CHAIR KRUER: Yes, and thank you, Commissioner Lowenthal.

EXECUTIVE DIRECTOR DOUGLAS: What I understand the motion to be is that the initial acreage is 37, that has to be done, and then according to their suggestion for phasing, which is when the power plant goes down --

COMMISSIONER POTTER: No, that got changed to 5 years.

EXECUTIVE DIRECTOR DOUGLAS: Okay, so the second phase comes in when?

COMMISSIONER POTTER: Within 5, that is per the Reilly idea.

COMMISSIONER REILLY: Five years after your approval on Phase 1.

EXECUTIVE DIRECTOR DOUGLAS: All right, that is more workable, thank you.

CHAIR KRUER: Commissioner Wan.

COMMISSIONER WAN: I still have a problem with the phasing, although with the time certain, it is a little bit better, because we are going to have a long period of time

where are going to have impacts, and we are not going to have any mitigations for those impacts.

And, in part, that is because I don't know when this is going to come on line, relative to these dates, and you have to remember, that if you start with 37 acres 2 years from now, it takes time to build it, and it takes even more time, quite a few years, before it is actually functioning.

So, we are now looking at 2 years before they start, to, probably, you know, 5 or 6 years down the road before we even start to get anything out of the first phase, and if you add some time on it, by the time you get, quote, full mitigation, if you ever do, you are talking about 10 years, and you have had all of those impacts you haven't accounted for.

And, so pushing this out, remember it takes time for all of this. Pushing it out this way really leaves us with a whole lot of impacts to that ocean without any mitigation.

CHAIR KRUER: Commissioner Reilly.

COMMISSIONER REILLY: I don't disagree with what Commissioner Wan said, but I would point out that SONGS operated for 20 years before we got that mitigation, so and we finally got it, and it is happening, and I think there is a balance here betweem being able to move forward on this project, for the local water needs, and our being able to

nail down the mitigation that fully mitigates what is going on, in terms of impacts.

EXECUTIVE DIRECTOR DOUGLAS: And, I might add that the 5-year component is 5 years from what?

COMMISSIONER REILLY: Adoption of Phase 1.

EXECUTIVE DIRECTOR DOUGLAS: The permit for Phase 1. It may be that they decide, in looking at that, that it is better to do it all at once, and they may, indeed, find an area that is big enough to accommodate the whole thing, so that would be an option open to them.

But, at least, this way, it is workable and we don't get into the ambiguity of when does it trigger, and when does it not.

CHAIR KRUER: Commissioner Scarborough, then Commissioner Shallenberger.

COMMISSIONER SCARBOROUGH: That was -- thank you, Chair, that was part of my question, was it 2 plus 5, or how did you get to the 5 plus 5, but I also wondered what would be the association, or the relationship between the 5 years, versus when the power plant does, potentially, close? I didn't understand why Poseidon had chosen the plant closing, and was wondering if I could enquire with them why that was chosen, and how it relates to 5?

CHAIR KRUER: Okay.

MR. ZBUR: The reason why we had suggested doing

the phasing at the plant closing is because, essentially, at that time we think there will be other kinds of technologies we can put in place that would reduce the potential impingement entrainment impacts that we don't have now, because we have to, basically, rely on the power plant flow, so that is why we thought that at that point we would have a technology incentive to avoid additional mitigation by doing it through avoidance and technology.

So, that is why we prefer doing it at the power plant closure.

COMMISSIONER SCARBOROUGH: What is the estimated time of that? time frame?

MR. ZBUR: It is uncertain. I mean, it could be a few years, or it could be a long time. According to the methodology, we are fully mitigated in the interim on the 37 acres, under the 50 percent compensated criteria, we would be fully mitigated, 2.5 times mitigated at the get go, until -- that is where that 15 percent number came from. We are fully mitigated until you get to the power plant only operating 15 percent of the time.

COMMISSIONER REILLY: That is where we got the 7 years.

CHAIR KRUER: Commissioner Shallenberger.

COMMISSIONER SHALLENBERGER: Yes, I would like to hear from staff, Dr. Raimondi, about what you think about the

phasing? and how workable that is?

MR. RAIMONDI: I am not going to comment about the motivation for the phasing, but the practicality of it, as we have had some experience with SONGS.

In the SONGS permit there was language that allowed there to be restoration, and up to 2 wetland areas. There was the initial phase where there was the selection of the wetlands, where restoration could be done, and in the end, Southern California Edison, and their partners, decided it was logistically more easily to do it at a single wetland for all sorts of reasons. It minimized the monitoring, it minimized the costs associated with the permitting, it minimized the construction costs, it was just cheaper to do it.

Another thing about it, and again, it is going to matter how you decide to do the monitoring, but with SONGS they are on the hook for working for what they call the full operating life of the plant.

So with phasing you are going to have two sequences. You will have the first 37 acres, which will go for a 30-year period, if you adopt that, and then the second 17 or 16 acres that will be out of phase with that, and will go longer, so that becomes problematic from a monitoring standpoint, financially, as well, because you have to carry the monitoring longer.

COMMISSIONER SHALLENBERGER: But, it is problematic to the project proponent, not to us, in terms, I mean, they could decide to do them all at once.

MR. RAIMONDI: Yes, but there is a stronger issue, and that is it is way better. It is possible, and I am sympathetic to them, at this point, about being able to find the acreage, but it is way better for the system if it is 55 rather than two pieces. You are going to have much more likelihood of it working, and it is probably going to link into other restorations, so from an ecological point of view, bigger is better.

CHAIR KRUER: Right, okay.

COMMISSIONER POTTER: Well, just as the maker, to that issue. It is a real estate issue. I mean if the opportunity is out there, and during this period of working with staff, they realize we would do better to do it in one fell swoop, fine then come back and tell us that.

I understand the logic behind what you are saying, but it is going to be more of a property acquisition problem is my suspicion.

CHAIR KRUER: Okay.

Commissioner Lowenthal, and then we are going to call for the question, if that is okay with everybody, unless there is somebody who hasn't spoken yet.

COMMISSIONER LOWENTHAL: I wanted to just be clear

on when the second -- I know we have the 5-year time frame, but just from the proponent's presentation there were different triggering mechanisms, so under our new scheme what would actually trigger Phase 2?

EXECUTIVE DIRECTOR DOUGLAS: It would be 5 years from the first phase, that is, the 37 acres, which has to come in for a permit within 24 months, as I understand it, right, and then once that permit is issued, that is what I understand, then the 5-year period is triggered.

But, I would suggest that the maker of the motion also incorporate in it that if they want to do the entire amount together, that that would be okay, they don't have to wait.

COMMISSIONER POTTER: I literally stated that 3 minutes ago, but that is my intention, and I think everybody else concurs, that if they come back and can do it great, okay.

EXECUTIVE DIRECTOR DOUGLAS: Okay.

CHAIR KRUER: Okay, and we are going --

Ms. Schmeltzer, we are going to call for the question. I thought I mentioned.

CHIEF COUNSEL SCHMELTZER: I am sorry, I just did want to make sure, on this timing question, I thought I heard the Executive Director say two different things.

There is the provision of coming in for a permit

within 24 months, and it being issued within the 24 months --

COMMISSIONER POTTER: Specific to the 37, and if they want to go ahead and try to do more at that time, for economy sake, then fine, they can go to the full 55.4, but they have an option to go ahead and do it in a phase.

CHIEF COUNSEL SCHMELTZER: Right, and I understand that, but if they just do the 37 within the first 24 months, that the trigger is not -- the trigger is within 24 months. It is not if the permit takes longer than that to issue.

COMMISSIONER POTTER: No.

EXECUTIVE DIRECTOR DOUGLAS: No, my understanding was, that they have to come in for a permit within 24 months, and then it depends on what the Commission does. They may have conditions about the issuance of that permit. My understanding was that the 5 years starts from the issuance of the permit.

COMMISSIONER REILLY: That is correct.

COMMISSIONER POTTER: Correct.

CHAIR KRUER: That is correct, Mr. Douglas, thank you.

Yes, Commissioner.

COMMISSIONER SCARBOROUGH: I am not sure where you are headed with your phasing in your motions, where does the dredging fit into this?

COMMISSIONER POTTER: I was going to that in the

next --

CHAIR KRUER: We will get to -- I think we are going to call the question, here, and then we will get to the other amending, if there are other amending things.

Again, the amending motion, the maker and seconder are asking for a "Yes" vote.

Would the Clerk call the roll, please.

MR. ZBUR: Mr. Chair, can I just so there is not a dispute on this, can I just make sure there is clarity on what the timing is on the motion. We are assuming it is 24 months --

COMMISSIONER POTTER: I am hoping it gets moved sometime tonight.

MR. ZBUR: -- 24 months -- well, only because I -- 24 months to get our application in, which is what we thought it was, and then from the date that the permit is issued, so if it takes 9 months or a year to get the permit approved, from the date the permit is issued, then the 5 years runs, and then I assume that we have to get another permit application in within that 5 years?

COMMISSIONER POTTER: That is correct.

CHAIR KRUER: Correct.

MR. ZBUR: Thank you for that clarification.

CHAIR KRUER: Okay, thank you.

Would the Clerk call the roll, please.

SECRETARY MILLER: Commissioner Burke?

COMMISSIONER BURKE: Yes.

SECRETARY MILLER: Commissioner Lowenthal.

COMMISSIONER LOWENTHAL: Yes.

SECRETARY MILLER: Commissioner Hueso?

COMMISSIONER HUESO: Yes.

SECRETARY MILLER: Commissioner Kram?

COMMISSIONER KRAM: Yes.

SECRETARY MILLER: Commissioner Neely?

VICE CHAIR NEELY: Yes.

SECRETARY MILLER: Commissioner Potter?

COMMISSIONER POTTER: Aye.

SECRETARY MILLER: Commissioner Reilly?

COMMISSIONER REILLY: Yes.

SECRETARY MILLER: Commissioner Shallenberger?

COMMISSIONER SHALLENBERGER: Yes.

SECRETARY MILLER: Commissioner Wan?

COMMISSIONER WAN: Yes.

SECRETARY MILLER: Commissioner Achadjian?

COMMISSIONER ACHADJIAN: Aye.

SECRETARY MILLER: Commissioner Blank?

COMMISSIONER BLANK: Yes.

SECRETARY MILLER: Chairman Kruer?

CHAIR KRUER: Yes.

SECRETARY MILLER: Unanimous.

CHAIR KRUER: Okay, the amending motion passes.

Commissioner Potter, do you have anymore amending motions?

COMMISSIONER POTTER: I am going to actually ask for staff clarification on these last two items. I think they blend together.

Staff is saying that new technologies not appropo, or in this consideration, and the applicant is saying they would like the ability to utilize new technology.

And, the other one is this dredging credits, can you explain what the conflicts are here?

EXECUTIVE DIRECTOR DOUGLAS: What I understand, relative to the new technology, that is that if they can come up the way that they had originally proposed it, if they come up with technology that shows that they can filter the water and avoid entrainment impacts, because of new technology, that there ought to be some adjustment in the mitigation requirement.

It seems to me that one way you could address that, and you know, we have some sympathy for that position. Obviously, if we could avoid the impacts altogether, that would be the best. But, if in that 5-year period, for the second phase, they can come up with technology that shows that they are not having impacts, you could then factor that into whether or not it necessary to add that. But, take that

into account in the permit that would be applied for in the Phase 2.

COMMISSIONER POTTER: Okay, with that said, I move that we amend to allow to encourage the use of new technologies --

CHAIR KRUER: Commissioner Potter.

COMMISSIONER POTTER: He spoke, I didn't preface.

CHAIR KRUER: Let me, just to be clear on it. I am not sure about that.

Let me just go to Vice Chair Neely for one second, and then I am coming right back to you for your motion. There is a question of you prefacing.

COMMISSIONER POTTER: I would like to know where in the law you can't speak anyway. I think that is something that Rusty Arias made up from his stay in the state assembly.

VICE CHAIR NEELY: Mr. Chairman, I don't have any questions at this time.

CHAIR KRUER: Okay, Commissioner Potter.

[**MOTION**]

COMMISSIONER POTTER: All right, I'll move to amend, and incorporate in the motion that we encourage the use of new technologies under the framework that was expressed by the Executive Director.

COMMISSIONER HUESO: I'll second it.

COMMISSIONER POTTER: With the intent of lessening

the impact.

CHAIR KRUER: Just a second.

Commissioner Potter has made the motion, and recommending a "Yes" vote, and Commissioner Hueso seconded that motion.

Commissioner Potter, would you like to speak to that motion?

COMMISSIONER POTTER: No, I think Mr. Douglas and I worked pretty well on that item. That was exactly what I wanted him to say, so thank you.

COMMISSIONER REILLY: Mr. Chairman.

CHAIR KRUER: That is why it was prefaced.

COMMISSIONER REILLY: Let me ask.

Staff is going to be incorporating the concept of the 2-year application, and the 5 years afterwards, is staff willing, in discussing that 5 years, willing to incorporate language that suggests that they look into new technology to lessen impacts, and that as part of that 5-year hearing, if they are able to do that, could be a review of mitigation requirement?

EXECUTIVE DIRECTOR DOUGLAS: Well, that is what I discussed, and I think that is what the motion would do, and we don't have a problem with that.

COMMISSIONER REILLY: Are you willing to just incorporate that into the staff?

EXECUTIVE DIRECTOR DOUGLAS: I would rather have the Commission do it.

COMMISSIONER REILLY: That's fine, okay.

CHAIR KRUER: Commissioner Wan.

COMMISSIONER WAN: I just have a question on this one, and that is, I am assuming it is always okay, if you can avoid the entrainment, that is the best, because the fact is -- I don't care what you say -- no matter what mitigation you perform, no matter how you try to compensate for it, you never get full compensation. So, the best thing is always avoidance, so I am certainly not opposed to that.

The question I want to make sure is that when they come back for the review, that we are talking about a review that requires some kind of proof, and not just a statement, "We want to use it." That there is going to be some real scientific analysis done to make sure that that is the case, because up until now there doesn't seem to be anything that has been developed that can avoid the entrainment, and we went through that in great and painful detail when we did SONGS.

So, I am not aware of it, and I just want to make sure that we know how this is going to be handled.

EXECUTIVE DIRECTOR DOUGLAS: Obviously, the proof would have to be that there are reductions in impacts, or elimination of impacts, in order for us to consider -- if

this motion passes -- a reduction of the Phase 2 mitigation requirement.

But, this leaves that open, and it is up to them to try to find that technology, and again, if they decide right up front, we are not going to worry about that, we are just going to do the 55.4 acres, then it becomes a moot point.

CHAIR KRUER: Okay.

EXECUTIVE DIRECTOR DOUGLAS: But, it leaves open that opportunity.

CHAIR KRUER: Okay, I am going to call on the amending motion.

Priscilla's got her pen up, and we'll need a brief break.

Call the roll, please, on the amending motion, on the technology.

SECRETARY MILLER: Commissioner Lowenthal?

COMMISSIONER LOWENTHAL: [inaudible]

VICE CHAIR NEELY: Speak up, she can't hear you.

COMMISSIONER LOWENTHAL: Yes.

SECRETARY MILLER: Commissioner Hueso?

COMMISSIONER HUESO: Yes.

SECRETARY MILLER: Commissioner Kram?

COMMISSIONER KRAM: Yes.

SECRETARY MILLER: Commissioner Neely?

VICE CHAIR NEELY: Yes.

SECRETARY MILLER: Commissioner Potter?

COMMISSIONER POTTER: Aye.

SECRETARY MILLER: Commissioner Reilly?

COMMISSIONER REILLY: Yes.

SECRETARY MILLER: Commissioner Shallenberger.

COMMISSIONER SHALLENBERGER: Yes.

SECRETARY MILLER: Commissioner Wan?

COMMISSIONER WAN: Yes.

SECRETARY MILLER: Commissioner Achadjian?

COMMISSIONER ACHADJIAN: Aye.

SECRETARY MILLER: Commissioner Blank?

COMMISSIONER BLANK: Yes.

SECRETARY MILLER: Commissioner Burke?

COMMISSIONER BURKE: Yes.

SECRETARY MILLER: Chairman Kruer?

CHAIR KRUER: Yes.

SECRETARY MILLER: Unanimous.

CHAIR KRUER: The amending motion passes.

Commissioner Potter, any more?

[**MOTION**]

COMMISSIONER POTTER: I am going to move that the dredging restoration credit be at the Commission's discretion, and if I get a "second" I'll speak to it.

COMMISSIONER HUESO: Second.

CHAIR KRUER: Moved by Commissioner Potter, seconded by Commissioner Hueso.

Commissioner Potter, would you like to speak to your motion?

COMMISSIONER POTTER: I think my concern is, and this is sort of an open ended question, that whether they can even get ownership of the dredging operations, and can incorporate that in, remains pretty much unanswered, and may remain there for awhile.

So, if there does seem to be a dredging plan that comes forward, and we can get something tangible there about how is going to be operated? who is going to do it? when it is going to occur? all of those ingredients, then it is up to the Commission to decide if that is something that we want to entertain at that time. That is my thought behind it.

CHAIR KRUER: Okay, Commissioner Potter or Commissioner Hueso, anything else?

Anyone else? Commissioner Wan.

COMMISSIONER WAN: Just very quickly, if you are going to leave this open for the discretion -- and I think I heard Commissioner Potter say this, but I just want to make sure -- there is one thing, there is a big difference between dredging connected with maintaining the project, and dredging for mitigation, because as in SONGS it is required for the mitigation, and as long as the dredging credit is understood,

it is for whatever future project they are going to be dredging for, not for the desal plant, then I would find that acceptable.

COMMISSIONER POTTER: That is --

COMMISSIONER WAN: You understand the distinction?

CHAIR KRUER: Commissioner Reilly.

COMMISSIONER REILLY: If I understood the staff correctly, earlier, your statement was if dredging becomes part of the project, and becomes a reality, as opposed to a possibility, then staff would do a full analysis of that activity, at that time, both in terms of impacts and in terms of benefits, and be prepared to make recommendations relative to whether additional conditions had to be added, or benefits would be accorded to that.

I guess, I would prefer to wait to see what happens with that issue, before we pre-judge it, that's all.

EXECUTIVE DIRECTOR DOUGLAS: That is the way we understand it, and this motion would just say that they could come in for credit for dredging, but they would have to prove that it warrants it, so that is fine with us.

CHAIR KRUER: Okay.

Call for the question.

Clerk, would you call the roll, please. They are asking for a "Yes" vote, on the amending motion.

SECRETARY MILLER: Commissioner Hueso?

COMMISSIONER HUESO: Yes.
SECRETARY MILLER: Commissioner Kram?
COMMISSIONER KRAM: Yes.
SECRETARY MILLER: Commissioner Neely?
VICE CHAIR NEELY: Yes.
SECRETARY MILLER: Commissioner Potter?
COMMISSIONER POTTER: Aye.
SECRETARY MILLER: Commissioner Reilly?
COMMISSIONER REILLY: No.
SECRETARY MILLER: Commissioner Shallenberger?
COMMISSIONER SHALLENBERGER: Yes.
SECRETARY MILLER: Commissioner Wan?
COMMISSIONER WAN: No.
SECRETARY MILLER: Commissioner Achadjian?
COMMISSIONER ACHADJIAN: Aye.
SECRETARY MILLER: Commissioner Blank?
COMMISSIONER BLANK: Aye.
SECRETARY MILLER: Commissioner Burke?
COMMISSIONER BURKE: No.
SECRETARY MILLER: No?
COMMISSIONER BURKE: [Inaudible]
SECRETARY MILLER: Commissioner Lowenthal?
COMMISSIONER LOWENTHAL: Yes.
SECRETARY MILLER: Chairman Kruer?
CHAIR KRUER: Yes.

SECRETARY MILLER: Nine, three.

CHAIR KRUER: Nine, three, the amending motion passes.

And, now we will need back to the main motion, okay. Back to the motion, and again the maker and the seconder are asking for a "Yes" vote.

Commissioner Wan has her hand up.

COMMISSIONER WAN: Just on the main motion, this is not an amending motion, and I just want a quick explanation as to why I am going to vote "No" and the reason I am going to vote "No" is that I don't believe, if you look at this whole thing, that we really are getting the kind of assurances we need that this is real mitigation, and the reason is -- and that this is adequate mitigation -- this is going to be doing, this facility, once it becomes a stand alone facility, essentially, what once-through cooling does, and once-through cooling has been found by the courts to be a violation of the *Porter Cologne Act*, and I don't see how -- I don't even know why you bother to phase out the power plant, if you are just going to substitute something that is going to do exactly the same thing. It is not acceptable, because it is not protective of the ocean.

Our oceans are under horrific assault, and this kind of thing is simply not appropriate, particularly, when we get a plan that is -- we deferred our decision, we passed

the power plant, deferred the decision on the mitigation, and now we are again with all of the things that we had in the amending motions, deferring the real plan for another 2 years.

We will not see a full plan, and I don't think you can approve a mitigation without the appropriate plan, and if I had a full plan in front of me, it might be different, but I don't, and without that I don't have the confidence to know just the real extent of the mitigation that is going to take place here.

And, let me, again, say mitigations here, as elsewhere, does not give you complete compensation.

CHAIR KRUER: Okay, would the Clerk call the roll on the main motion, please, as amended by the Commission.

SECRETARY MILLER: Commissioner Kram?

COMMISSIONER KRAM: Yes.

SECRETARY MILLER: Commissioner Neely?

VICE CHAIR NEELY: Yes.

SECRETARY MILLER: Commissioner Potter?

COMMISSIONER POTTER: Aye.

SECRETARY MILLER: Commissioner Reilly?

COMMISSIONER REILLY: Yes.

SECRETARY MILLER: Commissioner Shallenberger?

COMMISSIONER SHALLENBERGER: Yes.

SECRETARY MILLER: Commissioner Wan?

COMMISSIONER WAN: No.

SECRETARY MILLER: Commissioner Achadjian?

COMMISSIONER ACHADJIAN: Aye.

SECRETARY MILLER: Commissioner Blank?

COMMISSIONER BLANK: Yes.

SECRETARY MILLER: Commissioner Burke?

COMMISSIONER BURKE: Yes.

SECRETARY MILLER: Commissioner Lowenthal?

COMMISSIONER LOWENTHAL: Yes.

SECRETARY MILLER: Commissioner Hueso?

COMMISSIONER HUESO: Yes.

SECRETARY MILLER: Chairman Kruer?

CHAIR KRUER: Yes.

SECRETARY MILLER: Eleven, one.

CHAIR KRUER: Okay, the Commission hereby approves the main motion, as amended by the Commission.

We will take a break.

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[Whereupon the hearing concluded at 7:35 p.m.]