

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2012-0087

REQUIRING CITY OF MT. SHASTA
MT. SHASTA WASTEWATER TREATMENT PLANT
SISKIYOU COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-0086
(NPDES PERMIT NO. CA0078051)

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

1. On 21 June 2007 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2007-0056 (NPDES Permit No. CA CA0078051) prescribing WDRs for the City of Mt. Shasta (hereinafter Discharger) for the Mt. Shasta Wastewater Treatment Plant (hereinafter Facility), Siskiyou County.
2. WDR Order R5-2007-0056 contained ammonia effluent limits that the Discharger could not immediately meet. Because the Discharger could not immediately meet the new effluent limitations, WDR Order R5-2007-0056 also contained interim limits for ammonia with a final compliance date of 18 May 2010.
3. WDR Order R5-2007-0056 contained copper and zinc effluent limits that the Discharger could not consistently meet. Because the Discharge could not consistently comply with the new effluent limitations for copper and zinc, the Discharger requested a compliance schedule to come into compliance with the copper and zinc effluent limitations in WDR Order R5-2007-0056.
4. The copper and zinc effluent limitations were new requirements that became applicable to the permit after the effective date of adoption of the WDRs, and after 1 July 2000. Because the copper and zinc effluent limitations were based on the existing Basin Plan water quality objectives that were adopted prior to 25 September 1995, a compliance schedule for these effluent limitations were placed in a Cease and Desist Order (CDO). CDO R5-2007-0057 contained interim limits for copper and zinc with a final compliance date of 18 May 2010.
5. On 27 May 2010 the Central Valley Water Board issued CDO R5-2010-0064 to the Discharger setting new interim ammonia, copper, and zinc limits for the discharge. The CDO required final compliance by 1 June 2012.
6. On 4 October 2012 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2012-0086, NPDES Permit No. CA0078051, prescribing WDRs for the Discharger and the Facility.

7. WDR Order R5-2012-0086 contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Table 6A. Final Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia	mg/L	4.6	8.4	--	--
Copper, Total Recoverable	ug/L	9.1	19.3	--	--
Zinc, Total Recoverable	ug/L	12.9	26.2	--	--

8. The effluent limitations specified in WDR Order R5-2012-0086 for ammonia is based on implementation of the National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life.
9. The effluent limitations specified in WDR Order R5-2012-0086 for copper and zinc are based on the California Toxics Rule and the *Water Quality Control Plan, Fourth Edition, for the Sacramento River and San Joaquin River Basins* (Basin Plan).
10. 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.”
11. 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.
12. 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 new effluent limitations for ammonia, copper, and zinc at Discharge Point No. 001. 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 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.

13. Immediate compliance with the final effluent limitations contained in WDR Order R5-2012-0086 for ammonia, copper, and zinc at Discharge Point No. 001 is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance. The Discharger is proposing to conduct upgrades to the plant to come into compliance with the applicable effluent limitations. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance. The following table summarizes the effluent monitoring data obtained from January 2007 to June 2011 for ammonia, and September 2007 through May 2011 for both copper and zinc:

Parameter	Units	MEC	Mean	Standard Deviation	# of Samples
Ammonia	mg/L	18.1	10.47	5.23	21
Copper, Total Recoverable	ug/L	32	9.03	6.17	45
Zinc, Total Recoverable	ug/L	47.6	14.84	9.21	46

14. For compliance with the final effluent limitations for ammonia, copper, and zinc, the Discharger requires additional time to 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.
15. On **26 July 2012**, the Discharger submitted justification for a compliance schedule for ammonia, copper, and zinc.
16. This Order provides a time schedule for the Discharger to develop, submit and implement methods of compliance, and/or construct the necessary treatment plant upgrades to meet the final effluent limitations.
17. 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.
18. 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 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.

19. The time schedule order satisfies provisions of CWC 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 8).

13385(j)(3)(B)(i): This time schedule order includes new effluent limits that become effective after the July 1, 2000 date, and may require new or modified control measures in order to comply with the final effluent limits. Additionally, the Discharger has provided a feasibility study indicating it would take approximately **5** years to secure funding to conduct upgrades to the treatment 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): The Discharger has provided a feasibility study that indicates it will take approximately 5 years to meet the new final effluent limitations. To meet the new final limitations, the Discharger will have to conduct upgrades to the treatment plant. 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)(i): This time schedule order contains effluent limits for the constituents of concern which are ammonia, copper and zinc.

13385(j)(3)(C)(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 8).

13385(j)(3)(D): This time schedule order contains a requirement that the Discharger must submit and implement a pollution prevention plan within 6 months after adoption of the time schedule order.

20. CWC section 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) 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.”*
21. Compliance with this Order exempts the Discharger from mandatory penalties for violations of the final effluent limitations for ammonia, copper, and zinc, 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 ammonia, copper, and zinc in order to effectively reduce the effluent concentrations by source control measures.
22. Since the time schedule 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.
23. The compliance time schedule in this Order includes interim performance-based effluent limitations for ammonia, 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 ammonia, copper, and zinc. 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	Calculated Interim Limitation	Interim Limitation (Average Monthly)	Interim Limitation (Maximum Daily)
Ammonia	mg/L	18.1	10.47	5.23	21	27.7 ¹	27.7	27.7
Copper, Total Recoverable	ug/L	32.0	9.03	6.17	45	29.4 ¹	32.0 ²	32.0 ²
Zinc, Total Recoverable	ug/L	47.6	14.84	9.21	46	45.2 ¹	47.6 ²	47.6 ²

¹Based on the Mean + 3.3 x Std Dev
²When the calculated interim limitation is less than the MEC, use the MEC for the interim limitation

24. 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.

25. On 4 October 2012, 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.
26. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) ("CEQA"), under Water Code Section 13389, since any adoption or modification of a NPDES Permit for an existing source is exempt and this order only serves to implement such a NPDES permit. This Order is also exempt from CEQA in accordance with Section 15321(a)(2), Title 14, California Code of Regulations. This Order is not subject to the limitations of Government Code section 65962.5(c)(3) [Cortese List] on use of categorical exemptions because it does not involve the discharge of "hazardous" materials as used in that statute, but rather involves the discharge of treated domestic wastewater. In addition, adoption of this Order is not subject to CEQA because this Order does not have the potential to cause a significant impact on the environment (Title 14 CCR section 15061(b)(3)) as it is intended to enforce preexisting requirements to improve the quality of ongoing discharges that are part of the CEQA "baseline". Any plant upgrades or replacement are the result of WDR Order R5-2012-0086 and not this Order.
27. 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 ammonia, copper, and zinc contained in WDR Order R5-2012-0086 as described in the above Findings:

COMPLIANCE TIME SCHEDULE TABLE

Task	Compliance Date
Submit and implement a Pollution Prevention Plan (PPP) ¹ pursuant to CWC section 13263.3 for ammonia, copper, and zinc	6 Months after Adoption Date of this Order
Submit Method of Compliance Workplan/Schedule.	6 Months after Adoption Date of this Order
Progress Reports ²	1 June, annually, after approval of workplan until final compliance.
Submit Method of Compliance Project Report (e.g. preliminary engineering report)	1 June 2014
Begin Compliance Project	1 June 2015
Achieve compliance with applicable final effluent limits for ammonia, copper, and zinc.	1 June 2017
¹ The Discharger shall implement a new Pollution Prevention Plan (PPP) and shall meet the requirements specified in California Water Code Section 13263. ² The 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 with the final effluent limitations.	

The following interim average monthly and maximum daily effluent limitations shall be effective immediately in lieu of the final effluent limitations for ammonia, copper, and zinc contained in WDR Order R5-2012-0086. The final effluent limitations at Discharge Point No. 001 for ammonia, copper, and zinc contained in WDR Order R5-2012-0086 shall become effective on 1 June 2017, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Interim Average Monthly Effluent Limitation	Interim Maximum Daily Effluent Limitation
Ammonia	mg/L	27.7	27.7
Copper, Total Recoverable	ug/L	32.0	32.0
Zinc, Total Recoverable	ug/L	47.6	47.6

2. 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 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.

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 4 October 2012.

ORIGINAL SIGNED BY

PAMELA C. CREEDON, Executive Officer