State of California
Regional Water Quality Control Board
North Coast Region

Lisa Bernard
January 6, 2011

Executive Officer's Summary Report
8:30 a.m., April 19, 2011
Joe Serna Jr./Cal/EPA Building
1001 I Street
Sacramento, California

Item:

Subject: Public Hearing on Order R1-2011-0002, to consider adoption of Waste Discharge Requirements for **McKinleyville Community Services District,** NPDES Permit No. CA0024490, WDID No. 1B82084OHUM, Humboldt County

DISCUSSION

The McKinleyville Community Services District (hereinafter Discharger) is currently discharging under Order No. R1-2008-0039 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024490. On September 7, 2010 the Discharger submitted a request for modification of the Monitoring and Reporting Program (MRP) to revise and clarify sampling and analyses requirements entitled *Updated Request for Revisions to the Monitoring and Reporting Program for the McKinleyville Community Services District Wastewater Management Facility*. On October 6, 2010, the Discharger submitted a request for modification of final copper effluent limitations and supporting documentation entitled *Performance of Ceriodaphnia dubia Toxicity Testing in Support of Development of a Copper Water-Effect Ratio (WER) for Application to the McKinleyville Community Services District M-001 Effluent*. Subsequently, the Discharger submitted a new report of waste discharge, application for renewal on December 16, 2010.

The Discharger provides wastewater collection and treatment for approximately two-thirds of the estimated 14,000 residents of the unincorporated town of McKinleyville. Dry weather flows have been slightly less than one-million gallons per day, and wet weather flows reached two-million gallons per day during the winter of 2005-2006. Municipal wastewater is collected at five lift stations for pumping to a combined headworks comminuter at the wastewater treatment plant. Flows from the headworks enter two parallel facultative primary aeration ponds. The primary aeration ponds overflow to a series of two secondary aeration ponds followed by three emergent bullrush marshes for effluent polishing prior to chlorination and de-chlorination.

When Mad River flow exceeds 200 cubic feet per second at the USGS highway 299 bridge gage, effluent is discharged to the river under the old Hammond Lumber

Company railroad bridge. During dry weather, effluent is discharged to percolation ponds downstream of the railroad bridge or reclaimed for dry-weather maintenance of the Hiller storm water treatment wetland, the adjacent forested area, or irrigation of agricultural lands. The Discharger also has the option of reclaiming effluent through irrigation on the elevated northern portion of the former Fisher parcel north of the railroad bridge, on the lower Fisher Ranch, and on the Pialorsi Ranch.

During the term of Order No. R1-2008-0039 the Discharger conducted an individual WER study to determine the site-specific toxicity of copper in the receiving water at the point of discharge. The study was conducted in accordance with applicable USEPA guidance for Streamlined Procedure EPA-822-R-01-005 and concluded that a site specific WER of 30.5 for total recoverable copper and 10.5 for dissolved copper apply to the discharge.

Using the lowest measured hardness collected from the receiving water between December 2008 and March 2010 of 44 mg/L $CaCO_3$, the USEPA recommended dissolved-total translator of 0.96, and the site-specific WER, the applicable chronic criterion (maximum 4-day average concentration) was adjusted to 135 ug/L and the applicable acute criterion (maximum 1-hour average concentration) was adjusted to 189 ug/L, as total recoverable copper. The maximum effluent concentration (MEC) measured for total copper was 27 ug/L, based samples collected from December 2008 through March 2010. All effluent copper concentrations measured in accordance with Order No. R1-2008-0039 are below the applicable criteria. Based on new WER information, effluent copper concentrations do not demonstrate reasonable potential to exceed water quality criteria for copper.

Since 2008 a number of changes have been implemented to increase treatment and reduce potential sources of priority pollutants entering the treatment facility. Staff revised the reasonable potential analysis using the more recent and more robust data set reported for priority pollutants between 2008 and 2010. The updated analysis indicates no reasonable potential for lead or 2,3,7,8-TCDD to exceed water quality criteria. In addition, maximum daily effluent limitations for alpha-BHC and 4,4-DDT have increased from 0.0078 ug/L to 0.0093 ug/L and 0.0012 ug/L to 0.0027 ug/L respectively based upon statistical calculations for these constituents conducted in accordance with section 1.4 of the SIP. No change applies to the more restrictive average monthly effluent limitations for these constituents when compared to the previous Order. In addition new reasonable potential has been identified for carbon tetrachloride, and therefore a new effluent limitation has been included in the draft Order for that constituent.

A copy of the draft Order 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 from November 16, 2010 to December 16, 2010. The Discharger submitted timely comments on December 16, 2010 regarding the use of newer monitoring data, preparation of the reasonable potential analysis, redundancy in

monitoring requirements, and toxicity monitoring. Regional Water Board staff discussed the December 16 concerns with the Discharge at length. Some changes were made in response to comments, while others were not. Changes made to the draft are considered the natural outcome of the public process.

A copy of the public comments received as well as staffs' responses are attached to the agenda package

PRELIMINARY STAFF RECOMMENDATION: Adopt the Order as proposed