

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER R5-2010-0104-01
(as amended by Order R5-2012-0117)

REQUIRING
RIO ALTO WATER DISTRICT
LAKE CALIFORNIA WASTEWATER TREATMENT PLANT
TEHAMA COUNTY

TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

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

1. On 23 September 2010, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2010-0103, (NPDES No. CA0077852) for Rio Alto Water District, (hereafter Discharger). The WDRs regulate the discharge of treated wastewater from the Lake California Wastewater Treatment Plant to the Sacramento River, a water of the United States. The WDRs contain, in part, final effluent limits for zinc, chlorodibromomethane (CDBM), and dichlorobromomethane (DCBM).
2. Zinc, CDBM, 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, newly applicable to the Discharger. The effluent limits for CDBM and DCBM are based on CTR criteria newly applicable to the Discharger. The Basin Plan objectives and the CTR criteria are established for the protection of aquatic life (zinc) and human health (CDBM and DCBM).
3. The WDRs include effluent limitations for zinc, CDBM, and DCBM and other pollutants. The WDRs, Effluent Limitations A.1.a, state, in relevant part:

"The Discharger shall maintain compliance with the following effluent limitations at Discharge Point D-001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program":

Table 1. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Zinc, Total Recoverable	µg/L	9.16	--	18.38	--	--
Chlorodibromomethane	µg/L	0.40	--	0.80	--	--

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Dichlorobromomethane	µg/L	0.56	--	1.12	--	--

4. The WDRs specify final effluent limits for zinc, CDBM, and DCBM as listed above. Based on data representing the Facility's past performance, it is unlikely the Discharger can consistently meet the effluent limits for zinc, CDBM, and DCBM.

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 or time schedule 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.

(ii) New methods for detecting or measuring a pollutant in the waste discharge demonstrate that 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.

(iii) Unanticipated changes in the quality of the municipal or industrial water supply available to the discharger are the cause of unavoidable changes in the composition of the waste discharge, the changes in the composition of the waste discharge are the cause of the inability to comply with the effluent limitation, no alternative water supply is reasonably available to the discharger, and new or modified measures to control the composition of the waste discharge cannot be designed, installed, and put into operation within 30 calendar days.

(iv) The discharger is a publicly owned treatment works located in Orange County that is unable to meet effluent limitations for biological oxygen demand, suspended solids, or both, because the publicly owned treatment works meets all of the following criteria:

(I) Was previously operating under modified secondary treatment requirements pursuant to Section 301(h) of the Clean Water Act (33 U.S.C. Sec. 1311(h)).

(II) Did vote on July 17, 2002, not to apply for a renewal of the modified secondary treatment requirements.

(III) Is in the process of upgrading its treatment facilities to meet the secondary treatment standards required by Section 301(b)(1)(B) of the Clean Water Act (33 U.S.C. Sec. 1311(b)(1)(B)).

(C)

(i) 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. Except as provided in clause (ii), for the purposes of this subdivision, the time schedule shall not exceed five years in length.

(ii)

(I) For purposes of the upgrade described in subclause (III) of clause (iv) of subparagraph (B), the time schedule shall not exceed 10 years in length.

(II) Following a public hearing, and upon a showing that the discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation, the regional board may extend the time schedule for an additional period not exceeding five years in length, if the discharger demonstrates that the additional time is necessary to comply with the effluent limitation. This subclause does not apply to a time schedule described in subclause (I).

(iii) 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.

~~(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 zinc, CDBM, and DCBM limitations contained in the WDRs.

The final zinc, CDBM, and DCBM effluent limitations are new requirements that became applicable to the discharge on 23 September 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 one year.

6. On 9 July 2010, the Discharger submitted justification for a compliance schedule which included: (a) documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream; (b) documentation of source control measures and/or pollution minimization measures currently underway or completed; (c) a proposed schedule for additional or future source control measures or waste treatment, pollutant minimization actions, or waste treatment (i.e., facility upgrades or modifications); (d) a demonstration that the schedule is as short as possible. Therefore, this Order provides a time schedule for the Discharger to develop, submit, and implement methods of compliance, including utilizing pollution prevention activities, conducting site specific studies, or constructing necessary treatment facilities to meet the effluent limitations.
7. The WDRs contain a series of tasks required of the Discharger during the interim compliance period including evaluating various project alternatives and selecting a preferred alternative, conducting a preliminary environmental review, identifying potential funding sources, assessing various land and/or easement acquisitions, preparation of

engineering documents, permitting, Proposition 218 rate increase approval, project construction, and system start-up and treatment process adjustment.

The Board finds that it is reasonable for the Discharger to have until **1 November 2017** ~~15 May 2015~~ to fully implement additional control measures, or to take other actions to come into compliance with the final effluent limitations for zinc, CDBM, and DCBM contained in the WDRs. This Order originally provided protection from mandatory minimum penalties (MMPs) from 23 September 2010 until 18 May 2015 for violations of final effluent limits for zinc, CDBM, and DCBM. On 6 December 2012, the Central Valley Water Board adopted Order R5-2012-0117 amending this Order to extend the MMPs protection until 1 November 2017. In accordance with CWC section 13385(j)(3), the additional length of protection from MMPs for these constituents is less than five years. The need for a time schedule extension is addressed in Findings No. 10 through No. 13 of this Order. The Central Valley Water Board finds that 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.~~ 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.

8. The interim limitations for zinc, CDBM, and DCBM 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). When there are less than ten sampling data points available, the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001) (TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of ten data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 5-2 of the TSD are used to determine a daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Thus, when there are less than ten sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration (MEC) to obtain the daily maximum interim limitation (TSD, Table 5-2). If the statistically projected interim limitation is less than the maximum observed effluent concentration, the interim limitation is established as the maximum observed concentration.

The following table summarizes the calculations used in determining interim effluent limitations for zinc, CDBM, and DCBM:

Daily Maximum Interim Effluent Limitation Calculation Summary

Parameter	Units	Maximum Effluent Concentration	Mean	Standard Deviation	Number of Samples	Interim Limitation
Zinc, Total Recoverable	µg/L	43.9	32.93	0.6	9	137
Chlorodibromomethane (CDBM)	µg/L	3.2	2.56	0.6	3	9.95
Dichlorobromomethane (DCBM)	µg/L	24.5	19.23	0.6	3	76.2

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.

Need for Time Schedule Extension and Legal Basis

10. On 22 August 2012, the Discharger submitted a letter, with a proposed time schedule revision, requesting an 18 month extension of the Cease and Desist Order (CDO) R5-2010-0104 to achieve compliance with applicable final effluent limits. Detailed justification was provided in the letter which outlined significant measures taken by the Discharger in order to comply with the CDO that resulted in unanticipated delays and prompted the extension request. The Discharger has completed a wastewater utility rate study, a preliminary engineering report providing two alternatives should the preferred land-based disposal to constructed wetlands project become infeasible, a local election to establish a Community Facilities District (CFD) in order to secure a special tax levy as a funding mechanism for the required Facility improvements, installed piezometers in the proposed constructed wetlands area, prepared final contract documents to acquire the proposed constructed wetlands area from a private entity, complied with U.S. Fish and Wildlife, National Marine Fisheries Service (NMFS) and Federal Emergency Management Agency (FEMA) requests, and expensed over \$400,000 in planning, legal, environmental, and

project studies requirements. These Discharger actions constitute diligent progress toward bringing the waste discharge into compliance with the final effluent limitations.

11. Additional time is required for the Discharger to secure financing in order to complete the final project design, additional land acquisition, and all proposed Facility improvements. Total project cost is estimated at \$6.125 million. The Discharger has submitted loan applications to both USDA Rural Development and the Clean Water State Revolving Fund (CWSRF). The USDA Rural Development loan application is currently under review for funding in 2012. The Discharger is making progress towards purchasing additional land for the wetlands construction project. CWSRF requires the Discharger to complete the land acquisition before final review and approval of the loan application can be completed. CWSRF requires up to 90 days to complete the final review and approval.
12. The Discharger plans to improve the treatment capabilities of the Facility and to convert from a discharge of treated effluent to the Sacramento River to a land-based disposal, in which the water would be recycled to create constructed wetlands. The conversion would result in the rescission of the Discharger's existing National Pollutant Discharge Elimination System (NPDES) permit for discharges to surface waters and would require the Discharger to obtain Waste Discharge Requirements (WDRs) for a discharge to land. The Discharger completed an environmental initial study and mitigated negative declaration, floodplain analysis, and updated groundwater monitoring data in 2011 in order to proceed with the constructed wetlands project.
13. The Discharger has demonstrated compliance with the interim effluent limitations, but requires additional time to comply with the time schedule as specified in Cease and Desist Order (CDO) R5-2010-0104. In accordance with CWC section 13385(j)(3)(c)(ii)(II) and following a public hearing, the Central Valley Water Board may extend the time schedule for an additional five years.
- ~~10.~~ 14. 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 irrigation and stock watering; industrial service and power supply; contact and non-contact water recreation including canoeing and rafting; warm and cold freshwater habitat; warm and cold water fish migration habitat and spawning; wildlife habitat; and navigation.
- ~~44.~~ 15. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of effluent limitations for zinc, CDBM, and DCBM in accordance with CWC Section 13385(j)(3). CWC Section 13385(j)(3) requires preparation and implementation of a pollution prevention plan (PPP) pursuant to CWC Section 13263.3. The Discharger has submitted and implemented a PPP as specified in this Order.

42. 16. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to adopt this CDO. The Central Valley Board provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
43. 17. On 23 September 2010 and 6 December 2012, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearings at which evidence was received to consider a Cease and Desist Order under CWC section 13301 to establish a time schedule to achieve compliance with waste discharge requirements in Order R5-2010-0103. ~~regarding the adoption of this CDO. This CDO, adopted pursuant to CWC Section 13301, establishes a time schedule to achieve compliance with waste discharge requirements in Order R5-2010-0103.~~ The Central Valley Water Board heard and considered all comments and evidence pertaining to this matter at that public meeting.
44. 18. 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
or will be provided upon request.
45. 19. 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.
46. 20. In the event the selected alternative requires additional review under the California Environmental Quality Act, the Discharger shall conduct required review and obtain appropriate approval prior to initiating construction.

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

1. The Discharger shall comply with the following time schedule to assure compliance with Effluent Limitation A.1 for zinc, CDBM, and DCBM contained in Waste Discharge Requirements Order R5-2010-0103, as described in the Findings of this CDO.

Compliance Schedule

Task	Compliance Date
Select preferred alternative	1 September 2010
Submit final Preliminary Engineering Report and Project Report to Central Valley Water Board	1 December 2010
Submit Pollution Prevention Plan in accordance with CWC Section 13263.3	1 January 2011
Submit evidence of funding availability	1 May August 20134
Complete project design	1 January November 20142
Complete project construction	1 October September 20164
Complete testing and adjustment of newly constructed system	1 May April 20175
Achieve compliance with applicable final effluent limits	1 48 November May 20175
Progress Reports ¹	1 January of each year

¹ Progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date. Progress reports shall also summarize any implementation of improvements identified in the Discharger's Pollution Prevention Plan.

- The Discharger shall comply with the following interim effluent limitations for zinc, CDBM, and DCBM. 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 November 2017** ~~48 May 2015~~.

Interim Effluent Limitations

Parameter	Units	Maximum Daily Effluent Limit
Zinc (Total Recoverable)	µg/L	137
Chlorodibromomethane (CDBM)	µg/L	9.95
Dichlorobromomethane (DCBM)	µg/L	76.2

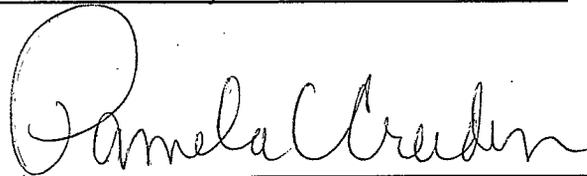
- The Discharger shall monitor the effluent for zinc, CDBM, and DCBM in accordance with Monitoring and Reporting Program R5-2010-0103.
- For the compliance schedules required by this Order, the Discharger shall submit to the Central Valley Water Board on or before each compliance report due date, the specified

document or, if appropriate, a written report detailing compliance or non-compliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, and shall include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule.

6. If 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 limits in this Order may be revoked, and the final limits contained in Order R5-2010-0103 will immediately become fully applicable.
7. Any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

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 23 September 2010, and amended by Order R5-2012-0117 on 7 December 2012.



PAMELA C. CREEDON, Executive Officer