

EXECUTIVE OFFICER'S SUMMARY REPORT
8:30 a.m., January 21, 2010
Regional Water Board Office
David C. Joseph Meeting Room
5550 Skylane Blvd., Suite A
Santa Rosa California

ITEM: 4

SUBJECT: Public Hearing on Order No. R1-2010-0006 to consider a proposed Cease and Desist order for **Russian River County Sanitation District and Sonoma County Water Agency** Wastewater Treatment Facility, Waste Discharge Requirements Order R1-2009-0003, WDID No. 1B82045OSON

DISCUSSION

The Russian River County Sanitation District and Sonoma County Water Agency (hereinafter collectively referred to as "Discharger") own and operate a municipal wastewater treatment facility (WWTF) located in Guerneville, California, adjacent to the Russian River. The Discharger treats domestic waste to tertiary wastewater treatment standards, disinfects the wastewater using chlorine, dechlorinates, and then discharges the treated effluent to storage ponds for subsequent discharge to the Russian River through an outfall pipe during the discharge season allowed by the Basin Plan (October 1 through May 14) and to the Northwood Golf Course and a land disposal area adjacent to the WWTF property during the dry period set out in the Basin Plan, May 15 through September 30. The WWTF is designed to treat an average dry weather design flow of 0.71 million gallons per day (mgd) and a maximum sustained wet-weather flow of 3.5 mgd. Waste discharges from the WWTF are currently regulated under Waste Discharge Requirements (WDRs) Order No. R1-2009-0003 (hereinafter, Current Permit), adopted by the Regional Water Board on January 29, 2009. The WDRs also serve as a National Pollutant Discharge Elimination System (NPDES) permit.

Compliance with CTR Requirements for Dichlorobromomethane and Copper

Prior to, and during the term of the previous permit for this WWTF, Order No. R1-2003-0026 (hereinafter, Previous Permit), the Discharger was required to monitor its effluent for California Toxics Rule (CTR) constituents, and the Discharger's monitoring data was evaluated in accordance with the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California* (State Implementation Policy or SIP). The SIP requires the establishment of effluent limitations in permits for any CTR constituent that may have reasonable potential to cause or contribute to an excursion above a water quality criterion or objective applicable to the receiving water. The SIP allows for the establishment of interim effluent limitations and compliance schedules to attain final effluent limitations if a discharger is able to demonstrate the infeasibility of immediately complying with final

effluent limitations. The SIP requires compliance with final effluent limitations for all CTR constituents by May 18, 2010.

CTR monitoring data collected by the Discharger shows reasonable potential for dichlorobromomethane (DCBM) and copper. DCBM is a common byproduct from chlorination. Copper is often found in wastewater effluent and may be associated with use of copper pipes in water supply systems.

The Previous Permit included final effluent limitations for DCBM that became effective on November 5, 2008. The Previous Permit did not contain effluent limitations or a compliance schedule for copper, but required monitoring of the effluent for copper that showed reasonable potential for copper. The Current Permit includes final effluent limitations for DCBM that are more stringent than the Previous Permit and interim effluent limitations and a compliance schedule for copper requiring the Discharger to comply with final copper effluent limitations by May 18, 2010.

Prior to the adoption of the Current Permit, Regional Water Board staff recognized that the Discharger was unlikely to comply with the final DCBM and copper effluent limitations set out in the Current Permit, but did not have sufficient information from the Discharger to justify giving the Discharger an extension of time to achieve compliance.

In addition, the Regional Water Board Executive Officer issued Administrative Civil Liability Complaint No. R1-2007-0101 (ACLC) on November 14, 2007 and the Regional Water Board adopted Administrative Civil Liability Order No. 2008-0045 (ACLO) on June 12, 2008. The ACLC and ACLO assessed mandatory minimum penalties (MMPs) for violations of effluent limitations and the ACLO allows the Discharger to spend a portion of the assessed MMPs on a compliance project. Since the majority of the violations were for exceedances of coliform effluent limitations, the compliance project authorized in the ACLO is construction of an ultraviolet (UV) light disinfection system at the WWTF. Construction of a UV disinfection system will address coliform violations as well as remove the potential for the generation of DCBM at the WWTF. The ACLO compliance schedule required completion of the UV disinfection system by July 1, 2011.

On May 28, 2009, the Discharger submitted a written request for a Cease and Desist Order for the Russian River Wastewater Treatment Facility, which contained a compliance analysis for DCBM and copper (hereafter referred to as the "Request"). The Request stated that RRCSD is unable to comply with final effluent limitations in the Current Permit for DCBM, and although it is currently meeting interim limits, it does not expect to achieve compliance with final copper effluent limitations by May 18, 2010, as required by the Current Permit. The Request contains an analysis of the Discharger's inability to comply with final effluent limitations for DCBM and copper and identifies proposed actions and compliance schedules to comply with final DCBM and copper effluent limitations. The Discharger has requested an extension to December 1, 2011 to complete construction of the proposed UV disinfection system and comply with DCBM effluent limitations. The Discharger also has requested approximately three and a half additional years from the May 18, 2010 SIP deadline, to December 1, 2013, to complete

studies necessary to determine an effective means to comply with final copper effluent limitations. The proposed Order requires the Discharger to comply with final effluent limitations for copper by October 1, 2014 to provide time for Regional Water Board staff to review and approve the Discharger's studies and incorporate the Discharger's compliance strategy into the Permit, if necessary.

Due to the deadline of May 18, 2010 imposed in the SIP for compliance with effluent limitations established for CTR constituents, the Permit cannot provide compliance dates beyond May 18, 2010 for CTR constituents. Cease and desist orders are adopted pursuant to California Water Code sections 13301-13303 for dischargers violating or threatening to violate waste discharge requirements or prohibitions prescribed by the Regional Water Board and are an effective enforcement vehicle for the Regional Water Board to address dischargers with chronic non-compliance problems that may require extensive capital improvements or operational changes. Section 13385(j)(3) of the Water Code also contains provisions to shield a discharger from MMPs if required conditions are met. Regional Water Board staff evaluated these conditions and found that the Discharger qualifies for being shielded from MMPs for future violations of the final effluent limitations for DCBM and copper, as long as the Discharger complies with the compliance schedules identified in Requirements 1.a and 1.b and the interim effluent limitations for DCBM and copper specified in Requirement 2 of the proposed Cease and Desist Order, Order No. R1-2010-0006.

Compliance with New Chlorine Residual Effluent Limitations

Order No. R1-2009-0003 also requires the Discharger to achieve more stringent chlorine residual detection limitations by July 1, 2011 in order to demonstrate removal of chlorine from its effluent below concentrations that are toxic to aquatic life. Currently the Discharger monitors chlorine residual using monitoring equipment with a detection limit of 0.1 mg/L and Order No. R1-2009-0003 requires the Discharger to achieve more stringent chlorine residual effluent limitations of 0.01 mg/L (average monthly effluent limitation) and 0.02 mg/L (maximum daily effluent limitation) by July 1, 2011.

On September 1, 2009, the Discharger submitted a workplan to evaluate methods to comply with chlorine residual effluent limitations in Effluent Limitation IV.A.3.b of Order No. R1-2009-0003. Due to the fact that the Discharger will be eliminating the use of chlorine, the Discharger proposes to comply with the chlorine residual effluent limitations by eliminating the use of chlorine by constructing the proposed UV disinfection system identified in Findings 8 through 10 of the proposed CDO.

The Discharger's comments on the public review draft of the proposed CDO requested additional time to December 1, 2011 to comply with the final chlorine residual effluent limitations in its Current Permit. Although the Discharger's September 1, 2009 workplan did not explicitly request a time extension to comply with the chlorine residual effluent limitations, it may be appropriate to modify the proposed CDO to allow this time extension to coincide with the UV disinfection system completion date of December 1, 2011 provided in the proposed CDO. Since the Discharger typically starts discharging to surface waters around November 1 each year, this time extension from July 1, 2011

to December 1, 2011 equates to one additional month of discharge at the less stringent detection limits. In addition, the Discharger's consistent compliance with effluent limitations for acute and chronic toxicity is an indication that the Discharger may be achieving the lower chlorine residual detection limitations, even though its existing chlorine residual monitoring equipment cannot detect down to 0.01 mg/L. Thus Regional Water Board staff believe that providing the Discharger with additional time to achieve this Permit requirement does not appear to pose a threat to water quality.

Compliance with chlorine residual effluent limitations may be demonstrated using the Discharger's current methodology and detection limits identified in Effluent Limitation IV.A.2.c of Order No. R1-2009-0003 until the UV disinfection system is completed.

The schedule in Requirement 1.a of the proposed CDO to achieve compliance with final effluent limitations for DCBM and chlorine residual provides the Discharger until December 1, 2011 to complete its UV disinfection system and includes interim tasks and report submittals to document its progress. This schedule allows five months longer than the time schedule in the ACLO. The Regional Water Board Executive Officer, by letter dated October 5, 2009, has approved extension of the time schedule in the ACLO .

The schedule in Requirement 1.b. of the proposed CDO to achieve compliance with final effluent limitations for copper provides an additional four and a half years, to October 1, 2014, for the Discharger to achieve compliance with final copper effluent limitations. The schedule includes interim tasks that include a series of studies necessary to determine an effective means to comply with final copper effluent limitations and submittal of reports to define and document the studies.

The proposed Cease and Desist Order was available for public comment between September 17, 2009 and October 19, 2009. Comments were received from the Sonoma County Water Agency acting on behalf of Russian River CSD and the Russian River Watershed Protection Committee. The proposed Order was modified in response to some of the comments received. The most significant change to the proposed Order is discussed above in the section titled "Compliance with New Chlorine Residual Effluent Limitations".

Copies of the letters received and staff's Response to Comments are included as attachments to this Staff Report.

**PRELIMINARY STAFF
RECOMMENDATION:**

Adopt Cease and Desist Order No. R1-2010-0006 for the Russian River County Sanitation District and Sonoma County Water Agency Wastewater Treatment Facility.