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W 6

ENERGY AND OCEAN RESOURCES UNIT

Staff: SONGS Mitigation Program Scientific Team and SMH – SF
Received: September 30, 1997
Staff Report: October 22, 1997
Hearing Date: November 5, 1997
Item No.: W 6
Commission Action:
Commission Vote:

STAFF REPORT AND RECOMMENDATION ON CONDITION COMPLIANCE

APPLICANT: Southern California Edison Company (Edison) on behalf of Edison, San Diego Gas and Electric Company, and the Cities of Anaheim and Riverside, as Owners of San Onofre Nuclear Generating Station (SONGS) Units 2 and 3

PERMIT NO: 6-81-330-A (formerly 183-73)

PROJECT DESCRIPTION: **Condition Compliance Condition A: Wetland Mitigation Preliminary Restoration Plan Components (Sections 1.0–1.6).** Request for approval of preliminary wetland restoration plan Preliminary Plan: San Dieguito Wetlands Restoration Project (September 30, 1997).

EXECUTIVE SUMMARY

The Coastal Commission's 1991 SONGS permit conditions (as amended April 1997) require Southern California Edison and its partners (the permittee) to implement a comprehensive mitigation package to address significant marine resource impacts caused by the operation of Units 2 and 3 of the San Onofre Nuclear Generating Station. One key component of the permit is Condition A: Wetland Mitigation — the requirement to create or substantially restore 150 acres of wetlands.

Condition A requires the permittee to develop and submit a preliminary wetland restoration plan by October 9, 1997. Following the Commission's April 1997 action on the permit amendment, the permittee has done an excellent job of cooperatively working with the Commission staff, the San Dieguito Joint Powers Authority (JPA), U. S. Fish and Wildlife Service (USFWS), Department of Fish and Game (DFG), National Marine Fisheries Service (NMFS), U.S. Army Corps of Engineers, the Coastal Conservancy, other agencies and the public to develop a sound Preliminary Wetland Restoration Plan for the San Dieguito Wetlands.

The Preliminary Pan is the first key step in accomplishing the Wetland Restoration Project at San Dieguito. With the Coastal Commission's conditional approval of the Preliminary Wetland Restoration Plan, the project can move to the next critical stage of CEQA/NEPA review through the preparation of a comprehensive Environmental Impact Report/Statement (EIR/EIS).

The final selection of the EIR/EIS consultant is expected shortly and work on the CEQA/NEPA process will begin. The proposed Preliminary Restoration Plan and several alternatives will be thoroughly analyzed through the CEQA/NEPA process and undoubtedly there will be changes made to the Preliminary Plan to develop a Final Plan during the process. The CEQA/NEPA process, along with more detailed design and engineering work, will result in revisions to the specifics of the Preliminary Restoration Plan and culminate in a Final Restoration Plan and coastal permit application that will be reviewed and approved, modified, or denied by the Commission.

Condition A requires the permittee to submit a final plan that includes a total of 150 acres of credit: 35 acres for permanent inlet maintenance and 115 acres of creation and/or substantial restoration. The current Preliminary Plan is approximately 5.4 acres short because of the need to provide mitigation for the wetland acreage that will be eliminated by this proposed plan. Based on the Preliminary Plan and the additional wetland acreage still available, it is feasible for the permittee to achieve the required 150 acres of restoration credit in the San Dieguito River Valley. Because it is likely that many adjustments and refinements will occur during the CEQA/NEPA process, staff recommends that the Commission condition this Preliminary Plan to require the needed changes in the Final Plan and authorize the permittee to immediately move ahead through the CEQA/NEPA and final design process.

STAFF RECOMMENDATION

The staff recommends that the Commission conditionally approve the Preliminary Plan and authorize the permittee to immediately move the proposed project to the next steps: the CEQA/NEPA process, the development of the Final Plan, and the permitting process.

The Final Plan must include an amendment request to allow destruction of the minimum number of acres required to implement a sound restoration project as San Dieguito and must include a mitigation ratio of 4 to 1 (as has been required in Batiquitos Lagoon and other comparable projects) for all existing wetland acres eliminated through this project.

RECOMMENDED COMMISSION ACTION

Staff recommends the Commission adopt the following resolution:

I. RESOLUTION

A. APPROVAL OF THE SAN DIEGUITO WETLANDS PRELIMINARY RESTORATION PLAN WITH CONDITIONS

The Commission hereby **approves** the San Dieguito Preliminary Wetlands Restoration Plan (September 30, 1997) **as conditioned**, on the grounds that as it is required to be modified in the CEQA/NEPA process and in the Final Plan it will be in conformance with the requirements of Special Condition A: Sections 1.0–1.6.

Staff recommends a **Yes** vote.

II. SPECIAL CONDITIONS

1. The Preliminary Plan shall be revised and further developed through the CEQA/NEPA process and result in a Final Plan. The Final Plan shall include a permit amendment request to revise the permit condition to allow the minimum amount of destruction of existing wetlands that is necessary for the restoration project described in the Final Plan. All wetland acreage destroyed by the implementation of the restoration project shall be mitigated on a 4:1 ratio.

2. In development of the Final Plan, the permittee shall also address the issues identified in the findings of this Commission action on condition compliance. (See Finding 4: Revisions Needed in Final Plan.)

III. PROPOSED FINDINGS ON PRELIMINARY PLAN SUBMITTED FOR COMPLIANCE WITH CONDITION A

A. BACKGROUND

On July 16, 1991, the Coastal Commission found, based on long-term studies by the Marine Review Committee (MRC), that SONGS Units 2 and 3 cause significant adverse

impacts to the marine environment and further conditioned the SONGS permit (6-81-330-A formerly 183-73) to require implementation of a mitigation package. One of the conditions of the package was "creation or substantial restoration of at least 150 acres of Southern California wetlands (Condition A)."

In 1992, San Dieguito Lagoon was selected by the permittee as the wetland site with the greatest potential for meeting the wetland condition of the permit. This selection was approved by the Commission.

The coastal permit requires a Preliminary Plan before the EIR process can go forward, and the permit lists the Minimum Standards and Objectives that this Preliminary Plan must meet. On August 19, 1996, the permittee submitted to the Commission a Preliminary Plan for San Dieguito Lagoon. However, on April 9, 1997, the Commission rejected the permittee's 1996 Preliminary Plan in part because the owners and managers of a majority of the land (the San Dieguito River Park Joint Powers Authority or JPA) would not authorize the permittee to carry out the plan at the San Dieguito Lagoon site and therefore the permittee had no authority to implement its 1996 preliminary plan at San Dieguito.

Through its April 1997 action, the Commission required that the permittee submit another preliminary plan to the Commission by October 9, 1997 and reaffirmed its prior determination that San Dieguito River Valley was the best restoration site to meet the wetland mitigation requirements of the SONGS permit. Since April 1997, the permittee has worked diligently to meet the conditions of the permit through the development of a revised Preliminary Restoration Plan for San Dieguito. The San Dieguito JPA expressed its support of this proposed Preliminary Plan on September 19, 1997.

B. REVIEW OF THE PRELIMINARY WETLAND MITIGATION PLAN

1. The Plan in General

The Preliminary Plan: San Dieguito Wetlands Restoration Project (September 30, 1997) (hereafter referred to as the Preliminary Plan) was developed by the permittee in conjunction with the JPA and with input from state and federal resource agencies and local public interest groups. (See Appendices for Executive Summary of Preliminary Plan.) The proposed Preliminary Plan calls for the creation or restoration of approximately 115 acres of tidal wetlands and the continuous maintenance of a tidal inlet in perpetuity (for 35 acres of restoration credit). In addition, the plan includes the construction of nesting habitats and flood control devices (e.g., levees and rock protection), and the creation of coastal sage/grassland habitat and seasonal salt marsh habitats.

The Commission finds that the Preliminary Plan is generally in compliance with Condition A and the permittee should continue with the project and make the needed changes in the Final Plan. The plan largely meets the restoration objectives and minimum standards set

forth in Condition A and it is compatible with the restoration goals for San Dieguito Lagoon and the regional goals for the area. However, the Commission finds that the Plan does not fully comply with Condition A (see Revisions Needed below) and through this conditional approval requires that adjustments and refinements be made before the Final Plan is submitted for Commission review.

2. Condition Compliance

The permit requires the Preliminary Plan to "meet the Minimum Standards and incorporate as many as possible of the Objectives." The Preliminary Plan complies with all but two of the Minimum Standards and Objectives. The exceptions are Minimum Standards 1.3.c and h. A summary of each Minimum Standard and Objective and how the plan meets, or fails to meet, the standard or objective is described below (Tables 1 and 2).

Table 1: Compliance of the Preliminary Plan with the Minimum Standards in the SONGS Permit

MINIMUM STANDARD	COMPLIANCE OF PRELIMINARY PLAN
a. Location within Southern California Bight	**Yes.** The San Dieguito River is within the Southern California Bight.
b. Potential for restoration as tidal wetland with extensive intertidal and subtidal areas	**Yes.** The Preliminary Plan proposes to restore tidal wetlands with extensive intertidal and subtidal areas. In addition, the permittee will fund inlet maintenance so that the existing wetlands and the mitigation wetlands will be fully tidal.
c. Creates or substantially restores a minimum of 150 acres of wetlands	**No.** The Preliminary Plan provides 109.6 acres of creation/ substantial restoration and 35 acres of credit for inlet maintenance for a total of 144.6 acres and is therefore 5.4 acres short as described in detail elsewhere in this staff report.
d. Provides a buffer zone at least 100 feet wide	**Qualified Yes.** The preliminary plan conceptually provides a buffer of at least 100 feet between the mitigation wetlands and human development, e.g., Interstate 5. Letter received by Commission staff on October 20, 1997 from Southern California Edison shows that there will be changes in the location of the buffer zones through the CEQA process and that the Final Plan will include at least 100 ft. buffers.
e. Control of any site contamination	**Yes.** No significant contamination has been found.
f. Guarantees site preservation	**Yes.** All project lands will be in public ownership dedicated to conservation uses.
g. Protects wetland values	**Yes.** The mitigation wetlands are to be protected by river-training berms and a maintenance plan is to be developed.

MINIMUM STANDARD	COMPLIANCE OF PRELIMINARY PLAN
h. No loss of existing wetlands	**No.** In order to construct the mitigation wetlands there will be some impacts to existing wetlands. These impacts occur through existing wetlands being converted from one type to another, or from existing wetlands being eliminated by fill to create nesting islands or levees. The sizes of these impacts and the mitigation needed to off-set these impacts are described elsewhere in this staff report. The preliminary plan describes "no net loss." The permit standard of review for the plan is no loss of existing wetlands. Commission will need to consider a permit amendment as a part of the Final Plan approval to allow the destruction of minimal wetlands acreage with a 4 to 1 mitigation ration.
i. No impact to endangered species	**Yes.** It appears that the plan will not impact endangered species. Endangered species do not appear to occur in the wetland areas that are to be impacted. In addition, during construction protection measures will be provided to endangered species occurring elsewhere.

Table 2: Compliance of the Preliminary Plan with the Objectives in the SONGS Permit

OBJECTIVE	COMPLIANCE OF PRELIMINARY PLAN
a. Provides maximum overall ecosystem benefits	**Yes.** The mitigation wetlands are extensive and appropriate for this site, and the permittee will fund inlet maintenance so that the existing wetlands are enhanced.
b. Provides substantial fish habitat	**Yes.** The most important fish habitat is the subtidal, open water habitat and 26 acres of open water are to be constructed.
c. Provides a buffer zone of an average of at least 300 feet wide	**Yes.** The average width of the buffer is greater than 300 feet.
d. Provides maximum upland transition areas	**Yes.** The upland transition areas are extensive.
e. Minimum adverse impacts on existing wetlands	**Qualified Yes.** The preliminary plan has been designed to minimize impacts to existing wetlands. More refinements of the locations of levees, berms, and sands may be possible through the CEQA/NEPA process and the Final Plan to reduce elimination of existing wetlands.
f. Reflect specific and regional restoration goals	**Yes.** The plan meets the specific goals for San Dieguito Lagoon and the regional goals for San Diego County.
g. Produce and support wetland dependent resources	**Yes.** The tidal wetlands will support estuarine and marine plants, invertebrates, fish and birds.
h. Provides rare and endangered species habitat	**Yes.** The plan will provide nesting and foraging habitat for Belding's Savannah Sparrows and Least Terns.
I. Provides habitat for reproductively isolated species	**Yes.** The plan will provide estuarine and coastal salt marsh habitats for species that are currently reproductively isolated.
j. Results in increase in wetland acreage	**Yes.** The plan will increase the size of the tidal wetlands at San Dieguito Lagoon by more than 100 acres.

OBJECTIVE	COMPLIANCE OF PRELIMINARY PLAN
k. Requires minimum maintenance	**Qualified yes.** The areas that will require the most maintenance are the levees, the mitigation basins and the inlet. The Preliminary Plan does not describe the maintenance required for the levees and the mitigation basins. However, the basins have been designed to be out of the Effective Flow Area in order to reduce maintenance. It appears that the inlet will require minimum maintenance. The CEQA/NEPA process and Final Plan may identify changes.
l. Accomplished in timely manner	**Yes.** The construction is expected to begin in 1999 and last for two years.
m. In proximity to SONGS	**Yes.** San Dieguito Lagoon is less than 40 miles from SONGS.

3. Calculation of Acreage Credit for the Proposed Preliminary Plan

The most important shortcoming of the Preliminary Plan is that while it comes close it does not meet the minimum requirement for creating or substantially restoring 150 acres of wetlands. The difference between the permittee's estimate of the appropriate credit to be given for the project and the Commission's estimate is due to the treatment of wetlands that are impacted as part of the project.

In the Preliminary Plan, extensive wetlands are created and restored, but some existing wetlands are also damaged, converted, or eliminated. In order to determine the acreage credit for the plan, the impacted acreages need to be subtracted from the created and restored acreages. The impacts occur in two ways: (1) existing wetland is **converted** from one type to another (e.g., from high salt marsh to low salt marsh); and (2) existing wetland is **eliminated** by fill to create nesting islands or levees. The Commission considers these two kinds of impacts to be substantially different and therefore treats them differently. The Commission finds that a 1:1 mitigation ratio is adequate for acreage that is **converted** from one wetland type to another, but that a ratio of 4:1 is required for impacts where existing wetlands are **eliminated**.

The 4:1 ratio is appropriate for four reasons. First, the permit requires "no loss of wetlands" and the proposed elimination of wetlands results in a loss of existing wetlands. Second, the Commission has historically required mitigation at a ratio of 4:1 for projects that fill coastal wetlands (see Appendix A), including enhancement or restoration projects. For instance, in the enhancement project at nearby Batiquitos Lagoon the Commission required that coastal salt marsh eliminated by nesting sites be mitigated at a ratio of 4:1 (Permit No. 6-90-219-A). Third, the ratio takes into account the fact that coastal wetland restoration/creation projects, particularly those involving salt marshes, are risky and have a mixed history of success. The 4:1 mitigation ratio is therefore needed to ensure full compensation for lost resources in light of this uncertainty. Finally, the ratio takes into account the fact that there will be years of lost services between the time the wetland is eliminated and its replacement is fully established.

Applying a 4:1 mitigation ratio to the eliminated tidal wetlands in the Preliminary Plan results in a project that is worth 109.6 acres of mitigation credit (Appendix B). Together with the 35 acres of enhancement credit to be awarded for inlet maintenance, the project proposed by the permittee in the Preliminary Plan is worth 144.6 acres of mitigation credit, which is 5.4 acres short of the 150 acre requirement. [Applying a 4:1 mitigation ratio to the eliminated non-tidal wetlands in the Preliminary Plan shows that the eliminated non-tidal wetlands are fully mitigated within the project (Appendix B).]

The Commission finds that the Preliminary Plan as now designed is 5.4 acres short. The Final Plan should include a 4:1 mitigation ratio for any wetland acres that are eliminated through the restoration project and additional acreage to meet the 150-acre requirement.

4. Revisions Needed in the Final Plan

a. Hydrology Reports

Two hydrology reports are closely associated with the Preliminary Plan and are currently being prepared for the permittee. Both of these reports are essential to the Commission's acceptance of the Final Plan.

Dr. Howard Chang is preparing a report on the fluvial processes of the San Dieguito River. In particular, he is focusing on how the proposed mitigation wetlands will change the amount of scouring at bridge foundations and the extent of flooding of property along the river. His preliminary results suggest that the mitigation wetland will not increase scouring or flooding beyond the present levels.

Dr. Scott Jenkins is preparing a report on the tidal hydraulics of the proposed plan. This report will, among other things, simulate tidal flows within the proposed mitigation wetlands and thereby show whether the currently assumed tidal range is likely to be correct. It is possible that the maximum tidal elevations in the mitigation wetlands will be less than assumed (i.e., they will be "damped") because of the narrowness of the channels leading into the mitigation basins. If the report shows that tidal ranges are different from what is currently assumed in the Preliminary Plan then the grading plans will need to be changed in order to retain the proposed habitat distributions.

These hydrology reports need to be completed and independently evaluated. If the reports and/or independent evaluations of the reports indicate that modifications of the plan are needed, then these modifications need to be evaluated in the CEQA/NEPA process and be incorporated into the Final Plan.

b. Wetland Acreage Requirement

The Commission acknowledges and accepts that a very small amount of existing wetland acreage will probably need to be destroyed to implement a sound wetland restoration project at San Dieguito. The current permit conditions require no loss of existing wetlands. The Commission will consider an amendment to this provision of the permit in the context of the Final Plan and the provision of a 4:1 mitigation ratio for the wetland acres that are to be eliminated.

The Commission finds that an additional 5.4 acres of tidal wetlands are needed to meet the permit requirement of 150 acres of wetland creation/restoration. These acres must be added before the Final Plan can be approved. This additional acreage is needed to fully mitigate the elimination of tidal salt marsh by nesting sites, rock protection, and levees. The method used to calculate the acreage credit is fully described in Appendix B so that, should there be changes to the plan, the permittee with the assistance of Commission staff will be able to calculate the credit it will receive.

c. Mapping Clarification

The location of the 11 acres of Seasonal Salt Marsh (transitional) habitat listed in Table 1 needs to be identified on the maps.

d. Salt Marsh Grading Plan

The Commission suggests that the permittee incorporate as many natural features as possible in the grading plan of the Final Plan. Salt marshes are complex habitats and failure of some salt marsh restoration projects may be due to their failing to incorporate natural features into their design. These natural features include elevation profiles, number of small channels and number of intertidal pools. Of these the number of small channels is the most obviously important and missing and should be incorporated in the final plan.

The Commission suggests that restoration success would be more likely if the salt marshes in the Final Plan were structurally similar to relatively natural salt marshes, e.g., at Tijuana Estuary. The permittee could even model the grading plans directly on a natural salt marsh. The Commission believes that a natural-looking salt marsh plain will be more likely to produce a successful mitigation project than an unnatural plain. Considering that extensive (and expensive) remediation may be required should the mitigation salt marshes not meet the required standards, constructing the salt marshes in a natural way at the beginning is likely to be most cost-effective.

e. Include Experiments in the Salt Marsh Planting Program

A recent restoration effort at San Dieguito Lagoon shows that salt marshes are not easily established in newly graded sites at the lagoon. As part of a mitigation requirement, Caltrans restored 1.45 acres of tidal salt marsh at San Dieguito Lagoon (Permit No. 6-92-16-A3). Caltrans graded the site in February 1996, and planted more than 8,000 salt marsh plants soon thereafter. Unfortunately most of the plants died within two months of planting and now, more than 1.5 years after the mitigation effort, only about 5% cover has been established. It appears that the soils are too salty for the plants to become established.

A Planting Program is a requirement of the Final Plan (Section 2.1.d.2). The Commission suggests that the permittee learn from the problems that the Caltrans restoration has encountered and conduct the Planting Program in two phases. The first phase could be an experimental phase during which small-scale experiments are conducted at San Dieguito Lagoon in order to identify potential problems with the establishment of the salt marsh plants and possible solutions to the problems. The second phase, consisting of the full-scale planting, could be undertaken once the problems have been identified and overcome. The Commission believes that this two phase approach would be more efficient and cost-effective for the permittee. Should the permittee choose to conduct the plantings in two phases, then the Planting Program accompanying the Final Plan must identify the experimental tests to be conducted, the species to be used, the areas to be used for the experiments, and the schedules for the small-scale experimentation and the full-scale plantings.

IV. NEXT STEPS

With the Commission's conditional approval of the Preliminary Plan, the Plan and at least one alternative will be subject to the EIR/EIS process. The resource agencies have decided that a joint EIR/EIS will be prepared to address the potential impacts of restoring the wetland at San Dieguito Lagoon, within the constraints imposed by adjacent existing and planned land uses. The EIR/EIS will also address associated actions such as restoration of surrounding upland areas and a plan for public access. The EIR/EIS will be prepared in compliance with California Environmental Quality Act (CEQA) guidelines and National Environmental Policy Act (NEPA) regulations. The EIR/EIS will be prepared, by a consulting firm, for the JPA, the designated CEQA lead agency, and the U.S. Fish and Wildlife Service, the designated NEPA lead agency. The lead agencies are responsible for the scope, content and legal adequacy of the document. The lead agencies are moving forward with the preparation of the EIR/EIS and they planned to choose the EIR/EIS consulting firm in late October 1997.

It is likely that during the EIR/EIS process some features of the Preliminary Plan will be changed. The Commission staff is willing to work with the resource agencies and the permittee to be sure that, if changes occur, the plan will still meet the permit requirements.

The next step requiring formal Commission involvement is the submittal of the Final Plan. The permit specifies the Final Restoration plan shall be submitted to the Commission "within 12 months following the Commission's approval of ... a preliminary restoration plan." Therefore assuming that the Preliminary Plan is approved in November 1997 the Final Plan will be due to the Commission in November 1998.

APPENDIX A. EXAMPLES OF MITIGATION RATIOS REQUIRED BY THE COMMISSION FOR IMPACTS TO COASTAL WETLAND HABITATS

PERMIT NO.	LOCATION	HABITAT IMPACTED	RATIO
6-94-199	San Dieguito Lagoon, San Diego	Salt marsh	4-to-1
6-94-187	Torrey Pines State Beach, San Diego	Salt marsh	4-to-1
6-92-16-A3	San Dieguito Lagoon, San Diego	Salt marsh	4-to-1
6-90-77	Torrey Pines State Beach, San Diego	Salt marsh	4-to-1
6-90-219	Batiquitos Lagoon, Carlsbad	Salt marsh	4-to-1
6-89-195	Cannon Road, Carlsbad	Salt marsh	4-to-1
6-95-127	Agua Hedionda Creek, Carlsbad	Brackish marsh	4-to-1
6-93-155	La Bajada Road, Encinitas	Brackish marsh	4-to-1

APPENDIX B. CALCULATION OF ACREAGE CREDIT FOR THE PROPOSED PRELIMINARY PLAN

In the Preliminary Plan, wetland acreage is both created/restored and impacted. The proposed project will create or substantially restore 120.9 acres of tidal wetland and 20.5 acres of non-tidal wetland (column 1 of Table B-1). To accomplish this, existing wetland will be impacted in two ways: (1) existing wetland will be converted from one type to another, e.g., high salt marsh to low salt marsh; and (2) existing wetland will be eliminated by upland. Of the 5.2 acres of tidal wetlands that will be impacted by the project, only 2 acres will be eliminated by upland (1.8 acres of high salt marsh will be eliminated by a nesting island in Module 12; 0.2 acres of largely open water will be eliminated by rock protection; and 0.01 of mid salt marsh will be eliminated by a levee in Module 7; these data are from Tables 1 and 2 in Appendix A of Preliminary Plan). Of the 15.7 acres of non-tidal wetlands that will be impacted only 1.5 will be eliminated by upland (0.1 acres of seasonal salt marsh will be eliminated by a levee in Module 7 and 1.4 of seasonal salt marsh will be eliminated by a nesting site in Module 11).

Table B-1. Wetland acres restored and impacted by the Preliminary Plan for San Dieguito Lagoon

Wetland Habitat	Restored Acreage	Eliminated Acreage	Converted Acreage	Total Impacted (DISPLACED + CONVERTED)	Net Change
TIDAL					
Subtidal	26.5	-0.2	0.0	-0.2	26.4
Intertidal Flats	1.5	0.0	-0.3	-0.3	1.2
Southern Coastal Salt Marsh (low)	15.2	0.0	0.0	0.0	15.2
Southern Coastal Salt Marsh (mid)	17.9	0.01	-2.3	-2.3	15.6
Southern Coastal Salt Marsh (high)	59.7	-1.8	-0.6	-2.5	57.2
TOTAL	**120.9**	**-2.0**	**-3.2**	**-5.2**	**115.6**
NON-TIDAL					
Seasonal Salt Marsh	9.5	-0.9	-7.4	-8.3	1.2
Seasonal Salt Marsh (transitional)	11.0	-0.6	-6.8	-7.5	3.5
TOTAL	**20.5**	**-1.5**	**-14.2**	**-15.7**	**4.8**

Applying a 4:1 mitigation ratio to the eliminated wetland acreage and a 1:1 mitigation ratio for the converted wetland acreage results in 109.6 acres of mitigation credit for creation/restoration of tidal wetland (Table B-2). Together with 35 acres of enhancement

credit to be awarded for inlet maintenance the project proposed by the permittee in the Preliminary Plan is worth 144.6 acres of mitigation credit, which is 5.4 acres short of the 150 acre requirement. Note that the 1.5 acres of eliminated non-tidal wetlands are fully mitigated within the project at a ratio of 4:1 (Table B-2).

Table B-2. CCC staff evaluation of the Preliminary Plan for San Dieguito Lagoon. Numbers are in acres.

Wetland Habitat	Restored Acreage	Eliminated Acreage	Converted Acreage	Total Impacted (ELIMINATED + CONVERTED)	Mitigation Credit	Acres Needed	Acres Deficient
TOTAL TIDAL							
Preliminary Plan Calculation	120.9	-2.0	-3.2	-5.2	115.6		
CCC Mitigation Ratio		4:1	1:1				
CCC Calculation	120.9	-8.0	-3.2	-11.2	109.6	115.0	**5.4**
TOTAL NON-TIDAL							
Preliminary Plan Calculation	20.5	-1.5	-14.2	-15.7	4.8		
CCC Mitigation Ratio		4:1	1:1				
CCC Calculation	20.5	-6.0	-14.2	-20.2	0.3	0	0

APPENDIX C. EXCERPT FROM COASTAL COMMISSION ADOPTED PERMIT CONDITIONS SONGS (6-81-330-A FORMERLY 183-73)

A. CONDITION A: WETLAND MITIGATION

NOTE: The following italicized text is the original version of the Commission's 1991 permit Condition A. The non-italicized text is the language added or revised by the 1997 amendment. In its April 9, 1997 action, the Commission revised Condition A to: (a) reaffirm the Commission's 1992 selection of San Dieguito River Valley as the site for wetland restoration; (b) grant up to 35 acres of enhancement credit for inlet maintenance if wetland restoration is done at San Dieguito; and, (c) add an optional trust fund to satisfy the permittee's responsibilities (Condition A.4.).

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 to the Commission for its review and approval or disapproval.[1] Within 6 months of the Commission's approval of this permit amendment and no later than October 9, 1997, the permittee shall submit the preliminary 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.

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[1] San Dieguito River Valley.

On June 11, 1992, the Commission approved the permittee's selected restoration site, the San Dieguito River Valley. On April 9, 1997, the Commission reaffirmed its prior determination that San Dieguito River Valley is the restoration site that meets the minimum standards and best meets the objectives of this Condition A. The permittee can propose an additional site for restoration prior to October 9, 1997, only if achieving all 150 acres of restoration at San Dieguito River Valley becomes infeasible due to hydrology or other engineering concerns. In that event, the additional substantial restoration or creation needed to meet the 150 acre requirement can be completed at another site subject to Commission approval in accordance with the site selection and planning processes set forth in this condition.

1.2 Preliminary Restoration Plan

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.*

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.*

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) of wetlands, excluding buffer zone and upland transition area.* If the full 150 acre restoration project is carried out at San Dieguito River Valley or if, pursuant to condition A.1.1., an additional site to complete the mitigation requirement is approved by the Commission, up to 35 acres of enhancement credit will be given for permanent, continuous tidal maintenance. The enhancement credit allows the permittee to satisfy up to 35 of the 150 required acres by permanently maintaining the tidal inlet. The 35 acres of enhancement credit is based upon the determination that 126 acres of existing wetlands at San Dieguito Lagoon will be enhanced by 28% if the tidal flows are continuously maintained. However, if the final restoration plan provides for enhancement of less than 126 acres through tidal maintenance, the exact amount of enhancement credit shall be equal to 28% of the total number of tidal wetland acres that are enhanced by tidal maintenance.

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 long-term 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.*

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.

2.0 FINAL PLAN AND PLAN IMPLEMENTATION

2.1 Final Restoration Plan

Within 12 months following the Commission's approval of a site selection and preliminary restoration plan, the permittee shall submit a final restoration plan along with CEQA documentation generated in connection with local or other state agency approvals, to the Executive Director of the Coastal Commission for review and approval. 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.*

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.*

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

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. "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 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. *Long-term Physical Standards. The following long-term standards shall be maintained over the full operative life of SONGS Units 2 and 3.*

    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.* If the full 150 acre restoration project is carried out at San Dieguito River Valley or if, pursuant to condition A.1.1., an additional site to

complete the mitigation requirement is approved by the Commission, up to 35 acres of enhancement credit will be given for permanent continuous tidal maintenance. The enhancement credit allows the permittee to satisfy up to 35 of the 150 required acres by permanently maintaining the tidal inlet. The 35 acres of enhancement credit is based upon the determination that 126 acres of existing wetlands at San Dieguito Lagoon will be enhanced by 28% if the tidal flows are continuously maintained. However, if the final restoration plan provides for enhancement of less than 126 acres through tidal maintenance, the exact amount of enhancement credit shall be equal to 28% of the total number of tidal wetland acres that are enhanced by tidal maintenance.

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 3: 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

4.0 Funding Option for wetland restoration

As part of the total funding option package provided in revised Condition D, the permittee has the option of satisfying the requirements of Sections 1, 2, and the remediation portion of Section 3 of Condition A by paying the amounts specified for wetland restoration in accordance with the provisions set forth in Sections 4.0 through 4.3 of Condition D.

SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 2 & 3

COASTAL DEVELOPMENT PERMIT #6-81-330

PRELIMINARY PLAN:
SAN DIEGUITO WETLANDS RESTORATION PROJECT

Submitted to:

CALIFORNIA COASTAL COMMISSION
45 Fremont Street Suite 2000
San Francisco, CA 94105
Attn: Susan Hansch, Energy, Ocean Resources & Technical Services

Submitted by:

Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, CA 91770

September 30, 1997

1.0 EXECUTIVE SUMMARY

A Preliminary Wetland Restoration Plan is required under Condition II-A.1.0 of the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 Coastal Development Permit (#6-81-330, formerly #183-73 (Permit)). This Preliminary Plan presents details of proposed wetland creation and restoration within the San Dieguito River Valley and describes how the plan satisfies the SONGS Permit. The plan was prepared in conjunction with the San Dieguito River Valley Open Space Park Joint Powers Authority (JPA) with input from State and Federal resource agencies and local public interest groups. It was submitted for review and approved in concept by the JPA on September 10, 1997. The plan is an expansion of, and improvement to, the Modified Alternative B restoration plan developed by Contractors to the California Coastal Conservancy, presented by the JPA to the Coastal Commission during its April 1997 meeting, and used by the CCC staff as a basis for developing its proposed Trust Fund compliance option. Coastal Commission approval of this preliminary plan is necessary for environmental review and permitting activities to commence. Preparation of the Final Restoration Plan will be undertaken upon completion of permitting and will be submitted to the Coastal Commission for approval, as required by the SONGS Permit, within 12 months of Commission approval of this preliminary plan.

The proposed San Dieguito Preliminary Wetland Restoration Plan ("Plan" or "Project") consists of the following elements:

1. Construction and maintenance of a tidal inlet to restore (i.e., significantly enhance) degraded tidal wetlands by ensuring tidal flow to San Dieguito Lagoon and adjacent areas;

2. Excavation of approximately 121 acres of existing non-tidal lands to create subtidal, intertidal mudflats, and vegetated tidal marsh;

3. The construction of levees along the San Dieguito River which will ensure maintenance of existing river flows and sand transport to the beach;

4. Creation of 9.5 acres of seasonal marsh and 11 acres of coastal sage/grassland habitat to result in no net loss of wetland or transitional habitat;

5. Creation of 18.9 acres of nesting habitat for migratory birds, particularly threatened and endangered species (e.g., California least tern and western snowy plover);

6. Transfer of 89 acres of Edison property in the San Dieguito area to the JPA for use in wetland and upland habitat restoration.

The Project will result in the restoration of a significant subtidal and intertidal wetland ecosystem with substantial benefits to fish, wildlife, and other aquatic life in the southern California Bight. With the 35 acres of mitigation credit for enhancement resulting from maintenance of tidal circulation, as provided under Special Condition A.1.2c of the SONGS Coastal Permit, and the net increase in tidal wetland area created by this plan, the project will comply with all SONGS Permit conditions related to wetland restoration.

SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL℠ Company

October 15, 1997

Susan Hansch, Deputy Director
Energy, Ocean Resources & Technical Services Division
California Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Subject: Preliminary Plan - San Dieguito Wetlands Restoration Project

Dear Susan,

In its September 19, 1997 approval of the Preliminary Plan for the restoration of San Dieguito Lagoon, the San Dieguito River Valley Park Joint Powers Authority (JPA) Board of Directors recommended revising the Preliminary Plan to include a buffer zone, with a trail, on the northern boundary of the project where it abuts the San Dieguito Partnership property. The purpose of the JPA's revision is to ensure that no part of the restoration, including buffers or trails, would be located on the adjacent private property. All parties recognize that a buffer zone of at least 100 feet is required.

Edison did not have time to depict a 100 foot wide buffer zone (and trail) in Figures 2 and 3 of the Plan. Nonetheless, Edison would like the Commission to consider the JPA's recommended revision as a part of the Plan submitted for approval. To accommodate the buffer zone and still meet the 150 acre restoration/creation requirement, alternatives such as reducing the size of the least tern nesting areas, creation/restoration of wetlands elsewhere in the river valley, and an easement to or acquisition of a 100 foot strip of agricultural land from the San Dieguito Partnership for the buffer zone will be evaluated during the environmental review process. A preferred alternative will be included in the Final Restoration Plan to be submitted for Commission approval.

As I mentioned during our discussion on October 7, 1997, we anticipate the need for similar adjustments to the Plan as environmental review under CEQA and NEPA progresses. During the environmental review process, we expect the Commission Staff to help identify these types of concerns and any other elements of the Preliminary Plan which should be improved or modified in order for the Final Plan to receive Commission approval.

While Edison does not believe this specific JPA revision is necessary for the Commission to approve the Preliminary Plan, we acknowledge that appropriate buffers and trails need to be provided and will do so as development of the Final Plan proceeds. We apologize for not having the time to reflect this proposed revision in the submitted Preliminary Plan and trust you will not have any difficulty in presenting it to the Commission for approval.

Sincerely,

Frank

Frank L. Melone,
Project Manager

cc: Diane B. Coombs

P. O. Box 800
2244 Walnut Grove Ave.
Rosemead, CA 91770