

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2013-0147
REQUIRING
CITY OF JACKSON
WASTEWATER TREATMENT PLANT
AMADOR COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2013-0146
(NPDES PERMIT NO. CA0079391)

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

1. The City of Jackson (Discharger) owns and operates the City of Jackson Wastewater Treatment Plant (Facility). The treatment system consists of a headworks, two oxidation ditches, two secondary clarifiers, chlorine injection, one train of four sand filters, chlorine contact basin, and sulfur dioxide dechlorination. The Facility discharges up to 0.71 million gallons per day (MGD) of treated wastewater to Jackson Creek, a water of the United States, and a tributary to Amador Lake within the Mokelumne River watershed.
2. On 13 November 2013, the Executive Officer issued Time Schedule Order (TSO) R5-2011-0909-01, which provided a time schedule for complying with final effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc. TSO R5-2011-0909-01 requires compliance with the final effluent limitations for these parameters by 1 March 2015. TSO R5-2011-0909, as amended, remains in effect and is not replaced by this TSO.
3. On 5 December 2013, the Central Valley Water Board adopted Waste Discharge Requirements Order R5-2013-0146 (NPDES Permit No. CA0079391) that replaced Order R5-2007-0133-01. Also on 5 December 2013 the Central Valley Water Board amended Time Schedule Order R5-2011-0909-01 (Attachment A to Amending Order R5-2013-0148) to continue a time schedule and interim limits for copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, and zinc to transfer applicability from rescinded Order R5-2007-0133-01 to Order R5-2013-0146.
4. Waste Discharge Requirements Order R5-2013-0146 contains Final Effluent Limitations IV.A.1, which reads, in part, as follows:

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants						
Chlorodibromomethane	µg/L	0.41	--	0.82	--	--
Non-Conventional Pollutants						
Total Trihalomethanes ²	µg/L	80	--	--	--	--

² Applies to the sum of bromoform, chlorodibromomethane, chloroform, and dichlorobromomethane.

NEED FOR TIME SCHEDULE EXTENSION AND LEGAL BASIS

5. Order R5-2007-0133-01 contains Discharge Prohibition E, which states the following

Beginning 1 March 2015, the Discharger is prohibited from discharging wastewater into Jackson Creek in amounts that cause the downstream Lake Amador water to exceed greater than five percent volume of wastewater in Lake Amador (one part wastewater in 20 parts of Lake water, or 20:1 dilution).

Discharge Prohibition E was included in Order R5-2007-0133-01 because the California Department of Public Health (CPDH) submitted a 13 July 2007 letter recommending Title 22 tertiary treatment of the wastewater plus a 20:1 dilution ratio to address municipal water use from Lake Amador for drinking purposes.

6. In order to meet the Discharge Prohibition E compliance date of 1 March 2015, the Discharger was in the process of completing the necessary milestones to cease discharge to Jackson Creek when effluent dilution in Lake Amador was less than 20:1. A Jackson Creek Beneficial Use Attainment Study (BUAS) was submitted to and approved by the Central Valley Water Board and the Department of Fish and Wildlife. The BUAS concluded that removal of the effluent from Jackson Creek would not have adverse effects on biological and non-biological beneficial uses. Following the approval of the BUAS, the Discharger conducted an Environmental Impact Report (EIR) for treatment system upgrades to the existing Facility and development of a new effluent disposal process that consists of seasonal disposal to Jackson Creek and reclamation/land disposal for the remainder of the year. On 11 March 2013 the Jackson City Council approved the final draft of the EIR. The Discharger has also requested a determination from the State Water Resource Control Board's Division of Water Rights if the effluent discharge can be removed from Jackson Creek without violating downstream user's water rights.
7. In an e-mail dated 29 April 2013 the California Department of Public Health (CDPH) indicated that a new surface water treatment plant has been constructed by Jackson Valley Irrigation District (JVID) that treats raw water from Pardee Reservoir to replace drinking water provided from Lake Amador. Lake Amador, which receives water from

Jackson Creek including tertiary treated effluent from the Facility, was the drinking water source for the JVID's Lake Amador Recreation Area and the Oaks Mobile Home Park. The Lake Amador Recreation Area drinking water source was replaced by the newly constructed JVID treatment plant in September 2013 as part of the Phase I JVID drinking water replacement project. JVID is waiting for funding to begin work on Phase II of the drinking water replacement project that will replace the Oaks Mobile Home Park drinking water supply with treated Pardee Reservoir water by approximately 2016. The e-mail states that, "Given that the City of Jackson's current wastewater treatment plant provides disinfected tertiary treatment and the City usually provides 20:1 dilution in Lake Amador, our Department believes that adequate public health protection is being provided until both domestic water supply intakes are removed from Lake Amador." The CDPH e-mail further states, "In regard to recreation and irrigation uses of Lake Amador, provided the City's wastewater treatment plant's disinfected tertiary effluent meets the requirements specified in our Recycled Water Regulations for body contact and food crop irrigation, we have no objection to continued discharge into Jackson Creek."

8. With the determination by CDPH that the City can continue discharging to Jackson Creek because they usually provide 20:1 dilution in Lake Amador and they met the requirements in CDPH's Recycled Water Regulations, the Discharger has changed its compliance strategy to pursue more substantial facility upgrades to focus on meeting final effluent limitations year round. Proposed major upgrades under the revised compliance strategy include conversion to UV disinfection from chlorination/dechlorination disinfection, addition of filter cells and improvements to coagulation/flocculation, addition of anoxic basins, and upgrades to the pH control system.
9. On 20 August 2013, the Discharger submitted an infeasibility analysis indicating that they cannot comply with the final effluent limits from Order R5-2013-0146 for ammonia, copper, cyanide, chlorodibromomethane, dichlorobromomethane, nitrate, total coliform organisms, total trihalomethanes, and zinc. The infeasibility analysis meets the requirements of the State Water Resources Control Board's Compliance Schedule Policy (Resolution No. 2008-0025, *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits*). The Discharger's 20 August 2013 submittal 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 and (b) a proposal for facility upgrades with projected time schedules to achieve compliance with final effluent limitations.
10. The Discharger cannot consistently comply with the chlorodibromomethane and total trihalomethanes effluent limitations in WDRs Order R5-2013-0146 and must implement additional actions to reach compliance. Therefore, this Order contains a schedule for compliance with the final effluent limitations and interim limitations for chlorodibromomethane and total trihalomethanes.

MANDATORY MINIMUM PENALTIES

11. California Water Code section 13385, subdivisions (h) and (i) require the Regional Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. California Water Code section 13385(j) exempts certain violations from the MMPs. California Water Code section 13385(j)(3) exempts the discharge from MMPs “*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 or 13308, if all the [specified] requirements are met ... for the purposes of this subdivision, the time schedule may not exceed five years in length...*”
12. Per the requirements of California Water Code section 13385(j)(3), 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 violations that would otherwise be subject to California Water Code sections 13385(h) and (i).
 - b. New or modified control measures are necessary in order to comply with the effluent limitations for chlorodibromomethane and total trihalomethanes. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
 - c. This Order establishes a time schedule to bring the waste discharge into compliance with the effluent limitations 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 limitations.
13. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years.
14. Compliance with this Order exempts the Discharger from MMPs for violations of the final effluent limitations found in WDR Order R5-2013-0146 for chlorodibromomethane and total trihalomethanes because they are newly adopted effluent limits in Order R5-2013-0146 on 5 December 2013 that have not previously been provided protection from MMPs.
 - a. Therefore, this Order provides protection for chlorodibromomethane and total trihalomethanes from MMPs from the 5 December 2013 until 1 March 2018.

15. If the interim effluent limits in this Order for chlorodibromomethane and total trihalomethanes are exceeded, then the Discharger is subject to an MMP for each particular exceedance as it will no longer meet the exemption in California Water Code 13385(j)(3). It is the intent of the Board that a violation of an interim chlorodibromomethane and total trihalomethanes average monthly effluent limitation subjects the Discharger to only one MMP for that monthly averaging period¹. In addition, a violation of the interim maximum daily chlorodibromomethane and total trihalomethanes effluent limitation subjects the Discharger to one MMP for the day the sample was collected.
16. In accordance with Water Code section 13385(j)(3), the total length of protection from MMPs for chlorodibromomethane and total trihalomethanes does not exceed five years.
17. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for chlorodibromomethane and total trihalomethanes contained in Order R5-2013-0146. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds 1-year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.
18. This Order includes performance-based interim effluent limitations for chlorodibromomethane and total trihalomethanes. The interim effluent limitations are based on the current treatment plant performance.

The interim effluent limitations consist of statistically calculated performance-based average monthly and maximum daily effluent limits derived using sample data provided by the Discharger. The interim effluent limitations were developed using the statistical based approach provided in EPA's *Technical Support Document for Water Quality-Based Toxics Control* or TSD. The TSD provides guidance on estimating the projected maximum effluent concentration using a lognormal distribution of the observed effluent concentrations at a desired confidence level, as detailed in Section 3.3 of the TSD. The multipliers in Table 3-1 of the TSD were used to calculate the 99th percent confidence level and 99th percentile of the data set based on the number of effluent samples and the coefficient of variation. The multipliers from the table were multiplied by the highest observed effluent concentration (MEC) to estimate the maximum expected effluent concentration; this value was used as the interim effluent limitations for the average monthly effluent limit (AMEL). The interim performance-based maximum daily effluent limitations (MDELs) were established in accordance with section 1.4 and Table 2 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP), by multiplying the interim AMEL by the MDEL/AMEL multiplier.

¹ In accordance with Questions 39 and 40 of the 17 April 2001 State Water Board *SB 709 and SB 2165 Questions and Answers* document.

Effluent data from January 2008 through May 2012 was used to calculate the interim effluent limitations in the table below. The following summarizes the calculations of the daily maximum and average monthly interim effluent limitations for these constituents:

Parameter	Units	MEC	Number of Data Points	Mean	Standard Deviation	Coefficient of Variation ¹	MDEL/AMEL Multiplier ²	Interim Average Monthly Effluent Limitation ³	Interim Maximum Daily Effluent Limitation ⁴
Chlorodibromomethane	µg/L	0.82	5	--	--	0.60	2.01	3.4	6.8
Total Trihalomethanes	µg/L	171	5	--	--	0.60	2.01	720	1450

¹ For a dataset with less than 10 data points, the coefficient of variation is estimated to equal 0.6.

² Maximum daily/average monthly effluent limit multiplier extrapolated from Table 2 of the SIP.

³ 99% confidence level upper limit value from the Technical Support Document for Water Quality-based Toxics Control used to calculate the maximum expected concentration in a dataset.

⁴ Interim maximum daily effluent limitation calculated from MDEL/AMEL multiplier.

19. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim effluent limitations included in this Order. Interim effluent limitations are established when compliance with the final effluent limitations cannot be achieved by the existing Facility. 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 effluent limitations, however, establish an enforceable ceiling concentration until compliance with the final effluent limitation can be achieved.

REGULATORY BASIS

20. Section 13300 of the California Water Code states in part: *“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.”*
21. Water Code section 13267 states in part: *In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of*

perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

22. The Discharger owns and operates the wastewater treatment plant and sewage collection system which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the WDRs and with this Order.
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 an 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. On 5 December 2013, 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 Time Schedule Order R5-2013-0147 under Water Code section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.

IT IS HEREBY ORDERED THAT pursuant to California Water Code Sections 13300 and 13267, to ensure compliance with the requirements of Order R5-2013-0146, or subsequently adopted order, the Discharger shall comply with the following:

1. The Discharger shall comply with the following time schedule to ensure completion of the compliance projects:

Task	Compliance Date
Submit Project Report/Preliminary Engineering Report	28 February 2014
Submit documentation of public education and outreach and initiate 45-day Proposition 218 protest period	31 August 2014
Submit documentation of Proposition 218 protest period and hearing completion and adoption of new rate structure by the City Council	31 December 2014
Submit Progress Reports ¹	31 January, annually
Submit documentation that the design of required treatment plant improvements have been initiated	31 March 2015

Submit documentation that the design is complete and bids have been requested	30 November 2015
Submit documentation that bid has been awarded	28 February 2016
Submit documentation that construction has initiated	30 June 2016
Submit documentation that construction has completed	30 November 2017
Submit documentation of project startup	28 February 2018
Submit documentation showing that the discharge fully complies with the final effluent limitations for chlorodibromomethane and total trihalomethanes	1 March 2018
¹ The progress reports shall detail the steps taken to comply with this Order, including documentation showing completion of tasks, construction progress, evaluation of the effectiveness of the implemented measures, and assessment of whether additional measures are necessary to meet the compliance dates.	

- The following interim effluent limitations for chlorodibromomethane and total trihalomethanes shall be effective upon adoption of this Order, and shall apply in lieu of the corresponding final effluent limitations in Order R5-2013-0146. The Discharger shall maintain compliance with the following interim effluent limitations through **28 February 2018**, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

Chlorodibromomethane and total trihalomethanes. Chlorodibromomethane and total trihalomethanes in the effluent shall not exceed:

Parameter	Units	Interim Effluent Limitations	
		Average Monthly	Maximum Daily
Chlorodibromomethane	µg/L	3.4	6.8
Total Trihalomethanes	µg/L	720	1450

- 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.”

- In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical

reports specified herein that contain work plans that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

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 or with the WDRs 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 signed by the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region, on **5 December 2013**.

Original Signed by

PAMELA C. CREEDON, Executive Officer