

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2014-0034

REQUIRING THE CITY OF ALTURAS
WASTEWATER TREATMENT PLANT
MODOC COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2014-0033
(NPDES PERMIT NO. CA0078921)

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

1. On 22 September 2006 the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2006-0103 (NPDES Permit No. CA0078921) prescribing WDRs for the City of Alturas (hereinafter Discharger) at the Alturas Wastewater Treatment Plant (hereafter Facility), Modoc County.
2. WDR Order R5-2006-0103 contained copper and zinc effluent limits that the Discharger could not immediately meet. Because the Discharger could not immediately meet the new effluent limitations, WDR Order R5-2006-0103 also contained interim limits for copper and zinc with a final compliance date of 10 May 2010.
3. The Discharger upgraded several processes at the Facility and added others to meet the requirements imposed by various effluent limitations (TSS and BOD removal, total coliform effluent limitations, etc.). Some of the improvements did not operate properly and the Facility was in significant non-compliance with WDR Order R5-2006-0103 from July 2008 through September 2009. The Discharger initiated an Interim Operations Plan (IOP) in October 2009 which significantly reduced the frequency of effluent limitation violations.
4. Although the Discharger can reliably meet most effluent limits in Order R5-2006-0103 effluent limitations using IOP procedures, the Discharger continued to be unable to meet the final copper and zinc effluent limits in WDR Order R5-2006-0103.
5. On 27 May 2010 the Central Valley Water Board issued Time Schedule Order (TSO) R5-2010-0905 to the Discharger setting new interim copper and zinc limits for the discharge. The TSO requires final compliance by 27 May 2015.
6. On 27 March 2014 the Central Valley Water Board adopted WDR Order R5-2014-0033 (NPDES Permit No. CA0078921) and rescinded WDR Order R5-2006-0103. As TSO R5-2010-0905 references WDR Order R5-2006-0103, the TSO must be updated or replaced to remain valid. This TSO replaces TSO R5-2010-0905 to include reference to the updated WDR but keeps the copper and zinc compliance schedule in the previous TSO.

7. WDR Order R5-2014-0033 contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Coliform Organisms – <i>Applicable when <20:1 dilution is available</i>	MPN/100 mL	--	2.2 ¹	23 ²	--	240
Copper, Total Recoverable	µg/L	3.7	--	7.6	--	--
Zinc, Total Recoverable	µg/L	13	--	21	--	--

¹ Applied as a 7-day median effluent limitation.

² Total coliform organisms shall not exceed more than once in any 30-day period.

8. The effluent limitations specified in WDRs Order R5-2014-0033 for copper and zinc are based on the California Toxics Rule and the *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (Basin Plan). The total coliform effluent limitations are based on guidance from the California Department of Public Health.
9. 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.
10. Immediate compliance with the final effluent limitations contained in WDR Order R5-2014-0033 for copper, zinc, and total coliform at Discharge Point No. 001 is not possible.
11. On 27 October 2010, the Discharger submitted a proposal to come into compliance with final copper and zinc effluent limitations as required by TSO R5-2010-0905. The proposal also contained long-term solutions for compliance with all effluent limitations in WDR Order R5-2006-0103. Central Valley Water Board staff commented on the plan on 7 December 2010 and requested a revised plan by 30 January 2011. The Discharger requested an extension to that date to 28 February 2011. The Discharger submitted a final work plan on 28 February 2011 which proposed a long term solution to wastewater treatment through land discharge of the effluent and elimination of all surface water discharge.
12. Elimination of surface water discharges from the facility will resolve potential total coliform effluent limitation violations in addition to resolving potential copper and zinc effluent limitations violations. If the surface water discharge cannot be eliminated, then the Discharger would complete upgrades sufficient to comply with the final effluent limits, or

conduct studies sufficient to justify alternate final effluent limits. The Clean Water Act and the Water Code authorize time schedules for achieving compliance. The following table summarizes the effluent monitoring data obtained from June 2008 to May 2011 for copper, zinc, and January 2008 to May 2011 for total coliform:

Parameter	Units	MEC	Mean	# of Samples	# of Non-Detects
Copper, Total	µg/L	31.2	11	13	0
Zinc, Total	µg/L	63.6	23.5	13	0
Total Coliform	MPN/100 ml	1600	96 (23 ¹)	167	48

¹ Median value.

13. For compliance with the final effluent limitations for copper, zinc, and total coliform, the Discharger requires additional time to install new facilities to eliminate the discharge to surface waters. If the surface water discharge cannot be eliminated, then the Discharger would complete upgrades sufficient to comply with the final effluent limits, or conduct studies sufficient to justify alternate final effluent limits. Necessary activities include engineering feasibility and design studies, environmental documentation if required, permitting, and financing. Should studies show that elimination of the surface water discharge is infeasible or impermissible, alternative treatment and environmental studies will be necessary to achieve compliance.
14. This Order provides a time schedule for the Discharger to develop, submit and implement methods of compliance, implement the pollution prevention plan, and construct the necessary treatment plant upgrades to meet the final effluent limitations.
15. Water Code 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 ... 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.
16. Water Code subsections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Water Code 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 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) (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.

...

(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.

17. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for copper, zinc, and total coliform in accordance with Water Code section 13385(j)(3). The time schedule order satisfies the provisions of Water Code section 13385(j)(3) as follows:

13385(j)(3)(A): This time schedule order is being issued after July 1, 2000, and specifies actions that the Discharger must take to correct the violations that would be subject to enforcement actions (see Compliance Time Schedule Table on Page 6).

13385(j)(3)(B)(i): This time schedule order includes new effluent limits that became effective after the July 1, 2000 date, and may require new or modified control measures in order to comply with the final effluent limits. The Discharger anticipates that it will take at least at least until 27 May 2015 to conduct the planning, funding, and construction improvements to the existing plant to meet the new final effluent limitations. Therefore the new modifications cannot be designed, installed, or put into operation within 30 calendar days.

13385(j)(3)(C)(i): The Discharger anticipates that it will take at least until 27 May 2015 to upgrade the existing plant to conduct the planning,

funding, and construction improvements to the existing plant to meet the new final effluent limitations. To meet the new final effluent limitations, the Discharger is planning to construct artificial wetlands to dispose of the effluent. To meet the new final limitations, the Discharger will have to complete engineering studies, environmental and permitting documentation, and funding. Should the wetlands project prove infeasible, alternative methods of compliance will need to be investigated and evaluated. This timeframe is as short as possible, considering the major upgrades the plant will have to complete to meet the final effluent limitations.

13385(j)(3)(C)(iii)(I): This time schedule order contains effluent limits for the constituents of concern which are copper, zinc, and total coliform.

13385(j)(3)(C)(iii)(II): This time schedule order contains milestones and actions which lead to compliance with the final effluent limitations (See the Compliance Time Schedule Table on Page 6).

13385(j)(3)(D): The Discharger submitted and implemented a pollution prevention plan to reduce the effluent concentrations of copper and zinc. This order does not require re-submittal of a pollution prevention plan for copper and zinc. The IOP submitted for compliance issues with the facility upgrade contained methods that minimize total coliform discharges.

18. 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 time schedule does not exceed 5 years.

19. The compliance time schedule in this Order includes interim performance-based effluent limitations for copper and zinc. Interim effluent limitations consist of a maximum daily and average monthly effluent concentration derived using sample data provided by the Discharger demonstrating actual treatment plant performance. The method to set interim effluent limitations depends on the number of sample data.

a. **10 or more data points.** In developing the interim limitations, when 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, 3rd Edition, January 1986). Where actual sampling shows an exceedance of the proposed 3.3 standard deviation limit, the maximum effluent concentration (MEC) has been established as the interim limitation.

b. **Less than 10 data points.** When there are less than 10 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 10 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 10 sampling points for a constituent, interim limitations are based on 3.11 times the MEC to obtain the daily interim limitation (TSD, Table 5-2) and 2.13 times the MEC to obtain the average monthly interim limitation (assuming one sample per month). If the statistically projected interim limitation is less than the MEC, the interim limitation is established as the MEC.

The following table summarizes the calculation of the interim effluent limitations for copper and zinc (note: copper and zinc calculations are carried over from previous TSO for consistency and differ slightly from the values in paragraph 12). Daily and monthly average effluent data for each constituent were the same values therefore the interim maximum daily and average monthly effluent limitations for each constituent are equal:

Parameter	Units	MEC	Mean	Standard Deviation	Number of Samples with Detections	Interim Limitation (Maximum Daily)	Interim Limitation (Average Monthly)
Copper, Total Recoverable	µg/L	38.1	11.0	5.02	35	38.1	38.1
Zinc, Total Recoverable	µg/L	63.6	47.1	8.08	35	73.8	73.8

20. Total coliform limits are not based on normally distributed data and the limit-setting procedures described above do not apply. The interim limit for Total coliform is set to the R5-2006-0103 permit limit applicable prior to 15 November 2008 (the date the Facility upgrade was scheduled to be complete). This is a limit that the Discharger has regularly met and is therefore operationally attainable.

The following table summarizes the interim Total coliform limits. Data is from the period 1 November 2009 through 31 January 2012. The IOP was implemented in October 2009 to help failures in the Facility upgrade. Maximum effluent concentration, mean, median, and standard deviation values are included for reference but were not used in calculating the limits.

Parameter	Units	MEC	Mean (Median)	Standard Deviation	Number of Samples with Detections	Interim Limitation (7 day median)	Interim Limitation (Maximum Daily)
Total Coliform	MPN/100 mL	263	17 (ND)	51	41	23	500

21. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim limitations 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 limitations can be achieved.

22. On 27 March 2014, 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 Water Code section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.
23. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA") pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).
24. In the event the selected alternative requires additional review under CEQA, the Discharger shall conduct required review and obtain appropriate approval prior to initiating construction.

IT IS HEREBY ORDERED THAT:

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations for copper, zinc, and total coliform contained in WDRs Order R5-2014-0033, as described in the above Findings:

COMPLIANCE TIME SCHEDULE TABLE

Task	Compliance Date
Submit and implement a Pollution Prevention Plan (PPP) ¹ pursuant to Water Code section 13263.3 for total coliform.	6 Months after Adoption Date of this Order
Submit Initial Workplan for actions to achieve compliance with the total coliform limitation.	6 Months after Adoption Date of this Order
Submit Annual Progress Reports ²	1 December, annually thereafter
Achieve compliance with copper and zinc final effluent limits.	27 May 2015
Submit Method of Compliance project for total coliform	1 October 2015
Begin Compliance Project for total coliform	1 July 2017
Achieve compliance with final total coliform effluent limit.	5 years after Adoption Date of this Order

¹ The Discharger shall implement a new Pollution Prevention Plan (PPP) for total coliform and shall meet the requirements specified in Water Code section 13263.3.

² The progress reports for copper, zinc, and total coliform 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.

- The following interim maximum daily, average monthly, and 7-day median effluent limitations shall be effective immediately in lieu of the final effluent limitations for copper, zinc, and total coliform contained in WDRs Order R5-2014-0033. The final effluent limitations at Discharge Point No. 001 for copper and zinc contained in WDRs Order R5-2014-0033 shall become effective **27 May 2015**, or when the Discharger is able to come into compliance, whichever is sooner. The final effluent limitations at Discharge Point No. 001 for total coliform shall become effective **five years after Adoption Date of this Order**.

Parameter	Units	Interim Effluent Limitations	
Copper, Total Recoverable	µg/L	38.1 Daily Maximum	38.1 Average Monthly
Zinc, Total Recoverable	µg/L	73.8 Daily Maximum	73.8 Average Monthly
Total Coliform	MPN/100 mL	500 Daily Maximum	23 7-Day Median

- 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 Central Valley Water Board by letter when it returns to compliance with the time schedule.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other

enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 Water Code 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, 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.

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 March 2014.

ORIGINAL SIGNED BY

PAMELA C. CREEDON, Executive Officer