

Regional Water Quality Control Board  
North Coast Region

Executive Officer's Summary Report  
October 17, 2019  
Regional Water Board Office  
Santa Rosa, California

**ITEM: 3**

**SUBJECT:** Public Hearing on Order No. R1-2019-0006 to consider adoption of proposed Waste Discharge Requirements for the City of Arcata Wastewater Treatment Facility, WDID No. 1B82214OHUM, NPDES No. CA0022713 (Justin McSmith)

**BOARD ACTION:** The Board will consider adoption of Waste Discharge Requirements Order No. R1-2019-0006 (2019 Permit). This Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

**BACKGROUND:** The City of Arcata (Permittee) is the owner and operator of the Arcata Wastewater Treatment Facility (Facility), a publicly owned treatment works. The Facility serves a population of approximately 18,695, including 18,169 within the City of Arcata and 526 within the community of Glendale, Humboldt County.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2012-0031 (2012 Permit) for discharges of secondary treated wastewater to Humboldt Bay. Primary treatment consists of mechanical bar screens, grit removal and two primary clarifiers. Secondary treatment consists of a system of oxidation ponds, treatment wetlands and enhancement marshes prior to discharge to Humboldt Bay from Discharge Point 001. The enhancement marshes make up the Arcata Marsh Wildlife Sanctuary (AMWS) and are considered waters of the state, which the Permittee discharges to at Discharge Point 002. The AMWS was created to provide enhanced treatment and enable the Arcata Humboldt Bay discharge to qualify for an exception to the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bays and Estuaries Policy) by providing beneficial uses such as habitat and recreation that would otherwise not be present.

During the term of the 2012 Permit, the Permittee completed a Facilities Plan to investigate possible treatment plant upgrades, a new disinfection system and a new discharge location to provide an indirect route of discharge to Humboldt Bay. The Permittee settled on a Proposed Upgrade Project that included modernizing the headworks, constructing an oxidation ditch to provide more reliable treatment and nutrient removal, constructing a new UV disinfection system to reduce the creation of chlorine disinfection byproducts and violations of chlorine residual, constructing a new brackish marsh that will provide a diffuse discharge of effluent through tidelands to

McDaniel Slough and into Humboldt Bay. The discharge into the Brackish Marsh will become Discharge Point 003 in the 2019 Permit.

Phase One of the project will consist of rehabilitation of the headworks and primary clarifier, new aerators in oxidation pond one, addition of a baffle wall and aerators in oxidation pond two, improvements to multiple pump stations, construction of the UV disinfection system and the construction of piping for Discharge Point 003. Completion of this phase will allow for peak flows to be discharged to Discharge Point 003. Phase Two of the project will include construction of the oxidation ditch, secondary clarifiers, return activated sludge pump station, an alkalinity feed station and rehabilitation of the anaerobic digester. The rehabilitation of the anaerobic digester will include digester cleaning, replacing digester covers, replacing the boiler/heat exchanger, replacing the mixing and heating piping in the primary digester as needed, adding a sludge thickening system and relocating composting facilities to a new area on site. Completion of this phase will allow the Permittee to comply with final effluent limitations for ammonia at Discharge Point 001 and Discharge Point 003 as well as more stringent BOD and TSS limitations at Discharge Point 002.

**DISCUSSION:** The 2019 Permit replaces the 2012 Permit and includes new ammonia effluent limitations, UV specifications, and a revised Discharge Prohibition (Discharge Prohibition III.I) that prohibits the direct discharge of flows greater than 5.9 mgd to Humboldt Bay via Discharge Point 001. All flows below 5.9 mgd shall discharge to the Brackish Marsh via Discharge Point 003. In addition, other new requirements include mercury monitoring for compliance with the Statewide Mercury Provisions, enterococci monitoring for compliance with the Statewide Bacteria Provisions, a new Disaster Preparedness Assessment Report and Action Plan and a phased implementation of the Proposed Upgrade Project.

The Permittee will be unable to meet the new ammonia effluent limitations until the Proposed Upgrade Project is completed on June 30, 2024. In addition to the 2019 Permit, a Time Schedule Order No. R1-2019-0011 (TSO) is proposed to be issued under Executive Officer signature concurrent with the adoption of the 2019 Permit. The TSO establishes interim effluent limitations, compliance schedules and tasks to bring the Permittee into compliance with the new ammonia effluent limitations and Discharge Prohibition III.I.

A copy of the Draft Order was posted on the Regional Water Board website and was available for public comment from April 4, 2019 through May 6, 2019. The Discharger submitted timely comments on the Draft Order. The most significant change made to the Draft Order in response to Permittee's comments was the addition of clarifying language regarding when effluent limitations will take effect during the phasing of the Proposed Upgrade Project.

Additional footnotes were added on page E-4 and E-6 of the Monitoring and Reporting Program to clarify when monitoring at Discharge Points 001, 002 and 003 are required.

In addition, the following revisions were made to the 2019 Permit in response to comments from the Permittee and due to staff-initiated changes:

- Due to the Permittee's request to recalculate the data collected between February 2017 and April 2019, there have been revisions to the equivalent to secondary effluent limitations for BOD and TSS limitations in Table 5 and Table 9.
- Modification of the fecal coliform limitations to be consistent with the previous permit term narrative language.
- The title of the Climate Change Readiness Study Plan was changed to the Disaster Preparedness Assessment Report and Action Plan. Regional Water Board staff has made this change in all ongoing permits to capture the possibility of all disasters and not strictly climate change. In addition, the due date was extended from June 1, 2021 to June 1, 2022. The Permittee requested more time to evaluate their infrastructure for this requirement.
- An extension to the monitoring requirements for enterococci due to the fact that an ELAP accredited lab is not available in the area.
- Rationale added to the Fact Sheet for absence of enterococci effluent limitations due to fecal coliform being more stringent and how the permit still protects REC-1 beneficial uses as required by the Statewide Bacteria Provisions

A full explanation of the comments and responses is provided in the attached Response to Comments document. Staff anticipates that the Proposed Order will be uncontested.

**RECOMMENDATIONS:** Adopt Order No. R1-2019-0006, as proposed.

**SUPPORTING DOCUMENTS:**

1. Proposed Order No. R1-2019-0006
2. Comments Provided on Order No. R1-2019-0006
3. Staff Response to Written Comments
4. Public Notice