

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
Wednesday, March 8, 2017
Fortuna City Council Chambers
Fortuna, California

ITEM: 2

SUBJECT: Public Hearing on Order No. R1-2017-0006 to consider adoption of proposed Waste Discharge Requirements for the Redway Community Services District, WDID No. 1B831470HMU, NPDES No. CA0022781 (*Imtiaz-Ali Kalyan*)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2017-0006. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The Redway Community Services District (Permittee) owns and operates a municipal wastewater treatment facility and associated wastewater collection and disposal facilities (Facility). The collection system service area includes the City of Redway, which has a population of approximately 1,340 people. The wastewater consists primarily of residential and commercial flows. There are no industrial users within the service area.

The Facility, located in the Benbow subarea of the South Fork Eel River Hydrologic Area, is designed to treat an average dry weather flow of 0.186 mgd, and a peak wet weather flow of 0.580 mgd. Wastewater generated within the Permittee's service area is conveyed to the Dogwood lift station from where it is pumped through an 8-inch pressure main down Dogwood lane, under the South Fork Eel River, and to the Facility where it enters the plant distribution box upstream of the oxidation ditch. Raw wastewater from the Eel River Conservation Camp and the YMCA Camp enter the plant distribution box from separate pipelines.

The Facility treatment system consists of an oxidation ditch, a secondary clarifier, a sludge thickener which is no longer in operation, and a chlorine contact chamber for disinfection. The Facility discharges treated wastewater to three percolation ponds that are located in an upland area adjacent to the Facility and across a deep ravine. Treated wastewater is conveyed to the percolation ponds via a suspended transmission line, which limits the effluent flow that may be discharged to the ponds. Solids removed from the secondary clarifier are either returned to the oxidation ditch or dewatered in four sludge drying beds. The dewatered solids are then disposed of in a wooded area, owned by the Permittee, north of the Facility.

ISSUES: **Effluent Limitations and Monitoring and Reporting Requirements.** The Proposed Order retains technology-based effluent limitations for biochemical oxygen demand (BOD₅), total suspended solids, and pH at Discharge Points 001 and 002. The Proposed Order retains Water Quality-Based Effluent Limitations (WQBELs) for chlorine residual, and the chlorine disinfection byproducts chlorodibromomethane and dichlorobromomethane, and establishes new WQBELs, for ammonia nitrogen, nitrogen, alpha-endosulfan, 2,4,6-trichlorophenol, and copper at discharge point 001. The following

paragraphs describe the most significant issues addressed in the Proposed Order and changes incorporated in response to comments.

Reasonable Potential for Ammonia. The reasonable potential analysis (RPA) identified reasonable potential for ammonia to exceed water quality standards, based on samples collected at monitoring locations EFF-001 and EFF-002, between September 2011 and May 2016. Ammonia levels in the effluent were measured at concentrations greater than the U.S. EPA 2013 Freshwater Chronic Criteria. As a result, discharges from the Facility have a reasonable potential to cause or contribute to exceedances of applicable water quality criteria for toxicity, and thus effluent limitations for ammonia are established. In addition, the Proposed Order includes a requirement for the Permittee to conduct a special study to determine the presence or absence of freshwater mussels in the South Fork of the Eel River. The RPA for ammonia for the next permit term will be evaluated based on the results of this special study.

Chronic Toxicity Requirements. The Permittee conducted chronic toxicity testing using *P. promelas*, *C. dubia*, and *S. capricornutum* in March of 2014 and March 2016. Due to the short-term and intermittent nature of the discharges in March 2014 and March 2016, the Permittee was unable to conduct accelerated monitoring to verify that the effluent exhibited chronic toxicity. The Permittee attempted to conduct an additional chronic toxicity test during the May 2016 discharge event, but the test was unable to be performed because the sample was received by the laboratory outside of the temperature range. Based on the observed chronic toxicity to *C. dubia* reproduction in March 2014 and March 2016, Regional Water Board staff concludes that the discharge has reasonable potential to cause or contribute to an exceedance of the Basin Plan narrative toxicity objective. Therefore, the Proposed Order establishes a narrative effluent limitation for chronic toxicity. In addition, the Proposed Order includes language that allows the Regional Water Board to reopen the permit and include a numeric chronic toxicity limitation, a revised acute toxicity limitation, and/or a limitation for a specific toxicant identified in the toxicity reduction evaluation (TRE). To ensure compliance with the narrative effluent limitation and the Basin Plan narrative toxicity objective, the Permittee is required to conduct annual chronic whole effluent toxicity (WET) testing at Discharge Point 001, as specified in the monitoring and reporting program (MRP) (Attachment E, section V). Furthermore, the MRP (Attachment E, section V.C) requires the Permittee to investigate the causes of, and identify and implement corrective actions to reduce or eliminate effluent toxicity.

Special Studies, Technical Reports, and Additional Monitoring Requirements. The Proposed Order requires the Permittee to perform a special engineering study on the flow capacity of the suspended transmission line (used to transport treated, chlorinated effluent to the percolation ponds at EFF-002) in order to validate the Permittee's statement that the transmission line can sustain flows greater than 0.350 mgd without compromising its integrity. The basis for this study stems from language in Attachment F of Order No. R1-2011-0046 which states "the flow capacity of the transmission line effectively limits the amount of effluent that can be disposed of to the percolation ponds. Consequently, when flows exceed 0.350 mgd, the Permittee transmits treated effluent to the South Fork Eel River for disposal." The Basin Plan however contains a seasonal discharge prohibition

between May 15 and September 30, which would prevent the Facility from discharging their treated effluent to the Eel River during periods of high water contact recreation.

In addition, during an inspection of the Facility on December 14, 2016, Regional Board and State Board staff observed sludge management practices at the Facility that pose a threat to water quality and public health. As a result, staff initiated changes to the Proposed Order require that the Permittee develop and implement a sludge management plan that evaluates and recommends practices to adequately handle, store, and dispose of sludge generated at the Facility, in compliance with federal and state regulations. The Plan shall propose a schedule of implementation for the recommended practices.

Public Comment. Regional Water Board staff received timely comments on the Draft Permit from the City and made changes to the Proposed Order in response to those comments. The most significant change made to the Proposed Order was the removal of the 0.350 mgd effluent limit on the suspended transmission used to transport treated chlorinated effluent to the percolation ponds. A full explanation of the comment and response is documented in the attached Response to Comments document. Additional staff initiated changes to the Proposed Order are also discussed in the Response to Comments document.

The Proposed Order was revised to the satisfaction of the Permittee, and adoption of the Proposed Permit is expected to be uncontested.

RECOMMENDATION: Adopt Order No. R1-2017-0006, as proposed.

SUPPORTING
DOCUMENTS:

1. Proposed Order No. R1-2017-0006
2. Staff Response to Written Comments
3. Redway Community Services District Comment Letter
4. Public Notice