

EXECUTIVE OFFICER SUMMARY REPORT
November 14, 2007

- ITEM: 6
- SUBJECT: NPDES Permit Reissuance: Waste Discharge Requirements for the Hubbs-Seaworld Research Institute Leon Raymond Hubbard, Jr. Marine Fish Hatchery discharge to Agua Hedionda Lagoon (NPDES No. CA0109355, Tentative Order No. R9-2007-0026) (*Eric Becker*)
- PURPOSE: For the Regional Board to consider adoption of tentative Order No. R9-2007-0026, reissuing the NPDES permit to Hubbs-Seaworld Research Institute (HSRI). The tentative Order imposes requirements for the discharge of untreated wastewater, up to 1.73 million gallons per day (MGD) into the Agua Hedionda Lagoon, from marine fish hatchery operations at the Leon Raymond Hubbard, Jr. Marine Fish Hatchery (Facility).
- PUBLIC NOTICE: A newspaper notice regarding tentative Order No. R9-2007-0026 was published in the San Diego Union-Tribune on October 7, 2007 (see Attachment 5). A copy of the tentative Order (see Attachments 2 and 3) was sent to HSRI (via certified mail) and interested parties were notified of the availability of the tentative Order on September 26, 2007. On September 27, 2007, the tentative Order, monitoring and reporting program, and fact sheet were posted on the Regional Board's website and have been made available at the Regional Board's office for review thereafter.
- DISCUSSION: HSRI owns and operates the non-commercial marine fish hatchery to produce and release native marine species. The Facility draws up to 1.73 MGD of seawater from Agua Hedionda Lagoon, a water of the United States, and passed through rapid sand filters for particulate removal. The filtered seawater is directed either to a flow through pen rearing system or

to a water recirculation system. Settled materials, including debris, fish waste, feed wastes, and other settled solids, are siphoned from the pen rearing systems and discharged into the City of Carlsbad's sanitary sewer system. The combined wastewater from both the flow through pen rearing and water recirculation systems is discharged through a pipe back into the Agua Hedionda Lagoon.

Agua Hedionda Lagoon is 400-acre tidally influenced lagoon located near Tamarack Avenue and I-5, within the City of Carlsbad (see Attachment 1). On October 25, 2006, the State Water Board included the Agua Hedionda Lagoon on the list of impaired water bodies, prepared pursuant to Section 303 (d) of the CWA. The Agua Hedionda Lagoon is impaired for sedimentation/siltation and bacteria. HSRI has provided analytical results from monitoring of the intake water reporting that background concentrations of zinc, nitrogen, and phosphorus in surface waters of the lagoon already exceed concentrations limits prescribed by the Basin Plan water quality objectives and California Toxics Rule (CTR).

On April 13, 2006, HSRI submitted a Report of Waste Discharge (RoWD) for renewal of Order R9-2001-0237. The RoWD does not propose any significant changes to the facility or the characteristics of the wastewater discharge.

The tentative Order contains significant changes, from the existing requirements of Order R9-2001-0237; with the addition of water quality based effluent limitations for dissolved zinc, total nitrogen, and total phosphorus in the tentative Order. Based on effluent monitoring and facility hatchery operations information, these constituents can reasonably be expected to be part of the wastewater discharges from the Facility, and therefore effluent limitations are included in the tentative Order. The sources of zinc, nitrogen, and phosphorus are the residual feed and fecal wastes derived from the aquatic organisms in the hatchery.

The revised effluent limitations in the tentative Order require that mass and concentrations in the effluent

do not exceed the influent mass and concentrations for dissolved zinc, total nitrogen, and total phosphorus. Based on HSRI influent monitoring information since 2001, background concentrations of these constituents in the receiving water already exceed water quality objectives, therefore no dilution credit has been allowed for the discharge.

To date, the Regional Board has not received any public comments on the tentative Order.

KEY ISSUES:

Based on effluent monitoring data since 2001, the HSRI may be unable to consistently comply with the final effluent limitations for nitrogen and total phosphorus in of the tentative Order.

To be consistent with the Regional Board Basin Plan and State Implementation Plan for Inland Surface Waters, the tentative Order prescribes interim effluent limitations for total nitrogen and total phosphorus. The tentative Order also contains a compliance schedule that allows the HSRI up to four (4) years to comply with the final effluent limitations for nitrogen and total phosphorus.

Within the one (1) year after the effective date of the tentative Order, HSRI must submit a plan and a time schedule describing the steps that will be taken to ensure compliance with the final effluent limitations for total nitrogen and phosphorus. The plan must include a technical evaluation of options to achieve compliance with the final effluent limitations. The required plan may include, but not be limited to, evaluating existing treatment unit processes, upgrading treatment processes, and/or evaluating alternative discharge locations.

LEGAL CONCERNS:

None

COMPLIANCE:

HSRI has been in compliance with existing Order No. R9-2001-0237.

SUPPORTING
DOCUMENTS:

1. Location Map
2. Tentative Order No. R9-2007-0026
3. Fact Sheet for Tentative Order No. R9-2007-0026
4. Transmittal Letter to HSRI
5. Public Notice

RECOMMENDATION: Adoption of Tentative Order No. R9-2007-0026.