

Executive Officer's Summary Report  
8:30 a.m., January 27, 2011  
Regional Water Quality Control Board  
David C. Joseph Hearing Room  
5550 Skylane Blvd., Suite A  
Santa Rosa, California

Item: 6

Subject: Public Hearing on Order R1-2011-0006, to consider modification of Waste Discharge Requirements Order No. R1-2007-0013, for **Town of Windsor Wastewater Treatment, Reclamation and Disposal Facility** NPDES No. CA0023345, WDID No. 1B82037OSON, Sonoma County.

### DISCUSSION

The Town of Windsor (hereinafter Discharger) currently discharges municipal wastewater under Waste Discharge Requirements Order No. R1-2007-0013 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0023345 adopted by the Regional Water Board on June 14, 2007. The Discharger's wastewater treatment facility provides tertiary treatment and ultraviolet (UV) light disinfection for an average dry-weather design flow of 2.25 million gallons per day (mgd). Treated disinfected effluent is reclaimed on Town-owned and private agricultural and urban landscapes during dry-weather and discharged to Mark West Creek intermittently during the allowed discharge period of October 1 through May 14.

On July 21, 2010, the Discharger submitted a Report of Waste Discharge (ROWD) and letter requesting modifications to its NPDES permit with regard to copper effluent limitations and addition of a new discharge point. Additional documents that were submitted by the Town supporting the requested changes include: The October 28, 2009 report titled *Town of Windsor Wastewater Treatment, Reclamation and Disposal Facility Copper Water-Effect Ratio Study*; January 4, 2010 memorandum titled *Technical Basis for Implementation of a Discharger-specific Copper WER*; February 11, 2009 letter stating the Town's intent to move forward with construction of a pump station and pipeline to the Geysers recharge pipeline; and October 15, 2009 *Draft Technical Memorandum, Windsor NPDES Permit Amendment* (regarding the Geysers Project).

The proposed permit modification includes the following changes that were requested by the Discharger:

1. Re-evaluation of reasonable potential for copper, incorporating a discharger-specific water effect ratio (WER) and use of effluent hardness. Order No. R1-2007-0013 (adopted on June 14, 2007) included provisions allowing the Discharger to conduct a discharger-specific WER study and reopening of the permit to incorporate the WER.

The water quality objective for copper specified in the California Toxics Rule for inland surface waters is in the form of an equation that includes a site-specific WER multiplier factor. The WER reflects any effect that local site water constituents have on increasing or decreasing the bioavailability and toxicity of copper. Application of the WER multiplier, where available, allows for site-specific adjustment of the copper objective. In turn, the copper objective becomes the basis for developing appropriate effluent limitations. In the absence of a site-specific WER multiplier, the CTR uses a value of one. Order No. R1-2007-0013 established final copper effluent limitations based on the CTR objective assuming a WER multiplier of one, since no site-specific data were available. The Regional Water Board staff interviewed the Discharger's WER study report, submitted on October 28, 2009 and determined that the WER test results were developed in accordance with methodology established by the USEPA. Use of effluent hardness instead of receiving water hardness in the reasonable potential analysis is based on the results of a 2006 technical study<sup>1</sup> that has received acceptance by the State and regional water boards and demonstrates that for certain hardness-dependent metals, including copper, use of effluent hardness for the reasonable potential analysis and development of effluent limitations is always protective under all possible mixing conditions between the effluent and the receiving water. In other words, any mixture of receiving water that is compliant with water quality objectives for that metal and effluent that is compliant with water quality objectives for that metal will always result in compliance with water quality objectives.

The reasonable potential analysis conducted by Regional Water Board staff, utilizing the discharger-specific WER of 3.42 and the lowest effluent hardness of 130 mg/L, resulted in a determination of no reasonable potential for copper and removal of copper effluent limitations from Order No. R1-2007-0013.

The Staff Report provided as Attachment 1 to the adopting Order No. R1-2011-0006, contains additional details, including a narrative description of the entire reasonable potential analysis.

## 2. Modification of the Permit to add the Geysers Project as a new permitted discharge.

Discharge Prohibition III.H of Order No. R1-2007-0013 (adopted on June 14, 2007) limited the Discharger to a treatment capacity of 1.6 mgd based on the capacity of its reclamation system (storage and irrigation), unless the Discharger demonstrates that it has storage and reclamation capacity to handle higher flows, not to exceed the WWTF average dry weather flow treatment capacity of 2.25 mgd.

The Discharger is constructing a pipeline and lift station from the WWTF to the existing Geysers recharge pipeline owned (Geysers Project) and operated by the City of Santa Rosa. The Geysers Project will allow the Discharger to discharge an average daily flow of 0.53 mgd to 0.75 mgd to

---

<sup>1</sup> Emerick, R.W.; Booroum, Y.; & Pedri, J.E., 2006. California and National Toxics Rule Implementation and Development of Protective Hardness Based Metal Effluent Limitations. WEFTEC, Chicago, Ill.

the Geysers Project. The proposed modifications to Order No. R1-2007-0013 include addition of the Geysers Project as a new permitted discharge and recognition of the increased disposal capacity that the Geysers Project provides by adding two new tables, 9a (Projected Storage and Irrigation Capacities for Treatment Capacity Increases with 0.53 MGD Diversion to Geysers Project) and 9b (Projected Storage and Irrigation Capacities for Treatment Capacity Increases with 0.75 MGD Diversion to Geysers Project). The permit modification also authorizes the Discharger to increase its permitted treatment capacity from the currently permitted 1.6 mgd to 1.9 mgd upon completion of the Geysers pipeline connection.

The requested increase in permitted treatment capacity is less than volume of effluent that will be discharged to the new, additional discharge to the Geysers Project, therefore no increases in the volume of effluent discharged to Mark West Creek or to the land-based reclamation system is expected.

The Geysers Project was evaluated and identified as a discharge alternative in the Discharger's October 2000 Environmental Impact Report (EIR) for the Town of Windsor Water Reclamation Master Plan for Treatment Storage and Disposal and mitigation measures to ensure protection of water quality in relation to the construction and operation of the proposed pump station and pipeline are included in Order R1-2007-0013.

The Staff Report provided as Attachment 1 to the adopting Order No. R1-2011-0006, contains additional details regarding Staff's analysis for authorizing the discharge to the Geysers Project.

Order No. R1-2011-0006 is the adopting Order for the proposed modifications to Order No. R1-2007-0013. Order No. R1-2011-0006 identifies the recommended changes to Order No. R1-2007-0013 which include: removal of effluent limitations for copper, addition of the Geysers recharge pipeline discharge point, acknowledgement of the additional storage and disposal capacity reliability provided by the addition of the Geysers Project through the addition of Tables 9a and 9b, and an increase in the Discharger's permitted treatment capacity from 1.6 mgd to 1.9 mgd. Based on the technical information presented in the Discharger's ROWD and other supporting documents identified in the second paragraph of this Staff Report, Regional Water Board Staff recommends that the Regional Water Board amend Order No. R1-2007-0013 to include the changes identified in Order No. R1-2011-0006.

A copy of the draft Orders and/or information to access the drafts on the Regional Water Board website was mailed to the Discharger, interested agencies, and persons. This item was opened for public comment from November 16, 2010 to December 16, 2010. No comments were received.

PRELIMINARY STAFF  
RECOMMENDATION

Adopt the modified Order as proposed.

