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## North Coast Regional Water Quality Control Board

### Regional Water Quality Control Board North Coast Region Staff's Summary Report October 5-6, 2023

#### ITEM: #2

**SUBJECT:** Public Hearing on Order No. R1-2023-0022 to consider adoption of proposed Waste Discharge Requirements and Water Recycling Requirements for the City of Rio Dell Wastewater Treatment Plant, WDID No. 1B83134OHUM, NPDES No. CA0022748 (Sabrina Cegielski).

**BOARD ACTION:** The Board will consider adoption of Waste Discharge Requirements Order No. R1-2023-0022. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

**BACKGROUND:** The City of Rio Dell (Permittee) owns and operates the City of Rio Dell Wastewater Treatment Plant (Facility) and associated wastewater collection system that serves a population of approximately 3,900 residential and commercial users in the City of Rio Dell, California. There are no industrial users within the service area. The Facility is located at 475 Hilltop Drive, Rio Dell, Humboldt County, California.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2017-0007, 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 0.40 million gallons per day (mgd) and a peak daily wet weather treatment capacity of 2.51 mgd. The treatment system consists of a headworks, Aero-Mod secondary treatment and solids stabilization system, chlorine disinfection in two chlorine contact tanks, and dechlorination using sodium bisulfite. Solids removed from the wastewater are stored and thickened in two aerated digesters and subsequently dewatered with a belt filter press. The dewatered biosolids process through an indirect sludge dryer, which produces Class A biosolids that the Permittee gives away to residents as a soil amendment.

During October 1 through May 14, effluent may be discharged to the Lower Eel River at Discharge Point 001. The Lower Eel River is a water of the United States.

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The Permittee produces disinfected secondary recycled water. May 15 through September 30, the recycled water is used to irrigate hay grass and alfalfa at the Irrigation Site (Discharge Point 003). The hay grass and alfalfa are harvested as fodder for beef cattle.

**DISCUSSION:** Order No. R1-2023-0022 (Proposed Permit), replaces Order No. R1-2017-0007 (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, total coliform bacteria, pH, and ammonia. The Proposed Permit also retains discharge specifications for the discharge of secondary recycled water, previously classified as discharge to land, to the irrigation site at Discharge Point 003.

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 Disaster Preparedness Assessment Report and Action Plan has been included in the Proposed permit. Other noteworthy changes to the Proposed Permit include the following:

1. **Recycled Water Re-classification.** Land discharge has been reclassified as recycled water, so language has been updated to reflect the change. There were no substantial changes to the requirements. (Draft Order section 4.3)
2. **Chronic Toxicity Effluent Limitations.** Reasonable potential for chronic aquatic toxicity is present, therefore effluent limitations for chronic toxicity have been included as required by the new Toxicity Provisions. (Draft Order Section 4.4.1.)
3. **Compliance Schedule.** A compliance schedule for dichlorobromomethane, chlorodibromomethane, total trihalomethanes, and haloacetic acids is included in the Proposed Permit to provide the Permittee the time necessary to complete construction, testing, and fine tuning of the Permittee's new phased Chloramine Disinfection Project. The Proposed Order also includes interim limitations for these constituents because the compliance schedule is more than one year from the date of permit issuance (Draft Order Section 6.3.5.2.)
  - a. **Interim limitations.** The Regional Water Board finds that it is reasonable to provide additional time to comply with the effluent limitations for dichlorobromomethane, chlorodibromomethane, Total Trihalomethanes, and Haloacetic Acids. Interim effluent limitations established in Time Schedule Order No. R1-2023-0030 have been retained in the Proposed Permit in the interim period until the Permittee can achieve full compliance with the final effluent limitations. (Draft Order Section 4.1.2)
  - b. **Rescinding Time Schedule Order No. R1-2023-0030.** The requirements and interim limitations included in TSO No. R1-2023-0030 have been

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incorporated into the Proposed Order, and therefore the TSO is no longer necessary.

4. **Mixing Zone Study Reopener Provision.** At the request of the Permittee, a provision was added to reopen the Permit for Board consideration of a mixing zone to comply with human health-based effluent water quality objectives. (Draft Order Section 6.3.1.11)
5. **4,4-DDT Effluent Limitation.** WQBELs for 4,4-DDT were established because monitoring results from the current permit term showed that 4,4-DDT was detected in the effluent discharge at levels that exceeded the primary MCL. (Draft Order section 4.1.1)
6. **Antimony Effluent Limitation.** WQBELs for Antimony were established because monitoring results from the current permit term showed that Antimony was detected in the effluent discharge at levels that exceeded the primary MCL. (Draft Order section 4.1.1)
7. **Ammonia Impact Ratio.** The effluent limitation for ammonia nitrogen in the previous permit has been replaced with an ammonia impact ratio limitation to better account for receiving water conditions (pH and temperature) that determine ammonia toxicity at the time of a discharge. (Order Section 4.1.1)
8. **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 and new specific conductance and total dissolved solids limitations have been added to the Proposed Permit. (Order Section 5.1.1)
9. **Bacteria Provisions.** New receiving water limitations for *E. coli* bacteria have been added to the Proposed Permit to implement 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 5.1.20)
10. **Toxicity Provisions.** Updated 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 Section 4.1.1.3)
11. **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 annually to quarterly, to reflect the requirements of the new Toxicity Provisions. Additionally, acute toxicity monitoring is no longer required as monitoring

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results from the current permit term indicate that reasonable potential for acute aquatic toxicity is not present. (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 *E. coli* in both the effluent and receiving water to demonstrate compliance with the new REC-1 bacteria objectives for *E. coli*. (MRP Sections 4.1.1 and 8.1.1)

The Order establishes a monitoring regime that allows the Discharger to select a minimum of three six-week periods over the authorized discharge period to monitor its effluent and the receiving water to determine compliance with the bacteria objectives. This monitoring regime allows the Discharger to monitor the receiving water for approximately 60 percent of the discharge season instead of monitoring every week over the 32-week discharge season, reducing the cost of permit compliance, and allowing the discharger to implement its monitoring program more efficiently.

- d. The MRP includes new monitoring requirements for both the effluent and receiving water to determine if the discharge has reasonable potential to cause or contribute to an exceedance of receiving water quality criteria for aluminum. These monitoring requirements include effluent and receiving water monitoring for aluminum and receiving water monitoring for dissolved organic carbon. (MRP Sections 4.1.1 and 8.1.1)
- e. **Disaster preparedness assessment report and action plan.** A requirement to prepare a disaster preparedness assessment report has been added to require the Permittee to assess the Facility's vulnerability to natural disasters and extreme weather and other conditions that may be exacerbated by climate change. (MRP Section 10.4.2)

A copy of the Draft Permit was posted on the Regional Water Board website and was available for public comment from May 18, 2023, through June 19, 2023. A timely comment letter was received from the Permittee. No other comments were received. The attached Response to Comments document includes a full explanation of the Permittee's comments and Staff's response to the Permittee's comments; several permit modifications were made to the Proposed Permit in response to the Permittee's comments. The Permittee also proposed several non-substantive, editorial changes that were incorporated into the Proposed Order.

Additionally, the Response to Comments document also summarizes several staff-initiated changes that were made to update and provide clarification to the Proposed Permit.

Staff notified the Permittee of the proposed changes to the Proposed Permit on August 22, 2023.

The Permittee may contest the Proposed Permit on two areas of concern (Comments 3 and 4). The Regional Board cannot accommodate these requests as further detailed in the response to comments document.

**RECOMMENDATION:** Adopt Order No. R1-2023-0022 as proposed.

**SUPPORTING DOCUMENTS:**

1. Proposed Order No. R1-2023-0022
2. Response to Comments Document (Attachment A provided electronically to Board members and is available upon request)
3. Notice of Public Hearing