

Regional Water Quality Control Board  
North Coast Region

Executive Officer's Summary Report  
Thursday, September 6, 2018  
Regional Water Board Office  
5550 Skyland Blvd, Suite A  
Santa Rosa, CA

**ITEM: 5**

**SUBJECT:** Public Hearing on Order No. R1-2018-0034 to consider adoption of proposed Waste Discharge Requirements for City of Cloverdale Wastewater Treatment Plant, WDID No. 1B840320SON, NPDES No. CA0022977 (*Imtiaz-Ali Kalyan*)

**BOARD ACTION:** The Board will consider adoption of Waste Discharge Requirements Order No. R1-2018-0034 (Proposed Order). The Proposed Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

**BACKGROUND:** The City of Cloverdale (hereinafter Permittee) is located in the Geyserville Hydrologic Subarea of the Middle Russian River. The City owns and operates a municipal wastewater treatment facility (Facility) which serves approximately 8,000 residential, commercial, and industrial users.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2012-0048. The Facility is designed to provide secondary treatment for an average dry weather flow (ADWF) of 1.0 million gallons per day (mgd) and peak wet weather flow (PWWF) of 8.25 mgd of secondary treated wastewater

The Facility's wastewater treatment train consists of a Parshall Flume and ultrasonic flow meter at the headworks, bar screens, followed by a series of three ponds that are used for primary and secondary aeration, followed by a settling/polishing pond which allows for the suspended solids to settle to the bottom of the pond. Concrete edges extend approximately 3 feet down the ponds, and the bottoms are composed of clay and bentonite.

From the settling pond, the wastewater is conveyed by gravity to the chlorination system and into a 36-inch diameter underground pipeline which allows for adequate contact time for the chlorine to disinfect the wastewater. From the pipe, the wastewater is distributed into one of seven evaporation/percolation ponds. The percolation ponds are unlined and are intentionally scarified each year to promote percolation. The Permittee uses the percolation ponds on a year-round basis. The Facility does not currently have advanced wastewater treatment facilities and is not authorized to discharge to the Russian River unless it is upgraded to provide advanced wastewater treatment.

**ISSUES:**

**Reasonable Potential Analysis (RPA).** The RPA demonstrated reasonable potential for discharges of ammonia, copper, dichlorobromomethane, and chlorodibromomethane from the Facility to cause or contribute to exceedances of applicable water quality standards. The Proposed Order therefore includes effluent limitations for these constituents that are more stringent than the minimum, federal technology-based requirements but are necessary to meet water quality standards. These effluent limitations apply only if the Permittee discharges to the Russian River. The Proposed Order also requires monitoring for these constituents on a quarterly basis at discharge point EFF-002; discharge to percolation pond(s).

**Groundwater Monitoring.** Groundwater monitoring data collected during the term of Order No. R1-2012-0048 indicates that discharges from the percolations ponds to groundwater may be degrading water quality with respect to chloride, nitrate and electrical conductivity. In order to confirm compliance with Groundwater Limitations, the Permittee is required to perform quarterly monitoring for these constituents, complete a groundwater characterization analysis, and submit a technical report on the findings, as specified in section VI.C.2.a of the Proposed Order.

**Special Study of Chloride and Electrical Conductivity.** The Proposed Order includes a special study requirement to review chloride concentrations and electrical conductivity in the underlying groundwater basin, based on monitoring data collected for compliance with Order No. R1-2012-0048 and this Proposed Order. The Special Study involves an analysis of disinfection practices, as well as other treatment processes, that may result in the generation and discharge of these constituents within the effluent.

**Public Comment.** The Regional Board received comments on the Draft Order from the Permittee on June 18, 2018, and made some changes to the Proposed Order in response to the comments received. The most significant changes made to the Proposed Order in response to the Permittee's comments were: (1) the removal of nitrate effluent limits at EFF-001 and EFF-002 (see discussion below); (2) the removal of a Special Provision requirement for the performance of an Industrial Waste Survey (IWS) since one was formally completed in 2013 and no significant industrial users have been identified since then. The City also has an ongoing Sewer Use Permit Program which was recently extended to all commercial entities; (3) the removal of effluent, receiving water, and groundwater monitoring requirements for zinc at EFF-002, RSW-003 to RSW-006 and at GW-001 to GW-016 since zinc did not demonstrate reasonable potential to exceed water quality objectives in the Russian River or in groundwater; and (4) eliminating the minimum chlorine residual requirement of 1.5 mg/L (discussed below). A few more additional changes were made to the Proposed Order in response to the Permittee's comments, and 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 Staff initiation are also included in the Response to Comments document. The most significant staff-initiated changes are changes to the receiving water limitation for dissolved oxygen and groundwater toxicity limitation to properly reflect recently approved changes to

receiving water limitations in the Water Quality Control Plan for the North Coast Region (Basin Plan).

**Request to Remove Nitrate Effluent Limitations.** The Permittee requested the removal of nitrate effluent limitations citing analytical error or sample contamination in a single sample that was collected on November 19, 2015 that exceeded the drinking water Maximum Contaminant Level (MCL) of 10 mg/L. Staff agrees that this nitrate sample is an outlier likely due to sample contamination. Thus, this result was omitted from the reasonable potential analysis. As such, the effluent no longer has a reasonable potential to exceed the nitrate water quality objective. Effluent limits for nitrate have been removed at EFF-001 and EFF-002. The Proposed Order also changes the monitoring frequency for nitrate at EFF-002 (discharge to percolation ponds), and in the receiving water, from monthly to quarterly.

**Request for Removal of Requirement to Maintain a Chlorine Disinfection Residual.** The Permittee requested the removal of the requirement to maintain a minimum chlorine residual of 1.5 mg/L at the end of the chlorine contact chamber, as well as duplicative monitoring requirements at monitoring location EFF-002. The Regional Board has moved away from requiring that permittees maintain a minimum chlorine residual in their treated effluent since permits already contain an established effluent limitation for total coliform. This update however was overlooked when the Proposed Order was initially drafted. Changes have been made to the Draft Order to eliminate the minimum chlorine residual requirement of 1.5 mg/L. Instead, the Proposed Order requires the Permittee to maintain a chlorine residual concentration that ensures the discharge meets the total coliform effluent limitations at the end of the disinfection process so that adequate pathogen reduction is continuously achieved at Discharge Point 002 (discharge to the percolation ponds).

Staff met with the Permittee to discuss the Permittee's comments and Staff's proposed changes to the Proposed Order. The Permittee indicated that Staff's response to the Permittee's comments and changes to the Proposed Order are acceptable. Staff anticipates that the Proposed Order will be uncontested.

**RECOMMENDATION:** Adopt Order No. R1-2018-0034, as proposed.

**SUPPORTING  
DOCUMENTS:**

1. Proposed Order No. R1-2018-0034
2. Staff Responses to Written Comments
3. City of Cloverdale Comment Letter (June 18, 2018)
4. Public Notice