SUPPORTING DOCUMENT NO. 9

ITEM 8

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2004 - 0052

APPROVING AN EXCEPTION TO THE CALIFORNIA OCEAN PLAN (OCEAN PLAN) FOR THE UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY DISCHARGE INTO THE SAN DIEGO MARINE LIFE REFUGE AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE AND ADOPTING A MITIGATED NEGATIVE DECLARATION (part 1 / part 2)

WHEREAS:

1. The State Water Resources Control Board (State Board) adopted the Ocean Plan on July 6, 1972 and revised it in 1978, 1983, 1988, 1990, 1997, and 2000.
2. The Ocean Plan states that waste shall not be discharged to areas designated as being of special biological significance.
3. The waters of the San Diego Marine Life Refuge have been designated as an area of special biological significance (ASBS).
4. Public Resources Code (PRC) section 36750 provides that, as of January 1, 2003, all ASBS are now included in the category State Water Quality Protection Areas (SWQPAs).
5. PRC section 36700 (f) defines an SWQPA as "a nonterrestrial marine or estuarine area designated to protect marine species or biological communities from an undesirable alteration in natural water quality, including, but not limited to, areas of special biological significance that have been designated by the State Water Resources Control Board through its water quality control planning process."
6. The University of California San Diego Scripps Institution of Oceanography (UCSD/SIO) and its Stephen Birch Aquarium (Birch Aquarium) discharge waste seawater, at times co-mingled with urban runoff, into the San Diego Marine Life Refuge ASBS and up-coast of the adjoining San Diego-La Jolla Ecological Reserve ASBS.
7. There are other locations along the coastline of the San Diego Marine Life Refuge ASBS where urban runoff drains from UCSD/SIO into the ASBS. This action covers all discharges from UCSD/SIO into the ASBS, including all storm water discharges whether co-mingled with waste seawater or not.
8. Exceptions to the Ocean Plan may be granted by the State Board provided that (a) the exception will not compromise protection of ocean waters for beneficial uses, and (b) the public interest will be served.
9. The UCSD/SIO has requested an exception to the Ocean Plan's prohibition against discharges to ASBS for waste discharges from its facilities.
10. The discharge of copper when used as a treatment additive in the UCSD/SIO open seawater system is undesirable and should be eliminated.
11. The San Diego Regional Water Quality Control Board (Regional Board) has reviewed this exception request and has recommended that the exception be granted.
12. The Regional Board is proposing to issue a National Pollutant Discharge Elimination System (NPDES) permit for the discharges which is contingent upon this exception being granted by the State Board and approved by the U.S. Environmental Protection Agency (USEPA).
13. The Regional Board Executive Officer has concluded, and the State Board concurs, that if the proposed discharge of wastewater complies with the conditions to be set forth in the NPDES permit,

it will not adversely impact biological communities in the ASBS nor will it compromise protection of ocean waters for beneficial uses.

14. The UCSD/SIO occupies a leading role in marine research, with important applications in the fields of medicine and the environment. Its Birch Aquarium is an extremely valuable education resource, serving 400,000 visitors a year. The UCSD/SIO research activities and the Birch Aquarium both depend on the use of the open seawater system. If the exception is not granted, UCSD/SIO will be forced to shut down its open seawater system. The State Board therefore finds that the public interest will be served by granting this exception.

15. The State Board prepared and circulated an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed exception in accordance with the California Environmental Quality Act and the California Code of Regulations, Title 14, section 15070. The State Board finds, based on the whole record, including the IS/MND and comments received, that there is no substantial evidence that approval of the exception will have a significant effect on the environment because of the terms and conditions that have been incorporated into the project. The MND reflects the State Board's independent judgment and analysis.

16. The proposed exception will not violate the State Board Resolution No. 68-16 (Antidegradation Policy); the discharge will not unreasonably affect present and anticipated beneficial uses; the discharge will not result in water quality lower than that prescribed in the Ocean Plan; and, the people of California will benefit from the research and education provided by UCSD/SIO while beneficial uses will still be protected.

17. The proposed exception will not violate federal antidegradation requirements because approval of the exception will not lower water quality.

18. The State Board held a public hearing on July 7, 2004 to consider comments on the proposed exception and the IS/MND.

19. The exception will be reviewed during the Triennial Review of the Ocean Plan. If the State Board finds cause to revoke or re-open this exception, it may do so during the Triennial Review or at any other time that it so desires.

20. The State Board's record of proceedings in this matter is located at 1001 I Street, Sacramento, California and the custodian is the Division of Water Quality.

THEREFORE BE IT RESOLVED THAT:

The State Board:

1. Adopts the Mitigated Negative Declaration for the proposed exception.

2. Approves an exception to the Ocean Plan prohibition against discharges to the San Diego Marine Life Refuge ASBS to the UCSD/SIO for discharges of waste seawater, wet weather urban runoff from its seawater system outfalls, and any other urban runoff discharges.

3. The exception is conditioned on compliance by UCSD/SIO with its NPDES permit. Upon renewal of the current permit, the following conditions will be included in the re-issued permit:

a. The discharge must comply with all other applicable provisions, including water quality standards, of the Ocean Plan. Natural water quality conditions in the receiving water, seaward of the surf zone, must not be altered as a result of the discharge. The surf zone is defined as the area between the

breaking waves and the shoreline at any one time. Natural water quality will be defined, based on a review of the monitoring data, by an advisory committee created by the Chief of the Division of Water Quality of the State Board, and composed of State and Regional Board staff, a representative from UCSD/SIO, and two scientists selected by Regional Board staff from some other academic organizations other than UCSD/SIO. At a minimum the advisory committee must meet annually to review the monitoring data and to advise the Regional Board whether or not natural water quality is being altered in the ASBS as a result of the UCSD/SIO discharges.

b. UCSD/SIO must minimize concentrations of chemical additives, including antibiotics, in the effluent. Formalin shall not be discharged to the ocean. The use of copper as a treatment additive in the open seawater system must be eliminated as soon as practicable; alternatively the discharge of copper additives must be eliminated as soon as practicable through the treatment of effluent prior to discharge. All additives to the seawater at the Birch Aquarium must be minimized to prevent the alteration of natural water quality conditions in the receiving water. In addition and at a minimum, UCSD/SIO must comply with effluent limits implementing Table B water quality objectives as required in Section III.C. of the Ocean Plan. Furthermore, UCSD/SIO must submit a report to the Regional Board within six months of permit re-issuance evaluating alternatives and associated costs, and the feasibility of such alternatives, to the current discharges to the ASBS. The report must include, but not be limited to, alternatives such as partial or complete diversion to sewer, alternative treatment techniques, pollutant minimization, and source control to eliminate the discharge of copper, and to reduce the discharge of other antibiotics and treatment additives. The report must also include a discussion of alternatives, associated costs and feasibility of moving the waste seawater outfalls to locations outside of the ASBS.

c. Effluent and receiving water analysis for copper must employ the approved analytical method with the lowest minimum detection limits (currently Inductively Coupled Plasma/ Mass Spectrometry).

d. A quarterly report of all chemical additives discharged via waste seawater must be submitted in the quarterly monitoring report to the Regional Board.

e. Flow measurements (using a flow metering device) for Outfall 001, and estimates for all other permitted outfalls, must be made and reported quarterly to the Regional Board.

f. By January 1, 2007, UCSD/SIO must eliminate all discharges of non-storm water urban runoff (i.e., any discharge of urban runoff to a storm drain that is not composed entirely of storm water), except those associated with emergency fire fighting.

g. UCSD/SIO must specifically address the prohibition of non-storm water urban runoff and the reduction of pollutants in storm water discharges draining to the ASBS in a revised Storm Water Management Plan/Program (SWMP). UCSD/SIO is required to submit its revised SWMP to the Regional Board within six months of permit issuance. The SWMP is subject to the approval of the Regional Board.

h. The revised SWMP must include a map of all entry points (known when the SWMP is prepared) for urban runoff entering the UCSD/SIO drainage system. The SWMP must also include a procedure for updating the map and plan when other entry points are discovered.

i. The revised SWMP must describe the measures by which non-storm water discharges will be eliminated and interim measures that will be employed to reduce non-storm water flows until the ultimate measures are implemented.

j. The revised SWMP must also address storm water discharges and how pollutants will be reduced in storm water runoff into the ASBS through the implementation of Best Management Practices (BMPs). The SWMP must describe the BMPs and include an implementation schedule. The implementation schedule must be designed to ensure an improvement in receiving water quality each year (over the permit cycle) due to either a reduction in storm water discharges (due to diversion) or reduction in pollutants (due to on-site treatment or other BMPs). The implementation schedule must be developed to ensure that non-structural BMPs are implemented within one year of the approval date of the revised SWMP by the Regional Board.

k. Once every permit cycle, a quantitative survey of benthic marine life must be performed. The Regional Board, in consultation with the State Board Division of Water Quality, must approve the survey design. The results of the survey must be completed and submitted to the Regional Board within six months before the end of the permit cycle.

l. Once during the upcoming permit cycle, a bioaccumulation study using sand crabs (*Emerita analoga*) and mussels (*Mytilus californianus*) must be conducted to determine the concentrations of metals near field and far field (up and down coast, and offshore) in the ASBS. The Regional Board, in consultation with the Division of Water Quality, must approve the study design. The results of the survey must be completed and submitted to the Regional Board at least six months prior to the end of the permit cycle (permit expiration). Based on the study results, the Regional Board, in consultation with the Division of Water Quality, may limit the bioaccumulation test organisms, required in subsequent permits, to only sand crabs or mussels.

m. The effluent from Outfall 001 must be sampled and analyzed monthly for copper concentrations. If after UCSD/SIO has demonstrated that copper as a treatment additive has been eliminated from the discharge into the ASBS, the Regional Board in consultation with the State Board Division of Water Quality may reduce the frequency of monitoring for copper in the effluent.

n. During the first year of the permit cycle, two samples must be collected from Outfall 001 (once during dry weather and once during wet weather) and analyzed for all Ocean Plan Table B constituents. During the first year of the permit cycle, two composite samples must also be collected (once during dry weather and once during wet weather) representing flows from Outfalls 002, 003, 004A, and 004B; these two composite samples must also be analyzed for all Ocean Plan Table B constituents. For wet weather samples from Outfall 001 and for the wet weather composite sample from Outfalls 002, 003, 004A, and 004B, the effluent samples must also be analyzed for Ocean Plan indicator bacteria. Based on these results, the Regional Board will determine the frequency of sampling (at a minimum, annually) and the constituents to be tested during the remainder of the permit cycle, except that chronic toxicity must be tested at least twice annually.

o. Twice annually, once during dry weather and once during wet weather, the receiving water and sediment in the vicinity of the UCSD/SIO pier must be sampled and analyzed for Ocean Plan Table B constituents. Receiving water must also be monitored for compliance with Ocean Plan bacterial water quality objectives. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed. All other Table B constituents must be analyzed during the first year. The Regional Board will determine the sample location(s) seaward of the surf zone. Based on the first year sample results, the Regional Board will determine specific constituents to be tested during the remainder of the permit cycle, except that copper and chronic toxicity for water must be tested twice annually, and copper and acute toxicity for sediment must be tested annually.

p. If the results of receiving water monitoring indicate that wet weather discharges that include storm water are causing or contributing to an alteration of natural water quality in the ASBS, UCSD/SIO is required to submit a report to the Regional Board within 30 days. Those constituents in storm water that alter natural water quality must be identified in that report. The report must describe BMPs that are currently being implemented, BMPs that are planned for in the SWMP, and additional BMPs that may be added to the SWMP. The report shall include a new or modified implementation schedule. The Regional Board may require modifications to the report. Within 30 days following approval of the report by the Regional Board, UCSD/SIO must revise its SWMP to incorporate any new or modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required. Implementation of BMPs must be within one year of the approval by the Regional Board of the revised SWMP. The Regional Board may, for good cause, approve a longer time period for structural BMPs.In any event a schedule longer than one year must be as short as practicable, as determined by the Regional Board. As long as UCSD/SIO has complied with the procedures described above and is implementing the revised SWMP, then UCSD/SIO does not have to repeat the same procedure for continuing or recurring exceedances of the same constituent.

q. A study must be performed to determine the initial dilution and fate of the discharge during storms (larger waves and lower salinity discharge) and non-storm periods (smaller waves and higher salinity discharge). The study may be empirical (e.g., a dye study) and/or using a model.

r. In addition to the bacterial monitoring requirements in the Ocean Plan, indicator bacteria and total residual chlorine must be tested once monthly in the effluent from Outfall 003, draining the marine mammal holding facility, when in use.

s. UCSD/SIO must develop and implement administrative and/or engineering controls that result in a negligible risk of the release of exotic species, including foreign pathogens (parasites, protozoa, bacteria, and viruses).

4. Authorizes the Executive Director or designee to transmit the exception and administrative record for this action to the USEPA for approval.
5. Authorizes the Executive Director or designee to file the Notice of Determination with the Governor's Office of Planning and Research.

IT IS FURTHER RESOLVED THAT this exception shall expire at the end of the five-year term of the Scripps permit that incorporates the conditions in this resolution.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on July 22, 2004.

Debbie Irvin
Clerk to the Board