

CALIFORNIA COASTAL COMMISSION

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



W4a

Energy and Ocean Resources Unit
 Staff: CP/SMH—SF
 Staff Report: November 3, 1995
 Hearing Date: November 15, 1995
 Item No. 4A
 Commission Action/Vote:

**Coastal Commission Review of the Executive Director's
 Decision to Reject Southern California Edison Company's
 Proposed Amendment to Permit 6-81-330 (formerly 183-73)**

Executive Summary

Southern California Edison (Edison) and San Diego Gas and Electric (SDG&E) seek to amend the permit for the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3. The proposed amendments dramatically alter the mitigation conditions that were developed by the Commission to address the impacts of the power plant on the marine environment. The purpose of this hearing is to decide whether to uphold or reverse the executive director's decision to reject the amendments for processing.

The Commission's regulations governing permit amendments require that, in order to be accepted for processing, amendments to coastal development permits must not "lessen or avoid the intended effect of a...conditioned permit" unless the applicant provides "newly discovered material information" that could not have been produced before the permit was granted (Section 13166(a)(1)). The staff reviewed Edison and SDG&E's amendment requests against the above criteria and determined that the proposed amendments did not meet the criteria for acceptance. On October 12, 1995, Peter Douglas, the executive director of the Commission, informed Edison¹ that he was rejecting the amendments for processing.

In reviewing the executive director's decision, the Commission must look back to the 1991 Coastal Commission resolution, because it establishes the

¹ Southern California Edison is the majority owner of SONGS. San Diego Gas and Electric, the City of Anaheim and the City of Riverside are part-owners. Edison is the operating agent for the other three owners.

"intended effect" of the conditioned permit. In its 1991 resolution adopting the mitigation package, the Commission concluded that if the mitigation requirements were reduced, the impacts of the plant would *not* be fully mitigated:

The adopted conditions which set up a mitigation, monitoring, and remediation program is viewed as a *minimum* package. The Commission believes that the only way that SCE should be allowed to mitigate impacts rather than make extensive SONGS cooling system and operational changes to prevent impacts is through the full adopted mitigation package.... A *lesser* mitigation package would not fully address the impacts caused by SONGS and would *not* be in compliance with the coastal permit conditions [emphasis added].

Edison seeks to amend four of the six conditions it agreed to in 1991 as part of the mitigation package for its SONGS permit. Those four conditions require restoration of at least 150 acres of Southern California wetlands; installation of fish barrier devices at the plant; construction of a 300 acre kelp reef; and administrative oversight and independent monitoring of the mitigation package conducted by a small mitigation monitoring program staff and necessary scientific contractors under the direction of the Commission's executive director.

After careful review, the staff has determined that Edison's amendment requests do not meet the requirements of section 13166(a)(1) because they would lessen or avoid the intended effect of the existing SONGS's permit and are not based on newly discovered material information. These requests would (a) replace the required 300 acre permanent kelp reef with a 12 acre experimental reef, with Edison's obligation terminated after 10 years and the submittal of a report evaluating the success of the experiment; (b) replace Edison's obligation to install fish barriers in its intake structures which the executive director determines to be effective with a program which allows Edison, at its own discretion, to determine whether to retain the barriers; (c) reduce the size of the buffer areas surrounding the restored wetland, delete several performance standards and replace independent with self monitoring of the effectiveness of the wetland restoration effort and limit the monitoring and remediation effort to 10 years instead of for the life of the plant;² and (d) replace independent monitoring of the entire mitigation package with self monitoring by Edison.

² The amendment request for the wetlands condition involves changes such as updating the deadlines for required action which the staff believes are non-substantive, and which the staff could thus support. However, given the fact they are interposed within substantive changes which cannot be accepted for review, the only mechanism for dealing with the non-substantive changes is for Edison to resubmit such changes in a separate package. The changes that could be supported are indicated in Appendix A.

As demonstrated above, the conditions incorporated into the SONGS permit are part of a mitigation package that was determined to be the minimum necessary to allow Edison to avoid making cooling system and operational changes to the plant which could have cost Edison up to two billion dollars. If approved, the amendment requests would eliminate major portions of the mitigation package established by the Commission and, thus, would lessen and avoid the intended effect of the Commission's decision.

Moreover, Edison has not presented newly discovered material information to justify such a drastic weakening of the Commission's adopted mitigation package. Under section 13166(a)(1), "newly discovered information" does not consist of (to name a few) facts, theories, concepts or relationships that were recognized or understood by the Commission at the time of its decision. In other words, the fact that an event occurs after a Commission decision does not make it newly discovered within the meaning of section 13166(a)(1) if the possibility such an event might occur was recognized at the time of the decision. Further, even if information is newly discovered, it must be material information. In other words, it has to impact the rationale for the imposition of the condition proposed to be changed.

In its submittal, Edison quotes a finding in the 1991 permit, which states: "the Commission finds that, *as with any permittee*, if the permittee believes that changed circumstances warrant modification to the Commission's mitigation requirement, the permittee may request such modification from the Commission [emphasis added]." This finding does not alter the applicability to Edison's amendment request of the standard set forth in section 13166 of the Commission's regulations governing the acceptance or rejection of an application for an amendment to a permit.

In support of its amendment requests, Edison has argued that the costs of the mitigation effort have exceeded what it expected might be the case at the time of the Commission's decision. It contends that when it accepted the conditions it expected the mitigation effort to cost \$29 million. Now, according to a 1993 filing with the California Public Utilities Commission, it anticipates the cost of the mitigation package to exceed \$100 million. This information is neither newly discovered nor material within the meaning of section 13166(a)(1). As more fully discussed below, Edison had no reasonable basis for believing that the cost of the mitigation effort would amount to \$29 million or less. Indeed, before the mitigation package was adopted, Edison had participated in a study with the Department of Fish and Game showing the cost of an artificial reef of a similar size to the mitigation reef to be \$40 million. In any case, as more fully discussed below, the cost of the SONGS mitigation is in line with the cost of other large environmental mitigation programs.

More importantly, however, any differential between the \$29 million Edison says it expected this package to cost and the \$100 million it now contends to be the correct figure is not material to the decision to impose the mitigation package because even at \$100 million this package is far cheaper for Edison than the other options available at the time of the Commission's decision (installing cooling towers or making other design or operational changes to the plant). Considering design and construction costs as well as the cost of the delay in operation resulting from such a change, imposition of the mitigation package allowed Edison to avoid the estimated \$500 million to \$2 billion cost of the cooling tower alternative. Thus, even if the mitigation package had been estimated to cost Edison \$100 million, it would still not have changed the Commission's conclusion that the mitigation package was the least costly mechanism for avoiding adverse impacts to the environment.

Edison also argues that the conditions requiring independent monitoring over the life of SONGS and remediation of efforts shown by that monitoring to be unsuccessful are inconsistent with Commission practice on other projects. This information is neither new nor material. As more fully set forth below, both Edison and the Commission acknowledged at the time of the Commission's decision that the mitigation package was a unique program. Thus, there is nothing new or relevant in this disclosure. Further, in its findings for the 1991 resolution, the Commission stated "[t]he most effective and reliable means of achieving the compensation objectives described in this permit is through independent, third party monitoring and adaptive management." Clearly, elimination of the independent monitoring requirement would substantially lessen the intended effect of the existing permit.

With respect to the kelp reef requirement, Edison states that new information collected since 1991 shows that the power plant does not adversely affect the kelp bed off the plant. This information is not "new" (as per section 13166(a)(1)) because it concerns a circumstance that was clearly anticipated at the time of the Commission's action in 1991, namely that the size of the effect would vary through time. If as Edison claims, the effect is currently smaller (a claim that has not been demonstrated to the staff's satisfaction), such a temporary change in effect was allowed for in the MRC's mitigation calculations.

The kelp bed is harmed by turbidity from the plant's discharge into ocean waters. This turbidity hinders kelp 'recruitment' or the ability of small kelp plants to mature. In its Final Report (1989, p. 127), the Marine Review Committee (MRC) stated:

During banner years for kelp ... SONGS will slow population growth. During years when conditions are particularly inhospitable, there will be very little recruitment anywhere and

SOK [San Onofre Kelp bed] and other kelp beds will probably decline at about the same rate, since SONGS does not appear to affect adult mortality. However, during marginal years for kelp, recovery would be expected at SMK [San Mateo Kelp bed, the reference kelp bed], whereas SOK would be expected to continue to decline. As a result, we predict that SOK will have less kelp, on average, than before the operation of Units 2 and 3, and during periods of successive poor or marginal years could be driven near local extinction.

The MRC results anticipated this situation by including an approximate balance of both good and bad recruitment years (MRC Final Report, 1989). Therefore, the Commission found the MRC's estimate to be a reasonable longterm prediction of the impact over time. Edison has continued to collect data on kelp and would now like to base the mitigation on the additional years of data. Since the intervening years were "good years for kelp" (as indicated by Edison's data on six control sites--Appendix A, Figure 3 of the application), the impact of the plant *may* appear to have been lower than average (the staff has not verified this), but larger than average impacts would be expected during "bad years for kelp." As noted above, Edison's contention concerns a concept or relationship that is not newly discovered or material. It was anticipated that there would be good years in which the impact would be diminished. Thus, Edison's observations have no effect on the rationale for the imposition of the kelp reef condition.

With respect to the wetland restoration requirement, Edison would lessen or avoid the intended effect of the permit conditions by, among other things: reducing the size of the buffer zone that would be required; changing the design standards to permit conversion of wetland to non-wetland habitat; eliminating several performance standards that are important for judging the wetland restoration project's success; modifying the monitoring and remediation requirements to allow for self-monitoring; and allowing Edison's obligation for monitoring and remediation to end after 10 years. Edison presents no newly discovered material information to support these changes.

Furthermore, Edison is being extremely selective in the "new" information it chooses to present in support of its amendment application. The wetland restoration condition was imposed to compensate for adverse impacts from the plant's seawater intake to fish populations in the southern California Bight. Recent data collected by Edison suggests that the plant kills twice as many fish as previously thought. Thus, contrary to Edison's amendment request, these data would suggest that the wetland restoration requirement should be strengthened rather than weakened.

When SONGS came before the Commission, some parties warned the Commission that Edison would ultimately attempt to evade the requirements in the mitigation package. These amendment requests serve to confirm the prophesy. These requests seek to undermine the intent and effect of the conditions incorporated into the SONGS permit and are not based on newly discovered material information. Thus, the amendment requests should be rejected.

The staff report is organized as follows. The motions and resolutions are indicated in the event the Commission deems it appropriate to take any action on this matter, rather than letting the executive director's decision stand. The motions and resolutions are followed by a section on the background for the SONGS permit, a summary of the proposed amendments, an explanation of the Commission regulation governing permit amendments (13166(a)(1)), and the executive director's analysis of the amendment request relative to the regulation. Appendix A contains the text of Edison's proposed amendments and the staff's detailed response to each proposed amendment.

I. Motions and Resolution

Staff Note: If the Commission concurs with the executive director's action rejecting the proposed amendments, the Commission does not need to take any further action. If one or more Commissioners are inclined to overturn the executive director's determination for any or all of the four permit conditions that Edison has requested be amended, there are four separate motions to address the four permit conditions. This arrangement allows the Commission the flexibility to reject parts of the amendment request, and accept parts, if it sees fit to do so.

A. Motions

1. Wetland Restoration, Condition A. The amendment before the Commission to Condition A shall be decided by the following motion:

I hereby move that the Commission reverse the determination of the executive director to reject for processing under section 13166(a)(1) of the Commission's Administrative Regulations, Southern California Edison Company's proposed amendment to Condition A, permit 6-81-330 (formerly 183-73).

2. Behavioral Barriers, Condition B. The amendment before the Commission to Condition B shall be decided by the following motion:

I hereby move that the Commission reverse the determination of the executive director to reject for processing under section 13166(a)(1) of the Commission's Administrative Regulations Southern California

Edison Company's proposed amendment to Condition B, permit 6-81-330 (formerly 183-73).

3. Kelp Reef, Condition C. The amendment before the Commission to Condition C shall be decided by the following motion:

I hereby move that the Commission reverse the determination of the executive director to reject for processing under section 13166(a)(1) of the Commission's Administrative Regulations Southern California Edison Company's proposed amendment to Condition C, permit 6-81-330 (formerly 183-73).

4. Administrative Structure, Condition D. The amendment before the Commission to Condition D shall be decided by the following motion:

I hereby move that the Commission reverse the determination of the executive director to reject for processing under section 13166(a)(1) of the Commission's Administrative Regulations Southern California Edison Company's proposed amendment to Condition D, permit 6-81-330 (formerly 183-73).

B. Resolution

The staff recommends a "no" vote on each of the foregoing motions, which will result in the adoption by the Commission of the following resolution:

The Commission hereby finds that Southern California Edison Company's proposed amendments to permit 6-81-330 (formerly 183-73) (1) would "lessen or avoid the intended effect of" permit 6-81-330 and (2) are not based on "newly discovered material information," and therefore concurs in the determination of the executive director to reject the amendment application for processing under section 13166(a)(1) of the Commission's Administrative Regulations.

II. Findings and Declarations

The Commission finds and declares as follows:

A. Background on Permit 6-81-330

1. Permit History

On December 5, 1973, the California Coastal Zone Conservation Commission (CCZCC, now the California Coastal Commission), denied Edison's permit application for the construction of SONGS Units 2 and 3. Among the grounds for denial were the adverse impacts to the marine environment. Edison filed suit and the Commission stipulated in court to accept the permit on remand

for the purpose of taking another vote.³ On February 28, 1974, the CCZCC approved a permit for the construction of SONGS Units 2 and 3. At that time, there was considerable debate concerning the potential adverse effects SONGS would have on the marine environment. In public hearings, Edison scientists testified that the new units would have little effect on the marine environment, while opponents testified there would be devastating consequences. Little reliable scientific information was available. The probability of any decision ending up in court again was high, and the costs to Edison and SDG&E of delay were substantial.

It was in this context that the Commission approved the permit subject to conditions which 1) established a three-member independent Marine Review Committee (MRC), comprised of members appointed by the Commission, Edison and an environmental coalition that had opposed the project, to carry out a comprehensive field study to predict and measure the impact of SONGS on the marine environment, and 2) authorized the Commission to require Edison to make future changes in the SONGS cooling system (as extensive as the installation of cooling towers) to address impacts to the marine environment identified by the MRC.

In November 1979, after a public hearing to review the status of the MRC studies, the Commission recognized that some effects might be mitigated without requiring changes in the cooling system. The Commission found that,

...Changes such as requiring cooling towers, extended diffusers or single point discharges could cost hundreds of millions of dollars and result in unit shutdown for a period of time. ...The Commission also recognizes that operational changes or mitigation measures might adequately compensate for any marine life damages resulting from the operation of Units 2 and 3. The Commission, therefore, requests the MRC to study the feasibility and effects of selected promising mitigation measures, including construction of an artificial reef, as suggested by Southern California Edison. The MRC should recommend what measures might be taken to assure there would be no net adverse effect on the marine environment from operation of SONGS Units 2 and 3.

MRC Submits Recommendations

In August 1989, the MRC submitted its Final Report to the Commission, which concluded that the operation of SONGS was causing substantial adverse effects to fish stocks in the Southern California Bight, local midwater

³ The court remanded the decision on a technicality, finding that the Commission had exceeded its authority by basing its decision in part on nuclear safety considerations.

fish, kelp bed fish, kelp, and kelp bed biota. The Final Report recommended an array of techniques to reduce or mitigate the SONGS impacts (MRC 1989).

Following MRC's issuance of its Final Report, the staff worked extensively with the MRC scientists, Edison, environmental groups, fish and wildlife agencies, the Coastal Conservancy, the San Diego Regional Water Quality Control Board, the State Water Resources Control Board, wetland and kelp scientists, and others to develop a mitigation package for recommendation to the Commission. Edison agreed that the mitigation options recommended by the MRC and adopted by the Commission were the most cost-effective means of dealing with the impacts reported by the MRC.⁴

1991 Hearing

The staff presented its recommended mitigation package to the Commission at a public hearing on July 16, 1991. The Commission concluded that a compensatory mitigation program was the most cost-effective means of dealing with the SONGS Units 2 and 3 impacts because costs would be lower and, unlike the prevention options considered but rejected, compensatory mitigation would not interfere with plant operations and result in reduced plant efficiency. The Commission therefore further conditioned the permit to require implementation of the following mitigation program elements:

- creation or substantial restoration of at least 150 acres of southern California wetlands;
- installation of fish barrier devices at the power plant; and
- construction of a 300-acre kelp reef.

The permit conditions adopted by the Commission also require Edison to fund administrative oversight and independent monitoring of the mitigation, conducted by a small mitigation monitoring program staff and necessary scientific contractors under the direction of the Commission's executive director.

In adopting the mitigation program, the Commission found the mitigation, monitoring, and remediation program to be a minimum package, and that the only way that Edison should be allowed to mitigate impacts rather than make extensive changes to SONGS to prevent impacts was through the full adopted mitigation package.

The Commission then directed the staff to consider the need for additional mitigation, identifying specifically that consideration be given to a fish hatchery program. On March 23, 1993, the Commission added a requirement for Edison to partially fund an experimental white seabass hatchery program

⁴ Edison comments on CCC Staff Recommendation to further condition Permit No. 183-73, July 10, 1991

(\$1.2 million). Due to its experimental nature, the Commission did not assign mitigation credit for this program.

NPDES Compliance

In a separate action, the San Diego Regional Water Quality Control Board, which issues and administers the Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit for SONGS, began proceedings to review the MRC's 1989 findings that SONGS might not be in compliance with the NPDES permit conditions. Earth Island Institute intervened in these proceedings to encourage the Regional Board to take enforcement action against Edison, and filed action in Federal District Court, alleging violations of the Clean Water Act as a result of SONGS operations. The Regional Board held a hearing in October 1991, after the Commission had acted on the MRC report and mitigation package, and in early 1992 concluded that the evidence did not clearly indicate any NPDES permit violations and thus terminated the proceeding. Earth Island subsequently filed Petitions for Review with the State Board and prepared its case for trial.

Edison pursued settlement negotiations with Earth Island. In June 1993, the parties reached settlement, which, as approved by the District Court, includes:

- restoration of additional wetland acreage to that required by the Coastal Commission near or adjacent to the San Dieguito wetlands project;
- funding for wetlands restoration research; and
- inclusion of a Marine Science Education Center and ongoing education program targeted for disadvantaged youths at Edison's existing marine laboratory at Redondo Generating Station.

2. Marine Review Committee Costs in Perspective

In its summary of costs spent to date on mitigation for the SONGS Units 2 and 3 (p. 6, Table 1 of amendment application), Edison includes the costs of funding the Marine Review Committee (\$48 million). The Commission staff recognizes that the MRC costs were substantial, but believes they should be considered separate and distinct from the costs of mitigating for the impacts of SONGS. The MRC costs represented the cost of determining the impacts of the project after the project was constructed, and the Commission has never considered the work completed by the MRC as compensatory mitigation.

The costs of the MRC were justified based on the circumstances surrounding the application to construct SONGS. When the application came before the Commission, there was a great deal of controversy surrounding the question of whether the once-through ocean water cooling system should be permitted at all, given expected impacts to the marine environment. The MRC was

conceived as a way of dealing with this conflict, and avoiding costly and time-consuming litigation. In a letter to the executive director of the California Coastal Zone Conservation Commission in 1973, Edison estimated that delays in construction of the power plant would cost the utility *\$1.5 million per week*.

If instead of setting up the MRC the Commission had required Edison to avoid adverse impacts by constructing cooling towers, Edison's costs would have been significantly higher (\$500 million to \$2 billion). Furthermore, the 1974 permit originally called for addressing any adverse impacts found by the MRC by requiring physical changes to the cooling system. The MRC instead recommended compensation measures, which are much less expensive than even the most probable physical changes. For example, extending the discharge pipes to avoid adversely affecting the kelp bed was estimated to cost \$600 million (W. Murdoch, personal communication).

Finally, given its mandate, the MRC costs were reasonable. The MRC evaluated the effect of SONGS on all major components of the marine environment at an average annual cost of \$3 million. To put this cost in perspective, Edison currently spends \$17 million annually on contributions to the Electric Power Research Institute (R. Kinosian, personal communication).

B. Summary of Proposed Amendment to Permit 6-81-330

Edison is proposing extensive amendments to four of the six mitigation conditions: 1) the wetland creation or substantial restoration, 2) behavioral barriers implementation, 3) kelp reef creation, and 4) administrative structure.

- Edison proposes 21 amendments to Condition A: Wetland Restoration Mitigation. The proposed amendments include changes to the permit deadlines that have been missed, changes to several of the minimum design standards and objectives, and significant changes to the manner in which the mitigation project would be monitored and remediated.
- Edison proposes to make several changes to Condition B: Behavioral Barriers Mitigation. The proposed amendments include allowing self-monitoring and allowing Edison's obligation to end if the devices are found to be ineffective.
- Edison proposes to eliminate Condition C: Kelp Reef Mitigation in which it is required to create a 300 acre kelp reef. Edison proposes to replace Condition C with a new condition that would require Edison to build a 12 acre experimental kelp reef, at reduced design standards. In addition, Edison is proposing to conduct self-monitoring of the project and to allow

Edison's obligation to end after 10 years without regard to the project's success.

- Edison proposes to eliminate the original Condition D: Administrative Structure. This condition sets forth the structure for oversight and independent monitoring of the mitigation projects. Edison proposes to substantially reduce the Commission's role in and funding for oversight and to conduct self-monitoring of the mitigation projects.

C. Regulation Governing Permit Amendments

The Commission's regulations (section 13166(a)(1)) provide that the executive director use the following standard to determine whether or not an application for an amendment to a previously approved coastal development permit shall be accepted for Coastal Commission review:

An application for an amendment shall be rejected if, in the opinion of the executive director, the proposed amendment would lessen or avoid the intended effect of a partially approved or conditioned permit unless the applicant presents newly discovered material information, which he could not, with reasonable diligence, have discovered and produced before the permit was granted.

Thus, in order for an amendment application to be accepted by the executive director or the Commission, the applicant must either (1) demonstrate that the proposed amendment would not "lessen or avoid the intended effect of a ... conditioned permit," or (2) present "newly discovered material information" which could not have, with reasonable diligence, been "discovered and produced before the permit was granted."

Under section 13166(a)(1), "newly discovered information" does not consist of (to name a few) facts, theories, concepts or relationships that were recognized or understood by the Commission at the time of its decision. In other words, the fact that an event occurs after a Commission decision does not make it newly discovered within the meaning of section 13166(a)(1) if the possibility such an event might occur was recognized at the time of the decision. Further, even if information is newly discovered, it must be material information. In other words, it has to impact the rationale for the imposition of the condition proposed to be changed.

In support of its amendment request, Edison quotes the 1991 permit, which states: "the Commission finds that, *as with any permittee*, if the permittee believes that changed circumstances warrant modification to the Commission's mitigation requirement, the permittee may request such modification from the Commission [emphasis added]." This finding does not alter the applicability to Edison's amendment of the standard set forth in

section 13166 of the Commission's regulations governing the acceptance or rejection of an application for an amendment to a permit.

D. Executive Director's Decision and Analysis

The Commission staff has reviewed Edison's request to amend Conditions A through D of Permit 6-81-330. Based on the staff's analysis of the application, the executive director rejected the proposed amendment under section 13166(a)(1) of the Commission's regulations. The following findings contain the executive director's analysis of Edison's request and the reasons for rejecting the proposed amendments. Appendix A contains a more detailed listing of the proposed amendments and reasons for rejection of amendments to Condition A--Wetland Restoration. (The amendments to other conditions are less detailed and are described below.)

1. Importance of Full Mitigation for Impacts

Under the Coastal Act, the Coastal Commission is mandated to seek full mitigation for any and all adverse impacts to the coastal zone. Most of the public testimony and Commission discussion at the hearing at which the mitigation package was adopted (July 1991, Huntington Beach) focused on whether the current mitigation requirements constituted adequate mitigation for SONGS related impacts. All the members of the public that testified, as well as one member of the Marine Review Committee, argued that the current mitigation requirements did not fully compensate for the lost marine resources resulting from the operation of SONGS and urged the Commission to require Edison to retrofit the plant with cooling towers.

The staff believed that the adverse impacts of SONGS could be fully mitigated and, in lieu of cooling towers, recommended the present mitigation requirements, which were strongly supported by Edison and approved by a 7-2 vote of the Commission. (The dissenting votes reflected the belief that the mitigation package did not achieve full compensation for lost resources.) In its 1991 resolution adopting the mitigation package, the Commission expressed its judgment regarding the adequacy of the mitigation:

The adopted conditions which set up a mitigation, monitoring, and remediation program is viewed as a minimum package. The Commission believes that the only way that Edison should be allowed to mitigate impacts rather than make extensive SONGS cooling system and operational changes to prevent impacts is through the full adopted mitigation package.... A lesser mitigation package would not fully address the impacts caused by SONGS and would not be in compliance with the coastal permit conditions.

Edison's newly proposed amendment to the permit would drastically reduce these mitigation requirements, which many already consider to be inadequate, and which the Commission found to be the minimum necessary to address SONGS' impacts. The amendments would lessen or avoid the intended effect of the Commission's decision. Adopting these amendments would send a dangerous message to applicants that the Commission no longer requires full mitigation for adverse impacts to coastal resources. It would also indicate that agreed upon mitigation requirements for mitigation to be done after a permit is granted are, in fact, negotiable.

2. Mitigation Costs in Perspective

Among the reasons put forth by Edison in its submittal for modifying the mitigation requirements is the contention that the mitigation program, in its current form, is too expensive. Edison claims to have spent \$20 million on the mitigation program to date, and it has yet to actually build anything (not including the contribution of \$1.2 million toward the construction of the fish hatchery). The environment has been adversely affected by SONGS Units 2 and 3 since 1983, but has received minimal benefits from Edison's expenditures on mitigation to date.

The Commission staff believes it is important to shed light on this issue of mitigation costs. Edison claims that in accepting the mitigation program in 1991, it was relying on the MRC's 1989 cost estimates (\$29 million). These cost estimates must be examined in the proper context. The MRC report states that these cost estimates are rough and are limited to the costs of construction of the mitigation projects and land acquisition (i.e., do not include planning and design, monitoring, overhead, etc.). The MRC supplied these estimates for the limited purpose of ranking the different mitigation alternatives on a cost basis. Even given updated estimates on the cost of the wetland and reef projects, the adopted mitigation program was without question the most cost-effective means of mitigating for the impacts of SONGS.

When the mitigation program was adopted in 1991, Edison had evidence that the costs of the mitigation might be considerably higher than the MRC had estimated. In July 1990 Edison funded a California Department of Fish and Game study that concluded that construction costs for an artificial reef of a similar size would be approximately \$40 million. Hence, the cost of mitigation does not constitute newly discovered, material information.

In a related matter, Edison estimated the cost of the mitigation program to exceed \$100 million in submissions to the California Public Utilities Commission (CPUC) in 1993⁵. This cost estimate was presented at a CPUC proceeding to set rates for SONGS, and these proceedings are ongoing. Edison

⁵ Nuclear Power Exhibit No. SCE 11: SONGS Required Environmental Mitigation Projects, testimony before the California Public Utilities Commission, December 1993.

continues to assert that the mitigation costs will exceed \$100 million, and is opposing the CPUC staff's recommendation that Edison's rate be readjusted if the mitigation program is reduced by the Coastal Commission (R. Kinosian, personal communication).

Expenditures to Date

Edison currently estimates it has spent \$20 million to comply with the mitigation permit conditions. However, some of the expenditures included in Edison's table of mitigation costs for the SONGS permit (Table 1, p. 6 of application) should not have been included (e.g., the \$2 million for research required as part of a settlement to the lawsuit filed by Earth Island Institute, and funds spent on analyses to contest the findings of the MRC).

Moreover, it is misleading for Edison to imply that all its expenditures were imposed by the Commission and its staff. Although Edison did not provide a detailed accounting of its expenditures, many of its costs seem to be excessive given the task, were self-imposed, or reflect questionable judgment on Edison's part. For example, Edison reports to have spent \$4.8 million on environmental planning issues at San Dieguito Lagoon (this includes baseline studies, flood related studies, inlet studies and GIS mapping). This is almost four times the \$1.3 million reported by the Port of Los Angeles for expenditures on environmental planning issues at Batiquitos Lagoon (R. Appey, personal communication). Public participation, which was included in the cost of Condition A (Wetland Restoration) included hiring a public relations firm and luncheons at the Hilton Hotel, neither of which was recommended or endorsed by the staff. Furthermore, Edison's decision (despite the staff's written warning) to spend \$6 million acquiring the 89 acre Horseworld property at San Dieguito reflects questionable judgment. Edison could have negotiated an option to purchase the property pending the results of environmental review and feasibility studies. Edison now plans to restore only 15 acres of this property, grossly inflating the per acre mitigation costs. This is largely because the relatively high elevation of the land requires extensive and costly excavation to lower it to a level that allows for tidal inundation.

Costs of Other Recent Mitigation Projects

In adopting the mitigation program in 1991, the Commission expected the package to fully mitigate for damaged resources and to cost significantly less than cooling towers and other impact avoidance techniques. This permit package was embraced by Edison in 1991; as Mr. Hertel said before the Commission "[we] hope our full support of the staff recommendation to you today will mark Edison and its partners...as participants with the Commission in a position of environmental leadership and protection and enhancement of California's coastal resources." (July 16, 1991 hearing transcript, p. 38-39).

Although the adopted mitigation package for SONGS does not cost as much as cooling towers, the staff acknowledges that it is still expensive. But environmental mitigation in general is expensive, and the SONGS environmental mitigation costs are not out of line with environmental mitigation costs at other power plants. For example, the Federal Energy Regulatory Commission (FERC) is requiring \$16 million, or \$1.78 million per megawatt (MW) in environmental mitigation work for Pacific Gas and Electric's (PG&E) 9 MW hydroelectric power plant on the Eel River.⁶ Supposing the SONGS mitigation were to cost \$100 million, it would work out to \$45,000 per MW for the 2200 MW nuclear units. FERC is requiring \$3 to 6 million in mitigation costs for PG&E's 5 MW Angels/Utica hydroelectric projects, or \$600,000 to \$1.2 million per MW.⁷

Furthermore, the Commission staff's current estimates for the cost of the wetland portion of the SONGS mitigation program are in line with the costs of other large wetland mitigation projects. Other major wetland enhancement or restoration projects in California include the Batiquitos Lagoon Enhancement Project, which is estimated to cost about \$55 million for 360 acres of wetland enhancement⁸, and the Bolsa Chica Wetland Restoration Program, which is estimated to cost approximately \$48 million⁹ to \$62 million¹⁰ (not including land acquisition costs). The State of New Jersey recently adopted mitigation requirements for the Salem Nuclear Generating Station on Delaware Bay. The mitigation package includes the restoration or enhancement of 10,000 acres of wetlands to compensate for fish losses.¹¹ Although there is no firm price for the mitigation, costs have been estimated to be in the \$70 million to \$100 million range (R. Hyjack, personal communication).

The examples above are intended for illustrative purposes only, since costs for mitigation projects will vary depending upon many variables such as location, whether land acquisition is required, condition of the land, the type of habitat involved, whether habitat values are being created, restored, or enhanced. The point is that mitigation projects are expensive and the potential costs for SONGS mitigation are not unreasonable or unusual.

⁶ R. Kinoshian, personal communication.

⁷ *ibid.*

⁸ Port of Los Angeles, personal communication.

⁹ Orange County LCP submittal, 1995.

¹⁰ U.S. Fish and Wildlife Service

¹¹ The cost to restore diked salt hay farms in New Jersey and Delaware is much less expensive than wetland restoration in California. The New Jersey Department of Environmental Protection calculated the acreage requirement based on the number of acres required to replace the fish population lost as a result of the power plant operation, a method that the Marine Review Committee opted not to use given the infeasibility of restoring vast amounts of wetland acreage in California.

3. Equitable Treatment

Edison justifies its amendments to the monitoring and remediation program on the basis that it should be accorded the same treatment as other applicants. But the SONGS monitoring program is different from other monitoring programs in some respects because the SONGS project itself is unique. Among its unique qualities, it is the only nuclear generating station that has been permitted by the Coastal Commission or its predecessor agency, the CCZCC, and therefore, the nature and scale of the impacts is different from other projects permitted under the Coastal Act. The monitoring requirements reflect the scope of the SONGS project and its impacts and the importance of attaining full mitigation for the adverse effects of SONGS on the marine environment. This is not new material information.

Independent Monitoring

The importance of the monitoring requirements and the need for monitoring to be conducted independently of influence from Edison was repeatedly acknowledged by the MRC (e.g., Final Report to the California Coastal Commission, p. 308), the Commission (e.g., p. 46 of the Permit) and Edison (testimony by M. Hertel to the Commission on July 16, 1991). The MRC suggested the requirement of independent monitoring to the Commission because it is a powerful mechanism reducing the chance that unacceptable bias (both intentional and unintentional) will enter into the collection, analysis, and interpretation of the data used to assess compliance with the permit.

The requirement that monitoring be conducted independently is used only in certain circumstances in Coastal Commission permits simply because for smaller projects it is frequently logistically and financially impractical, and no project of similar scope and complexity to the power plant project has been approved since 1991. Nonetheless, the staff views independent monitoring for the SONGS project as fair (it maximizes the chances that damaged natural resources will be adequately compensated for), logical (it requires that someone with no stake in the outcome collect the necessary information to determine whether the mitigation is successful and complete), and justifiable given the large impacts attributed to SONGS and the great loss of coastal resources that will occur if the SONGS mitigation program fails to achieve its goals. Unlike some industry self-monitoring programs where widely accepted protocols for sampling analysis exist, assessing the success of the mitigation projects requires subjective judgment. Independent monitoring is key to minimizing bias in condition compliance judgments.

Other public agencies have turned to independent monitoring as well. For example, Santa Barbara County requires independent monitoring, funded by the permittee, of approved mitigation projects, and the San Francisco

Regional Water Quality Control Board requires financial contributions, in addition to the permittee's self-monitoring obligations, to the San Francisco Estuary Institute for independent regional monitoring.

There is no basis for Edison's claim that its proposed change to the administrative structure, which eliminates independent monitoring and allows Edison to conduct the entire range of management, monitoring and remediation activities, "provides assurance of Permit compliance in a more cost effective fashion" and "alleviates the need for time consuming and costly processes required by [the] condition . . ." The tasks associated with adequate management and monitoring are the same regardless of whether they are Edison's or the Commission's responsibility. Moreover, Edison's large expenditures to date raise serious concern regarding its presumed superior ability to manage the mitigation program in a more cost effective manner. The staff on the other hand has worked with minimal funding on this project (the Commission's mitigation monitoring program expenses account for only 4% of Edison's expenditures on the mitigation program) and are accustomed to working within tight budgetary constraints.

Length of Monitoring and Remediation

The permit requires monitoring and remediation to continue for the operating life of the plant. Once the projects are determined to be successful (performance standards are met), monitoring can be scaled back to a minimal level. If monitoring detects that there is a problem, Edison would be required to fund an effort to fix or remediate the problem. Without monitoring and remediation, if the project fails there would be no mitigation.

The length of the monitoring period for this project is longer than for many other mitigation projects the Commission has required. The rationale for a longer monitoring program is simple—marine resources are adversely affected as long as SONGS is operating and the requirement to monitor and remediate for the operating life of the plant is needed to guarantee "full mitigation" for these impacts.

Funding for Condition Compliance and Independent Monitoring

The permit requires Edison to provide funds to the Commission to oversee the mitigation program and to implement an independent monitoring program. Edison contends that this is not a standard practice. In fact, requiring a permittee to fund the costs of condition compliance and monitoring is not new. Most local governments have adopted a "pay-as-you-go" approach wherein the permittee is charged for everything from the staff costs on permit processing to monitoring and enforcement.

Due to severe budgetary constraints the Commission also has not been in a position to adequately fund staff efforts to monitor condition compliance for

large coastal development permits for a number of years. The Commission simply does not have the resources to justify hiring the necessary technical staff. Therefore, it is increasingly the Commission's practice to require the permittee to reimburse the Coastal Commission for the costs of monitoring condition compliance when dictated by the scope of the project (for example, Permit No. A-4-STB-92-16, Point Arguello Partners, Permit E-92-6, Gaviota Marine Terminal). These cost reimbursements do not include the costs of permanent staff who spend large portions of their time on the mitigation monitoring program, direct operating expenses in support of these permanent staff (such as travel expense), or indirect costs associated with the program.

Edison also suggests that consultation with other State and Federal resource agencies can provide the expertise required to assist the staff's review of its implementation of the mitigation projects. While the staff relies on other resources agencies for technical advice and assistance, those agencies are also under varying budgetary constraints and cannot be expected to provide the in-depth scientific evaluation and analyses needed to assess Edison's plans, design a monitoring program, or take on the Commission's responsibility for determining when project success has been achieved.

4. Difficulty in Enforcing After-the-fact Mitigation

The staff firmly believes that it is important for the Commission to be consistent in its application of the Coastal Act to similar projects. But, as previously stated, it is also important not to lose sight of the fact that the coastal development permit for the SONGS Units 2 and 3 is unique in many respects. It is the only nuclear generating station that was permitted by the California Coastal Commission or its predecessor agency the CCZCC (because of vested interests Diablo Canyon was grandfathered and did not require a coastal permit). In addition, it is the only project of its scale in which the Commission approved the project and allowed construction and operations to begin before it determined the scope of the adverse impacts and mitigation.

After-the-fact impact mitigation leads to a challenging situation from the point of view of incentives to keep the mitigation project on track and ensure success. The permittee's primary economic incentive to complete the mitigation is removed after the permit is approved and the project built. At that point, permit enforcement becomes more difficult.

One way that this problem could be addressed is for the Commission to require Edison to fully fund the mitigation program via the establishment of a trust fund, to be spent implementing the SONGS mitigation package, with program implementation carried out by others. Under this scenario, Edison would be under no further obligation for the mitigation.

**5. Reasons for Rejecting Proposed Amendments to Condition A—
Wetland Restoration**

Edison proposes 21 amendments to Condition A. Condition A requires Edison to create or substantially restore 150 acres of tidal wetland to compensate for impacts to fish caused by the cooling water intakes.

The proposed amendments include changes to the permit deadlines that have been missed; changes to several of the minimum design standards and objectives; and significant changes to the manner in which the mitigation project would be monitored and remediated. There are several proposed changes that the Commission staff could accept such as changing the dates to reflect a realistic project schedule (see Appendix A). However, on the whole, the amendments proposed to Condition A lessen or avoid the intended effect of the permit, are not based on newly discovered material information that was unavailable when the permit was issued, and thus do not meet the standards under section 13166(a)(1).

In particular, proposed amendments to the Wetland Monitoring, Management and Remediation section of the permit condition would significantly weaken the permit requirements. For example, Edison proposes to eliminate the requirement for independent, third-party monitoring of the wetland (and kelp reef) mitigation project. In its findings for the 1991 resolution, the Commission stated "(t)he most effective and reliable means of achieving the compensation objectives described in this permit is through independent, third party monitoring and adaptive management." The Commission further found that the MRC had recommended that mitigation monitoring be "independent" (MRC Final Report, 1989). Clearly, the elimination of this requirement would weaken, or "lessen the intended effect" of the permit requirements. Edison has provided no newly discovered, material information to support this weakening of the permit.

In addition, the amendment proposes to reduce the length of monitoring and remediation of the wetland from the "full operating life of SONGS" to 10 years. As stated in the SONGS permit findings (p. 45), monitoring and remediation should occur for the full operating life of the power plant to ensure that the mitigation remains adequate for the period in which impacts occur. If this requirement is removed and the project fails in year 11, the ongoing impacts to the marine environment from the power plant operation would not be adequately mitigated. The existing permit conditions allow for reduction of the monitoring to a minimal level following achievement of the performance standards. Monitoring then becomes a mechanism for ensuring that the project is continuing to provide resource values. If a problem is discovered, remedial action would be required. A complete cessation of monitoring and remediation after ten years would not provide an equivalent level of assurance that the mitigation would compensate for lost resources.

Edison has provided no newly discovered material information to support the reduction of this condition.

The staff was surprised that the proposed amendments do not include an amendment that the staff agreed to support in its numerous technical discussions with Edison over the past year, namely an expansion of the options for wetland credit to include partial credit for enhancement of existing wetlands (e.g., by enhancing tidal flow into the wetland). Instead, Edison's wetland plan assumes full credit for enhancing tidal flow.

6. Reasons for Rejection of Proposed Amendments to Condition B— Behavioral Barriers

Edison proposes to make several changes to the behavioral barriers condition. The permit condition requires Edison to install and maintain behavioral barrier devices. The Commission staff, with assistance from the mitigation monitoring program staff, is to monitor the devices and determine their effectiveness. If the devices are found to be ineffective, the executive director may require removal and installation of alternative behavioral barrier devices. Edison proposes to modify the condition to allow self-monitoring and to allow its obligation to end after one year if the devices are found to be ineffective. These changes would clearly lessen or avoid the intended effect of the permit and are not based on new material information that was unavailable at the time the permit was approved.

7. Reasons for Rejection of Proposed Amendments to Condition C— Kelp Reef

Edison proposes to eliminate the requirement that it create a 300 acre kelp reef to compensate for impacts to the San Onofre kelp bed (SOK) community from the power plant's water discharge. Edison bases the request to delete this condition on new information that was collected by Edison for its National Pollutant Discharge Elimination System (NPDES) permit. Edison contends that these new data show that the kelp bed was not harmed by the power plant's water discharge, and instead may have been helped by the discharge. Edison proposes to replace Condition C with a new condition that would require Edison to build a 12 acre experimental kelp reef.

Changes in Kelp Impact Over Time Were Anticipated

These new data do not constitute "newly discovered" or "material" information for the purposes of Section 13166(a)(1) because they deal with a circumstance that the Commission clearly anticipated at the time of its adoption of conditions in 1991. The MRC's Final Report (1989), which the Commission relied upon in adopting the conditions, explains how the water discharge from the power plant causes an impact to the kelp bed. Turbidity

from the discharge impacts kelp "recruitment," or the ability of small kelp plants to mature. Specifically:

During banner years for kelp ... SONGS will slow population growth. During years when conditions are particularly inhospitable, there will be very little recruitment anywhere and SOK [San Onofre Kelp bed] and other kelp beds will probably decline at about the same rate, since SONGS does not appear to affect adult mortality. However, during marginal years for kelp, recovery would be expected at SMK [San Mateo Kelp, the reference kelp bed], whereas SOK would be expected to continue to decline. As a result, we predict that SOK will have less kelp, on average, than before the operation of Units 2 and 3, and during periods of successive poor or marginal years could be driven near local extinction.

The MRC results anticipated this situation by including an approximate balance of both good and bad recruitment years (MRC Final Report, 1989). Therefore, the Commission found the MRC's estimate to be a reasonable longterm prediction of the impact over time.

Edison would now like to base the mitigation requirement on several additional years of data that were collected since the MRC studies ended in 1989. Since those intervening years were "good years for kelp" (as indicated by Edison's data on six control sites--Appendix A, Figure 3 of the application), the impact of SONGS *may* have been lower than average for those six years (the staff has not verified this), but larger impacts would be expected again during "bad years for kelp" when conditions for kelp are poorer. As noted above, Edison's contention concerns a concept or relationship that is not newly discovered or material. It was anticipated that there would be good years in which the impact would be diminished. Thus, Edison's observations have no effect on the rationale for the imposition of the reef condition.

Furthermore, in making its case that the plant has not adversely affected the kelp bed, Edison disregards the first three years of data that the MRC collected, which showed a very large negative effect on SOK from the power plant. Edison has provided no new evidence to justify disregarding this data. The staff considers this selective use of data a practice that is unsound statistically.

Changes in Impacts on Other Resources

As noted, the MRC anticipated that there would be temporary deviations from the estimated impact of SONGS on the environment. Since such deviations were anticipated and are expected in any natural system the position of the Commission staff is that it would reflect faulty scientific judgment to use such deviations to change the MRC's assessment of effect. As

an example, Edison's own data¹² suggest that the average fish intake losses at SONGS are now twice as high as the estimate made by the MRC, which was the basis for the wetland mitigation condition.

Among the reasons that Edison has failed to demonstrate a reduction in effect is that it has not collected all the necessary data. Edison measured kelp density only. The mitigation requirement is based on a more comprehensive assessment of the impact of the plant to the entire kelp bed community, including confounding variables that can be confused with the effect of the power plant, such as sea urchin grazing. Testifying at the 1991 hearing, Byron Mechalis, Edison's representative on the MRC summed up the importance of viewing the MRC's findings as a coherent whole: "[t]he thing has to read as a whole is what I'm getting at, you can't take the MRC report and start dissecting it a statement at a time, picking and choosing what you're going to look at and what you're going to listen to."

The staff believes that the issues argue against reopening the 1991 permit based on Edison's application. Edison and the Commission realized in 1991 that conditions could change, and in fact the MRC recommended continued monitoring of, among other things, kelp, but both Edison and the Commission wanted to stop the studies and bring closure to the impact assessment process.

Reopening the 1991 permit has several important implications. It is inconsistent with the 1974 permit for SONGS Units 2 and 3 and the 1991 conditions to allow the permittee to submit new data to the Commission on the mitigation package. The process established by the Commission in 1974 mandated a procedure—studies by an independent body—for determining the impacts of SONGS Units 2 and 3. To reconsider MRC's conclusions, material new information from an independent body should be required.

Funds for Reevaluation

If the Commission decides not to concur with the executive director's amendment rejection, and staff are ultimately required to evaluate the data submitted under the amendment to Condition C, the staff requests that pursuant to the Resolution to Terminate the Existence of the Marine Review Committee for SONGS (dated December 3, 1993), the Commission direct Edison to provide funds for staff to evaluate the new kelp data. In the resolution, the Commission stated the following: "[s]hould Edison propose a modification to Permit 183-73, Edison shall also fund the Coastal Commission's consultation with technical experts the Commission believes is necessary to evaluate such a proposal." The Commission staff believes such a consultation would be warranted for this amendment request should the

¹² SCE Report: Revised Study Plan for the Behavioral Barrier Mitigation, April 29, 1994.

Commission accept it, and we estimate that the cost of the evaluation would be approximately \$100,000.

**8. Reasons for Rejection of Proposed Amendments to Condition D —
Administrative Structure**

Condition D establishes a structure for overseeing and administering the SONGS permit. The Condition provides for the Commission to secure the services of scientists and support staff necessary to oversee the mitigation and monitoring functions required by Conditions A through C. It also allows the executive director to convene a scientific advisory panel to provide scientific advice on the design, implementation and monitoring of the mitigation projects. The condition further specifies that the funding necessary for Commission activities pursuant to this permit is to be provided by the permittee. It also describes the types of expenditures to be funded and the process for determining the amount of funding. Finally, Condition D describes the public workshop to be held annually to review the status of the mitigation projects. The executive director is to use information from the public workshop, as well as any other relevant information, to determine whether the performance standards have been met and whether remediation is required.

Edison proposes to eliminate the original Condition D. In place of the Commission's direct participation in oversight of the mitigation projects, particularly independent monitoring to determine the success of the mitigation projects, the amendment proposes that the permittee perform all management and monitoring. The effect of this amendment is to avoid the intended effect of the SONGS permit. The permittee does not present any new material information to support this change.

The intent of Condition D was clearly to provide for direct Commission participation in the oversight and monitoring of the mitigation projects and to ensure that all monitoring to determine the success of the projects is unbiased. The Commission determined that independent monitoring is the best way to achieve this objective. The Commission's small technical monitoring program staff, supported by funds provided by the permittee, are to oversee all planning and implementation activities conducted by the permittee, and to direct the post-construction monitoring activities. (The actual monitoring is to be conducted by contractors under the executive director's direction.)

In the 1991 permit resolution, the Commission was clear that independent monitoring, not monitoring conducted by the permittee, was an important part of the mitigation package. Edison's proposed amendment allows Edison to conduct all monitoring and remediation and eliminates the requirement that Edison provide funding to carry out the Commission's monitoring and

oversight responsibilities. The proposed amendment clearly avoids the intent of having independent monitoring, and it also avoids the intent of having Edison fund necessary technical and administrative services of the Commission.

Edison does not attempt to base the avoidance of the intended effect of this condition on new information. Instead, the permittee states "[t]he amendment is intended to conform to standard Commission and industry practice" (p. 34). Elsewhere (Condition A, p. 16), Edison states that the change in monitoring responsibility is to "incorporate standard Commission practice for monitoring and managing large restoration projects." The implication is that the current monitoring requirements are non-standard and therefore unfair and onerous, and thus should be changed (see Section D.3, above, for further discussion).

However, this belief on Edison's part does not constitute newly discovered material information that could support the request for avoiding and lessening the intended effect of the condition. Edison and the Commission were fully aware of the scope of the monitoring requirement and its non-standard nature. In fact, in testimony to the Commission (July 16, 1991 Hearing transcript, p. 38), Mr. Michael Hertel, the Edison manager who signed the current amendment application, stated that "we strongly support, strongly support the staff's recommendations to you with respect to mitigation and especially with respect to the *innovative* mitigation monitoring which will be *completely independent* [of influence] by Southern California Edison and its partners" (emphasis added). Mr. Hertel further stated: "Just as the creation of the MRC itself was a groundbreaking step in determining the impacts of major coastal projects, this mitigation package *will establish a new standard* of excellence and positive environmental contribution" (1991 Hearing, p. 38, emphasis added).

Edison's own testimony demonstrates that the permittee understood that the monitoring was innovative and set a new standard (i.e., it was not like the mitigation monitoring required of other permittees). Edison's testimony also emphasizes the importance of independent monitoring, supporting repeated statements about the value of independent monitoring given by the MRC (e.g., MRC Final Report, p. 308) and the Commission (e.g., p. 46 of the Permit). Edison's assertion that the monitoring and management requirements of the permit are non-standard are not new; it was explicitly recognized by Edison's own testimony and statements made by the executive director of the Commission during the 1991 hearing (e.g., "[t]his kind of an approach has never been used before and we think it's really at the cutting edge" (p. 135, July 16, 1991 hearing transcript)). Because the proposed amendment to Condition D avoids the intended effect of the SONGS permit without providing material new information, it does not meet the standards set forth in section 13166(a)(1) of the Commission's Administrative Regulations.

E. Conclusion

The extent of Edison's proposed amendment indicates the depth of its current dissatisfaction with the original (1991) mitigation conditions. At the time of the 1991 decision, when the Commission was considering requiring a range of more extensive mitigation requirements, including cooling towers, Edison was strongly supportive of the adopted mitigation package. Since that time, and with the specter of cooling towers or other changes to SONGS' cooling system in the past, Edison finds the mitigation requirements to be burdensome. Edison claims that changing conditions (in the business and political environments) and new information about costs and SONGS's impacts have led to the submittal of the proposed amendments.

However, Edison's requested amendments fail to meet the regulatory criteria for accepting the amendment. Edison was fully aware of the nature of the permit when Edison accepted it in 1991. Mr. Hertel himself stated that Edison "strongly support[s]" the requirements. Although the Commission expected Edison to carry out the 1991 conditions in good faith, this has not happened, at least not during the past two years, when virtually all of Edison's efforts have been devoted to avoiding or lessening the intended effects of the permit.

Some of the testimony during the Commission's 1991 hearing anticipated this. For example, Mr. Steve Crandall stated (1991 Hearing, p. 46):

"Right now the thing that Edison fears most [is] cooling towers [or] design changes, because it will cost billions. O.K., fine. You're going to give a mitigation package, but what you don't want ten or fifteen years down the road is Edison to walk back here and say, it's a pretty nice program but we have this big stack of testimony and data we've developed that refutes all these wetland things and says the artificial reef is no good and we ought to be able to walk away. You don't want that and you can do it. All you have to do is put language in there. You say, O.K., are you promising to implement this package? Edison or Mr. Hertel just said yes. O.K.? Then promise us that if it doesn't work and you come back in ten years and we say you have to do something more that you'll do it. You won't challenge our decision and the Coastal Commission decision will be final and see what they say."

Although the quote refers to remediation, it is equally relevant to the issue of mitigation implementation. In addition to expressing a concern that Edison would try to avoid the mitigation responsibilities, Mr. Crandall also anticipated that Edison would devote tremendous resources to such an effort. In reference to then-current litigation in federal court in which Mr. Crandall represented Earth Island Institute in a suit against Edison for alleged

violations of the Clean Water Act, Mr. Crandall noted that Edison had "fourteen lawyers and three law firms on the pleading representing this firm." Mr. Crandall anticipated similar problems with the SONGS mitigation projects, since Edison has "an army of scientists and the [permit's] proposal is for two scientists and one support staff to monitor Edison developing this program." Mr. Crandall also suggested a remedy to the Commission: "[D]o not have participation by Southern California Edison in developing the wetlands and staking out the territory in creating the artificial reef. Make them put up the money and get it done independently."

Mr. Crandall's predictions have proven to be uncannily accurate. We now believe that Mr. Crandall's suggested remedy would be an important—perhaps essential—step in resolving the conflicts between Edison and staff. As is evident from this amendment application, Edison is no longer making a good faith effort to try to implement the permit conditions; rather, Edison has devoted tremendous resources to trying to reduce its mitigation obligation. The staff is trying to uphold the permit conditions, and as a consequence staff and Edison are constantly at loggerheads. The result is an inefficient, wasteful expenditure of time and money on both sides. The Commission believes that the establishment of a trust fund, fully funded by Edison, is perhaps the only means of obtaining full resource compensation in a timely manner, and would be far more cost-effective than the current situation. The trust fund would be funded in an amount equivalent to the cost of carrying out the SONGS mitigation package and would be for the specific purpose of implementing the SONGS mitigation package specified in the permit conditions.

APPENDIX A

to

**Staff Report on the Application for Amendment to
Coastal Development Permit No. 6-81-330**

Staff's Detailed Responses to Proposed Amendments to Condition II-A

Proposed Permit Amendments and Responses

This section identifies the specific Permit amendments that Edison has proposed for Conditions II A, and gives the Commission staff's response to each proposed change. In some instances, the staff agrees with the change and would support the amendment if it were resubmitted as part of a separate package. *Italics* indicates Edison's proposed additions to the Permit and ~~strikeout~~ indicates their proposed deletions (as per Attachment 1 of the Application for Amendment to Conditions of the Coastal Development Permit No. 6-81-330).

CONDITION II-A: WETLAND RESTORATION MITIGATION

1.0 SITE SELECTION AND PRELIMINARY PLAN

Amendment 1:

~~Within 9 months of the effective date of this permit, Before January 1, 1996,~~ the permittee shall submit the proposed site and preliminary wetland restoration plan to the Commission for its review and approval or disapproval.

Response: The staff would support this change as part of a re-submitted amendment package.

Amendment 2:

1.3 Minimum Standards

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, *except in those areas where a smaller buffer is functionally adequate or otherwise appropriate (e.g. near existing development).*

Response: The staff does not agree with this change because the amendment would lessen or avoid the intended effect of the permit and is not based on new material information that was unavailable at the time the permit was approved. The amendment would allow construction of wetlands close to existing developments. The permit recognizes that a wetland created close to an existing structure, e.g., a freeway, is likely to be an inferior wetland because, for instance, the human activity is likely to scare away some of the birds. Therefore, the permit required a buffer of at least 100' between the constructed wetland and the existing development. Obviously, this buffer would be infeasible in an area where an existing wetland that is to be enhanced as part of the restoration plan is already less than 100' from an existing development. The staff would support an amendment that specifically excluded this

circumstance from the buffer zone requirement. However, Edison's proposed change is much broader.

Amendment 3

1.3.h. Does not result in *any net* loss of existing wetlands.

Response: The staff agrees with Edison's objective to allow conversion of degraded wetlands to restored wetlands, and would support a change that could allow conversion of one type of wetland to another. However, the staff does not agree with this change because it would allow existing wetland to be converted into non-wetland. This change is unacceptable because it lessens or avoids the intended effect of the permit and is not based on new material information that was unavailable at the time the permit was approved.

Amendment 4

1.3.i. Does not result in impact on endangered species *unless authorized by the appropriate regulatory agencies.*

Response: The staff would support this change as part of a re-submitted amendment package.

Amendment 5

1.4.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.~~

Response: The staff rejects this amendment because it would lessen or avoid the intended effect of the permit and is not based on new material information that was unavailable at the time the permit was approved. Contrary to Edison's statement, this subsection is not redundant. The permit requires that the buffer be "at least 100 ft" (a minimum standard) and be "an average of 300 ft wide" (an objective). This amendment would allow construction of wetlands close to existing developments. However, the staff would support an amendment that clarified that for wetland areas to be enhanced by the project that are already located less than 100 feet from existing development, a 100 foot buffer is infeasible.

Amendment 6

1.4.e. Restoration involves minimum adverse impacts on existing functioning wetlands and other sensitive habitats *consistent with the goal of optimizing tidal restoration.*

Response: The staff agrees with the purpose of this amendment as defined by Edison in its application ("to allow restoration of degraded wetlands to tidally-

influenced wetlands"). However, the staff does not agree with Edison's position that enhancing tidal flows into San Dieguito Lagoon results in resource values equivalent to wetland creation and substantial restoration, and it is unclear whether Edison is using this amendment to provide support for this position. The staff would support this amendment if it were reworded to unambiguously implement the purpose stated by Edison in the application.

Amendment 7

2.1 Final Restoration Plan

Within 24 ~~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.

Response: The staff would support this change as part of a re-submitted amendment package.

Amendment 8

2.2 Wetland Construction Phase

Within 6 months of approval of the final restoration plan, subject to the permittee's obtaining *and complying with any* ~~the~~ necessary permits, the permittee shall commence the *final engineering and* 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 time frames 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.

Response: The staff would support this change as part of a re-submitted amendment package.

Amendment 9

3.0 WETLAND MONITORING, MANAGEMENT AND REMEDIATION

Monitoring will occur for 10 years after construction of the permittee's wetland restoration is completed to ensure that the restoration has been successful. During this time, the permittee will be responsible for all management (including maintenance), and remediation required to achieve success. If at the end of 10 years, the restoration is successful according to Condition II.-A.3.4, the permittee's responsibility for monitoring and remediation shall cease. The permittee shall ensure that all monitoring will be performed by professionally qualified personnel.

Management by the permittee shall be conducted over the "full operating life" of SONGS Units 2 and 3. "Full operating life" as defined in this permit 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 *and implemented by the permittee* in consultation with *the Commission staff, permittee and appropriate fish and wildlife agencies, including, but not limited to, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service (hereinafter jointly referred to as the "Resource Agencies")*. *The Monitoring and Management Plan shall be submitted as part of the final restoration plan for Commission approval. The Monitoring and Management Plan will, concurrently with the preparation of the restoration plan to provide an overall framework to guide the monitoring work and management. The goal shall be to assess and maintain the success of the wetland restoration, as described in the Final Restoration Plan. The Monitoring and Management Plan shall describe the sampling methodology, analytical techniques, and methods for measuring attainment with the performance standards in permit Condition II-A.3.4. 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 and inlet maintenance. Details of the monitoring studies and management tasks will be set forth in a work program (see Section II-D).*

The Management and Monitoring Plan shall provide for (1) inlet maintenance in perpetuity, if inlet maintenance is a component of the final restoration plan, and (2) all other maintenance for the full operating life of SONGS Units 2 and 3. At the permittee's discretion, the permittee may establish an endowment fund, or other appropriate mechanism, in an amount not to exceed \$2,000,000. The endowment fund will be to fund the activities necessary to maintain tidal influence through the inlet in perpetuity and to perform all other long-term maintenance described in the Monitoring and Management Plan.

3.2 Pre-restoration Site Monitoring

Pre-restoration site monitoring shall be conducted *by the permittee* 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 *by the permittee* during and immediately after each stage of construction of the wetland restoration project to ensure that the work is conducted according to plans. *Construction monitoring reports will be submitted monthly to the Executive Director.*

3.4 Post-Restoration Monitoring and Remediation

Upon completion of construction of the wetland, monitoring shall be conducted *by the permittee in accordance with the Monitoring and Management Plan prepared under Condition II-A.3.1*, to measure the success of the wetland in achieving stated restoration goals (as specified in the restoration plan) and in achieving performance standards, specified below. *Monitoring surveys shall be conducted during years 1, 2, 3, 5, 7, and 10. A report documenting the results of annual monitoring shall be submitted to the Executive Director by the end of the first quarter following each year of monitoring. These reports shall utilize the baseline data collected under Condition II-A.3.2 to help determine if the goals and standards have been met. If the goals and performance standards are achieved at the end of the 10 year monitoring period, the final restoration plan will be considered successfully completed and the wetland monitoring program will cease. Except as provided in Condition II-A.3.5, the permittee shall be fully responsible for any failure to meet these goals and standards during the 10 year monitoring period full operational years of SONGS Units 2 and 3. Consistent with the final restoration plan and in consultation with the Executive Director and the Resource Agencies, the permittee may take any steps necessary to meet these goals and standards during the 10 year monitoring period. Upon determining that the goals or standards are not being achieved during the 10 year monitoring period, the permittee and Executive Director shall prescribe remedial measures, after consultation with the permittee-Resource Agencies, 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.*

Response: The staff rejects these amendments because they would lessen the intended effect of the permit in two important ways and are not based on new material information that was unavailable at the time the permit was approved. First, the amendments reduce the length of time monitoring and

remedial action will occur from "the full operating life of SONGS" (~30 years) to 10 years. Regardless of whether or not the restoration is in compliance in year 10, monitoring and responsibility for remediation will cease. If the restoration is not in compliance by year 10 or falls out of compliance beyond year 10 then full mitigation will not be achieved and there would be no mechanism to require the permittee to remediate. Therefore, monitoring and responsibility for remediation should occur for the full operating life of the plant to ensure full mitigation. Second, the amendment takes the responsibility of management and monitoring from the Coastal Commission and gives it to Edison. As discussed in detail in Section 4.5 (Proposed Amendments to Condition D - Administrative structure), the Coastal Commission should have responsibility of the monitoring to ensure unbiased data collection and interpretation.

Amendment 10

3.4. *The method for determining if the performance standards have been attained shall be specified in the Monitoring and Management Plan.* Successful ~~achievement~~ attainment of the performance standards shall ~~(in some cases)~~ be measured relative to *existing literature and data.* ~~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 with the 95% confidence interval) shall be specified in the Monitoring and Management Plan work program.~~

Response: Edison's amendment requires that successful attainment of the performance standards be based on existing data, which excludes the possibility of using concurrent sampling of reference wetlands as a means of evaluating restoration success. The staff and its scientific advisors believe that using existing data to assess compliance of the wetland mitigation project is acceptable only if all of the following criteria are met:

- 1) historical data from relatively undisturbed tidal wetlands in southern California exist for the variables listed as performance standards in the Permit;
- 2) the data were collected using methods similar to those proposed for the restored wetland;
- 3) the data exist for multiple years encompassing a wide range of environmental conditions; and
- 4) the values of the variables listed in the Permit do not vary unpredictably over time.

After review of over 450 references from southern California wetlands the staff found that in no case did the existing data meet all four of the above criteria; frequently the data did not meet any of the criteria. Thus the staff rejects this amendment because it lessens the intended effect of the permit and is not based on new material information that was unavailable at the time the permit was approved.

A major advantage of using concurrent sampling (i.e. simultaneous sampling of reference and restoration sites) over existing data for determining whether performance standards are met is that fluctuations in the restored wetland that are caused by regional changes in the environment (e.g. climate would also be seen in the reference sites. Thus, for example, if environmental forces cause the variables of interest to decrease in value in the restored wetland, the wetland will still be in compliance, because the values of these variables also will have decreased in the reference wetland. This approach assumes that the restored and reference sites will respond in similar ways to given changes in the environment. Available information indicates that natural coastal communities in southern California (including wetlands and reefs) do indeed respond similarly to regional changes in the environment.

Monitoring programs that use concurrent sampling are generally advocated by experts in experimental design and the staff believes that monitoring the restoration and reference sites concurrently is the only scientifically defensible method for assessing compliance of the SONGS mitigation projects. This type of monitoring program insures that criteria (1), (2) and (3) are met. Furthermore, since compliance is assessed using the present day condition of reference sites rather than conditions that existed in the past, it is not necessary for the values of performance standards to remain constant (criterion 4).

Amendment 11

3.4.a. Long-term Physical Standards. *To assure restoration success, the following long-term standards shall be maintained throughout the 10 year monitoring period following construction of the wetland restoration. ~~over the full operative life of SONGS Units 2 and 3.~~*

Response: The staff rejects this amendment because it would lessen the intended effect of the permit by reducing the monitoring period from "the full operating life of SONGS" (~30 years) to 10 years. See response to Amendment 9 above for further discussion of this.

Amendment 12

3.4.a.2. Water Quality. *Water quality variables shall be maintained as specified in the Monitoring and Management Plan [to be specified] shall be similar to reference wetlands.*

Response: The staff rejects this amendment because it would lessen or avoid the intended effect of the permit and is not based on new material information that was unavailable at the time the permit was approved. See response to Amendment 10 above for further discussion of this.

Amendment 13

3.4.a.4. *Habitat Areas. Habitat areas shall be maintained within the range described in the final restoration plan, including allowances for natural succession patterns. The area of different habitats shall not vary by more than 10% from the areas indicated in the final restoration plan.*

Response: The staff would support this change as part of a re-submitted amendment package.

Amendment 14

3.4.b. *Biological Performance Standards. The following biological performance standards shall be used to determine whether the restoration project is successful. These standards shall be achieved within 10 years (or earlier if so specified) following the completion of construction. Table 1, below, indicates suggested sampling locations and methodologies for each of the following biological attributes; actual locations will be specified in the work program Monitoring and Management Plan.*

Response: The staff rejects this amendment because it would lessen the intended effect of the permit by reducing the monitoring period from "the full operating life of SONGS" (~30 years) to 10 years. See response to Amendment 9 above for further discussion of this.

Amendments 15 through 20

3.4.b.1. *Aquatic Organisms Biological Communities. Within 4-10 years of construction, the wetland shall possess a sustainable estuarine community representative of fully tidal Southern California coastal estuaries. Density and diversity standards shall be based on information from the relevant literature sources, wetland-based data, and pre-construction baseline studies gathered at the project site. 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.*

3.4.b.2. *Vegetation. In newly vegetated areas in the final restoration plan, the proportion of total vegetation cover and open space in the marsh shall be 50% vegetation coverage by year 5. By year ten, 90% vegetation coverage must be achieved. Composition of vegetation must be similar to other Southern California tidal wetlands as determined by existing studies, literature, and data. Algae growth shall not reach nuisance conditions or significantly and adversely affect estuarine or marine animal species. 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.~~

3.4.b.3. *Avian Community. Functional habitat shall be adequate to assure that target species (e.g. shore birds, California least tern, Belding's savannah sparrow, etc.) identified in the Final Restoration Plan can utilize the project site.*

~~3.4.b.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.*~~

~~3.4.b.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.*~~

~~3.4.b.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.*~~

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

Table 1: Suggested Sampling Locations

	Salt Marsh Spartina Salicornia Upper			Open Water Lagoon Eelgrass		Mudflat	Tidal 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						

(Table 1 cont.)

4) Repro. suc.	X	X	X				
5) Bird feeding				X		X	X
6) Exotics	X	X	X	X	X	X	X

Response: The staff rejects these amendments because they are not based on new material information that was unavailable at the time the permit was approved and they lessen and avoid the intended effect of the permit because they significantly alter some of the performance standards that the restored wetland is required to meet (by making them more vague and difficult to apply) and they delete others.

Edison deleted several performance standards because it claims that "they are either duplicative of other standards, inappropriate for the San Dieguito site, or cannot be feasibly measured." For the reasons explained below, the staff disagrees with this assessment. In addition, the staff believes that it is inappropriate to tailor the standards too closely to San Dieguito Lagoon because of the possibility that Edison may choose to fulfill some of its wetland mitigation requirement at another site.

Edison's contention that the Reproductive Success standard duplicates the Habitat Areas and Vegetation standards is wrong because it assumes that presence implies local reproductive success. Edison fails to recognize that a sustained vegetative condition in the restored area could result from the importation of seeds that were produced outside the restored area or from vegetative propagation. Reproductive success (as measured by seed set) of certain plant species within the restored site is important because seeds produced within the restoration site will influence populations outside as well as within the restoration site.

Edison eliminated the Canopy Architecture for *Spartina foliosa* standard because it claims that this species was not historically present at San Dieguito Lagoon and that there is insufficient area present at this site to support a viable population of clapper rail, an endangered bird that relies on *Spartina* for nest sites. These claims are untrue. Earlier studies indicate that *Spartina* was present historically at San Dieguito Lagoon (Mudie et al 1976). It was eliminated in 1963, but was successfully reintroduced in 1988 and today its population is still expanding. Although clapper rail home ranges are relatively large (two to four acres in size), only a small part of each home range (< 1 acre) is *Spartina* marsh. Therefore, only a few acres of *Spartina* at

San Dieguito Lagoon may be sufficient to support a significant number of clapper rails.

Edison deleted the Food Chain Support standard because they contend that it: (1) duplicates their proposed Aquatic Organisms and Avian Community standards, (2) it is difficult to measure, and (3) the Commission has not applied this standard to other restoration sites. This claim is untrue on all three accounts. The Food Chain Support standard is intended to measure the utilization of food by birds. No other standard, existing or proposed, explicitly does this. Moreover, bird feeding activity can easily be quantified by trained observers who have had little prior experience. Finally, contrary to Edison's claim, the Commission has applied this standard to other wetland restoration projects. For example, the performance standards for the Humbolt Bay wetland mitigation project (Permit No. 1-94-70) was patterned after SONGS and includes Food Chain Support.

Amendment 21

3.5. *Uncontrollable Forces*

Remediation shall not be required for a failure to achieve any performance standard substantially due to an "uncontrollable force." An uncontrollable force" includes any catastrophic event, unlawful or reasonably unforeseeable act or acts of another, an act of God (such as an earthquake, fire, flood event exceeding the wetland design capacity described in the final restoration plan, hail storm, etc.), or other cause outside the reasonable control of the permittee which could not have been prevented by the permittee using due diligence and taking reasonable actions.

Response: The staff rejects this amendment because it would lessen and avoid the intended effect of the permit and is not based on new material information that was unavailable at the time the permit was approved. Resources will be lost as long as SONGS is operational. Therefore, as long as Edison's mitigation responsibilities consist of restoration (as opposed to monetary restitution), it must be responsible for full mitigation (including remediation) for the operating life of SONGS. In certain very narrowly defined and extreme circumstances, it may be appropriate to provide exceptions to the remediation requirement, but only in the context of a specific wetland restoration plan.

CALIFORNIA COASTAL COMMISSION

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



W4a

November 3, 1995

To: Members of the Commission
From: Peter Douglas, Executive Director
Subject: Southern California Edison's Request to Amend Mitigation Requirements for SONGS

The integrity of Commission decisions and of key Coastal Act policies is at issue here. So is the meaningfulness of an applicant's commitments, responsibilities and obligations to abide by permit conditions knowingly and freely agreed to.

Staff recommendation: The staff recommends that the Commission support the Executive Director's rejection of proposed amendments to the SONGS coastal permit and direct the applicant to implement, without further delay, the permit conditions it agreed to in 1991—permit conditions deemed necessary and appropriate to compensate the public for the loss of significant public marine resources resulting from the operation of SONGS since 1983 and, possibly, for 30 more years. The staff has, many times, made clear to the applicant that some reasonable modifications to the Commission's 1991 coastal permit conditions appear to be appropriate. The far-reaching and drastic revisions proposed by the applicant to reduce its mitigation obligations do *not* fall into that category.

The history of this project is more fully described in the accompanying staff report. However, given the length of time since SONGS was first acted upon by the Commission's predecessor (December 5, 1973) and the complexity of the substantive and procedural issues raised, it is important to highlight and summarize the fundamental elements of that history in this memo. Additionally, major misconceptions about and some unfortunate misrepresentations of facts associated with SONGS have clouded the view of what is really involved here. The key historical facts are vital to provide the perspective that is necessary if all interested parties are to understand and responsibly consider the immediate and relatively narrow issue before the Commission at the November 15 hearing.

Permit denied: On December 5, 1973, the Commission's predecessor, the California Coastal Zone Conservation Commission, acting under the provisions of the California Coastal Zone Conservation Act of 1972 (Proposition 20), *denied* the coastal development permit application for the construction of SONGS units 2 and 3. The vote was 6 in favor and 5 against, with 8 votes required for approval. The coastal permit was denied on many grounds. Primary among them, however, was the certainty of significant adverse impacts on the marine environment. While it was known there would be adverse environmental impacts from the construction and operation of SONGS 2 and 3, the extent of those impacts (i.e., in terms of geographic area, types of marine resources affected, severity of the impacts, individual and cumulative impacts, short-term and long-term impacts) were not understood or known.

Permit revived: The applicant filed suit challenging the Coastal Commission's denial of the permit. The pressure on the one-year-old Commission to reconsider its action was enormous. Since there was no legal procedure to do that, the Commission agreed to a remand of the matter for the pur-

pose of taking another vote on the permit application with the understanding that this time the Commission would not base any part of its decision on considerations of nuclear safety—an issue determined to have been preempted by the federal government.

Permit approved: On February 20, 1974, by a 10 to 2 vote, the Commission *approved* the coastal permit for the construction and operation of SONGS units 2 and 3, *subject* to extensive conditions intended to mitigate for the project's many adverse environmental impacts. In approving the permit, the Commission clearly recognized that public resources would be adversely affected by the project. The trade-offs for approval were that known adverse impacts would be immediately mitigated (i.e., public access, construction impacts on site, and issues relating to plant reliability) and unknown, potential impacts would be studied and mitigated *at some point in the future*. In other words, even though public natural resources (i.e., the marine environment) would be lost immediately by allowing the project to proceed, compensation to the public for such losses would not be provided until some indefinite time in the future.

Permit conditions agreed to and accepted by the applicants: The most significant permit conditions required by the Commission *and agreed to by the applicant* in 1974 involved the establishment and conduct of a "comprehensive and continuing study of the marine environment offshore from San Onofre ... to predict, and later to measure, the effects of San Onofre Units 2 and 3 on the marine environment..." A key element of the study was that it was to be carried out by an independent group of scientists (the Marine Review Committee or MRC) in order to ensure objectivity and credibility. The conditions required that if the independent study identifies substantial adverse environmental effects, those effects must be mitigated by the applicant (i.e., avoided or, if they cannot be avoided, compensated for). The Commission made clear that mitigation could go so far as to include the use of cooling towers—a very expensive alternative to the use of seawater for power plant cooling.

Avoiding the costs of delaying the approval of SONGS 2 and 3: One of the compelling arguments made by the applicant for approval *in advance* of the Commission knowing the nature and extent of the adverse impacts on the marine environment *and before* the mitigation for those impacts had been specified, was the cost of delay. The applicant argued that each week of delay would cost \$1.5 million. There can be no doubt that it was the avoidance of high costs associated with delays that played a significant role in causing the applicant to agree to fund the MRC study *and* to carry out whatever mitigation or compensation requirements the Commission might subsequently impose. As a result of the Commission's action, the applicant was permitted to go forward with its project while *postponing* the costs of mitigation for adverse effects on public resources.

The MRC study: The MRC did what it was asked to do and conducted a comprehensive study of the actual and predicted adverse impacts on the marine environment as a result of the operation of SONGS. Given the scope of its studies, the scientific methods used, and the complexity of the issues, the work of the MRC was brought to a conclusion at a relatively reasonable cost of approximately \$48 million. As is the nature of these kinds of studies and in cases where impacts are ongoing and environmental conditions are dynamic, the MRC could have, at considerable additional cost, continued its studies for a much longer period. However, the Commission, *with the strong urging of the applicant*, decided to terminate the work of the MRC and to specify, based on MRC recommendations, the mitigation and compensation measures required to offset the adverse effects of SONGS on the marine environment.

Delayed compensation to the public for past and continuing losses of marine resources agreed to by the applicant: Commission staff expended enormous efforts working with the applicant to prepare a mitigation/compensation report for Commission consideration in 1991. Staff recommendations and the Commission's final action in 1991, included a combination of mitigation measures that were deemed necessary and appropriate to compensate the public for past, present and future losses of marine resources resulting from the operation of SONGS. The components of

the mitigation/compensation package were carefully crafted and considered by the Commission. The applicant participated extensively in these proceedings and *agreed* to the final conditions adopted by the Commission.

Bringing the question of mitigation/compensation for the loss of public resources to closure and abiding by the agreement and commitments made in 1991: Tradeoffs were consciously and deliberately made in 1974 and again in 1991. A line was drawn, decisions were made based on sound scientific information, and commitments were made and mutually agreed to. All parties should be expected to stick to these commitments. It is in the nature of compromises and settlements of complex disputes that one or another party, at some point in the future, has doubts about the merits of prior agreements and commitments. That is clearly the case here where, given the wisdom born of hindsight, staff suspects all parties can identify some aspects of the mitigation package adopted in 1991 that could and, perhaps, should have been crafted differently. As was stated before, certain relatively minor revisions to the 1991 permit conditions appear to the staff to be reasonable and do not, in our view, violate the substance or spirit of past commitments made by the Commission on behalf of the public and by the applicant. However, the wholesale changes now being sought by the applicant clearly go far beyond what staff, in discussions with the applicant, had identified as "reasonable" and probably appropriate changes. If the Commission, representing the public's interest and as the guardian of the integrity of the Coastal Act, is expected to adhere to its previous decisions and actions, as it rightly should be, the applicant must be held to a similar standard.

Costs to the public versus costs to the applicant: The applicant makes much of the costs it has incurred in connection with the SONGS permit approved in 1974. What is *not* mentioned are the major but unquantifiable costs the *public* has been asked to absorb from the loss of significant marine resources since SONGS units 2 and 3 began operating in 1983. The fact is, the applicant has realized the economic benefits of the coastal permit while the public has *not* been compensated in any substantial way (notwithstanding the completion of the white seabass hatchery) for the extensive destruction of marine resources over the past 12 years. Indeed, staff knows of no other permit applicant, public or private, who has received similar favorable treatment under the Coastal Act or its predecessor statute at such substantial public expense. On closer examination and when viewed in perspective, the applicant's costs are not inordinate or unusual—except perhaps those costs associated with efforts to be relieved from many of the mitigation requirements. The staff report discusses this point in greater detail.

Implications of reopening the permit: If the permit conditions relative to mitigation measures are reopened in any substantial way, other aspects of the permit must be reopened as well. For example, recent evidence indicates that the adverse impact on fish is much greater than had been projected and suggests the need for a substantially larger wetland restoration project. It defies logic and is contrary to responsible stewardship of public resources to reopen this permit and then ignore issues that involve public costs and look only at those that would benefit the applicant. In addition, given the history of this project and the manner in which data and mitigation recommendations were generated, staff would strongly recommend the need for independent scientific inquiry and review of the issues in order to ensure objectivity and public confidence in subsequent decisions that may be made.

Conclusion: A deal is a deal and all parties should be held to their commitments. Obviously, if there are compelling reasons that meet the legal standard for revising prior Commission actions, consideration of reasonable and appropriate changes is in order. That is *not* the case here.