

**Regional Water Quality Control Board
North Coast Region
Executive Officer's Summary Report
December 19, 2019
Regional Water Board Office
Santa Rosa, California**

ITEM: 3

SUBJECT: Public Hearing on Order No. R1-2019-0047 to consider adoption of proposed Waste Discharge Requirements for the University of California – Davis, Bodega Marine Laboratory, WDID No. 1B84035OSON, NPDES No. CA0024333 (Cathleen Goodwin)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2019-0047 (Permit). This Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: University of California – Davis (Permittee) is the owner and operator of the Bodega Marine Laboratory (Facility or BML), a teaching and marine research institution located in Bodega Bay, Sonoma County.

Researchers at the Facility investigate population dynamics of marine invertebrates and fishes, fisheries management, fish health, aquaculture, invertebrate diseases, and many other topics. Annually, approximately 1,000 undergraduate students participate in classes and field trips, and marine science graduate students conduct thesis research at the Facility. The Facility is not a public aquarium, but tours are provided to approximately 10,000 visitors per year for public education regarding the science conducted at the laboratory and maintaining healthy coastal marine ecosystems.

There are two points of discharge from the Facility to the Pacific Ocean. The first is Discharge Point 001, which discharges once-through seawater and filter backwash. The Facility utilizes a computer-controlled flow-through seawater system in the majority of the research laboratories. Seawater for the flow-through system is pumped continuously from the Pacific Ocean with two intake lines located approximately 260 feet offshore in Horseshoe Cove. Intake water is screened, clarified, and filtered to remove debris and sediment before use in the laboratories. Seawater that is used in pathology laboratories is also disinfected with an ultraviolet (UV) light disinfection system and filtered before discharge to the waste seawater outfall. The UV disinfection replaced the former chlorine disinfection system beginning in February 2015.

The second discharge to the Pacific Ocean is storm water runoff from the grounds of the Facility that drains over the surrounding soil and vegetation before draining into a nearby freshwater marsh. The flow then continues through the marsh to a culvert pipe and concrete trough, which carry the storm water to Horseshoe Cove Beach at Discharge Point 016. As storm water flows over the vegetation and through the marsh,

natural treatment of the runoff may occur. In addition, the Proposed Order requires implementation of appropriate storm water BMPs to minimize pollutants in the storm water runoff entering the freshwater marsh at Discharge Points 003 and 004 from the parking lot and operations support areas.

The Facility also has a Salmon Research Facility (SRF) that discharges once-through freshwater at Discharge Point 002 to a groundwater recharge area. The Permittee utilizes freshwater produced from a well on its property in its SRF. The freshwater discharge to groundwater is subject to WDRs that are incorporated into this Order. The SRF has not operated since 2009, but the Proposed Permit retains these requirements for any future operation of the SRF.

The receiving water for the ocean discharges is designated by the State Water Resources Control Board (State Water Board) as the Bodega Area of Special Biological Significance (Bodega ASBS). The *Water Quality Control Plan for Ocean Waters of California (2019)* (Ocean Plan) prohibits waste discharges to the state's ASBS, unless an exception is granted by the State Water Board. The State Water Board contacted the Permittee on October 18, 2004, to inform the Permittee that its discharges into the ASBS are subject to the Ocean Plan waste discharge prohibition. On January 31, 2005, the Permittee applied for an exception to the California Ocean Plan for discharge into the Bodega ASBS. An Initial Study and Mitigated Negative Declaration (IS/MND) were circulated for public review, and on September 18, 2007, the State Water Board approved this Exception and the IS/MND with the adoption of 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 the Beneficial Uses, and Approving a Mitigated Negative Declaration*.

DISCUSSION: Order No. R1-2019-0047 (Proposed Order) replaces Order No. R1-2013-0023 (Previous Order). The Proposed Order retains all the requirements mandated by Resolution No. 2007-0058. In addition, the Proposed Order includes the following changes and new requirements:

1. Effluent limitations for several pollutants including chromium VI, copper, lead, nickel, silver, and bis (2-ethylhexyl phthalate) were removed because monitoring data submitted during the term of the Previous Order demonstrated that there is no reasonable potential for the discharge to cause an exceedance of Ocean Plan Table 1 water quality objectives for these pollutants. The only Ocean Plan Table 1 pollutant that has reasonable potential, and thus has effluent limitations, is zinc. Although effluent limitations for chromium VI, copper, lead, nickel, silver, and bis (2-ethylhexyl phthalate) were removed from the Proposed Order, effluent monitoring requirements for these pollutants, as well as zinc, have been retained in the MRP as required by the Ocean Plan and Resolution No. 2007-0058.
2. New receiving water limitations were incorporated for fecal coliform bacteria and enterococci to implement provisions of the new bacteria provisions that were

adopted by the State Water Board on August 7, 2018 and amended into the Water Quality Control Plan for Ocean Waters of California (2019).

3. Revised Basin Plan receiving water limitations for discharges to receiving waters have been included in the Proposed Permit. The most significant change is to the dissolved oxygen receiving water limitation and the addition of the new Basin Plan groundwater toxicity objective.
4. Section VII.H (Compliance Determination for Bacteriological Limitations) of the Order has been revised to include new language to clarify that single sample results are assessed for compliance against single sample maximum effluent limitations and to clarify that single sample results are only compared to the median, geometric mean, six-week rolling geometric mean, and statistical threshold values stated in the permit when there are sufficient samples to do so.
5. Section VII.K (Compliance Determination Requirements for Ocean Plan Table 1 Effluent Limitations) of the Order has been revised to include:
 - a. Ocean Plan implementation provisions for the six-month median, daily maximum, and instantaneous maximum; and
 - b. An explanation that the Permittee's discharges are all intermittent, short-duration, relatively low volume discharges, thus Ocean Plan instantaneous maximum and 6-month median effluent limitations apply rather than maximum daily effluent limitations.
6. New language to ensure that all monitoring is conducted using sufficiently sensitive methods in accordance with U.S. EPA's Sufficiently Sensitive Methods Rule published on August 19, 2014.
7. New monitoring and reporting program requirements, including:
 - a. A new requirement for the effluent to be sampled during a clarifier backwash event during the first year of the permit term. This requirement was determined to be necessary when Regional Water Board staff learned that the seawater discharge has never been sampled during a filter backwash event.
 - b. New accelerated monitoring requirements have been added that require the Permittee to collect additional effluent samples whenever monitoring results indicate exceedances of effluent limitations.
 - c. New requirements to collect grab samples rather than composite samples once per year for Ocean Plan Table 2 pollutants with an annual monitoring frequency and once per permit term for Ocean Plan Table 1 pollutants with a semiannual monitoring frequency. Grab sample data are needed to assess

compliance with instantaneous maximum effluent limitations in Table E-4 and as described in Compliance Determination sections VII.J and VII.K of the Order.

PUBLIC COMMENT: A copy of the Draft Order was posted on the Regional Water Board website and was available for public comment from September 11, 2019 through October 11, 2019. The Permittee submitted timely comments on the Draft Order. A full explanation of the comments and responses is provided in the attached Response to Comments document. Regional Water Board staff discussed the Permittee's comments and staff's proposed changes to the Proposed Order with the Permittee. The Permittee indicated that staff's responses to the Permittee's comments and changes to the Proposed Order are acceptable. Staff anticipates that the Proposed Order will be uncontested.

RECOMMENDATIONS: Adopt Order No. R1-2019-0047, as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Order No. R1-2019-0047
2. Comments Provided on Order No. R1-2019-0047
3. Staff Response to Written Comments
4. Public Notice