

**STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2007-0058**

APPROVING AN EXCEPTION TO THE CALIFORNIA OCEAN PLAN FOR THE
UNIVERSITY OF CALIFORNIA DAVIS BODEGA MARINE LABORATORY DISCHARGE
INTO THE BODEGA AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE,
INCLUDING SPECIAL PROTECTIONS TO PROTECT BENEFICIAL USES,
AND APPROVING A MITIGATED NEGATIVE DECLARATION

WHEREAS:

1. The State Water Resources Control Board (State Water Board) adopted the California Ocean Plan (Ocean Plan) on July 6, 1972 and revised the plan in 1978, 1983, 1988, 1990, 1997, 2000, and 2005.
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 Bodega Head 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 Marine Managed Area 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 Board through its water quality control planning process.”
6. The University of California Davis (UCD) Bodega Marine Lab (BML) discharges waste seawater and storm water runoff into the Bodega ASBS. This action covers all discharges from UCD/BML into the ASBS, including all seawater point source discharges, storm water discharges, and nonpoint source discharges.
7. The State Water Board may grant exceptions to the Ocean Plan provided that (a) the exception will not compromise protection of ocean waters for beneficial uses, and (b) the public interest will be served.
8. The UCD/BML has requested an exception to the Ocean Plan’s prohibition against discharges to ASBS for waste discharges from its facilities.
9. The staff of the North Coast Regional Water Quality Control Board (North Coast Water Board) has reviewed this exception request and has recommended that the exception be granted.
10. The North Coast Water 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 Water Board.

11. The North Coast Water Board is in support of the exception. If UCD/BML complies with the conditions in the exception, to be set forth in the NPDES permit, the discharges will not adversely impact biological communities in the ASBS nor will the discharges compromise protection of ocean waters for beneficial uses.
12. The UCD/BML occupies a prominent role in marine science research and education, providing programs and facilities to UCD and non-UCD scientists and students and visitors from many other institutions. The UCD/BML research activities and teaching laboratory aquaria both depend on the use of the flow-through (open) seawater system. There are no reasonable alternatives to ocean disposal of waste seawater due to the remote location of the facility. If the exception is not granted, UCD/BML will be forced to shut down its open seawater system. The State Water Board therefore finds that the public interest will be served by granting this exception.
13. The State Water Board prepared and circulated an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed exception in accordance with the California Environmental Quality Act (CEQA) and the California Code of Regulations, Title 14, Section 15070.
14. The State Water Board held a public hearing on July 30, 2007 to consider comments on and minor revisions to the proposed exception and the IS/MND. The written comment period ended on July 31, 2007. Based on the comments received, staff prepared a formal response to comments. The State Water Board finds, based on the whole record, including the IS/MND, comments received, and the response to comments, 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 Water Board's independent judgment and analysis.
15. The waste seawater discharge from the BML has been permitted since 1975. The North Coast Water Board has stated that UCD/BML has maintained a record of good compliance. Since the *Final Report on Discharges into State Water Quality Protection Areas* was published in 2003, BML has implemented best management practices and engineering modifications to control storm water runoff. Furthermore, the MND and exception contain sufficient measures to maintain and protect water quality. The conditions require that natural water quality in the receiving water be maintained and require both receiving water and reference water monitoring to ensure that this condition is met. In addition, the seawater effluent discharge must meet the Ocean Plan Table B objectives at the end-of-pipe. The conditions prohibit non-storm water facility runoff except for flows associated with emergency fire fighting. Further, the MND must develop a storm water management plan that is designed to ensure that natural water quality conditions are maintained in the receiving water; the plan must be approved by the North Coast Water Board; and the plan must be implemented within one year of the date of approval by the North Coast Water Board.

Recent actions by UCD/BML and the conditions specified in the MND and exception will improve water quality over previously permitted levels. Federal and state antidegradation policies have been considered. Granting the exception will not violate federal antidegradation requirements because water quality will not be lowered, but rather will be improved. Allowance of the exception will not violate the State Water Board's antidegradation policy (Resolution No. 68-16) since water quality conditions will improve; 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 UCD/BML while beneficial uses will still be protected.

16. The exception will be reviewed during the Triennial Review of the Ocean Plan. If the State Water 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.
17. The State Water 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:

The State Water Board:

1. Adopts the [Mitigated Negative Declaration](#), with revisions proposed by staff, for the proposed exception.
2. Approves an exception to the Ocean Plan prohibition against discharges to the Bodega ASBS from the UCD/BML for discharges of waste seawater and storm water discharges. The exception is conditioned on compliance by UCD/BML with its NPDES permit(s). The following conditions must be implemented through an NPDES permit(s) issued by the North Coast Water Board:
 - 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 Regional Water Quality Control Board (North Coast Water Board) staff in consultation with the State Water Board's Division of Water Quality. For constituents other than indicator bacteria, natural water quality will be determined using the reference station in the ocean near Mussel Point. For indicator bacteria, the Ocean Plan bacteria objectives will be used.
 - b. UCD/BML shall not discharge any constituents at levels in excess of the objectives in Table B water quality objectives as required in Section III.C. of the Ocean Plan. Chemical additives, including but not limited to antibiotics, shall not be discharged in the seawater system effluent. UCD/BML must minimize its discharge of halomethanes and total residual chlorine (TRC).
 - c. UCD/BML shall continuously monitor TRC. The reporting limit for continuous TRC monitoring shall be 50 µg/L or as low as is technically feasible. Alternatively UCD/BML shall continuously monitor sulfite as a proxy for assuring that the discharge meets TRC effluent limits. In addition, bench top TRC measurements shall be performed at least once monthly with a minimum method detection limit of 10 µg/L TRC and a reporting limit of 13 µg/L. The North Coast Water Board, in consultation with the State Water Board's Division of Water Quality, may revise these requirements in the Monitoring and Reporting Program of the NPDES Permit.

- d. For metals analysis, waste seawater effluent, storm water effluent, reference samples, and receiving water samples must be analyzed by the approved analytical method with the lowest minimum detection limits (currently Inductively Coupled Plasma/Mass Spectrometry) described in the Ocean Plan.
- e. The seawater system will not flow at a rate greater than 1.5 mgd. Flows for the waste seawater effluent and storm water runoff (by storm event) must be reported at least quarterly to the North Coast Water Board. The storm water runoff may be calculated, rather than measured directly, using a method approved by the North Coast Water Board.
- f. Freshwater discharged from the Salmon Research Facility must be discharged to a groundwater recharge area in the sand dunes adjacent to the laboratory and not to the marsh or the ASBS.
- g. UCD/BML must continue to prevent all discharges of non-storm water facility runoff (i.e., any discharge of facility runoff that reaches the ocean that is not composed entirely of storm water), except those associated with the waste seawater system and emergency fire fighting.
- h. UCD/BML must specifically address the prohibition of non-storm water runoff and the reduction of pollutants in storm water discharges draining to the ASBS in a Storm Water Management Plan/Program (SWMP). UCD/BML is required to submit it's final SWMP to the North Coast Water Board.
- i. The SWMP must describe the measures by which non-storm water discharges have been eliminated, how these measures will be maintained over time, and how these measures are monitored and documented.
- j. The SWMP must include a map of surface drainage of storm water runoff, including areas of sheet runoff, and any structural Best Management Practices (BMPs) employed. The map must also show the storm water conveyances in relation to other facility features such as the laboratory seawater system and discharges, service areas, sewage treatment, and waste and hazardous materials storage areas. The SWMP must also include a procedure for updating the map and plan when other changes are made to the facilities.
- k. The SWMP must also address storm water discharges, and how pollutants have been and will be reduced in storm water runoff into the ASBS through the implementation of BMPs. The SWMP must describe the BMPs currently employed and BMPs planned (including those for construction activities) and an implementation schedule. The BMPs and implementation schedule must be designed to ensure natural water quality conditions in the receiving water due to either a restriction of flows from impervious surfaces, or reduction in pollutants, or some combination thereof. The BMPs must include the measures taken to prevent the runoff of herbicides or pesticides, from BML and the Reserve, into the ASBS. The implementation schedule must be developed to ensure that the BMPs are implemented within one year of the approval date of the SWMP by the Regional Water Board.

- l. At least once every permit cycle (every five years), a quantitative survey of intertidal benthic marine life must be performed near the discharge and at a reference site. The North Coast Water Board, in consultation with the State Water Board's Division of Water Quality, must approve the survey design. The results of the survey must be completed and submitted to the North Coast Water Board at least six months prior to the end of the permit cycle. Furthermore, any data from other intertidal and subtidal surveys performed by researchers in the ASBS must be reported to the State and North Coast Water Boards.
- m. Once during the upcoming permit cycle, a bioaccumulation study using resident California mussels (*Mytilus californianus*) must be conducted to determine the concentrations of metals near field (outfall station) and far field (Mussel Point). The Regional Water Board, in consultation with the State Water Board's Division of Water Quality, must approve the study design. The results of the survey must be completed and submitted to the Regional Water Board at least six months prior to the end of the permit cycle (permit expiration). Based on the study results, the Regional Water Board, in consultation with the State Water Board's Division of Water Quality, may adjust the study design in subsequent permits, or add additional test organisms.
- n. During the first year of each permit cycle, at least two effluent samples must be collected from the waste seawater discharge (with at least one collected during dry weather and one collected during wet weather, i.e., a storm event). In addition, reference samples must also be collected along with the effluent samples. Reference samples will be collected in the ocean at a station near Mussel Point. Samples collected at the reference station will represent natural water quality for all Ocean Plan constituents. Wet weather samples at the reference station may be collected immediately following a storm event, but in no case more than 24 hours after, if sampling conditions are unsafe during the storm. All of these samples must be analyzed for all Ocean Plan Table B constituents, pH, salinity, and temperature. Based on the results from the first year, the North Coast Water Board will determine the frequency of sampling (at a minimum, once annually during wet weather) and the constituents to be tested during the remainder of the permit cycle, except that halomethanes, residual chlorine, ammonia nitrogen, pH, salinity, and temperature must be tested at least monthly, and Ocean Plan metals and chronic toxicity (three species initially and thereafter the most sensitive species) must be tested at least annually for the waste seawater effluent.
- o. At least once annually, during wet weather (i.e. storm event), the runoff from the outfall draining the marsh, and the receiving water adjacent to the storm water marsh outfall, in Horseshoe Cove, must be sampled and analyzed for Ocean Plan Table B constituents. The storm water runoff and the Horseshoe Cove receiving water must also be monitored for Ocean Plan indicator bacteria water quality objectives. The sample location for the receiving water will be immediately seaward of the surf zone in Horseshoe Cove adjacent to the outfall location. Storm water runoff and Horseshoe Cove receiving water must be sampled at the same time as the wet weather seawater effluent and reference sampling effort described in condition 14 above. Based on the first year sample results the North Coast Water Board will determine specific constituents in the storm water runoff and receiving water (that were at or above Table B objectives) to be tested during the remainder of the permit cycle, except that chronic toxicity (three species initially and thereafter the most sensitive species) for receiving water must be tested annually during a storm event.

- p. Once annually, the subtidal sediment in Horseshoe Cove must be sampled and analyzed for Ocean Plan Table B constituents. For sediment toxicity testing, an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed during the first year of the permit cycle. Based on the first year sample results, the North Coast Water Board will determine specific constituents in the sediment to be tested during the remainder of each permit cycle, except that acute toxicity for sediment must be tested annually. Participation in a collaborative regional or statewide ASBS monitoring effort is encouraged. After the first year of monitoring results are reviewed, the Regional Water Board, in consultation with the State Water Board's Division of Water Quality, may adjust the sediment, receiving water, and bioaccumulation monitoring required under this exception, based on UCD/BML's participation in an appropriate regional or statewide monitoring program.
- q. If the results of Horseshoe Cove receiving water monitoring indicate that the storm water runoff is causing or contributing to an alteration of natural water quality in the ASBS, as measured at the reference station at Mussel Point, UCD/BML is required to submit a report to the North Coast Water Board within 30 days of receiving the results. Those constituents in storm water that alter natural water quality or receiving water objectives 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 North Coast Water Board may require modifications to the report. Within 30 days following approval of the report by the North Coast Water Board, UCD/BML 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. As long as UCD/BML has complied with the procedures described above and is implementing the revised SWMP, then UCD/BML does not have to repeat the same procedure for continuing or recurring exceedances of the same constituent.
- r. UCD/BML must pursue and implement a program for prevention of Biological Pollutants (non-native invasive species) in consultation with the California Department of Fish and Game Marine Resources Division. This program must be submitted to the State and North Coast Water Board no later than two years following the approval of this Exception. Any non-native species found in the ASBS must be reported to the State and Regional Water Board and the California Department of Fish and Game.
- s. UCD/BML shall prepare a waterfront and marine operations non-point source management plan containing appropriate management practices to address non-point source pollutant discharges. The Plan must address the current prohibition on launching motorized vessels, restrictions on motor vehicles, and other appropriate management measures including those described in the State's Non-point Source Program Implementation Plan for marinas and recreational boating, as applicable. The North Coast Water Board, in consultation with the State Water Board's Division of Water Quality, will review the plan. Non-point source discharges will be appropriately regulated by the North Coast Water Board in accordance with the State Water Board's Policy for Implementation and Enforcement of the Non-point Source Pollution Control Program. The waterfront plan must be implemented within six months of its approval.

- t. UCD/BML will notify the North Coast Water Board within 180 days prior to any construction activity that could result in any discharge or habitat modification in the ASBS. Furthermore, UCD/BML must receive approval and appropriate conditions from the North Coast Water Board prior to performing any significant modification, re-building or renovation of the water front facilities, including the boat launch, according to the requirements of Section III.E.2 of the Ocean Plan.
 - u. The North Coast Water Board will include all the above listed mitigating conditions in one National Pollutant Discharge Elimination System permit that regulates both the seawater effluent and storm water. Alternatively, the North Coast Water Board may regulate the storm water discharge in a storm water NPDES permit and, in that case would include those conditions relative to storm water in that storm water NPDES permit. In the latter case, all conditions would be included, in some combination, in the waste seawater effluent permit and the storm water permit, and through its SWMP.
- 3. Authorizes the Executive Director or designee to transmit the exception to the U.S. Environmental Protection Agency (U.S. EPA) for approval.
 - 4. Authorizes the Executive Director or designee to file the Notice of Determination with the Governor's Office of Planning and Research.

CERTIFICATION

The undersigned, Acting 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 September 18, 2007.

AYE: Tam M. Doduc
 Gary Wolff, P.E., Ph.D.
 Arthur G. Baggett, Jr.
 Frances Spivy-Weber
 Charles R. Hoppin

NO: None

ABSTAIN: None

ABSENT: None



Jeanine Townsend
Acting Clerk to the Board