

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER R5-2010-0062

REQUIRING  
CITY OF DUNSMUIR  
WASTEWATER TREATMENT PLANT  
SISKIYOU AND SHASTA COUNTIES  
TO CEASE AND DESIST  
FROM DISCHARGING CONTRARY TO REQUIREMENTS AND  
RESCINDING CEASE AND DESIST ORDER R5-2006-0136

The Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) finds:

1. On 8 December 2006, the Central Valley Board adopted Waste Discharge Requirements (WDRs) Order R5-2006-0129, (NPDES No. CA0078441) for City of Dunsmuir, (hereafter Discharger). The WDRs regulate the discharge of treated wastewater from the City of Dunsmuir Wastewater Treatment Plant to the Sacramento River, a water of the United States. The WDRs contain interim effluent limits for copper and dichlorobromomethane (DCBM) and require the Discharger to come into compliance with final effluent limitations contained in the WDRs by 18 May 2010.

Concurrent to the adoption of the WDRs, the Central Valley Board issued Cease and Desist Order (CDO) R5-2006-0136 to the Discharger to grant a times schedule for the Discharger to come into compliance with the final effluent limitations for zinc contained in the WDRs. The CDO contains an interim zinc effluent limit and requires the Discharger to come into compliance with the final effluent limitations for zinc by 18 May 2010.

2. Copper, zinc, and DCBM 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. The effluent limits for zinc are based on pre-existing Basin Plan objectives. The effluent limits for copper and DCBM are based on newly applicable CTR criteria. The Basin Plan objectives and the CTR criteria are established for the protection of aquatic life (copper and zinc) and human health (DCBM).
3. The WDRs include effluent limitations for copper, zinc, DCBM and other pollutants. The WDRs, Effluent Limitations A.1 and A.2, state, in relevant part:

A. Effluent Limitations – Discharge Point EFF-001

1. Final Effluent Limitations – (16 November through 30 April)

- a. Effective immediately, the discharge of treated wastewater shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E, Section IV):

**Table 6. Effluent Limitations**

Parameter	Units	Effluent Limitations (16 November through 30 April)				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper <sup>2</sup> , Total Recoverable	ug/L	3.69	--	7.40	--	--
Dichlorobromomethane <sup>2</sup>	ug/L	0.56	--	1.13	--	--
Zinc, Total Recoverable	ug/L	9.96	--	20.0	--	--

<sup>2</sup> Final Effluent Limitations become effective 18 May 2010.

2. Final Effluent Limitations - (1 May through 14 June and 16 September through 15 November)
  - a. Effective immediately, the discharge of treated wastewater shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E, Section IV):

**Table 7. Effluent Limitations**

Parameter	Units	Effluent Limitations (1 May through 14 June and 16 September through 15 November)				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper <sup>2</sup> , Total Recoverable	µg/L	3.69	--	7.40	--	--
Dichlorobromomethane <sup>2</sup>	µg/L	0.56	--	1.13	--	--
Zinc, Total Recoverable	µg/L	9.96	--	20.0	--	--

<sup>2</sup> Final Effluent Limitations become effective 18 May 2010.

- i. Effective from the beginning effective date of the WDRs and ending on 18 May 2010, the WDRs specified the following interim limits for copper and dichlorobromomethane in Effluent Limitations Section A.3.a, Table 8 as follows:

**Table 8. Interim Effluent Limitations**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	23.1	--	71.8	--	--
Dichlorobromomethane	µg/L	2.4	--	7.5	--	--

4. The WDRs specify a final zinc effluent limit as listed above. A compliance schedule for the final zinc effluent limitation was granted by the accompanying CDO. The interim zinc effluent limitations given in the CDO are 53 ug/L (average monthly) and 162 ug/L (daily maximum). As with the interim limitations for copper and DCBM in the WDRs, the CDO's zinc interim limitations are in effect until 18 May 2010.
  
5. California Water Code (CWC) subsections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j)(3) provides protection from mandatory minimum penalties for violations of an effluent limitation when:  
... 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 13308, if all of the following requirements are met:
  - (A) The cease and desist order ... is issued on or after July 1, 2000, and specifies the actions that the discharger is required to take in order to correct the violations that would otherwise be subject to subdivisions (h) and (i).
  - (B) The regional board finds that, for one of the following reasons, the discharger is not able to consistently comply with one or more of the effluent limitations established in the waste discharge requirements applicable to the waste discharge:
    - (i) The effluent limitation is a new, more stringent, or modified regulatory requirement that has become applicable to the waste discharge after the effective date of the waste discharge requirements and after July 1, 2000, new or modified control measures are necessary in order to comply with the effluent limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
    - ...
    - (C) The regional board establishes a time schedule for bringing the waste discharge into compliance with the effluent limitation that is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation. For the purposes of this subdivision, the time schedule may not exceed five years in length.... If the time schedule exceeds one year from the effective date of the order, the schedule shall include interim requirements and the dates for their achievement. The interim requirements shall include both of the following:
      - (i) Effluent limitations for the pollutant or pollutants of concern.
      - (ii) Actions and milestones leading to compliance with the effluent limitation.
    - (D) The discharger has prepared and is implementing in a timely and proper manner, or is required by the regional board to prepare and implement, a pollution prevention plan pursuant to Section 13263.3.

In accordance with CWC section 13385(j)(3), the Central Valley Water Board finds that the Discharger is not able to consistently comply with the final copper and zinc limitations contained in the WDRs.

The final copper and DCBM effluent limitations are new requirements that will become applicable to the discharge on 18 May 2010, and new or modified control measures will need to be implemented to comply with the limitation, and these new or modified control measures cannot be completed and put into operation within 30 calendar days.

The final zinc effluent limitation was a new requirement that became applicable to the discharge on 27 January 2007. The Discharger needed to implement new or modified control measures to comply with the limitation, and these new or modified control measures could not be completed and put into operation within 30 calendar days.

6. The WDRs contain a series of tasks required of the Discharger during the interim compliance period including identifying potential pollutant sources at various stages of treatment, preparation of a Pollutant Minimization Plan, implementation of pollutant minimization measures, and evaluation of treatment upgrades necessary to achieve compliance with final effluent limitations. The CDO contained parallel requirements. The Discharger complied with the WDRs and CDO by conducting pilot studies to evaluate potential concentration reduction measures in effluent, and by making facility modifications. The Discharger has also completed a mixing zone/dilution study and associated biological assessment, a pollution prevention plan, and an anti-degradation analysis.

The Discharger investigated various effluent treatment options to reduce DCBM concentrations in discharge. Based on these investigations, the Discharger has elected to install an automated dosing system for chlorination and dechlorination. On 21 January 2010, the Discharger notified Central Valley Board staff that the contractor for the automated chlorination and dechlorination system has been selected and the Discharger anticipates the system will soon be operational. This system will reduce the concentration of DCBM in the discharge. The 2007 Master Sewer Plan for the facility includes several improvement projects that are considered necessary for the Discharger to meet effluent limits, including a recommendation for a new clarifier. The current clarifier is undersized, and a second clarifier would provide additional capacity and improve the effluent quality, especially during peak winter flows.

The Board finds that it is reasonable for the Discharger to have until 1 December 2011 to fully implement the additional control measures in the plans that the Discharger has submitted (including installing the automated chlorination and dechlorination system and the new clarifier), or to take other actions to come into compliance with the final effluent limitations for zinc, DCBM and copper contained in the WDRs. This final compliance date is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development and implementation of the control measures. This deadline does not exceed five years in length for any of the constituents covered by this Order. For zinc, due to the fact that a CDO was already issued on 8 December 2006, the five year limitation prohibits the Board from extending the final compliance deadline beyond 8 December 2011. For copper and DCBM, constituents that have not yet received a CDO, the five year limitation prohibits the Board from extending the final

compliance deadline beyond five years from the date this Order is issued. The final compliance date occurs prior to these dates. At the final compliance date, the interim effluent limitations described in this Order will be abandoned and the final effluent limitations contained in the WDRs will go into effect.

7. Central Valley Board staff is evaluating the Discharger-submitted data in order to determine the appropriate mixing zone and dilution credits for the next permit renewal scheduled for 2011. Central Valley Board staff will use monitoring data collected in the interim to confirm the validity of the Discharger's mixing zone/dilution credit proposal. This CDO will also allow time to acquire data that reflects the Discharger's improved effluent quality based on a "rehabilitated" sand filter.
8. The interim limitations for copper, zinc 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 Central Valley Board finds that the Discharger can comply with the interim copper, zinc and DCBM limitations included in this Order but not the final effluent limitations. Interim limitations are established when compliance with final 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 daily maximum interim effluent limitations for copper, zinc and dichlorobromomethane:

**Daily Maximum Interim Effluent Limitation Calculation Summary**

Parameter	Units	Maximum Effluent Concentration	Mean	Standard Deviation	Number of Samples	Interim Limitation <sup>1</sup>
Copper, Total Recoverable	ug/L	28.1	12.95	5.90	22	32.4
Zinc, Total Recoverable	ug/L	81.9	45.32	14.67	24	93.7
Dichlorobromomethane	ug/L	3.2	1.14	1.06	15	4.6

<sup>1</sup>The interim limitation is set as the mean plus 3.3 standard deviations, e.g. for copper, the interim limitation is calculated as 12.95 ug/L+ 3.3 \* 5.90 ug/L = 32.4 ug/L.

9. CWC section 13301 states, in relevant 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.
10. The Central Valley 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. The beneficial uses at the point of discharge are municipal and domestic supply, agricultural supply, water contact recreation, non-contact water recreation, cold freshwater habitat, cold water spawning, and wildlife habitat.
11. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the DCBM, copper and zinc limitations, through the final compliance date of [date].
12. The Central Valley Board notified the Discharger and interested agencies and persons of its intent to rescind CDO R5-2006-0136 and to adopt a new CDO. The Central Valley Board provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
13. On 27 May 2010, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Board conducted a public hearing at which evidence was received regarding the rescission of CDO R5-2006-0136 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

R5-2006-0129. The Central Valley Board heard and considered all comments and evidence pertaining to this matter at that public meeting.

14. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code § 21000, et seq.), in accordance with Section 15321 (a)(2), Title 14, California Code of Regulations.

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

1. Cease and Desist Order R5-2006-0136 is hereby rescinded.
2. The Discharger shall comply with the following time schedule to assure compliance with Effluent Limitation A.1 and A.2 for copper, zinc, and DCBM contained in Waste Discharge Requirements Order R5-2006-0129, as described in the Findings of this CDO.

<u>Task</u>	<u>Compliance Date</u>
Complete installation of, and begin operating the chlorination/dechlorination system.	<b>15 September 2010</b>
Submit certification that the chlorination/dechlorination system is properly functioning and is effective in meeting final effluent limitations for dichlorobromomethane.	<b>15 September 2011</b>
Status report on the implementation of improvements identified in the Discharger's Pollution Prevention Plan.	<b>31 December 2011 and annually thereafter</b>

3. The Discharger shall comply with the following interim effluent limitations for copper, zinc 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 December 2011**.

<u>Parameter</u>	<u>Unit</u>	<u>Daily Maximum</u>
Copper (Total Recoverable)	ug/L	32.4
Zinc (Total Recoverable)	ug/L	93.7
Dichlorobromomethane	ug/L	4.6

4. The Discharger shall monitor the effluent for copper, zinc, and dichlorobromomethane in accordance with Monitoring and Reporting Program R5-2006-0129.
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 R5-2006-0129 will immediately become fully applicable.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

or will be provided upon request.

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 27 May 2010.

*Original signed by*

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PAMELA C. CREEDON, Executive Officer