

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2009-0117

REQUIRING
BELLA VISTA WATER DISTRICT
WATER TREATMENT PLANT
SHASTA COUNTY
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS AND
RESCINDING CEASE AND DESIST ORDER NO. R5-2004-0111

The California Regional Water Quality Control Board, Central Valley Region (hereafter referred to as Regional Board), finds:

1. On 10 September 2004, the Regional Board adopted Waste Discharge Requirements Order No. R5-2004-0110, (NPDES No. CA0080799) for Bella Vista Water District, (hereafter Discharger). Waste Discharge Requirements Order No. R5-2004-0110 regulates the discharge of settled filter backwash from a potable water treatment plant to Dry Gulch, a tributary of Boulder Creek, thence Churn Creek, thence the Sacramento River. The same day, the Regional Board adopted Cease and Desist Order (CDO) No. R5-2004-0111 against Bella Vista Water District (hereafter Discharger) to assure compliance with Waste Discharge Requirements Order No. R5-2004-0110 (NPDES No. CA0080799). The CDO required the Discharger to continue work on coming into compliance with the effluent limitations for copper and dichlorobromomethane which are stricter than they were in the previous permit.
2. Copper and dichlorobromomethane have been detected in the effluent at concentrations that have the reasonable potential to cause the receiving water to exceed applicable water quality criteria or objectives. Order No R5-2004-0110 contains final effluent limitations as required by the State Implementation Plan.
3. Waste Discharge Requirements Order (WDRs) No. R5-2004-0110 includes effluent limitations for copper and other pollutants, in Effluent Limitations B.1a, which reads as follows:

“1. Discharge 001

a. Effluent from Discharge 001 shall not exceed the following limits.

<u>Constituent</u>	<u>Units</u>	<u>AMEL (30-Day Avg)</u>	<u>MDEL (Max Daily)</u>
Settleable Solids	mL/L	0.1	0.2
Suspended Solids	mg/L	30	50
	lbs/day ^a	375	625

<u>Constituent</u>	<u>Units</u>	<u>AMEL (30-Day Avg)</u>	<u>MDEL (Max Daily)</u>
Chlorine	mg/L	0.01	0.02
	lbs/day ^a	0.1	0.3
Dichlorobromomethane ^b	µg/L	0.6	1.1
	lbs/day ^a	0.008	0.01
Copper	µg/L	Variable based on water hardness. Must calculate. See Attachment B.	
	lbs/day ^{a,c}		

^a Based on a design flow through wastewater handling and treatment systems of 1.5 mgd.

^b Final effluent limitations. Interim effluent limits may supercede as described in this Order.

^c To calculate lbs/day, multiply ug/L limit by 8.34, then multiply by 1.5 (design flow), then divide by 1000.”

4. Order No. R5-2004-0110 specified an interim dichlorobromomethane limit of 4.7 ug/L. The interim limit was effective through five years beyond the effective date of the Order provided the Discharger met certain performance requirements including identification of potential dichlorobromomethane sources, preparation of a Pollutant Minimization Plan, implementing pollutant minimization measures and implementing operations measures to reduce the creation of dichlorobromomethane.
5. Order No. R5-2004-0110 specified a final copper effluent limit. A compliance schedule for the copper limitation in Order No. R5-2004-0110 was given by CDO No. 5-2004-0111 which provided a 12.4 ug/L maximum daily effluent limitation for copper until five years after the effective date of Order No. R5-2004-0110.
6. The Discharger has achieved partial compliance with the NPDES permit and CDO by altering the pre-chlorination process resulting in the reduction of the concentration of dichlorobromomethane in the effluent. Elevated total copper concentrations in the discharge continue to be an issue as the Discharger has no control over the source water copper concentrations in the Sacramento River. The Discharger evaluated several options for complete compliance and concluded that converting the facility to a zero discharge facility is the preferred alternative. The Discharger cannot meet the final effluent limits for copper or dichlorobromomethane on a regular basis. The Discharger implemented pollutant minimization process modifications that reduce the effluent concentration of dichlorobromomethane from 3.3 ug/L to 1.4 ug/L. Even with the pollutant minimization modifications in-place, the facility will likely violate dichlorobromomethane discharge limits.
7. The Discharger investigated effluent treatment options in 2008 and concluded that the preferred option was to cease surface water discharge and modify the facility to operate as a 100% recycle facility eliminating the need for an NPDES permit. Conversion of the system to 100% recycle will also eliminate the copper and dichlorobromomethane discharge concerns.
8. The Discharger requested a time schedule to implement the upgrades to the facility necessary to convert the facility to a 100% recycle facility. Due to budget constraints, half of the funding necessary to implement the facility upgrade were allocated in the Discharger’s 1 July 2009 – 30 June 2010 budget. The Discharger plans to allocate the

other half in their 1 July 2010 – 30 June 2011 budget with project completion set for no later than the winter of 2011. The Discharger submitted 90% plans for the upgrade on 10 March 2009.

9. California Water Code (CWC) Section 13385(h) and (i) require the Regional Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC Section 13385(j) exempts certain violations from the mandatory penalties. CWC Section 13385(j)(3) exempts the discharge from mandatory penalties “where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300 or Section 13308, if all the [specified] requirements are met.”

In accordance with CWC 13385(j)(3), the Regional Board finds that the Discharger is not able to consistently comply with copper or dichlorobromomethane limitations contained in the Waste Discharge Requirements Order No. R5-2004-0110. The copper and dichlorobromomethane effluent limitations are new requirements that became applicable to the permit after the effective date of adoption of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be completed, and put into operation within 30 calendar days.

The Discharger needs time to implement measures to achieve compliance with the final effluent limits for copper and dichlorobromomethane. A time schedule for compliance is included in this Order.

10. The interim limitations for copper and dichlorobromomethane in this Order are based on the current Facility performance. In developing the interim limitation, where there are 10 sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row). Therefore, the interim limitations in this Order are established as the mean plus 3.3 standard deviations of the available data. If the resulting value is less than the maximum observed value, then the interim limit is set equal to the maximum value.

The Discharger has no control over the influent copper concentrations. However, the Regional Water Board finds that the Discharger can undertake treatment plant measures to maintain compliance with the interim copper and dichlorobromomethane limitations included in this Order. Interim limitations are established when compliance with effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, may significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved. The Discharger is required to maintain existing Facility performance such that average monthly effluent

concentrations do not exceed their respective concentrations recorded over the prior five years.

The following table summarizes the calculations of the interim effluent limitations for copper and dichlorobromomethane:

Interim Effluent Limitation Calculation Summary

Parameter	Units	Maximum Effluent Concentration	Mean	Standard Deviation	Number of Samples	Interim Limitation
Copper	ug/L	16.2	2.9	3.3	20	16.2 ¹
Dichlorobromomethane	ug/L	3.3	1.4	1.0	17	4.7

¹The interim limitation is set as the larger of the mean plus 3.3 standard deviations and the maximum effluent concentration. For copper, the interim limitation calculated via the mean plus 3.3 standard deviations method is 13.8 ug/L. However the maximum effluent concentration for the same sample set was 16.2 ug/L. Therefore, the interim effluent limitation is 16.2 ug/L.

11. Section 13301 of the California Water Code states, in part:

“When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to that system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing.”

12. Section 13267(b) of the California Water Code states:

“(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

13. The Discharger owns and operates the water treatment plant subject to this Order. Monitoring reports and other technical reports are necessary to determine compliance with Waste Discharge Requirements and with this Order.

14. The Regional Board's Water Quality Control Plan (Fourth Edition) for the Sacramento River and San Joaquin Basins (Basin Plan) establishes the beneficial uses of the Sacramento River between Shasta Dam and the Colusa Basin Drain. These beneficial uses are hydropower generation; water contact and non-contact recreation, warm and cold freshwater habitat; wildlife habitat; navigation; ground water recharge; and freshwater replenishment. In addition, State Board Resolution No. 88-63, incorporated into the Basin Plan pursuant to Regional Board Resolution No. 89-056, requires the Regional Board to assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in Table II-1. Upon review of the flow conditions, habitat values, and beneficial uses of Dry Gulch, Boulder Creek, and Churn Creek, the Regional Board found in Order No. R5-2004-0110 that the beneficial uses identified in the Basin Plan for the Sacramento River between Shasta Dam and the Colusa Basin Drain are applicable to Churn Creek and its tributaries, including Boulder Creek and Dry Gulch.
15. Unless corrective actions are taken to reduce copper and dichlorobromomethane concentrations in the effluent, violations of copper and dichlorobromomethane effluent limitations will result.
16. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the copper and dichlorobromomethane limitations, to the extent allowed in accordance with CWC Section 13385 (j)(3).
17. The Regional Board notified the Discharger and interested agencies and persons of its intent to rescind CDO No. R5-2004-0111 and to adopt a new CDO. The Regional Board provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
18. On 10 December 2009, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Regional Board conducted a public hearing at which evidence was received regarding the rescission of CDO No. R5-2004-0111 and the adoption of this new CDO. This new CDO, adopted pursuant to CWC Section 13301, establishes a time schedule to achieve compliance with waste discharge requirements in Order No. R5-2004-0110. The Regional Board heard and considered all comments and evidence pertaining to this matter at that public meeting.
19. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Section 15321 (a)(2), Title 14, California Code of Regulations.
20. Any person adversely affected by this action of the Regional Board may petition the State Water Resources Control Board to review this action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date in which the action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED PURSUANT TO CALIFORNIA WATER CODE SECTION 13301, THAT:

1. Cease and Desist Order No. R5-2004-0111 is rescinded.
2. The Discharger shall comply with the following time schedule to assure compliance with Effluent Limitation B.1a for copper and dichlorobromomethane contained in Waste Discharge Requirements Order No. R5-2004-0110, as described in the Findings of this Order.

<u>Task</u>	<u>Compliance Date</u>
Submit 100% plans and commit FY 2010-11 funding to complete the backwash recycle project.	30 June 2010.
Bring the backwash recycle project online.	30 June 2011.
Submit certification that the backwash recycle project is online.	15 July 2011

3. The Discharger shall comply with the following interim effluent limitations for copper and dichlorobromomethane. The Discharger is required to maintain existing Facility performance such that average monthly effluent concentrations do not exceed their respective concentrations recorded over the prior five years. The maximum daily effluent limitations cited in the table below will be the enforceable interim limitations until **1 July 2011**.

<u>Parameter</u>	<u>Unit</u>	<u>Daily Maximum</u>
Copper (Total Recoverable)	ug/L	16.2
Dichlorobromomethane	ug/L	4.7

4. The Discharger shall monitor the effluent for copper and dichlorobromomethane in accordance with Monitoring and Reporting Program No. R5-2004-0110.
5. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement or issue a complaint for Administrative Civil Liability. Additionally, the interim limit in this Order may be revoked, and the final limits contained in Order No. R5-2004-0110 will immediately become fully applicable.

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BELLA VISTA WATER DISTRICT
WATER TREATMENT PLANT
SHASTA COUNTY

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I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 10 December 2009.

Original Signed By

PAMELA C. CREEDON, Executive Officer

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