

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400

**W-10**

Energy and Ocean Resources Unit  
Staff: JJJ, SMH—SF  
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**STATUS REPORT ON SONGS MITIGATION PROGRAM**

Following is a brief status report for the mitigation projects required in Southern California Edison Company's (SCE) coastal development permit for the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 (permit no. 6-81-330, formerly 183-73). The conditions originally were adopted by the Commission in 1991 to mitigate the adverse impacts of the power plant on the marine environment. In 1993, the Commission added a requirement for the permittee to partially fund construction of an experimental fish hatchery. The Commission has since approved amendments to the conditions in April 1997 and October 1998.

**WETLAND RESTORATION MITIGATION****The Project**

Condition A of the permit requires the permittee to create or substantially restore a minimum of 150 acres of wetlands to mitigate for impacts to fishes caused by the operation of SONGS. In April 1997, the Commission reaffirmed its 1992 approval of the permittee's choice of the San Dieguito River Valley as the site for the wetland restoration project.

**Progress Report**

The wetland restoration mitigation project is undergoing a planning and environmental review process which incorporates the mitigation project into the overall San Dieguito River Valley Regional Open Space Park project, and which also includes additional wetland restoration required under the permittee's settlement agreement with the Earth Island Institute.

The CEQA/NEPA documentation is currently being prepared by the lead agencies, the San Dieguito River Valley Regional Open Space Park Joint Powers Authority (JPA) and U.S. Fish and Wildlife Service. An administrative draft EIR/S was circulated in June 1999 to the involved local, state and federal agencies. Review of the administrative draft revealed a number of issues that have required additional detailed analyses. Although the schedule for releasing the public draft EIR/S has

fallen behind, the EIR/S team members have been working cooperatively to resolve the following issues.

- (1) **Habitat Plans.** Errors in the most current revision of the habitat plans for the various proposed alternatives did not become apparent until updated maps were provided to the EIR/S team members in early August. Most of these were editorial errors in the implementation of the GIS program used to produce the habitat plans. These errors were resolved during a meeting of the team on August 17 and will be implemented by the GIS contractor.
- (2) **Habitat Acreages.** A more serious issue involves the determination of the vertical boundaries of tidal marsh along the intertidal gradient for the proposed restoration. It was earlier agreed to estimate these boundaries from existing conditions, using the guideline that tidal habitats must be inundated by seawater 18 times per year. These conditions were then used in a modeling exercise to estimate the vertical boundaries in the various habitat plans. Only in early August did the team learn that the tidal regime used to make these estimates was from January 1992, a month of historically extremely high tides during a major El Niño period. Because this represents a rare event (occurring 6 or fewer times during a decade), the staff believes it provides an overly optimistic picture of average long-term tidal inundation, and, therefore, an overly optimistic estimate of the amount of tidal influenced acreage that would be created.

The team agreed to address this issue by requesting that estimates of tidal inundation be determined by using tide data with both historically high (January 1992) and low (August 1988) tidal fluctuations to provide a more realistic prediction for tidal inundation for each restoration alternative.

- (3) **Habitat Changes to Restored Area.** Review of the latest habitat plans for the various alternatives in the EIR/S raised the possibility that there would be significant habitat changes on the California Department of Fish and Game parcel. The team examined this possibility and determined it to be a likely outcome. The DFG project manager for the San Dieguito lagoon believes that such changes would not degrade habitats in the DFG restoration.
- (4) **River Bathymetry.** During discussions by the EIR/S team on August 9, it appeared that there might be some inconsistencies in the river bottom elevations being used by SCE's engineering and hydrological consultants. Of particular concern are the river bottom elevations under and adjacent to the I-5 bridge. The SCE consultant modeling river scour and flooding used bathymetric measurements from 1994, when the river bottom was lower, that accentuated possible effects of the restoration on flooding and scour. The SCE consultant responsible for modeling tidal hydraulics used bathymetric measurements during a period when the river bottom was higher, which would lead to conservative estimates of increased tidal action resulting from restoration activities. The apparent inconsistency is explained by the fact that both

consultants used bathymetric measurements that allowed them to be more conservative in their impact analysis.

- (5) **Residence Times for Tidal Basins.** Recent habitat plans for the various alternatives in the EIR/S raised the possibility for the first time that tidal basins would be isolated from the ocean for some period of time. Modeling to determine residence times for water ponded in tidal basins will be completed for the different restoration plans.
- (6) **Pacific Bell Line at I-5.** Although previously thought not to be a problem, the EIR/S consulting engineers determined that restoration activities near the Pacific Bell lines that cross the San Dieguito River east of the I-5 freeway could result in increased scour and possible damage to these lines. Several plans to mitigate these impacts were discussed at the team meeting on August 17 and will be included in the draft EIR/S.

The draft EIR/S will reflect the team's resolution of these issues. Barring discovery of further unforeseen issues, the draft EIR/S should be ready for public distribution in September 1999. Following the release of the draft EIR/S there will be a 45-day comment period, and a public meeting will be held during the comment period. Once the draft EIR/S is released, the staff will work with SCE to determine the schedule for SCE's submittal of the final restoration plan and coastal development permit application.

## **KELP REEF MITIGATION**

### **The Project**

Condition C of the permit requires construction of an artificial reef that will consist of an experimental reef and a larger mitigation reef. The experimental reef must be a minimum of 16.8 acres and the mitigation reef must be of sufficient size to sustain 150 acres of medium to high density kelp bed community. The purpose of the experimental reef is to determine what combination of substrate type and substrate coverage will best achieve the performance standards specified in the permit. The design of the mitigation reef will be contingent on the results of the experimental reef.

In April 1997, the Commission added the requirement for a payment of \$3.6 million to the State's Ocean Resource Enhancement and Hatchery Program (OREHP) to fund a mariculture/marine fish hatchery to provide compensation for resources not replaced by the artificial mitigation reef. SCE has fully satisfied this requirement.

### **Progress Report**

The State Lands Commission, lead agency for CEQA, released the final PEIR on May 24, 1999. The PEIR concludes that for the experimental reef phase the environmentally preferred project would be the proposed project because it involves less construction and less impacts initially than the other alternatives (other than the No

Project alternative). The State Lands Commission certified the final PEIR and issued the offshore lease for the experimental reef on June 14, 1999.

The Commission approved the coastal development permit for the experimental reef (E-97-10) on July 15, 1999. The U.S. Army Corps of Engineers issued its permit on August 13, 1999.

The Executive Director approved a portion of the anchoring plan required in the coastal development permit. After reviewing SCE's submittal, the staff determined that additional sites need to be surveyed by divers and evaluated prior to approving the remainder of the anchoring plan. Construction took place first in the areas of the approved anchoring plan. SCE began construction on August 18, 1999. The final anchoring plan was approved by the Executive Director on August 26, 1997.

The Commission's SONGS Mitigation Program staff scientists produced a proposed monitoring plan for the experimental reef which was reviewed by SCE, resource agencies and other technical specialists and also was included in the draft PEIR for general public review. The Commission approved the proposed monitoring plan for the experimental reef on July 15, 1999. The staff scientists are ordering needed equipment to be ready to set up the permanent sampling stations on the experimental modules as they are constructed.

## **FISH BEHAVIORAL MITIGATION**

### **The Project**

Condition B requires the permittee to install and maintain behavioral barrier devices at SONGS to reduce fish impingement losses.

### **Progress Report**

Following the permittee's experiments on light and sound devices, the permittee considered fish guidance lights to be more effective in preventing fish from being trapped and killed. In October 1998, the Executive Director approved the permittee's installation plan for the lights and the lights were installed in December 1998.

Monitoring to evaluate the effectiveness of the fish guidance lights began in March 1999 and is continuing.