

Attachment 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER NO. R5-2010-0058-~~0402~~
(AS AMENDED BY ORDER NO. R5-~~2015-0050~~2017-0121)

REQUIRING PARADISE IRRIGATION DISTRICT
PARADISE WATER TREATMENT PLANT
BUTTE COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2010-0057
(NPDES PERMIT NO. CA0083488)

The California Regional Water Quality Control Board, Central Valley Region, (hereinafter Central Valley Water Board) finds that:

1. On 27 May 2010 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2010-0057, NPDES Permit No. CA000083488, prescribing waste discharge requirements for the Paradise Irrigation District (hereinafter Discharger) at the Paradise Water Treatment Plant (hereafter Facility), Butte County.
2. WDR Order No. R5-2010-0057 contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Settleable Solids	mL/L	0.1	0.2	--	--
Total Suspended Solids	mg/L	30	50	--	--
	lbs/day ¹	500	834	--	--
Aluminum, Total Recoverable	ug/L	77.2	123	--	--
Dichlorobromomethane	ug/L	0.56	1.12	--	--
pH	standard units	--	--	6.0	9.0

¹ Based on a design flow of 2.0 mgd.

3. The effluent limitations specified in Order No. R5-2010-0057 for dichlorobromomethane are based on implementation of the California Toxics Rule. The effluent limitations specified in Order No. R5-2010-0057 for aluminum are based on the National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life developed by USEPA.
4. The Discharger was unable to immediately comply with the aluminum effluent limitations, therefore, WDR Order R5-2010-0057 provided an interim effluent limitation and a compliance schedule for meeting final effluent limitations for aluminum. Compliance with effluent limitations for aluminum were to be achieved by 1 May 2015.

5. California Water Code (CWC) section 13300 states: “Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”
6. Federal regulations, 40 CFR 122.44 (d)(1)(i), require that NPDES permit effluent limitations must control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above any State water quality standard, including any narrative criteria for water quality. Beneficial uses, together with their corresponding water quality objectives or promulgated water quality criteria, can be defined per federal regulations as water quality standards.
7. ~~In accordance with CWC section 13385(j)(3), the Central Valley Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the revised water quality based effluent limitations for dichlorobromomethane and aluminum. These limitations are based on new requirements that become applicable to the Order after the effective date of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.~~
- 8.7. Immediate compliance with the revised effluent limitations for dichlorobromomethane and aluminum at Discharge Point 001 is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance. The following table summarizes the effluent monitoring data for dichlorobromomethane and aluminum:

Parameter	Units	MEC	Mean	# of Samples	# of Non-Detects
Dichlorobromomethane ¹	ug/L	1.3	0.85	2	0
Aluminum ²	ug/L	3600	354	49	0

¹ Monitoring data collected from January 2008 through November 2009

² Monitoring data collected from July 2010 through July 2014

- 9.8. On 4 March 2010, the Discharger submitted justification for a compliance schedule for dichlorobromomethane. For compliance with the final effluent limitations for dichlorobromomethane, the Discharger anticipates that additional time is necessary for plant upgrades to eliminate the discharge to surface waters in the next five years.

Need for Time Schedule Extension and Legal Basis

- 40.9. On 3 September 2014, the Discharger submitted a request for additional time to comply with final dichlorobromomethane and aluminum effluent limitations. The letter outlined measures taken by the Discharger throughout the current permit term in order to comply with Order No. R5-2010-0057 and TSO No. R5-2010-0058 and provided justification for requesting additional time to comply with final effluent limitations for dichlorobromomethane and aluminum. The Discharger ~~has~~ reviewed several design alternatives for achieving compliance with final effluent limits for dichlorobromomethane and aluminum and on 28 August 2014 made the decision to move forward with the design and construction of a process water recycling project. ~~Additional time is required for the Discharger to complete this project and meet final effluent limits.~~
- 44.10. The Discharger planneds to eliminate Facility discharge to surface water and implement potable reuse of 100% of the filter backwash water by constructing a new custom clarification basin for the wastewater (filter backwash water) generated at the plant and a dewatering facility. According to the 3 September 2014 request from the Discharger, in addition to the 22 January 2015 update letter from the Discharger, the Discharger planneds to have preliminary design of the project complete by the end of 2014, begin California Environmental Quality Act's (CEQA) environmental review process in early 2015, finalize design of the project by the end of 2015, and construct and complete the project by the end of 2017.
11. On 31 August 2017 the Discharger submitted a request to extend the final compliance deadline beyond the 1 January 2018 deadline established in TSO R5-2010-0058-01. Since adoption of TSO R5-2010-0058-01, the Discharger was making diligent progress towards coming into compliance by pursuing the filter backwash recycle project as described in Finding 11, however, the Discharger terminated the project because the complexity, scope, and cost of the project had grown significantly. Instead, the Discharger is planning to pursue renewal of their NPDES permit and analyze options (e.g., mixing zone and dilution study) for achieving compliance with limitations and requirements contained in the renewed NPDES permit. The Discharger has demonstrated that additional time is necessary in order to solicit and hire professional services, complete required technical studies (e.g., mixing zone and dilution study), and secure financing and construct treatment facilities, if necessary.
12. This Order provides a time schedule for the Discharger to develop, submit, implement methods of compliance, including updating and implementing the pollution prevention plan and constructing the necessary treatment plant upgrades to come into compliance with final effluent limitations for dichlorobromomethane and aluminum or to eliminate the surface water discharge.

Mandatory Minimum Penalties

13. CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j) exempts certain violations from the mandatory minimum penalties. CWC section 13385(j)(3) exempts the discharge from mandatory minimum 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, if all the [specified] requirements are met.”*
- ~~14. In accordance with Water Code section 13385, subdivision (j)(3)(A) through (D), the Central Valley Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the effluent limitations for aluminum. These limitations are based on new requirements that became applicable to the Order after the effective date 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 designed, installed, and put into operation within 30 calendar days.~~
- 14.15. Per the requirements of Water Code section 13385, subdivisions (j)(3)(A) through (D), the Central Valley Water Board finds that:
- a. This Order specifies the actions that the Discharger is required to take in order to correct the dichlorobromomethane and aluminum effluent violations that would otherwise be subject to Water Code sections 13385(h) and 13385(i).
 - b. The effluent limitations for aluminum and dichlorobromomethane are new, more stringent, or modified regulatory requirements that have become applicable to the waste discharge after the effective date of the waste discharge requirements and after 1 July 2000, new or modified control measures are necessary in order to comply with the effluent limitations, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days. ~~To comply with final effluent limitations for aluminum, the Discharger has determined that additional treatment facilities and/or additional source control measures must be implemented at the Facility.~~
 - c. This Order establishes a time schedule to bring the waste discharge into compliance with final effluent limitations that is as short as possible, taking into account technological, operational, and economic factors that affect design, development, and implementation of control measures that are necessary to comply with the aluminum and dichlorobromomethane ~~copper and lead~~ effluent limitations.
- ~~14.15.~~ A time schedule order may provide protection from mandatory minimum penalties (MMPs) for no more than five years, except as provided in Water Code section 13385(j)(3)(C)(ii). ~~The Discharger has not previously been provided a time schedule order for protection from MMPs from violations of final effluent limitations for~~

~~aluminum. The final effluent limitations for aluminum will become effective on 1 May 2015. A time schedule from the effective date of this Order until 1 January 2018 may be provided pursuant to Water Code section 13385, subdivision (j)(3)(A) through (D) to allow for protection from MMPs for violations of the final effluent limitations for aluminum.~~

~~Protection from MMPs for violations of effluent limitations for dichlorobromomethane may not be provided pursuant to Water Code section 13385(j)(3)(A) through (D) because on 27 May 2015, more than five years will have expired since those limits became effective. However, protection from MMPs for violations of effluent limitations for dichlorobromomethane may be provided pursuant to Water Code section 13385, subdivision (j)(3)(C)(ii)(II).~~

~~47.16.~~ Per the requirements of Water Code section 13385(j)(3)(C)(ii)(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 limitations, the Central Valley Water 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. In accordance with Water Code section 13385, subdivision (j)(3)(C)(ii)(II), the total length of the extended time schedule does not exceed five years in length. The Central Valley Water Board finds, as described in previous findings in this Order, that the Discharger has demonstrated due diligence to bring the waste discharge into compliance with final effluent limitations for dichlorobromomethane and aluminum contained in WDR Order R5-2010-0057 through the planning and design efforts to implement a backwash recycle project. However, before design of the project was completed, the project was terminated due to increased project complexity, scope, and cost. Additionally, the Discharger is currently soliciting professional services to pursue renewal of their NPDES permit and analyze options (e.g., mixing zone and dilution study) for achieving compliance with limitations and requirements contained in the renewed NPDES permit. the following: sourcing and quantifying of contaminants in the waste stream, improving treatment system components, and analyzing treatment efficiency. Furthermore, the Discharger has demonstrated that additional time is necessary to comply with the final effluent limitations for dichlorobromomethane and aluminum contained in WDR Order R5-2010-0057.

~~48~~17. Compliance with this Order exempts the Discharger from mandatory penalties for violations of the final effluent limitations for dichlorobromomethane and aluminum found in WDR Order R5-2010-0057 from the date of this Order (~~17 April 2015~~ December 2017) until ~~1 January 2018.~~ 17 April 2020, in accordance with CWC section 13385(j)(3). CWC section 13385(j)(3) requires the Discharger to update and implement a pollution prevention plan pursuant to section 13263.3 of the California Water Code. Therefore, a pollution prevention plan will be necessary for dichlorobromomethane and aluminum until the surface water discharge is eliminated in order to effectively reduce the effluent concentrations by source control measures.

~~49~~18. In accordance with Water Code section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations for dichlorobromomethane does not exceed ten years. The initial five year time schedule as allowed pursuant to

Water Code section 13385, subdivision (j)(3)(A) through (D) expires 27 May 2015 for the final effluent limitations for dichlorobromomethane. An extended time schedule period from 27 May 2015 until ~~4 January 2018~~ 17 April 2020 for the final effluent limitations for dichlorobromomethane is pursuant to Water Code section 13385(j)(3)(C)(ii)(II).

~~20-19.~~ In accordance with Water Code section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations for aluminum does not exceed ten years. The initial time schedule as allowed pursuant to Water Code section 13385, subdivision (j)(3) began 17 April 2015 and expires 1 January 2018. ~~from the effective date of this Order until~~ An extended time schedule period from 1 January 2018 until 17 April 2020 for the final effluent limitations for aluminum is pursuant to Water Code section 13385(j)(3)(C)(ii)(II), ~~subdivision (j)(3)(A) through (D).~~

~~24-20.~~ Since the time schedules for completion of actions necessary to bring the waste discharge into compliance exceeds 1 year, this Order includes interim requirements and dates for achievement.

The compliance time schedule in this Order includes interim performance-based effluent limitations for dichlorobromomethane and aluminum. Interim effluent limitations consist of a maximum daily effluent concentration derived using sample data provided by the Discharger demonstrating actual treatment plant performance. In developing the interim limitations, when there are ten 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, 3rd Edition, January 1986*). Where actual sampling shows an exceedance of the proposed 3.3 standard deviation limit, the maximum detected concentration has been established as the interim limitation. However, in this case, based on professional judgment, and evaluation of facility performance, the interim limit for aluminum was not set at the maximum detected concentration of 3600 ug/L but was set at 790 ug/L which corresponds to the second highest detected concentration and is more representative of the expected variability of the effluent. 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 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 calculation of the interim effluent limitation for dichlorobromomethane and aluminum:

Parameter	Units	MEC	Mean	Standard	Number of	Interim
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				Deviation	Samples	Limitation
Dichlorobromomethane	ug/L	1.3	0.85	0.65	2	3.0
Aluminum	ug/L	3600	354	496	49	790

22-21. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim limitation included in this Order. Interim limitations are established when compliance with the 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, can 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.

23-22. On 27 May 2010, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider a Time Schedule Order under CWC section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.

23. On 17 April 2015 in Fresno, California and 8 December 2017 in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider amending Time Schedule Order R5-2010-0058 and R5-2010-0058-01, respectively, under Water Code Section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.

24. 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 CWC section 15321 (a)(2), Title 14, of the California Code of Regulations.

25. Any person adversely affected by this action of the 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 on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED THAT:

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations for dichlorobromomethane and aluminum, contained in WDR Order No. R5-2010-0057 as described in the above Findings:

Task	Date Due
<u>Continue Implementing Pollution Prevention Plan</u> pursuant to CWC Section 13263.3 for dichlorobromomethane	90 days after the <u>Effective</u> date of this Order
Submit Formal Decisions for Compliance	Within 1 year after the permit effective date
Progress Reports ¹	1 January and 1 June of each year
<u>Continue Implementing Pollution Prevention Plan</u> pursuant to CWC Section 13263.3 for aluminum	1 July 2015 <u>Effective date of this Order</u>
Submit final design of compliance project	1 January 2016
Begin compliance project (e.g. construction)	1 July 2016
<u>Submit Method of Compliance Workplan (e.g., Mixing Zone Study Workplan)</u>	6 months after the effective date of this Order
<u>Submit Method of Compliance Final Report (e.g., Mixing Zone Study Final Report)</u>	18 months after the effective date of this Order
Full Compliance with Dichlorobromomethane and Aluminum Effluent Limitations or Elimination of Surface Water Discharge	1 January 2018 17 April 2020
¹ The progress reports for dichlorobromomethane and aluminum 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.	

2. The following interim maximum daily and average monthly effluent limitations shall be effective immediately. The interim effluent limitations at Discharge Point No. 001 for dichlorobromomethane and aluminum shall be effective up through ~~1 January 2018~~ 17 April 2020, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Interim Maximum Daily Effluent Limitation	Interim Average Monthly Effluent Limitation
Dichlorobromomethane	µg/L	3.0	3.0
Aluminum	µg/L	790	790

3. For the compliance schedule required by this Order, the Discharger shall submit to the Central Valley Water Board on or before the compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance 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 Regional Water Board by letter when it returns to compliance with the time schedule.

4. 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. If compliance with these effluent limitations is not achieved by the Full Compliance date, the discharge would not be exempt from the mandatory minimum penalties for violation of certain effluent limitations, and would be subject to issuance of a Cease and Desist Order in accordance with CWC section 13301.

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, ~~and~~ amended by Order R5-2015-0050 on 17 April 2015, and amended by Order R5-2017-0121 on 8 December 2017.

Original Signed By

PAMELA C. CREEDON, Executive Officer