

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
Thursday, February 2, 2017
Regional Water Board Office
Santa Rosa, California

ITEM: 5

SUBJECT: Public Hearing on Order No. R1-2017-0002 to consider adoption of proposed Waste Discharge Requirements and Water Recycling Requirements for the City of Crescent City Wastewater Treatment Facility, WDID No. 1A84006ODN, NPDES No. CA0022756
(Cathleen Goodwin)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2017-0002. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The City of Crescent City (Permittee) owns and operates a municipal wastewater treatment facility and associated wastewater collection and disposal facilities (Facility) for treating domestic, commercial, and industrial wastewater. The collection system service area includes the City of Crescent City and the Del Norte County Service Area, which includes a population of 17,620 people. The Permittee has one significant industrial user (Rumiano Cheese Company) that is covered under a pretreatment permit to discharge to the Facility.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2011-0019, which serves as a NPDES permit for waste discharges to surface waters and a master recycling permit for the distribution and use of recycled water.

The Facility has an average dry-weather design treatment capacity of 1.86 million gallons per day (mgd), and an average wet-weather treatment capacity of 6.12 mgd. Treatment processes at the Facility consist of the headworks, including a mechanically cleaned screen, a Parshall flume, and a wet well; primary treatment, including two grit removal tanks and two clarifiers; and secondary treatment. Secondary treatment is provided by operating rotating biological contactors (RBCs) and a membrane bioreactor (MBR) in parallel. Flows from the RBCs are clarified, then commingled with MBR flows, then disinfected and dechlorinated prior to discharge to the Pacific Ocean through an outfall pipe terminating into a rocky slot in the surf zone adjacent to Battery Point Lighthouse. The effluent pipe has a conveyance capacity up to 13 mgd.

ISSUES: **Effluent Limitations and Monitoring and Reporting Requirements.** The Proposed Order continues to prescribe technology-based effluent limitations for biochemical oxygen demand (BOD₅), total suspended solids, pH, turbidity, grease and oil, and settleable solids for the ocean discharge. The Proposed Order also contains water

quality-based effluent limitations for ammonia, total coliform and total chlorine residual to ensure that the ocean discharge meets water quality objectives established in the California Ocean Plan. A reasonable potential analysis was conducted for the remainder of pollutants in Table 1 of the Ocean Plan and showed reasonable potential for the ocean discharge to contain copper, nickel, Dieldrin, and TCDD equivalents (dioxin and furans) at concentrations that may cause or contribute to exceedance of applicable water quality objectives, which requires the establishment of effluent limitations and monitoring requirements. For Table 1 pollutants with no reasonable potential, annual effluent monitoring is specified for the five year term of the permit.

During the term of Order No. R1-2011-0019, the Facility met the Ocean Plan ammonia criteria, however, Regional Water Board staff added the ammonia effluent limitations back into the Proposed Order after the public comment period based on a better understanding of how the Facility operates and a determination based on best professional judgment that the Facility does have the potential to exceed ammonia effluent limitations. This issue is discussed in greater detail in the Response to Comments document (see Item 1 under Regional Water Board Staff Initiated Changes). The Proposed Order also establishes twice weekly monitoring for ammonia using composite samples rather than grab samples to represent effluent quality over a 24-hour period.

The Proposed Order includes new effluent monitoring and reporting requirements for chronic toxicity that requires evaluation of toxicity test results using the Test of Significant Toxicity (TST) as the analytical approach in place of the No Observed Effect Concentration (NOEC) approach that was required in previous permits. The TST approach provides a more robust analysis of toxicity than the NOEC approach.

Recycled Water Requirements. The Permittee's Facility has the capability to produce up to 1.2 mgd of tertiary-treated recycled water from the MBR unit and to disinfect it with ultraviolet light (UV) prior to use. The Permittee currently does not have any viable recycled water use sites, but requested to retain recycled water production requirements in the Proposed Order.

The Proposed Order does not authorize the use of recycled water, but requires that all recycled water produced by the Permittee be treated to meet Title 22 standards for disinfected tertiary recycled water. Prior to any future delivery of recycled water, the Permittee must obtain coverage from the State Water Resources Control Board under the Water Quality Order No. 2016-0068 WQ (General Water Reclamation Requirements for Recycled Water Use) and obtain approval for the water recycling system by the State Water Resources Control Board Division of Drinking Water.

Special Studies, Technical Reports, and Additional Monitoring Requirements. The Proposed Order requires the Permittee to develop several implementation plans that are key to on-going compliance with the permit requirements, including a Chlorine Residual Monitoring Plan, a Climate Change Readiness Study Plan and a Financial Plan.

The Chlorine Residual Monitoring Plan will result in the Permittee implementing continuous chlorine residual monitoring of its effluent to ensure that chlorine used for disinfection is properly removed prior to ocean discharge.

The Climate Change Readiness Study Plan requires the Permittee to have a plan to address the potential impacts of climate change on the operation and maintenance of this Facility.

The Financial Plan provision requires the Permittee to identify financing and prepare a 10-year financial plan that will ensure the availability of adequate funding to operate and maintain the Facility. Regional Water Board Staff added this requirement because of concerns regarding the City's current financial health and its ability to meet permit requirements.

Staff concerns about the City's ability to operate and maintain the Facility in compliance with the NPDES permit requirements stem from: (1) ratepayers voting against raising sewer rates with the rejection of Measure Q in the November 8, 2016, election and (2) the City's recent financial challenges which impacted its ability to repay a state loan. In 2010, the City completed Facility upgrades using state revolving fund (SRF) loan funds (totaling \$43.8 million) from the State Water Board. The upgrades included construction of a membrane bioreactor, an ultraviolet disinfection system, and a new laboratory building. From 2011 to 2013, the City began to use reserves to make timely loan repayments. In 2014, with reserves running out, the City worked with State Water Board staff to restructure the terms of the loan to reduce the interest rate from 2.4 percent to zero percent with structured payments. While the renegotiated SRF loan agreement provided the City with some financial relief, the City must still identify additional funding mechanism(s) to implement needed on-going repairs and upgrades and ensure full compliance with permit conditions. Compliance with permit terms will ensure adequate protection of water quality and beneficial uses.

Pretreatment. During the term of Order No. R1-2011-0019, the Permittee made a great deal of progress to improve its pretreatment program. The City established local limits that apply to permitted discharges of industrial wastewater, conducted an industrial waste survey, and developed a draft enforcement response plan, a local limits verification report and an updated Waste Discharge Permit for the Rumiano Cheese Company. The Proposed Order requires the Permittee to continue to implement its pretreatment program in accordance with all pretreatment requirements contained in 40 C.F.R part 403. The Proposed Order also requires the Permittee to conduct a Local Limits Evaluation and update its sewer use ordinance to ensure that the City continues to properly address industrial discharges to the Facility and includes influent and effluent priority pollutant monitoring requirements as required by U.S. EPA pretreatment regulations.

Public Comment. Regional Water Board staff received timely comments on the Draft Order from the City and made several changes to the Proposed Order in response to those

comments. The most significant changes made to the Proposed Order in response to the City's comments were: (1) the removal of effluent limitations for tetrachlorethylene and bis(2-Ethylhexyl)phthalate, (2) reinstatement of language from the previous permit that allows the Permittee to account for BOD₅ mass removed at Rumiano Cheese Company when calculating BOD₅ percent removal, and (3) removal of the Effluent Discharge Evaluation that was included in the Draft Permit. A full explanation of the comments and responses is documented in the attached Response to Comments document. Other changes that were made to the Proposed Order by Regional Water Board staff initiation are also identified in the Response to Comments document.

The changes were acceptable to the Permittee. Staff expects the Proposed Order will be uncontested.

RECOMMENDATION: Adopt Order No. R1-2017-0002, as proposed.

**SUPPORTING
DOCUMENTS:**

1. Proposed Order No. R1-2017-0002
2. Staff Response to Written Comments
3. City of Crescent City Comment Letter
4. Public Notice