CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2015-0003-01
REQUIRING
CITY OF JACKSON
WASTEWATER TREATMENT PLANT
AMADOR COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2013-0146-01 (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 Wastewater Treatment Plant (Facility). 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 25 October 2007, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2007-0133 (NPDES No. CA0079391), which included final effluent limitations for, *inter alia*, aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, zinc, and turbidity. Finding that the Discharger could not comply with many of the final effluent limitations in WDRs Order R5-2007-0133, the Central Valley Water Board granted the Discharger a compliance schedule in the WDRs that required compliance with the final effluent limits for ammonia, copper, cyanide, dichlorobromomethane, and zinc by 18 May 2010, and with the final effluent limit for aluminum by 1 October 2012.

3. The Discharger subsequently requested additional time beyond the compliance dates in WDRs Order R5-2007-0133 to complete Facility upgrades, and requested that the Board provide it with protection from mandatory minimum penalties (MMPs) by issuing a Time Schedule Order (TSO) pursuant to Water Code section 13300. On 3 November 2011, the Central Valley Water Board issued TSO R5-2011-0909, which provided additional time for the Discharger to come into compliance with the final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, zinc, and turbidity. The TSO required that the Discharger complete the following upgrades by 1 March 2015:

    - pH, DO, SCADA Monitoring, Recording, Controls, and Alarms systems,
    - Alkalinity Adjustment System and the Prefilter Coagulation/Flocculation improvements, and
    - the mechanisms to increase the Chlorine Mixing Energy system.

4. The Discharger found that it could not consistently comply with the interim limits in TSO R5-2011-0909. The Central Valley Water Board therefore revised TSO R5-2011-0909 on 13 November 2013, granting the Discharger higher interim limits based on the Facility's current performance.

5. On 5 December 2013, the Central Valley Water Board adopted WDRs Order R5-2013-0146, which imposed 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
Ammonia Nitrogen (total as N)	mg/L	2.3	--	5.5	--	--
	lbs/day	14	--	3.3	--	--
Cyanide Total	µg/L	4.2	--	8.8	--	--
Copper, Total Recoverable	µg/L	3.9	--	6.2	--	--
Chlorodibromomethane	µg/L	0.41	--	0.82	--	--
Dichlorobromomethane	µg/L	0.56	--	1.4	--	--
Nitrate Plus Nitrite (as N)	mg/L	10	--	--	--	--
Total Coliform Organisms	MPN/100 mL	--	2.2[1]	23[2]	--	240
Total Trihalomethanes[3]	µg/L	80	--	--	--	--
Zinc, Total Recoverable	µg/L	42	--	57	--	--

1. Applied as a 7-day median effluent limitation
2. Not to be exceeded more than once in any 30-day period
3. Applies to the sum of bromoform, chlorodibromomethane, chloroform, and dichlorobromomethane

6. The final effluent limitations for cyanide, copper, dichlorobromomethane, and zinc in WDRs Order R5-2013-0146 varied slightly from the applicable effluent limitations in the previous WDRs due to the statistical variance in the effluent dataset, but were based upon the same numeric water quality standard and are thus not considered more or less stringent limits. The ammonia limit was calculated using a pH limit of 8.0, which equated to a less stringent ammonia limit than in the previous WDRs, since ammonia is less toxic to aquatic life at lower pH values. WDRs Order R5-2013-0146 did not contain final aluminum effluent limitations because aluminum effluent concentrations were below the applicable water quality standard and thus the discharge no longer demonstrated reasonable potential to cause an exceedance in Jackson Creek. However, the final effluent limitation for nitrate plus nitrate is more stringent, based on modified regulatory requirements for nitrate. Additionally, WDRs Order R5-2013-0146 contains turbidity operational specifications in lieu of, but equivalent to, the previous turbidity effluent limitations in WDRs Order R5-2007-0133.

7. Also on 5 December 2013, the Central Valley Water Board adopted TSO R5-2013-0147, which provided the Discharger time to comply with the new final effluent limitations for chlorodibromomethane and total trihalomethanes by replacing the chlorine disinfection system with an ultraviolet (UV) deactivation system. The Discharger was to complete the upgrades by 1 March 2018.

8. On 19 December 2013, the Discharger submitted a request to the Central Valley Water Board to remove the compliance project element to construct Chlorine Mixing Energy system since the Facility will replace the existing chlorine disinfection system with UV deactivation. In a letter dated 28 January 2014, the Assistant Executive Offer approved the Discharger's request.

9. In December 2014, the Discharger completed the Facility upgrades specified in TSO R5-2011-0909, except for the mechanisms to increase the Facility's Chlorine Mixing

Energy system (as approved by the Central Valley Water Board Assistant Executive Officer). Based on new monitoring data, the Facility's discharge complies with the final effluent limitations contained in WDRs Order R5-2013-0146 for ammonia and total coliform organisms.

10. Based on new effluent monitoring data, Facility performance, and a site-specific Copper Water-Effect Ratio Study conducted on 26 September 2014 in accordance with United States Environmental Protection Agency's *2001 Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (EPA 822-R-01-005), the Facility's effluent discharge no longer demonstrated reasonable potential to cause an exceedance of applicable copper and zinc objectives in Jackson Creek. Therefore, on 6 February 2015, the Central Valley Water Board amended WDRs Order R5-2013-0146 to remove the copper and zinc final effluent limitations.

NEED FOR TIME SCHEDULE EXTENSION AND LEGAL BASIS

11. On 11 January and 20 May 2010, the Discharger submitted an infeasibility analysis requesting additional time to comply with final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity and zinc through construction of a suite of Facility upgrades.

12. On 1 November 2012, the Discharger submitted a Pollution Prevention Plan that:

- Proposed improvements to increase dissolved oxygen levels to comply with ammonia limits,
- Documented a point disinfection relocation to comply with dichlorobromomethane and cyanide limits, and
- Proposed to stabilize the wastewater treatment process with the addition of lime to stabilize wastewater pH at (or above) 7.0 to bring effluent nitrate concentrations into compliance.

13. On 20 August 2013, the Discharger submitted an Infeasibility Analysis Report requesting additional time to comply with the new final effluent limitations for chlorodibromomethane and total trihalomethanes in WDRs Order R5-2013-0146-01, and requested an extension of the compliance schedule in TSO R5-2011-0909-02 for cyanide, dichlorobromomethane, and nitrate plus nitrite. The Discharger proposed facility upgrades of UV disinfection from chlorine disinfection to comply with the chlorodibromomethane, dichlorobromomethane, total trihalomethanes, and cyanide final effluent limitations, and the addition of anoxic basins to comply with nitrate plus nitrite final effluent limitation. The Discharger projected that all construction would be completed by 30 November 2017 and proposed to achieve compliance with the final effluent limitations by 1 March 2018. As discussed in Finding 7 of this Order, on 5 December 2013 the Central Valley Water Board adopted TSO R5-2013-0147 (requiring compliance with final effluent limits for chlorodibromomethane and total trihalomethanes by 1 March 2018), but TSO R5-2011-0909-02, which set a compliance deadline of 1 March 2015 for the remaining constituents, remained in effect.

14. On 24 November 2014, the Discharger submitted an updated Infeasibility Analysis requesting additional time beyond the time schedule of 1 March 2015 in TSO R5-2011-0909-02 to complete the UV disinfection system and the anoxic basins to comply with the final effluent limitations for cyanide, dichlorobromomethane, and nitrate plus nitrite. The Infeasibility Analyses meet 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 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; (b) documentation of source control measures and/or pollution minimization measures efforts currently underway or completed; and (c) a proposal for additional or future source control measures, pollutant minimization actions, or waste treatment (i.e., Facility upgrades) with projected time schedules to achieve compliance with final effluent limitations.

15. On 6 February 2015, the Central Valley Water Board adopted TSO R5-2015-0003 which implements a time schedule to complete construction of the UV disinfection system and anoxic basins for compliance with final effluent limitations for cyanide, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and total trihalomethanes by 1 March 2018. TSO R5-2015-0003 sets interim limitations and provides protection from MMPs for these constituents.

16. In a letter dated 23 September 2015, the Discharger informed the Board of the selection of a new design consultant and requested an extension for the compliance schedule included in TSO R5-2015-0003 for eight months for all dates excluding annual Progress Reports in order to complete design and construction of the UV disinfection system and improvements to achieve denitrification via simultaneous nitrification and denitrification with final compliance achieved by 1 November 2018.

17. On 23 November 2015, the Discharger provided additional information to support the request for a revised compliance schedule. Following the adoption of the Facility Pre-Design Report in April 2014, the Discharger's Ratepayer's Protection Alliance raised concerns over project costs. A rate increase process was initiated in September 2014 to allow for the project to proceed. In October 2014, a notice was issued through the Proposition 218 process for the new rates where a 40% protest was received, which was less than the 51% required to stop the rate increase. The Discharger moved to adopt the new rates in December 2014. In January 2015 a petition for referendum, which only requires 10% support, was presented to the Discharger in order to protest the rate increase and a lawsuit was filed against the Discharger. The Discharger opted to work with the Ratepayer's Protection Alliance to evaluate options for reducing project costs. By April 2015 it was determined that a competitive proposal approach would result in a new project implementation strategy to reduce overall project costs. The Discharger released a Request for Proposal for design services in May 2015 and selected a new design consultant in July 2015. Design services were initiated in August 2015. This process delayed the project a total of sixteen months.

18. The Discharger cannot consistently comply with the cyanide, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and total trihalomethanes effluent limitations in WDRs Order R5-2013-0146-01 and must implement additional actions to reach compliance. This Order, TSO R5-2015-0003-01, contains an amended time schedule for compliance with final effluent limitations, sets interim limitations for certain constituents, and is intended to provide protection from MMPs for these constituents.

MANDATORY MINIMUM PENALTIES

19. Water Code section 13385, subdivisions (h) and (i), requires the Central Valley Water Board to impose MMPs upon dischargers that violate certain effluent limitations. Water Code section 13385(j)(3) exempts discharges from these 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...

20. Per the requirements of Water Code section 13385, subdivision (j)(3), the Central Valley Water Board finds that new or modified control measures are necessary in order to comply with new or more stringent effluent limitations, and that the Discharger could not have designed, installed, and put into operation the new or modified control measures within 30 calendar days of the date that the final effluent limitations went into effect. The proposed time schedule is needed to complete designs, award bids, and begin construction of upgrades. Several phases of construction have been completed. However, additional proposed improvements include (1) conversion to UV disinfection to reduce chlorination byproducts in effluent, and (2) improvements to achieve denitrification via simultaneous nitrification and denitrification to improve compliance with nitrate plus nitrite effluent limitations.

21. TSOs generally may only provide protection from MMPs for up to five years. However, Water Code section 13385, subdivision (j)(3)(C)(ii)(II), authorizes the Board to grant an additional five years if the Board finds, following a public hearing, that a Discharger is making diligent progress towards bringing the waste discharge into compliance and that the additional time is necessary to comply with the effluent limitations.

22. Compliance with this TSO provides protection for the Discharger from MMPs as follows:

    a. Chlorodibromomethane and total trihalomethanes (the sum of bromoform, chloroform, chlorodibromomethane, and dichlorobromomethane): WDRs Order R5-2013-0146-01 imposed new final effluent limits for chlorodibromomethane and total trihalomethanes that went into effect on 24 January 2014. TSO R5-2013-0147 provided the Discharger with MMP protection for chlorodibromomethane and total trihalomethanes violations from 24 January 2014 until 28 February 2018. This TSO carries forward MMP protections for these constituents through 31 October 2018. This time schedule is as short as possible and does not exceed five (5) years in length from the date the final effluent limitations became effective.

    b. Cyanide and dichlorobromomethane: WDRs Order R5-2007-0133 imposed final effluent limitations for cyanide and dichlorobromomethane that became effective 18 May 2010;

these limits were carried forward as final effluent limitations by WDRs Order R5-2013-0146-01. TSO R5-2011-0909-02 provided the Discharger with MMP protection for cyanide and dichlorobromomethane violations from 3 November 2011 through 28 February 2015. This TSO extends MMP protections for these constituents through 31 October 2018. This time schedule is as short as possible and does not exceed ten (10) years in length from the date the final effluent limitations became effective.

c. Nitrate plus nitrite: WDRs Order R5-2013-0146-01 imposed a final effluent limitation for nitrate plus nitrite that became effective on 24 January 2014 and that was more stringent than the final effluent limitation imposed by WDRs Order R5-2007-0133 (TSO R5-2011-0909-02 provided the Discharger with MMP protection for nitrate violations from 3 November 2011 until 24 January 2014, when the more stringent nitrate plus nitrite effluent limitation became effective). After being amended, TSO R5-2011-0909-02 provided protection for nitrate plus nitrite from 24 January 2014 through 28 February 2015. This TSO extends MMP protections for this constituent through 31 October 2018. This time schedule is as short as possible and does not exceed ten (10) years in length from the date the final effluent limitations became effective.

23. The Board finds that the time schedules in Finding No. 22 are as short as possible, considering 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. Where additional time is granted beyond the initial five (5) years, the Board finds that the Discharger is making diligent progress towards bringing the waste discharge into compliance, that the additional time is necessary to comply with the effluent limitations, and that the time schedule does not exceed ten (10) years in length from the date the final effluent limitations became effective.

24. This TSO provides a time schedule for completing the actions necessary to ensure compliance with final effluent limitations. Since the time schedule for the completion of these actions exceeds one (1) year, this TSO includes interim effluent limitations and interim requirements and dates for their achievement.

25. This TSO includes performance-based interim effluent limitations for cyanide, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and total trihalomethanes, which consist of average monthly and maximum daily interim effluent limits carried forward from TSOs R5-2011-0909-02 and R5-2013-0147.

Parameter	Units	Interim AMEL	Interim MDEL
Cyanide	µg/L	23	49
Chlorodibromomethane	µg/L	3.4	6.8
Dichlorobromomethane	µg/L	21	51
Nitrate plus Nitrite	mg/L	151	355
Total Trihalomethanes	µg/L	720	1450

26. The Central Valley Water Board expects 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.

27. If an interim effluent limit contained in this Order is exceeded, then the Discharger is subject to MMPs for that particular exceedance, as it will no longer meet the exemption in Water Code section 13385, subdivision (j)(3). It is the intent of the Central Valley Water Board that a violation of an interim monthly effluent limitation subjects the Discharger to only one MMP for that monthly averaging period. In addition, a violation of an interim daily maximum effluent limit subjects the Discharger to one MMP for the day in which the sample was collected.

REGULATORY BASIS

28. Water Code section 13300 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.

29. Water Code section 13267 states, in part:

> In conducting an investigation … 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 … 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.

30. The Discharger owns and operates the Facility. The technical and monitoring reports required by TSO R5-2015-0003-01 are necessary to determine compliance with WDRs Order R5-2013-0146-01 and with TSO R5-2015-0003-01.

31. Issuance of TSO R5-2015-0003-01 is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) 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.)

32. On 5 February 2015, 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.

33. On XX February 2016, 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 R5-2015-0003 under Water Code Section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.

IT IS HEREBY ORDERED THAT, Time Schedule Order R5-2015-0003 is amended as shown in Amending Order R5-2015-XXXX , and pursuant to Water Code sections 13300 and 13267, in order to ensure compliance with the requirements of WDRs Order R5-2013-0146-01:

1. The Discharger shall comply with the following time schedule to ensure completion of the compliance projects described in Finding 14:

Task	**Compliance Date**
Submit Progress Reports [1]	31 January, annually
Submit documentation that the design is complete	31 July 2016
Submit documentation that bid has been awarded	31 October 2016
Submit documentation that conversion to UV disinfection and improvements for denitrification have begun	28 February 2017
Submit documentation that construction has completed	31 July 2018
Submit documentation of enhanced treatment process startup	31 October 2018
Submit documentation showing that the discharge fully complies with the final effluent limitations for cyanide, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and total trihalomethanes.	1 November 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.

2. The following interim effluent limitations for cyanide, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and total trihalomethanes shall be effective upon adoption of this Order, and shall apply in lieu of the corresponding final effluent limitations in WDRs Order R5-2013-0146-01. The Discharger shall maintain compliance with the following interim effluent limitations through 31 October 2018, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

Parameter	Units	Interim Average Monthly Effluent Limitation[3]	Interim Maximum Daily Effluent Limitation[4]
Cyanide	µg/L	23	49
Chlorodibromomethane	µg/L	3.4	6.8
Dichlorobromomethane	µg/L	21	51
Nitrate plus Nitrite	mg/L	151	355
Total Trihalomethanes	µg/L	720	1450

3. 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."*

4. 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 February 2015** and amended by the California Regional Water Quality Control Board, Central Valley Region, on **18 February 2016**.

Original signed by

PAMELA C. CREEDON, Executive Officer