
North Coast Regional Water Quality Control Board

Regional Water Quality Control Board North Coast Region Staff Summary Report October 5, 2023

ITEM: 4

SUBJECT: Public Hearing on Order No. R1-2023-0016 to consider adoption of proposed Waste Discharge Requirements for the City of Eureka, Elk River Wastewater Treatment Plant, WDID No. 1B82151OHUM, NPDES No. CA0024449 (Justin McSmith/Matthew Herman)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2023-0016. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The City of Eureka (Permittee or City) owns and operates the Elk River Wastewater Treatment Plant (Facility) and associated wastewater collection system that serves a population of approximately 46,583 from the City of Eureka and unincorporated areas within the Humboldt Community Services District. The Facility treats domestic, commercial, and industrial wastewater as well as treated groundwater from remediation projects and septage from local area haulers. The Facility is located at 4301 Hilfiker Lane in Eureka, Humboldt County, California.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2016-0001, which serves as a NPDES permit for waste discharges to surface waters.

The Facility discharges secondary treated wastewater and has an average dry weather design treatment capacity of 5.24 million gallons per day (mgd), a peak dry weather treatment capacity of 8.6 mgd, and a peak daily wet weather treatment capacity of 12 mgd. Wastewater entering the facility undergoes primary treatment with mechanical bar screens, grit removal, and primary clarification. Biological secondary treatment is accomplished using two trickling filters, followed by secondary clarification, and chlorine disinfection. The chlorinated effluent is stored in a holding pond then dechlorinated and discharged at Discharge Point 001 to Humboldt Bay in conjunction with ebb tide cycles.

DISCUSSION: Order No. R1-2023-0016 (Proposed Permit), replaces Order No. R1-2016-0001 (Previous Permit). The Proposed Permit continues to prescribe technology-based effluent limitations for biochemical oxygen demand (BOD) and total

suspended solids (TSS), and effluent limitations for settleable solids, total residual chlorine, fecal coliform bacteria, pH, cyanide, turbidity, and ammonia.

The Proposed Permit further retains the special provisions which require studies and reports to ensure compliance with the operations, toxicity, source control, and biosolids disposal requirements. Additionally, a special study requirement for the preparation and submittal of a written description of the Permittee's pretreatment program has been included in the Proposed permit. Other noteworthy changes to the Proposed Permit include the following:

1. **Ammonia Impact Ratio.** The effluent limitation for ammonia nitrogen has been replaced with an ammonia impact ratio limitation to better account for receiving water conditions that determine ammonia toxicity at the time of a discharge. (Order Section 4.1.1)
2. **Effluent Limitations.** The reasonable potential analysis demonstrated reasonable potential for discharges of alpha-Endosulfan from the Facility to cause or contribute to exceedances of applicable water quality criteria, resulting in the addition of effluent limitations for alpha-Endosulfan to the Order. Endosulfan is a US EPA priority pollutant used as an insecticide on agricultural crops but whose production in the United States has been banned since 1982. Furthermore, the reasonable potential analysis determined that copper and 2,3,7,8-TCDD (dioxin) no longer have reasonable potential and existing effluent limitations for these constituents have been removed.
2. **Revised Basin Plan Receiving Water Limitations.** To implement the 2016 amendments to the Water Quality Control Plan for the North Coast Region (Basin Plan), updated dissolved oxygen limitations have been added to the Proposed Permit. (Order Section 5.1.1)
3. **Bacteria Provisions.** New receiving water limitations for *enterococci* bacteria have been added to the Proposed Permit 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 Inland Surface Waters, Enclosed Bays, and Estuaries of California. (Order Section 5.1.18)
4. **Toxicity Provisions.** Updated acute and chronic toxicity requirements have been included in the Proposed Permit to implement the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Toxicity Provisions), adopted on December 1, 2021. (Order Sections 4.4.1.4 and 4.1.1.5)
5. **Compliance Schedules.** The Proposed Order contains compliance schedules related to Discharge Prohibitions 3.1 and 3.5. These compliance schedules shall replace those compliance schedules currently provided under Cease and Desist

Order No. R1-2016-0012 (CDO). The CDO is scheduled to be rescinded concurrently with the adoption of the Proposed Order, R1-2023-0016.

Discharge Prohibition 3.1 prohibits the discharge of waste to Humboldt Bay unless it complies with the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bays and Estuaries Policy) and provides for a series of tasks with corresponding due dates to identify and implement a corrective action to bring the City of Eureka into compliance with the Enclosed Bays and Estuaries Policy. This compliance schedule has a final compliance date of December 31, 2042. (Order Section 6.3.6.3)

Discharge Prohibition 3.5 prohibits the discharge of untreated or partially treated waste from anywhere within the collection, treatment, or disposal systems and requires the continued implementation and evaluation of the Permittee's Wet Weather Improvement Plan. Through these actions, the Permittee is expected to reduce inflow and infiltration to the collection system, and complete necessary improvements that will allow them to eliminate discharges of untreated or partially treated waste from their Facility. (Section 6.3.6.2)

6. **Monitoring and Reporting Requirements.** Noteworthy changes to the monitoring and reporting program (MRP) include the following:
 - a. An increase in the frequency of chronic toxicity monitoring, from quarterly to monthly, to reflect the requirements of the new Toxicity Provisions. (MRP Section 4.1.1)
 - b. A general language update to the Whole Effluent Toxicity Testing requirements section to reflect the new Toxicity Provisions. (MRP Section 5)
 - c. The MRP includes new monitoring requirements for *enterococci* in both the effluent and receiving water to demonstrate compliance with the new REC-1 bacteria objectives for *enterococci*. (MRP Sections 4.1.1 and 8.1.1)

Extensive comments on the Draft Permit were received from the City of Eureka, the Humboldt Community Services District, the Humboldt Baykeeper, and the Ecological Rights Foundation. Additionally, a late comment letter was received by the California Department of Public Health on May 30, 2023. A full explanation of the comments and Regional Water Board Staff's (Staff) responses is provided in the attached Response to Comments document. The Proposed Permit has been revised in response to some of the comments received. The most significant concerns expressed in the comments are summarized in the following enumerated paragraphs with Staff's response and proposed resolution where applicable.

1. **Enterococci Monitoring.** The City of Eureka expressed a concern for their ability to perform *enterococci* monitoring without an available commercial laboratory, or the

necessary equipment and accreditation for their in-house laboratory, to process this analysis. The Proposed Order has been modified to delay the requirement for **enterococci** monitoring until December 1, 2024, to allow the City to establish a means to fulfill this monitoring requirement.

- 2. Technical Feasibility of Effluent Limitations.** The City requested that the Regional Water Board remove, modify, or provide clarification on the effluent limitations for cyanide, alpha-endosulfan, and ammonia. Specifically, the City requested clarification on how the 31:1 dilution credit would be applied to the ammonia impact ratio effluent limit that is new to this permit. Additionally, the City expressed their concern with being able to obtain laboratory results with a low enough reporting limit to demonstrate compliance with the Draft Order's proposed effluent limit for cyanide. The City also expressed their concern with the effluent limit for alpha-endosulfan due to it only being identified in a single effluent sample used for reasonable potential analysis.

Regional Water Board staff evaluated each of the City's concerns and updated the Proposed Order to address each. The Example Ammonia Impact Ratio Calculator, Attachment H of the Proposed Order, was updated to identify and include the 31:1 dilution ratio in the ammonia impact ratio calculation. Staff further determined that the 31:1 dilution ratio could be applied to both alpha-endodulfan and cyanide, resulting in higher effluent limitations for these constituents that the City's laboratory will be able to complete analysis for as the higher allowable reporting limit will be achievable.

- 3. Receiving Water Monitoring Locations.** The City identified that Monitoring Location RSW-001, the Chevron Dock, is a privately owned dock and within a secure facility, and that because of this, regular monitoring would be difficult to schedule and conduct at this location. The City later identified alternative monitoring locations, including the Samoa Boat Ramp and United States Coast Guard Station Humboldt Bay that may be used for the new receiving water monitoring requirements. The Proposed Order was modified to identify receiving water monitoring location RSW-002, the Samoa Boat Ramp, and RSW-003, the United States Coast Guard Station Humboldt Bay for use with the new receiving water monitoring. Furthermore, Section 8 of the Proposed Order's Monitoring and Reporting Program was further modified to designate what receiving water monitoring is required from each of the three receiving water monitoring locations.
- 4. Compliance Schedules.** The Humboldt Baykeeper and the Ecological Rights Foundation each suggested that the Regional Water Board adjust the compliance schedules included with in the Proposed Order to reflect tasks required by the January 2023 Consent Decree that resulted from the Clean Water Act citizen suit brought by Ecological Rights Foundation. The requested changes to the compliance schedule were related to the identified compliance dates and to the specific tasks associated within the schedule.

The Regional Water Board was not party to, nor consulted on the terms of the Consent Decree, and that while the Proposed Order's compliance schedule may be similar in intent and purpose to portions of the consent decree, the Regional Water Board is not bound by the terms of the Consent Decree. The Proposed Order was not modified based on these comments.

5. **Sanitary Sewer Overflow Prohibition.** Both the Humboldt Baykeeper and the Ecological Rights Foundation identified that the Proposed Order no longer includes a discharge prohibition related to the sanitary sewer overflows that discharge of untreated or partially treated wastewater to a surface water or land, and requests that the former discharge prohibition be retained. Regional Water Board Staff have identified that the sanitary sewer overflows are regulated under the Statewide Sanitary Sewer General Order, Order No. WQ 2022-0103-DWQ and that retention of this discharge prohibition is duplicative and unnecessary. No changes were made to the Proposed Order based on these comments.
6. **Sewage spill notifications.** The California Department of Public Health, Preharvest Shellfish Unit (CDPH/PSU) requested that updated contact information be used for notifications of sewage spills into Humboldt Bay or its tributaries. Furthermore, CDPH/PSU also requested that they receive immediate notification of such spills and that all other entities that hold a shellfish growing area certificate issued by CDPH/PSU also receive immediate notification. The Proposed Order was modified to reflect these requests.

A copy of the Draft Permit was posted on the Regional Water Board website and was available for public comment from March 10, 2022 through April 24, 2023 for an initial 45-day comment period which was extended another 22 days to May 16, 2023. Staff met with the City on August 25, 2023 to discuss their comments. A full explanation of the comments and responses is provided in the attached Response to Comments document. The Proposed Permit has been revised in response to some of the comments received. Comment letters and staff responses are attached.

Staff initiated changes were made to the Proposed Permit to update and provide clarification to the Proposed Order. Specifically, staff made updates to the permit language discussing aquatic toxicity effluent limitations as the Draft Permit's text inadvertently created a narrative effluent limitation for Acute and Chronic Aquatic Toxicity. Additionally, the Median Monthly Effluent Limitation for Acute and Chronic Aquatic Toxicity was mistakenly labeled Maximum Monthly Effluent Limitation.

While it is not anticipated that the Permittee will contest this item, Staff expect that outside parties will address the Board during the public hearing.

RECOMMENDATION: Adopt Order No. R1-2023-0016 as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Order No. R1-2023-0016
2. Notice of Public Hearing
3. Revised Notice of Public Hearing
4. Response to Comments Document
5. Copies of the public comment letters received regarding this Order are available upon request by emailing Matthew.Herman@Waterboards.ca.gov