

**Regional Water Quality Control Board
North Coast Region
Executive Officer's Summary Report
October 7, 2022**

ITEM: 2

SUBJECT: Public Hearing on Order No. R1-2022-0017 to consider adoption of proposed Waste Discharge Requirements and Water Recycling Requirements for the City of Healdsburg Wastewater Treatment, Recycling and Disposal Facility, WDID No. 1B82046OSON, NPDES No. CA0025135 (Matthew Herman)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2022-0017. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The City of Healdsburg (Permittee) owns and operates the City of Healdsburg Wastewater Treatment, Recycling and Disposal Facility (Facility) and associated wastewater collection system that serves a population of approximately 11,800 residents, with approximately 4,890 residential, commercial, industrial, and municipal service connections. The Facility is located at 340 Foreman Lane, Healdsburg, Sonoma County, California.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2016-0015, which serves as a NPDES permit for waste discharges to surface waters and a master recycling permit for distribution and use of recycled water.

The Facility produces disinfected tertiary recycled water and has an average dry weather design treatment capacity of 1.4 million gallons per day (mgd) and a peak daily wet weather treatment capacity of 4.0 mgd. The treatment system consists of influent screening and grit removal; biological treatment and nitrogen removal in aerobic, anoxic, and pre-anoxic basins; microfiltration through a membrane bioreactor (MBR); ultraviolet (UV) light disinfection; and return activated sludge pumping from the MBR back to the aeration basins. The Facility has two recycled water storage ponds, 25 million gallon and 15 million gallon capacity, with synthetic liners to provide storage for the disinfected tertiary treated recycled water. Recycled water is delivered by an effluent pump station from the recycled water storage pond to the recycled water system or is gravity fed to the Basalt Pond, depending upon seasonal requirements. The Facility also includes a 5 million gallon aerated influent equalization basin which provides equalization storage capacity for extended wet weather influent flows.

Basalt Pond is one of several gravel pits excavated adjacent to the Russian River and is the receiving water for the City of Healdsburg's discharge. Previously, the discharge to Basalt Pond was regulated by WDR, but it was determined that Basalt Pond was a water of the United States and part of the Russian River in a citizen lawsuit in 2004. Basalt Pond currently has a direct surface water connection to the Russian River after a levee breach that occurred in February 2019.

The Permittee delivers recycled water for agricultural, industrial, and construction uses. Approximately 1,170 acres of vineyards are directly connected to the recycled water transmission pipeline. Additionally, the Permittee operates two recycled water filling stations for the trucked recycled water program. Trucked recycled water is used for construction uses (primarily soil compaction and dust control), non-dairy livestock drinking water, and landscape and vineyard irrigation. Irrigation occurs primarily during spring, summer, and fall and may occur during dry periods in the winter. Furthermore, Syar Industries Inc. has a recycled water pipeline on its property for washing of the aggregate materials used in asphalt and concrete production. The Permittee has obtained coverage under State Water Resources Control Board Order No. WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use.

DISCUSSION: Order No. R1-2022-0017 (Proposed Permit), replaces Order No. R1-2016-0015 (Previous Permit). Cease and Desist Order No. R1-2022-0018, agenda item #3 is intended to be adopted concurrently with this Order. The Proposed Permit continues to prescribe technology-based effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS), and effluent limitations for total coliform bacteria, pH, and ammonia. The Proposed Permit also retains requirements for the production and storage 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. 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. **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 4.1.3.1)
2. **Disinfection Process Requirements.** The UV dose requirement has been increased from a minimum of 80 percent to 86.06 percent. The increased minimum UV dose requirement has been established to allow for an increase in the allowable UV lamp age; from 9,000 to 12,000 hours. The increase in lamp hours provides a cost savings to the Permittee and is accordance with the manufacturer's requirements. (Order Section 4.4.3.3 and Order Section 4.4.3.8)
3. **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 receiving water limitations have been added to the Proposed Permit. Additionally, a new Basin Plan groundwater toxicity objective has also been added to the Proposed Permit to implement the new Basin Plan objective. (Order Sections 5.1.1 through 5.1.3, and 5.2.6)

4. **Bacteria Provisions.** New receiving water limitations for *E.coli* 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 5.1.20)
5. **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 4.4.1)
6. **Monitoring and Reporting Requirements.** Noteworthy changes to the monitoring and reporting program (MRP) include the following:
 - a. An increase to 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 results from the term of Order R1-2016-0015 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* and the Regional Water Board adopted Russian River Watershed Pathogen TMDL Action Plan. (MRP sections 4.1.1 and 8.1.1)
 - 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. The MRP includes a new annual volumetric reporting requirement to implement the requirements of the State Water Board Recycled Water Policy. (MRP section 10.4.3)

A copy of the Draft Permit was posted on the Regional Water Board website and was available for public comment from June 15 through July 16, 2022. 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. Significant comments have been summarized below.

The Permittee identified that the reasonable potential for ammonia is based on a single laboratory result that the City had identified as erroneous. Re-analysis of this sample indicated non-detect results, although the sample's allowable hold times had already elapsed. The City requests that the Regional Board re-evaluate the historical records for the City's ammonia concentrations for ammonia and replace the first result with the result of the re-analyzed sample, which the Permittee asserts should remove the need for an ammonia effluent limitation. In response to this comment, Staff reviewed the original laboratory data report and found no evidence that this result was invalid. Although this laboratory result was not consistent with historical results, Staff determined that the result remains valid and have retained their reasonable potential assessment and the resulting ammonia effluent limitation.

The City also requested that the Regional Water Board re-evaluate the reasonable potential for aluminum and remove the resulting monitoring requirements. After a reevaluation, Regional Water Board Staff determined that the permit fact sheet incorrectly states that reasonable potential for aluminum was present and has corrected this statement to indicate that inadequate data is available to determine if reasonable potential is present. Staff also confirmed that the aluminum monitoring requirements were appropriately included in the MRP to provide the necessary data for future reasonable potential determination.

In response to the City's concerns, Staff have added a table note to Tables E-3 and E-5 of the Monitoring and Reporting Program to identify that the City may request a reduction or elimination of monitoring requirements after the first year of monitoring under specific conditions.

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. The Permittee's September 19, 2022 email reply to Staff indicated that Staff's response to the Permittee's comments and changes to the Proposed Permit are acceptable to the Permittee. Staff anticipates that the Proposed Permit will be uncontested.

RECOMMENDATION: Adopt Order No. R1-2022-0017 as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Order No. R1-2022-0017
2. Notice of Public Hearing
3. Response to Comments
4. A copy of the City of Healdsburg Comment letter (dated July 14, 2022) is available upon request by emailing Matthew.Herman@Waterboards.ca.gov