

Executive Officer's Summary Report  
8:30 a.m., January 29, 2009  
North Coast Regional Water Board  
David C. Joseph Hearing Room  
5550 Skylane Blvd., Suite A  
Santa Rosa, California

Item: 4

Subject: Public Hearing Order No. R1-2009-0003 to consider adoption of Waste Discharge Requirements and Master Reclamation Permit for the **Russian River CSD and Sonoma County Water Agency Russian River Wastewater Treatment Facility** NPDES No. CA0024058, WDID No. 1B820450SON

## DISCUSSION

The Russian River County Sanitation District and the Sonoma County Water Agency (hereinafter Discharger) are currently discharging under Order No. R1-2003-0026 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024058 adopted on November 5, 2003. The Discharger submitted a Report of Waste Discharge, dated August 24, 2007, and applied for an NPDES permit renewal to discharge an average dry weather flow of up to 0.71 (mgd) of treated wastewater from the Russian River County Sanitation District Wastewater Treatment Facility (hereinafter Facility). The application was deemed complete on October 16, 2008.

The Discharger owns and operates a municipal wastewater treatment facility and associated wastewater collection, reclamation, and disposal facilities that serve a population of approximately 7,300 people in unincorporated areas of Rio Nido, Vacation Park, Guerneville, and Guerneville Park. The majority of the facility's wastewater flow is from residential and commercial users. The treatment system includes headworks (coarse screening and aerated grit removal), three extended aeration activated sludge basins, three secondary clarifiers, two tertiary filters, a chlorine contact basin, and a dechlorination system. Treated wastewater is held in a 3.5 million gallon storage pond prior to being pumped to an effluent control tank for subsequent discharge to one of two irrigation systems or to the Russian River outfall. The facility is currently designed to treat an average dry-weather flow (ADWF) of 0.71 mgd and a maximum sustained wet-weather flow rate of 3.5 mgd.

From October 1 through May 14, treated wastewater may be discharged at Discharge Point 002 to the Russian River, waters of the United States. From May 15 through September 30 and other periods when weather conditions are dry, treated wastewater is supplied to the 43 acre Northwood Golf Course, located south of the treatment plant and on the opposite bank of the Russian River. Treated wastewater not used by the

Northwood Golf Course during the irrigation season is disposed of by spray irrigation on the 17 wooded acres adjacent to the treatment plant, referred to as the Burch property.

This WWTF and collection system has had in the recent past serious problems with wet-weather flows that have caused spills and bypasses of untreated or partially treated effluent to the Russian River. During the term of the existing permit, Order No. R1-2003-0026, the Discharger completed several projects and operational changes to address these violations. The Discharger completed the Third Unit Processes Project which included the construction of a third secondary clarifier and aeration basin and installation of new tertiary filters, thereby increasing the wet-weather treatment plant capacity to 3.5 mgd from 1.2 mgd. In addition, the influent pumps are being operated to limit wet-weather flow to the current wet-weather capacity of 3.5 mgd to avoid overwhelming the WWTF. Also, the Discharger conducts inspections and closes cleanouts in flood-prone areas to reduce the inflow of stormwater to its collection system. There has not been a significant, sustained flood event since the completion of all these measures.

Several notable changes in the proposed Order No. R1-2009-0003 from the existing permit, Order No. R1-2003-0026, include:

1. The proposed Order will also serve as a Master Reclamation Permit to implement Title 22 requirements for recycled water use. The proposed Order contains recycled water requirements and provisions (Attachment G) to implement Title 22 and California Water Code section 13523.1 (Master Reclamation Permit Requirements) and the monitoring and reporting program (MRP) contains quarterly recycled water reporting requirements as required by the Master Reclamation Permit Requirements set forth in the California Water Code at section 13523.1(b)(4).
2. Effluent limitations for copper, nitrate, and ammonia will be applied to the Facility for the first time for treated effluent discharged to the Russian River. The Order also contains more stringent effluent limitations for chlorine residual for effluent discharged to the Russian River. A compliance schedule that includes interim limits for these constituents is included in the Order. The MRP contains associated monitoring requirements for these constituents.
3. Final effluent limitations for dichlorobromomethane (DCBM) are effective in this Order. The Discharger has not yet implemented measures to achieve compliance with these final DCBM effluent limitations. The Discharger has proposed construction of an ultraviolet (UV) light disinfection system as a means to eliminate the formation of trihalomethanes (e.g., DCBM, chlorodibromomethane, chloroform) which are by-products of chlorination. The UV disinfection system will not be completed until July 1, 2011.
4. UV disinfection system operations and monitoring requirements are included in the proposed Order and will become effective upon completion of the UV disinfection system.

5. Discharge specifications for nitrate, ammonia, total dissolved solids, sodium, chloride, and aluminum will be applied to the Facility for the first time for treated effluent discharged to the land disposal site (Burch property) and the discharge specification for nitrate will also be applied for treated effluent reused for irrigation at the Northwood Golf Course. The MRP contains associated monitoring requirements for these constituents.
6. Groundwater monitoring in the lower Burch property is required to assess impacts of the land disposal operation on local groundwater.
7. The proposed Order contains prohibitions, effluent limitations and provisions to minimize the potential for spills and bypasses to occur during wet-weather periods, including a prohibition that limits wet-weather flows to 3.5 mgd, limitations on the mass load of BOD and TSS that can be discharged during wet-weather periods, and flood control and flow reduction mitigation requirements. The MRP requires the Discharger to include with its annual report details of flood control and flow reduction mitigation measures that are taken each year, evaluation of the effectiveness of these measures, and recommendations for improving its flood control and flow reduction mitigation program for the upcoming year.
8. The proposed Order gives the Discharger full use of the federal bypass and upset provisions. Order No. R1-2003-0026 restricted the Discharger's use of these provisions in the event that violations were related to the rate or volume of inflow into the WWTF. The proposed Order removes this restriction because the Discharger completed inflow reduction measures, expanded WWTF capacity, and implemented a program to ensure that the collection system and WWTF continue to be operated in a manner that reduces the potential for spills and by-passes during wet-weather events. The upset/bypass language in the proposed Order would allow the Discharger to assert the upset or bypass defense for future violations; however, bypass and upset are still prohibited by the proposed Order and the defense is not automatic, with the burden of proof on the Discharger to demonstrate that it has met the requirements for claiming the upset or bypass defense.
9. Receiving water limitations for surface water have been added for total dissolved solids (TDS) and conductivity in accordance with the Basin Plan. The MRP requires that the receiving water be monitored for TDS and conductivity upstream and downstream of the Russian River discharge outfall to determine compliance with these receiving water limitations.
10. Downstream receiving water monitoring in the Russian River is required at the discharge outfall by October 1, 2009, unless the Discharger submits an alternate downstream monitoring plan that is approved by the Executive Officer.
11. Stricter spill reporting requirements have been incorporated into the proposed Order to maintain consistency with State Water Resources Control Board Order

No. WQ 2008-0002-EXEC. These requirements include 2-hour reporting to the Regional Water Board, Office of Emergency Services, and local health department of all spills and unauthorized discharges and 24-hour written certification that these agencies were contacted.

12. Future recycled water storage ponds are required to be constructed in a manner that is protective of groundwater and that such demonstration be made to the Regional Water Board prior to construction.
13. The reopener provisions in the proposed Order are more specific than those contained in Order No. R1-2003-0026 and include provisions to reopen the permit:
  - To include effluent limitations if monitoring establishes that the discharge has reasonable potential to cause an exceedance of water quality objectives;
  - To include effluent limitations for acute or chronic toxicity or specific toxicants if the need is determined by the results of a Toxicity Reduction Evaluation or if a chronic toxicity water quality objective is established by the State Water Board;
  - If a TMDL program is adopted that requires modification of or establishment of effluent limitations for pollutants that are the subject of the TMDL;
  - To allow recalculation of priority pollutant effluent limitations if the Discharger performs studies to determine site-specific Water Effect Ratios (WERs) and/or site-specific dissolved-to-total metal translators;
  - If the State Water Board adopts a Recycled Water Policy that includes requirements and/or limitations for salts, nutrients, or other constituents for protection of groundwater and drinking water supplies;
  - If new State or federal water quality objectives for nutrients are established.

A copy of the draft permit and/or information to access the draft on the Regional Water Board website was mailed to the Discharger, interested agencies, and persons. This item was opened for public comment between October 28 and December 1, 2008. Comment letters and/or emails were received from the Sonoma County Water Agency acting on behalf of Russian River CSD, the Russian River Watershed Protection Committee, California Department of Health Services, and Ken Berry. The proposed Order was modified in response to some of the comments received. Copies of the letters and emails received and staff's Response to Comments are included as attachments to this Staff Report.

In addition, Regional Water Board staff made several changes to the proposed Order since it was circulated for public review. Those changes are summarized in the Attachment titled "Changes Made To Proposed Order by Regional Water Board Staff".

PRELIMINARY STAFF  
RECOMMENDATION:

Adopt the Order as proposed.