
North Coast Regional Water Quality Control Board

Regional Water Quality Control Board North Coast Region Staff Summary Report August 15, 2024

ITEM: 3

SUBJECT: Public Hearing on Order No. R1-2024-0016 to consider adoption of proposed Waste Discharge Requirements and Water Recycling Permit for the City of Ukiah Wastewater Treatment Plant, WDID No. 1B84029OMEN, NPDES No. CA0022888 (Matthew Herman)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2024-0016. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The City of Ukiah (City or Permittee) owns and operates the City of Ukiah Wastewater Treatment Plant (Facility) and associated wastewater collection system. The Facility serves the City of Ukiah and residential areas to the north and south of Ukiah, as well as east of the Russian River. The Facility treats wastewater from two entities, the City of Ukiah and the Ukiah Valley Sanitation District (UVSD). The Facility serves a population of approximately 22,078, including 16,600 within the City of Ukiah and 5,478 in the UVSD. The UVSD also serves Mendocino College, El Dorado Estates, Vichy Springs and areas contiguous to the City of Ukiah. The UVSD owns the collection system in its service area and the City of Ukiah operates and maintains it. The City of Ukiah does not accept wastewater from any collection system not owned or maintained by the City.

The Facility is currently regulated under Waste Discharge Requirements and Water Recycling Permit, Order No. R1-2018-0035, which serves as a NPDES permit for waste discharges to surface waters.

The Facility treats domestic, commercial, and industrial wastewater and has an average dry weather design treatment capacity of 3.01 million gallons per day (mgd) and a peak wet weather treatment capacity of 24.5 mgd.

The Facility's secondary treatment train consists of an influent wet well, bar screens, aerated grit removal, primary clarifiers, trickling filters, aerated solids contact tank, secondary clarifiers, and a chlorine contactor pipe where secondary disinfection is

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performed using sodium hypochlorite. The Facility's advanced treatment train includes the addition of ferric chloride and polymer to adsorption clarifiers and multi-media filters. Advanced treated effluent is disinfected with sodium hypochlorite in the tertiary chlorine contact basin and sent to the Recycled Water Storage Ponds for distribution to recycled water users. When there is insufficient capacity in the Recycled Water Storage Ponds, secondary effluent is disinfected with sodium hypochlorite in the secondary chlorine contact basin and sent to the percolation ponds for disposal. If there is insufficient capacity in the recycled water storage ponds or the percolation ponds during the allowable discharge season (October 1 through May 14), the advanced treated effluent is dechlorinated with sodium bisulfite and discharged to the Russian River.

During the wet weather season (October 1 – May 14), treated effluent may be discharged from the Facility via an outfall pipe at Discharge Point 001 to the Russian River, a water of the United States. The Permittee preferentially discharges advanced treated disinfected wastewater to the recycled water storage ponds at Discharge Point 003 and disinfected secondary treated effluent to its percolation ponds at Discharge Point 002.

DISCUSSION: Order No. R1-2024-0016 (Proposed Permit), replaces Order No. R1-2018-0035 (Previous Permit). The Proposed Permit continues to prescribe technology-based effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS), and water quality-based effluent limitations for ammonia, copper, dichlorobromomethane, total residual chlorine, nitrate, coliform bacteria, and pH for discharges to the Russian River. The proposed Permit also retains requirements for the production of recycled water.

The Proposed Permit further retains the special provisions which require studies and reports to ensure compliance with the operations, recycled water, toxicity, source control, and biosolids disposal requirements. Noteworthy changes to the Proposed Permit include the following:

1. **Reasonable Potential.** Water Quality-based Effluent Limitations (WQBELs) for cyanide and chlorodibromomethane were removed and not included in the Draft Order as the reasonable potential analysis (RPA) results indicate that reasonable potential no longer exists. (Order section 4.1.1.1)
2. **Ammonia Impact Ratio.** The effluent limitation for ammonia nitrogen has been replaced with an ammonia impact ratio limitation. For an explanation of the ammonia impact ratio, please refer to section 4.3.3.1.3.2 of the permit Fact Sheet. (Order section 4.1.1.1)
3. **Chronic Toxicity Effluent Limitations.** Reasonable potential for chronic aquatic toxicity was determined to be present, therefore effluent limitations for chronic

toxicity have been included as required by the new Toxicity Provisions. (Order Section 4.1.1.4)

4. **Bacteria Provisions.** Updated receiving water limitations for bacteria have been included to implement new bacteria provisions in the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California that were adopted by the State Water Board on August 7, 2018. (Order section 5.1.20)
5. **Monitoring and Reporting Requirements.** Noteworthy changes to the monitoring and reporting program (MRP) include the following:
 - a. New effluent and receiving water monitoring requirements for *E. coli* bacteria to verify that the achievement of total coliform effluent limitations result in achievement of Statewide Bacteria Standards. (Draft MRP sections 4.1.1 and 8.1.1)
 - b. New effluent and receiving water monitoring requirements for aluminum and manganese have been included to collect data needed to determine if reasonable potential exists for these constituents. This action further requires monitoring requirements for dissolved organic carbon in the receiving water to determine reasonable potential for aluminum. (MRP Sections 4.2.1 and 8.1.1)
 - c. The effluent monitoring frequency requirement for chronic aquatic toxicity has been increased from annually to quarterly to meet the minimum allowed monitoring frequency identified within the new Toxicity Provisions. (MRP section 4.2.1)
 - d. The Whole Effluent Toxicity Testing Requirements included in the monitoring and reporting program have been updated significantly to reflect the new Toxicity Provisions. (MRP Section 5)
 - e. A requirement to prepare a disaster preparedness assessment report has been added for the Permittee to assess its vulnerability to natural disasters and extreme weather and other conditions that may be exacerbated by climate change. (MRP section 10.1.1)
 - f. A new annual volumetric reporting requirement to implement the requirements of the State Water Board Recycled Water Policy. (MRP section 10.5.3)

A single comment letter on the Draft Permit was received from the City. Additionally, the City's consultant, Larry Walker Associates, provided a marked up copy of the Proposed Permit with non-substantive changes that they identified to correct or clarify language in the Permit. 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. **2,3,7,8-TCDD Effluent Limitation.** The City of Ukiah identified that the single monitoring result that resulted in reasonable potential for 2,3,7,8-TCDD was reported as DNQ (reported under the reporting limit and over the minimum detection limit) and that the corresponding quality control sample blank also reported a DNQ result that was higher than what was reported in the effluent sample. The positive detection of 2,3,7,8-TCDD in the method Blank sample brings into question the validity of the reported effluent sample result and the City has requested that we remove the proposed effluent limitations for 2,3,7,8-TCDD.

Staff agree that the detection of 2,3,7,8-TCDD in the method blank sample, reported at a level greater than the effluent sample's reported value, provides adequate reason to invalidate this data for purposes of determining reasonable potential, and removes the need to include effluent limitations for 2,3,7,8-TCDD. As such, staff have removed the effluent limitations for 2,3,7,8-TCDD included in the draft NPDES Permit.

2. **Modal Contact Time.** The City has identified that the proposed Order includes a Modal Contact Time (CT) requirement of 450 mg-min/L that is based on recycled water production requirements, but that this has been applied to both recycled water production and effluent discharge to the Russian River to ensure adequate disinfection of the advanced treated wastewater. They have asked for the permit language to be modified to make this requirement only applicable to recycled water production.

Staff agrees that the Modal Contact Time requirement is based on recycled water production and have modified the permit language to no longer require compliance with this requirement when discharging to the Russian River. In lieu of using the CT requirement to ensure adequate disinfection when discharging to the Russian River, the monitoring frequency for Total Coliform has been increased from weekly to daily.

3. **AMEL and MDEL Ammonia Standards.** The City identified that an incorrect number of samples factor (n) was used in the AMEL and MDEL Ammonia Standards included as Attachment G and used to determine the ammonia impact ratio. Specifically, Staff inadvertently used an "n" of 30 instead of 4, resulting in more restrictive ammonia standards than is necessary.

Staff have corrected the AMEL Ammonia Standards tables in Attachment G to correctly reflect a number of samples factor of 4. The MDEL Ammonia Standards table does not rely on the number of samples factor and therefore does not require correction.

4. **Septage Receiving Station.** The City indicated that they are intending to begin receiving septage in the upcoming permit term. They have requested that the new Permit include any necessary language to allow this activity.

Staff have added language to the Permit and Fact Sheet to allow for this change. The monitoring and Reporting Program will need to be modified to include septage monitoring once the City has submitted a Septage Management Plan for Executive Officer approval. Updates to the Monitoring and Reporting Program may occur under the Executive Officer's signature.

A copy of the Draft Permit was posted on the Regional Water Board website and was available for public comment from May 10 through June 10, 2024 for a 30-day comment period. Additionally, Regional Water Board staff held a virtual meeting with the Permittee on May 31, 2024 to discuss the Draft Permit. The Permittee indicated that Staff's response to the Permittee's comments and changes made to the Proposed Permit are acceptable to the Permittee. Staff anticipates that the Proposed Permit will be uncontested.

RECOMMENDATION: Adopt Order No. R1-2024-0016, as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Order No. R1-2024-0016
2. Notice of Public Hearing
3. Response to Comments Document
4. Copies of the comment letters received regarding this Order are available upon request by emailing Matthew.Herman@Waterboards.ca.gov