

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2017-0092
REQUIRING

CITY OF BIGGS
BIGGS WASTEWATER TREATMENT PLANT
BUTTE COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2012-0083
(NPDES PERMIT CA0078930)

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

1. On 4 October 2012, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2012-0083, NPDES Permit CA0078930, prescribing WDRs for the City of Biggs (hereinafter Discharger) at the Biggs Wastewater Treatment Plant (hereinafter Facility), Butte County.
2. WDR Order R5-2012-0083, contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Ammonia	mg/L	1.23	2.15

3. The effluent limitations specified in Order R5-2012-0083 for ammonia are based on implementation of the 1999 National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life. The Discharger was unable to immediately comply with the effluent limitations for ammonia; therefore, the Central Valley Water Board adopted Time Schedule Order (TSO) R5-2012-0084 on 4 October 2012. TSO R5-2012-0084 provided a time schedule for meeting the effluent limitations for ammonia. Compliance with these effluent limits for ammonia was to be achieved by 5 years from the date of adoption of TSO R5-2012-0084, or 4 October 2017.
4. WDR Order R5-2012-0083, contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:
 - e. **Total Coliform Organisms.** When the wastewater receives dilution of less than 20:1, effluent total coliform organisms shall not exceed:
 - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
 - ii. 23 MPN/100 mL no more than once in any 30-day period; and
 - iii. 240 MPN/100 mL, as an instantaneous maximum.

5. WDR Order R5-2012-0083, contains Special Provision VI.C.4.c, which reads as follows:

When dilution is <20:1, the Discharger shall operate the treatment system to ensure that the turbidity measured at EFF-001, as described in the MRP (Attachment E), shall not exceed:

- i. 2 NTU as a daily average,
- ii. 5 NTU not be exceeded more than 5% of the time within a 24-hour period, and
- iii. 10 NTU as an instantaneous maximum.

6. WDR Order R5-2012-0083, also contains Special Provision VI.C.6, which reads as follows:

When dilution is <20:1, the wastewater shall be filtered, and adequately disinfected pursuant to the Department of Public Health (DPH; formerly the Department of Health Services) reclamation criteria, CCR, Title 22, division 4, chapter 3, (Title 22), or equivalent, in accordance with the compliance schedule in Section VI.C.7.a, below. Adequately disinfected shall mean that the wastewater meets the total coliform bacterial effluent limits contained in this permit. Filtered means that the wastewater meets the definition of "Filtered Wastewater" contained in California Code of Regulations, title 22, section 60301.320.

7. The Discharger was unable to immediately comply with Special Provisions VI.C.4.c & 6 (filtration, turbidity, and disinfection requirements), therefore, WDR Order R5-2012-0083 provided a time schedule for achieving compliance. Compliance with Other Special Provisions VI.C.4.c & 6 was to be achieved by 5 years from the effective date of WDR Order R5-2012-0083, or 23 November 2017.

Need for Time Schedule Extension and Legal Basis

8. Since WDR Order R5-2012-0083 and TSO R5-2012-0084 were adopted, the Discharger has made significant efforts to convert the method of effluent disposal at the Facility from a surface water discharge to land application. Efforts towards compliance have been split into two project phases. As of the date of this Order, Phase 1 is complete and Phase 2 is expected to undergo construction in April 2018. Phase 2 includes the necessary land acquisition and Facility expansion to allow for land application of treated effluent.
9. Phase 1 improvements were completed in December 2015 and included the following: upgrades to the headworks (solids screening and disposal, new lift station, and backup pump), SCADA monitoring for the headworks and treatment plant, and a backup generator for the Facility. Phase 1 improvements did not specifically address ammonia compliance or compliance with the filtration and turbidity specifications; however, Phase 1 was financed through a separate State Water Resources Control Board (State Water

Board) State Revolving Fund (SRF) agreement and was constructed first due to environmental constraints with the larger project (Phase 2).

10. Phase 2 improvements include, in part, the following: additional SCADA monitoring, effluent pump station, upgraded chlorination dosing system, effluent pipeline, 2-40 million gallon lined storage ponds, irrigation pump station, acquisition of 70 acres of land application area for flood irrigation, a tailwater pond, and installation of 6 groundwater monitoring wells. Phase 2 also includes a baseline groundwater quality investigation.
11. The current status of the compliance project is as follows:
 - Environmental Review - All environmental permitting and reviews are complete.
 - Land Acquisition - 160 acres of land required for this project is being acquired via eminent domain, which has caused project delays. The purchase price for the land will be set during an eminent domain hearing; however, as of the date of this Order, this hearing has been delayed numerous times and no purchase price for the land has been set. Final cost for land acquisition, if substantially more than initial evaluation, may require value engineering to reduce construction cost and re-evaluation of the SRF agreement.
 - Financing – The State Water Resources Control Board, Division of Financial Assistance (DFA), has issued the Installment Sale Agreement. The Final purchase price for the land will be updated in the Final Budget Approval for funding with DFA.
12. The Discharger is currently unable to meet the 4 October 2017 deadline for compliance with final ammonia effluent limits and the 23 November 2017 deadline for compliance with the filtration, turbidity, and disinfection requirements due to delays in the project permitting, land acquisition, and funding. On 11 April 2017 the Discharger submitted a request and justification for additional time to comply with final effluent limitations for ammonia and the filtration, turbidity, and disinfection requirements. The submittals included justification for a time schedule for compliance which 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 currently underway or completed; (c) a proposal for additional or future source control measures and pollutant minimization actions; and (d) a demonstration that the proposed schedule is as short as practicable.

Mandatory Minimum Penalties

13. Water Code sections 13385, subdivisions (h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. Water Code section 13385, subdivision (j)(3) exempts the waste 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...".

14. The filtration, turbidity, and disinfection requirements contained in WDR Order R5-2012-0083, Special Provisions VI.C.4.c & 6 are not effluent limitations; therefore pursuant to Water Code section 13385, violations of the filtration, turbidity, and disinfection requirements are not subject to MMPs. Violations of effluent limitations for ammonia and total coliform are subject to MMPs. Therefore, this Order provides protection from MMPs for violations of effluent limitations for ammonia and total coliform only.
15. In accordance with Water Code section 13385, subdivision (j)(3)(A) through (D), the Central Valley Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the effluent limitations for ammonia and total coliform (when wastewater receives less than 20:1 dilution in the receiving water). These limitations are based on new requirements that became applicable to the Order after the effective date of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
16. Per the requirements of Water Code section 13385, subdivisions (j)(3)(A) through (D), the Central Valley Water Board finds that:
 - a. This Order specifies the actions that the Discharger is required to take in order to correct the ammonia effluent violations that would otherwise be subject to Water Code sections 13385(h) and 13385(i).
 - b. To comply with final effluent limitations for ammonia and total coliform (when wastewater receives less than 20:1 dilution in the receiving water), the Discharger has determined that additional treatment facilities and/or additional source control measures must be implemented at the Facility.
 - c. This Order establishes a time schedule to bring the waste discharge into compliance with final effluent limitations that is as short as possible, taking into account technological, operational, and economic factors that affect design, development, and implementation of control measures that are necessary to comply with ammonia and total coliform (when wastewater receives less than 20:1 dilution in the receiving water) effluent limitations.
17. The final effluent limitations for ammonia and total coliform (when wastewater receives less than 20:1 dilution in the receiving water) became applicable to the waste discharge on 23 November 2012. By statute, a Time Schedule Order may provide protection from MMPs for no more than five years, except as provided in Water Code section 13385, subdivision (j)(3)(C)(ii)(II). Five years from the effective date of the new ammonia and filtration, turbidity, and disinfection requirements is 23 November 2017.

18. The Discharger has demonstrated that approximately two years (November 2019) is a necessary amount of time to comply with final effluent limitations for ammonia and total coliform (when wastewater receives less than 20:1 dilution in the receiving water) and to comply with the filtration and turbidity specifications.
19. The Discharger has not previously been provided a time schedule order for protection from MMPs from violations of final effluent limitations for total coliform. The final effluent limitations for total coliform were effective on 23 November 2012. A time schedule from the effective date of this Order until 30 November 2019 may be provided pursuant to Water Code section 13385, subdivision (j)(3)(A) through (D) to allow for protection from MMPs for violations of the final effluent limitations for total coliform.
20. New effluent limitations for ammonia became effective on 23 November 2012. TSO R5-2012-0084, issued pursuant to Water Code section 13385, subdivision (j)(3)(A) through (D), provides a schedule for compliance with the effluent limitations for ammonia and protection from MMPs for violations of final effluent limitations for ammonia until 4 October 2017. The time schedule providing protection from MMPs for violations of effluent limitations for ammonia may be extended pursuant to Water Code section 13385, subdivision (j)(3)(C)(ii)(II).
21. Per the requirements of Water Code section 13385(j)(3)(C)(ii)(II), following a public hearing, and upon a showing that the Discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation, the Central Valley Water Board may extend the time schedule for an additional period not exceeding five years in length, if the Discharger demonstrates that the additional time is necessary to comply with the effluent limitation. In accordance with Water Code section 13385, subdivision (j)(3)(C)(ii)(II), the total length of the extended time schedule does not exceed five years in length. The Central Valley Water Board finds, as described in previous findings in this Order, that the Discharger has demonstrated due diligence to bring the waste discharge into compliance with final effluent limitations for ammonia contained in WDR Order R5-2012-0083. Furthermore, the Discharger has demonstrated that additional time is necessary to comply with the final effluent limitations for ammonia contained in WDR Order R5-2012-0083.
22. Compliance with this Order exempts the Discharger from MMPs for violations of the final effluent limitations for ammonia and total coliform (when wastewater receives less than 20:1 dilution in the receiving water) found in WDR Order R5-2012-0083 from the date of this Order's adoption (11 August 2017) until 30 November 2019.
23. In accordance with Water Code section 13385(j)(3)(C)(ii)(II), the total length of protection from mandatory minimum penalties for violation of the final effluent limitations ammonia does not exceed ten years. The initial five year time schedule as allowed pursuant to Water Code section 13385, section (j)(3)(C)(i) expires 23 November 2017 for the ammonia effluent limits. An extended time schedule period from the effective date of this

Order until 30 November 2019 for ammonia effluent limits is pursuant to Water Code section 13385(j)(3)(C)(ii)(II).

24. In accordance with Water Code section 13385(j)(3)(C)(i), the total length of protection from mandatory minimum penalties for the violation of final effluent limitations for total coliform does not exceed five years. A time schedule period from the effective date of this Order until 30 November 2019 for total coliform effluent limits is pursuant to Water Code section 13385(j)(3)(A) through (D).
25. This Order provides a time schedule for completing actions necessary to ensure compliance with the final effluent limitations for ammonia and total coliform contained in WDR Order R5-2012-0083. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.
26. This Order includes new performance-based interim effluent limitations for ammonia. Interim ammonia effluent limitations consist of a maximum daily effluent limitation (MDEL) and an average monthly effluent limitation (AMEL) derived using sample data provided by the Discharger. In developing the performance-based interim AMEL, where there are 10 data points or more and only once per month sampling is required, sampling and laboratory variability is accounted for by establishing interim effluent limitations that are based on normally distributed data where 99.9 percent 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). When at least 80 percent of the data points are reported as non-detect (ND) values, or if there are less than 10 data points available, the interim AMEL is based on 3.11 times the maximum observed effluent concentration (MEC) when once per month sampling is required. Additionally, if either of these procedures produces an interim AMEL less than the MEC, the MEC is sometimes established as the interim AMEL. The interim MDEL can be calculated by multiplying the calculated AMEL with a multiplier from Table 2 (which is each parameters MDEL multiplier divided by their AMEL multiplier) of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*. To calculate the coefficient of variation (COV), division of sample variance by sample mean was completed using historical records. In this case, based on best professional judgment, and evaluation of the facility performance, the interim AMEL and MDEL for ammonia are set at 24.0 mg/L and 44.6 mg/L, respectively.

January 2016 through December 2016 effluent data were used in calculating interim effluent limitations for ammonia. The following table summarizes the calculation of the interim effluent limitations:

Interim Effluent Limitation Calculation Summary

Parameter	Units	# of Samples	Mean	Standard Deviation	COV	99.9%	MEC	Interim AMEL	Interim MDEL
Ammonia	mg/L	52	8.6	4.4	0.50	22.5	26	24.0	44.6

27. Existing effluent limits for total coliform are based on the recommendations from the State Water Resources Control Board, Division of Drinking Water (DDW), based on the requirements of Title 22. DDW recommends total coliform effluent limitations, when dilution is less than 20:1, of 2.2 MPN/100 mL as a 7-day median; 23 MPN/100 mL, not to be exceeded more than once in any 30-day period; and 240 MPN/100 mL as an instantaneous maximum. Because the Discharger cannot currently comply with these requirements, the interim effluent limitations for total coliform have been set at the next regulatory threshold as recommended by DDW when dilution is greater than 20:1. DDW recommends total coliform effluent limitations, when dilution is greater than 20:1, of 23 MPN/100 mL, as a 7-day median; and 240 MPN/100 mL, no more than once in any 30-day period. Therefore, when the wastewater receives less than 20:1 dilution in the receiving water, the interim total coliform limits are as follows:
 - i. 23 MPN/100 mL, as a 7-day median, and
 - ii. 240 MPN/100 mL, no more than once in any 30-day period.

28. The Central Valley Water Board finds that the Discharger can maintain compliance with interim effluent limitations included in this Order. Interim effluent limitations are established when compliance with final effluent limitations cannot be achieved by the existing Facility. Discharge of constituent concentrations in excess of final effluent limitations, but in compliance with interim effluent limitations, can significantly degrade water quality and adversely affect beneficial uses of the receiving stream on a long-term basis. Interim effluent limitations, however, establish an enforceable ceiling concentration until compliance with final effluent limitations can be achieved.

29. If an interim effluent limitation 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 AMEL subjects the Discharger to only one MMP for that monthly averaging period. In addition, a violation of an interim MDEL subjects the Discharger to one MMP for the day in which the sample was collected.

30. As described in Finding 7 of this Order, WDR Order R5-2012-0083 provided a time schedule with a final date for achieving compliance with the filtration, turbidity, and disinfection requirements of 23 November 2017. This Order extends the final date for achieving compliance with the filtration, turbidity, and disinfection requirements to 30 November 2019.

Other Regulatory Requirements

31. 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, 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.”*
32. 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.”*
33. The Discharger owns and operates the Facility 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.
34. Issuance of this Order is exempt from provisions of the California Environmental Quality Act (Pub. Resources Code, section 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). Issuance of this Order is also exempt from CEQA pursuant to California Code of Regulations, title 14, section 15321, subdivision (a)(2).
35. On 11 August 2017, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider a Time Schedule Order under Water Code section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.

IT IS HEREBY ORDERED THAT:

1. TSO No. R5-2012-0084 is rescinded upon the effective date of this Order, except for enforcement purposes.
2. Pursuant to Water Code sections 13300 and 13267, the Discharger shall comply with the following time schedule to submit reports and ensure compliance with the final effluent limitations for ammonia and total coliform contained in WDR Order R5-2012-0083, as described in the above findings:

Task	Compliance Date
Work Plan and Schedule. The Discharger shall submit a work plan and schedule to achieve compliance with final effluent limitations for ammonia and total coliform as well as the filtration, turbidity, and disinfection requirements.	1 February 2018
Submit and implement a Pollution Prevention Plan (PPP). The PPP shall be prepared for ammonia in accordance with Water Code section 13263.3, subdivision (d)(2). The PPP shall describe pollution prevention activities the Discharger will implement in the short-term and the long-term to reduce effluent concentrations for ammonia and total coliform.	1 February 2018
Semi-Annual Progress Reports¹ The Discharger shall submit semi-annual progress reports. 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 by the final compliance date.	1 August 2018 1 February 2019
Submit Final Construction Documents. The Discharger shall submit the final construction documents for the compliance project.	1 November 2017
Start Construction of Compliance Project. The Discharger shall submit notice of start of construction of compliance project.	1 April 2018
Final Compliance. Comply with final effluent limitations for ammonia and total coliform. Achieve compliance with filtration, turbidity, and disinfection requirements.	30 November 2019

¹Semi-annual progress reports are inclusive of any progress to comply with final effluent limitations from January 1 through June 30 for the first semi-annual report (due 1 August) and July 1 through December 31 for the second semi-annual report (due 1 February).

3. The following interim effluent limitations shall be effective immediately. The interim effluent limitations for ammonia and total coliform shall be effective until 30 November 2019, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Interim AMEL	Interim MDEL
Ammonia	mg/L	24.0	44.6

When the wastewater receives dilution of less than 20:1, effluent total coliform organisms shall not exceed:

- i. 23 MPN/100 mL, as a 7-day median, and
 - ii. 240 MPN/100 mL, no more than once in any 30-day period.
3. For the compliance schedule required by this Order, the Discharger shall submit to the Central Valley Water Board on or before the compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, 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.
 4. 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.”
 5. In accordance with 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 for, 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.
 6. 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.

7. 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, section 2050 et seq. 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 11 August 2017.

Original Signed By

PAMELA C. CREEDON, Executive Officer