

Regional Water Quality Control Board  
North Coast Region

Executive Officer's Summary Report  
Thursday, September 6, 2018  
Regional Water Board Office  
Santa Rosa, California

**ITEM:** 6

**SUBJECT:** Public Hearing on Order No. R1-2018-0032 to consider adoption of proposed Waste Discharge Requirements for McKinleyville Community Services District, Wastewater Management Facility, WDID No. 1B82084OHUM, NPDES No. CA0024490 (Justin McSmith)

**BOARD ACTION:** The Board will consider adoption of Waste Discharge Requirements Order No. R1-2018-0032. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

**BACKGROUND:** McKinleyville Community Services District (Permittee), is a municipal wastewater management facility and associated wastewater collection, recycling, and disposal facilities (Facility) that serve a population of 16,900 residential, commercial, industrial, agricultural and municipal users in the unincorporated town of McKinleyville.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2011-0008-DWQ, which serves as a NPDES permit for waste discharges to surface waters, discharges to land, and the production, distribution and use of recycled water.

The Facility is designed to treat an average dry weather flow of 1.37 mgd and a maximum peak wet weather flow of 3.08 mgd. The treatment system has recently been upgraded and consists of a headworks structure that monitors flow, screens influent and distributes flow to two aeration basins. Secondary treatment consists of two aeration basins providing a complete mix activated sludge process using extended retention of biological solids along with separate anoxic and oxic zones to achieve biological nitrogen removal.

Two secondary clarifiers remove the biomass associated with the secondary treatment process and produce a clarified effluent ready for disinfection and final discharge. Chlorine solution is used to achieve disinfection and sulfur dioxide solution is used to dechlorinate. Solids handling consists of pumping waste activated sludge from the secondary clarifiers to a biosolids storage basin. The estimated time to fill the basin with biosolids is 6.9 years. Once full, the stored biosolids are dredged, dewatered, and hauled to an off-site disposal site.

The Permittee may discharge disinfected secondary to the effluent Mad River at Discharge Point 001 between October 1 and May 14. During the seasonal discharge prohibition, May 15 through September 30, the Permittee can discharge to percolation ponds at Discharge Point 002 or recycle water at Discharge Points 003 through 006.

The Proposed Order contains several noteworthy requirements including the following:

1. New calculation-based ammonia effluent limitations when discharging to the Mad River and an ammonia study to determine if freshwater mussels are present in the receiving water. The new ammonia effluent limitations are dependent on variable in-stream temperature and pH samples taken concurrently with the ammonia

effluent sample. The U.S. EPA approved Ammonia Impact Ratios (AIRs) are the ammonia effluent limitations designed to track these new “floating limits”. The AIR, or final effluent limitation, is determined by dividing the concentration of ammonia in the effluent by the appropriate ammonia standard which varies with receiving water pH and temperature. The AIR always has a limit of 1.0. If the AIR is greater than 1.0 then the Permittee is not in compliance with the AIR effluent limitation. The Permittee will be provided with an AIR calculator (in excel format with embedded formulas) to determine compliance with the new AIR effluent limitations included in the Proposed Order.

2. Updated technology based effluent limitations (TBELs) for BOD<sub>5</sub>, TSS and BOD<sub>5</sub>/TSS percent removal due to an upgrade in the treatment process. The previous plant had equivalent to secondary TBELs and the upgraded plant can produce secondary treated effluent with biological nitrogen removal.
3. Language that will remove discharge point 002 as a permitted discharge location to the percolation ponds by 2021. The Permittee is planning to decommission the percolation ponds and create off channel coho habitat.

**Public Comment:** Regional Water Board staff received timely comments on the Draft Order from the Permittee and made several changes to the Proposed Order in response to those comments. No other comments were received. The most significant changes made to the Proposed Order in response to the Permittee’s comments were: (1) removal of Bis (2-ethylhexyl) phthalate and nitrate as effluent limitations due to findings of no reasonable potential; (2) reduction in the number of groundwater monitoring wells due to a robust monitoring well network that had redundancy in the application area and monitoring data showing that the discharge did not pose a threat to groundwater quality; and (3) inclusion of AIRs to determine compliance with and track new ammonia “floating limits”. 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 Permit by Staff initiation are also discussed 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).

Staff met with the Permittee to discuss the Permittee’s comments and Staff’s Proposed Changes to the Proposed Permit. The Permittee indicated that Staff’s response to the Permittee’s comments and changes to the Proposed Permit are acceptable. Staff anticipates that the Proposed Permit will be uncontested.

**RECOMMENDATION:** Adopt Order No. R1-2018-0032, as proposed.

**SUPPORTING DOCUMENTS:**

1. Proposed Order No. R1-2018-0032
2. Staff Responses to Written Comments
3. McKinleyville Community Services District Comment Letter
4. Public Notice