Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
June 19/20, 2019
Regional Water Board Office
Eureka, California

ITEM: 5

SUBJECT: Public Hearing on Order No. R1-2019-0020 to consider adoption of proposed Waste Discharge Requirements for the Fort Bragg Municipal Improvement District No. 1 Wastewater Treatment Plant, WDID No. 1B84083OMEN, NPDES No. CA0023078 (Cathleen Goodwin)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2019-0020. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The Fort Bragg Municipal Improvement District No. 1 (Permittee) owns and operates the Fort Bragg Wastewater Treatment Facility and associated wastewater collection and disposal facilities (Facility) for treating primarily municipal wastewater for a population of approximately 7,300 people within the City of Fort Bragg and surrounding unincorporated areas, including Mackerricher State Park. The Facility also serves several industrial and commercial facilities.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2015-0024 which serves as an NPDES permit for waste discharges of disinfected secondary effluent to surface waters. The Facility currently has an average dry weather design capacity of 1.0 million gallons per day (mgd) and an average monthly wet weather treatment capacity of 2.2 mgd. Actual average dry weather flows over the last four years have been between 0.41 and 0.46 mgd. The treatment system consists of a Parshall Flume for influent flow monitoring, rag screening, grit removal, primary clarification, two-stage trickling filters, secondary clarification, chlorination using hypochlorite, and dechlorination using sodium bisulfite. Effluent is discharged through a diffuser at Discharge Point 001 to the Pacific Ocean. Solids are processed and disposed of at a landfill.

The Permittee is currently constructing upgrades to the Facility that are expected to be completed and operational by late 2019.

The upgraded treatment system has been designed with an average dry weather design treatment capacity of 0.8 mgd and an average daily wet weather treatment capacity of 4.9 mgd. The upgraded treatment system consists of a Parshall flume for influent flow monitoring prior to the headworks, headworks, grit removal, equalized influent flow monitoring following the Influent Pump Station, Aero-Mod system for secondary treatment, chlorine disinfection using hypochlorite, and sodium bisulfite dichlorination. The Aero-Mod system is an extended aeration, activated sludge treatment system that includes a

selector tank, two first-stage aeration (nitrification) tanks, two second-stage aeration (denitrification) tanks, and two clarification tanks. The existing clarifiers will be repurposed and used as flow equalization basins during large storm events and to allow maintenance of the influent pump station when needed. Effluent will continue to be discharged through a diffuser at Discharge Point 001 to the Pacific Ocean.

Sludge generated from the Aero-Mod system will be treated in aerobic digestion tanks and dewatered through a belt filter press. Dewatered sludge from the belt filter press will be placed in the sludge drying beds prior to landfill disposal or land application. New sludge drying beds will be constructed in the footprint of the old trickling filters.

DISCUSSION: Order No. R1-2019-0020 (Proposed Order) replaces Order No. R1-2015-0024 (previous Order) and includes the following changes and new requirements:

1. The Facility has been rerated from a major NPDES facility to a minor NPDES facility due to the design treatment capacity being reduced to 0.8 mgd. Facilities with greater than 1 mgd flow are rated as major NPDES facilities.

2. New effluent limitations for ammonia and removal of effluent limitations for copper (Effluent Limitation IV.A.1a). The reasonable potential analysis for these pollutants was based on data collected during the term of Order No. R1-2015-0024. The Proposed Order acknowledges that the new Facility is designed for a higher level of ammonia removal and that ammonia effluent limitations may be removed from the permit at the next permit renewal if data collected over the term of the 2019 permit demonstrates no reasonable potential for ammonia.

3. Removal of mass-based effluent limitations for biochemical oxygen demand and total suspended solids. The concentration-based limitations were retained. (Effluent Limitation IV.A.1.a)

4. New effluent limitations and monitoring requirements for enterococci 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 Ocean Waters of California. (Effluent Limitations IV.A.1.c and MRP section IV.A.1)

   The Proposed Order was further modified after the public comment period as follows:

   a. To clarify that enterococcus monitoring can be performed using either most probable number (MPN) or colony-forming unit (CFU) methods.

b. To recognize that the total coliform effluent limitation (based on shellfish harvesting standards) is more stringent than the new fecal coliform effluent limitation (based on contact recreation standards), thus, fecal coliform bacteria effluent limitations and monitoring requirements have been removed from the Proposed Permit.

c. To clarify that the bacterial water quality objectives (total coliform and enterococci) apply year-round.

5. New special study and monitoring study requirements including:

   a. A new requirement to submit a Disaster Preparedness Assessment Report and Action Plan that assesses the Facility to determine areas of short- and long-term vulnerabilities related to natural disasters and extreme weather, including sea level rise and other conditions that may be exacerbated by climate change and identifies recommended actions to address those vulnerabilities. (Provision VI.C.2.a)

   b. A new requirement to submit a Source Control Program Technical Report that describes the District's source control program. (Provision VI.C.5.b.i)

   c. A new requirement to conduct a dilution credit verification assessment to determine if the current outfall and discharge conditions are consistent with the conditions that existed when the dilution credit evaluation was last done in 1973. (MRP section IX.A.2.c).

6. New construction Operation and Maintenance Specifications requirements that require documentation that new and upgraded facilities were constructed consistent with approved design plans. (Provision VI.C.4.c)

7. A reduction in the frequency for submitting self-monitoring reports (SMRs). This change is intended to provide reporting efficiencies for the Permittee and review efficiencies for Regional Water Board staff. MRP section X.B requires quarterly submittal of self-monitoring reports that were previously required on a monthly basis.

PUBLIC COMMENT: A copy of the Draft Order was posted on the Regional Water Board website and was available for public comment from March 13, 2019 through April 12, 2019. The Permittee submitted timely comments on the Draft Order.

The Permittee's comments included requests to (1) clarify acceptable enterococcus monitoring methods; (2) monitor for E coli rather than fecal coliform; and (3) correct an

error regarding the Fact Sheet description of the Permittee's disinfection system. Regional Board staff modified the Proposed Order in response to the Permittee's comments 1 and 3. Regional Water Board staff determined that E coli monitoring could not replace fecal coliform monitoring because these are uniquely different bacterial species. The Permittee's request caused Regional Water Board staff to realize that the total coliform bacteria effluent limitations in the Draft Order are more stringent than the fecal coliform bacteria effluent limitations and that the fecal coliform effluent limitations were thus unnecessary. The Proposed Order was modified as a staff-initiated change to remove the fecal coliform effluent limitations and monitoring requirements. These changes are also summarized under the Discussion section (Item 4) of this EOSR.

Regional Water Board staff communicated with the Permittee via email regarding the Permittee's comments and how the comments would be responded to. The Permittee expressed agreement with the changes and concurrence with the Proposed Order.

RECOMMENDATIONS: Adopt Order No. R1-2019-0020, as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Order No. R1-2019-0020
2. Staff Response to Written Comments
3. Fort Bragg Municipal Improvement District No. 1 Comments
4. Public Notice