

EXECUTIVE OFFICER SUMMARY REPORT
November 8, 2006

ITEM: 7

SUBJECT: New NPDES Permit: Waste Discharge Requirements for the San Diego State University Research Foundation, Coastal Waters Laboratory, Discharge to San Diego Bay. (Tentative Order No. R9-2006-0088, NPDES Permit No. CA0109231) (*Victor Vasquez*)

PURPOSE: To adopt waste discharge requirements and NPDES permit for the disposal to San Diego Bay of up to 0.18 million gallons per day, calendar monthly average, of untreated waste seawater from flow-through aquaria at the San Diego State University Research Foundation (SDSURF, Discharger) Coastal Waters Laboratory (CWL).

PUBLIC NOTICE: The NPDES permit hearing notice was published in The San Diego Union-Tribune newspaper on October 2, 2006 for the Regional Board meeting scheduled for November 8, 2006. Copies of the tentative Order were mailed on October 3, 2006 to SDSURF and to all known interested parties and agencies. Copies were made available for public review at the Regional Board office on October 3, 2006. The tentative Order was posted on the Regional Board website on October 4, 2006.

DISCUSSION: SDSURF owns and operates the CWL, a non-commercial aquatic research facility. Academic research at CWL will focus on environmental and ecological problems caused by urbanization in the coastal environment at the land-water interface. The CWL will draw seawater from an extension of San Diego Bay commonly known as the Navy Training Center (NTC) Boat Channel for use in maintaining flow-through aquaria used for research at CWL. In a flow-through aquarium, fresh intake water is continuously pumped into aquarium tanks and discharged from the tanks at similar flowrates.

The daily flowrate of seawater through the CWL will be a monthly average of 0.18 MGD with a maximum one-day flow capacity of 0.288 MGD. The CWL will discharge

waste seawater without prior treatment to the NTC Boat Channel extension of San Diego Bay, a water of the United States. Waste seawater quality is expected to be similar to the intake water quality; however, uneaten food and animal wastes may contribute organic carbon and nutrients to the NTC Boat Channel. The Discharger has stated that no additives or chemicals will be added to seawater used at CWL.

The NTC Boat Channel is a tidally-influenced modified natural channel that was historically one of the outlets of the San Diego River to San Diego Bay before the river was permanently routed to discharge only to Mission Bay and subsequently to the San Diego River flood control channel. The NTC channel is located at the boundary between Hydrologic Subareas (HSA) 908.1 and 908.2 and west of San Diego International Airport (see Supporting Document 1). The NTC channel runs approximately north-east and is approximately 1,600 feet long and 350-400 feet wide. Available information indicates that circulation and tidal exchange in the channel is limited under certain conditions. The CWL waste seawater discharge point is approximately 500 feet from the channel mouth.

The waste discharge requirements (WDRs) contained in tentative Order No. R9-2006-0088 for the discharge of waste aquaria seawater are based on the 1994 *Water Quality Control Plan for the San Diego Basin*; the California Toxics Rule; the 2005 *Policy for Implementation of Toxics Standards for Inland Surface Water, Enclosed Bays, and Estuaries of California*; the 1972 *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California*; and the *Water Quality Control Policy for Enclosed Bays and Estuaries of California*. The tentative Order includes technology-based effluent limitations for biochemical oxygen demand, total suspended solids and total nitrogen based on proper management, operation, and maintenance practices to control the discharge of solids. Water quality-based effluent limitations for pH, total phosphorus, and turbidity are included in the tentative Order based on the potential of the discharge to contribute to an exceedance of water quality objectives for these parameters.

To date, no comments on the tentative Order have been received; however, the Discharger has indicated it will be submitting comments. All comments received will be considered, and responses to comments will be prepared and provided to the Regional Board members in the second agenda mailing and to the Discharger and other interested parties. If necessary, an errata sheet containing proposed revisions to the tentative Order in response to comments received and for other reasons will be prepared and provided to the Regional Board members in the second agenda mailing and to the Discharger and other interested parties.

KEY ISSUES:

There are several aquarium facilities in the San Diego Region which are regulated by the Regional Board to varying degrees. With the exception of the WDRs for the Scripps Institution of Oceanography's discharge to an Area of Special Biological Significance, the tentative Order for the CWL discharge contains more effluent limitations and monitoring requirements than for other aquarium discharges in the region. The tentative Order contains requirements that specifically consider the type and volume of the CWL discharge, the level of treatment prior to discharge, and the receiving water body.

SUPPORTING DOCS:

1. Site Map
2. Transmittal letter for tentative Order No. R9-2006-0088.
3. Tentative Order No. R9-2006-0088 including Attachments A-G.

RECOMMENDATION:

Adoption of Tentative Order No. R9-2006-0088, NPDES Permit No. CA0109231, is recommended.