

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2018-0035  
AMENDING WASTE DISCHARGE REQUIREMENTS  
ORDER R5-2013-0094 (NPDES PERMIT NO. CA0079260)

CITY OF YUBA CITY  
WASTEWATER TREATMENT FACILITY  
SUTTER COUNTY

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

1. On 25 July 2013, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2013-0094, which prescribes waste discharge requirements for the discharge. The WDRs expire on 1 July 2018.
2. The City of Yuba City Wastewater Treatment Facility (Facility) is a Publicly-Owned Treatment Works, owned and operated by the City of Yuba City (Discharger). The Facility provides sewerage service for the City of Yuba City and serves a population of approximately 52,000. The Facility consists of bar screens, aerated grit removal, primary sedimentation, pure oxygen aeration, secondary sedimentation, chlorine disinfection, dechlorination, and pH adjustment. Secondary-level treated wastewater from the Facility is then directed to one of three discharge points. Effluent may be discharged from Discharge Point No. 001 via a multi-port diffuser to the Feather River, a water of the United States, within the Sacramento River Watershed when the diffuser is submerged 0.8 feet. At the time of adoption of the WDRs, an average of 0.8 feet above the diffuser corresponded to a flow rate of 6,500 cubic feet per second (cfs) in the Feather River. Due to changes in the Feather River, the diffuser is regularly exposed above the surface water such that effluent must be discharged to Discharge Point No. 002, one or more of six disposal ponds located between the two main east and west levee banks within the Feather River flood plain (above the physical ordinary high water elevation). Effluent directed to the disposal ponds either percolates into the groundwater under the ponds or evaporates. Additionally, effluent may be discharged to Discharge Point No. 003, the pond 6 spillway, only when ponds 1 through 6 have reached their maximum capacity between 1 October and 31 May.
3. During the winter of 2016-2017, above average rainfall occurred resulting in high Feather River flow events and failure of the Lake Oroville spillway. Feather River flows remained abnormally high through June 2017 when it was discovered that further erosion of the Feather River near Discharge Point No. 001 had taken place and that the diffuser now requires approximately 10,000 cfs to have a submergence of an average of 0.8 feet. Due to the increase in required receiving water flow in order for Discharge Point No. 001 to be utilized, the Discharger anticipates utilizing Discharge Point No. 002 year-round until a new diffuser location is constructed. The Discharger is currently working to finalize the proposed diffuser relocation site on the west bank of the Feather River and has developed a five-year schedule in order to locate, design, permit, fund, complete construction, and test of the new diffuser by Fall 2023.
4. On 29 December 2017, the Discharger submitted a Report of Waste Discharge to renew its WDRs. The permit renewal is not expected to be complete by the expiration date and will be administratively extended.

5. Due to the changes in receiving water conditions, discharge methods, and schedule for the WDRs renewal, the Discharger submitted a request to Central Valley Water Board staff on 3 March 2018 to amend the existing WDRs to include in part the following:
  - Update the minimum pH effluent limitations at Discharge Point No. 002 from 6.5 SU to 6.0 SU.
  - Remove effluent limitations for settleable solids and total residual chlorine when discharging to Discharge Point No. 002.
  - Remove requirements for receiving water monitoring when discharging to Discharge Point No. 002 and when the Feather River flow is above 25,000 cfs or flowing outside of its normal channel due to safety concerns during periods of high flow.
6. This Order amends Order R5-2013-0094 based on the rationale summarized in findings 7 – 11, below.
7. **Effluent Limitations at Discharge Point No. 002.**
  - a. **pH.** Order R5-2013-0094 includes an instantaneous minimum effluent limitation for pH of 6.5 standard units (SU). The soil beneath the disposal ponds will buffer the lower pH prior to discharge to the Feather River. The reduction in pH will also be minimized by the retention time in the ponds which can increase the pH by the change in temperature. Out of 1,096 effluent pH samples collected between 1 June 2014 and 31 May 2017, no samples were below 6.0 SU, and only one sample was below 6.5 SU. Based on the disposal ponds' ability to buffer the pH and the Discharger's historical compliance with instantaneous minimum effluent limitations for pH, this Order amends Order R5-2013-0094 to reduce the instantaneous minimum effluent limitation for pH to 6.0 SU at Discharge Point No. 002. The change in the instantaneous pH minimum effluent limitation will not decrease the pH in groundwater beneath the ponds because of the soil buffering prior to reaching the groundwater.
  - b. **Settleable Solids and Total Residual Chlorine.** Order R5-2013-0094 includes effluent limitations and monitoring for settleable solids and total residual chlorine. Due to the long retention time, settleable solids and total residual chlorine are expected to settle within the disposal ponds and dissipate, respectively, prior to any direct discharge to the Feather River when the ponds are inundated; therefore, there is no longer reasonable potential for settleable solids and total residual chlorine at Discharge Point No. 002 and 003. This Order amends Order R5-2013-0094 to remove the effluent limitations and monitoring for settleable solids and total residual chlorine at Discharge Point No. 002 and 003. Order R5-2013-0094 also includes effluent monitoring for sodium bisulfite, which the Discharger uses for dechlorination when necessary. Since this Order removes effluent limitations and monitoring for total residual chlorine when discharging to Discharge Point No. 002 and 003, it is not necessary to monitor for sodium bisulfite at the corresponding discharge points. Therefore, this Order also amends Order R5-2013-0094 to remove effluent monitoring for sodium bisulfite at Discharge Point No. 002 and 003. The removal of effluent limitations for settleable solids and total residual chlorine for Discharge Point Nos. 002 and 003 will not increase the concentrations of these constituents in the groundwater beneath the ponds for the reasons discussed above.

8. **Effluent Monitoring pH Monitoring.** Order R5-2013-0094 includes requirements for continuous monitoring of effluent pH. Due to the historical compliance of effluent pH, buffering allowed by the soils beneath the ponds and the retention time in the ponds when discharging to Discharge Point No. 002 or the dilution when discharging to Discharge Point No. 001 and 003, continuous monitoring of pH is not necessary to determine compliance. This Order amends Order R5-2013-0094 to replace requirements for continuous monitoring of effluent pH with once per day grab samples.
9. **Receiving Water Monitoring.** Order R5-2013-0094 includes receiving water monitoring requirements at approximately 500 feet upstream of Discharge Point No. 001 (RSW-001), 1,000 feet down stream of Discharge Point No. 002 (RSW-002), and downstream from Discharge Point No. 003 directly across from Boyd's Pump boat ramp (RSW-003). Effluent discharged to Discharge Point No. 002 percolates into the groundwater under the ponds; therefore, the effects of the effluent on the receiving water are not directly measurable. This Order amends Order R5-2013-0094 to remove requirements for receiving water monitoring when discharging to Discharge Point No. 002. Also, due to safety concerns, this Order amends Order R5-2013-0094 to remove receiving water monitoring requirements at RSW-001, RSW-002, and RSW-003 when the Feather River flow is above approximately 25,000 cfs during the weekly monitoring period Sunday through Saturday.
10. **Dissolved Oxygen Land Discharge Specifications.** Order R5-2013-0094 includes compliance determination for land discharge specifications of not less than 1.0 mg/L of dissolved oxygen in the upper one foot of the disposal ponds. More recent land discharge specifications included in WDRs allow for compliance with dissolved oxygen requirements to be determined over three consecutive weekly sampling events in order to determine if dissolved oxygen samples less than 1.0 mg/L are false positives due to the variability of dissolved oxygen content throughout the day and to demonstrate a consistent pattern of non-compliance. Therefore, the compliance determination has been revised in Order R5-2013-0094 to allow for compliance to be determined over three consecutive sampling events.
11. **Clarifications.** This Order amends Order R5-2013-0094 to include other editorial and clarifying changes.
12. Order R5-2013-0094 may be reopened and modified in accordance with the Code of Federal Regulations (CFR) at 40 CFR section 122.62.
13. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with CWC section 13389 and sections 15061(b)(3) and 15301, Title 14, of the California Code of Regulations.
14. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend the Waste Discharge Requirements Order for this discharge and has provided them with an opportunity to submit their written views and recommendations.

**IT IS HEREBY ORDERED THAT:**

Waste Discharge Requirements Order R5-2013-0094 (NPDES No. CA0079260) is amended (as shown in items 1 through 15 below) including updates to Effluent Limitations, Receiving Water Limitations, and the Monitoring and Reporting Program. Other editorial and clarifying changes have also been made to this Order. This Order is effective upon adoption.

1. Change the Order number throughout the WDRs from R5-2013-0094 to R5-2013-0094-01.
2. Change “Mike Paulucci, Deputy Public Works Director, (530) 822-7695” throughout the WDRs to “Mike Finnigan, Wastewater Treatment Facility Supervisor, (530) 822-7696”.
3. **Title Page.** Update information found in the title page of the WDRs to reflect changes made in this amending Order as shown in underline/strikeout format below:

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**

**CENTRAL VALLEY REGION**

11020 Sun Center Drive, #200 Rancho Cordova, California 95670-6114  
 Phone (916) 464-3291 • Fax (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

**ORDER R5-2013-0094-01**  
**AS AMENDED BY ORDER R5-2018-0035**  
**NPDES NO. CA0079260**

**WASTE DISCHARGE REQUIREMENTS FOR THE**  
**CITY OF YUBA CITY**  
**WASTEWATER TREATMENT FACILITY**  
**SUTTER COUNTY**

I, **PAMELA C. CREEDON**, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **25 July 2013**, and as amended by Order R5-2018-0035 on 31 May 2018.

4. **Effluent Limitations (Section IV.A.1.a).** Modify Table 6 as shown, in part, in underline format below:

**Table 6. Effluent Limitations**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<b>Conventional Pollutants</b>						
pH <sup>2</sup>	standard units	--	--	--	6.5 <sup>2</sup>	8.5
<b>Non-Conventional Pollutants</b>						
Settleable Solids <sup>3</sup>	ml/L	0.1	--	0.2	--	--

- 1 Mass-based effluent limitations are based on a permitted average dry weather flow of 10.5 MGD.
- 2 The instantaneous minimum effluent limitation for pH is limited to 6.0 standard units for discharges at Discharge Point 002.
- 3 Applicable at Discharge Point No. 001 only.

5. **Final Effluent Limitations – Discharge Point Nos. 001, 002, and 003 (Section IV.A.1.d).**

Modify this section as shown in underline format below:

**d. Total Residual Chlorine.** (Discharge Point No. 001 only) Effluent total residual chlorine shall not exceed:

6. **Land Discharge Specifications – Discharge Point No. 002 (Section IV.B.4).** Modify this section as shown in underline format below:

4. As a means of discerning compliance with Land Discharge Specification 3, the dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/L for three consecutive sampling events.

7. **Surface Water Limitations (Section V.A).** Modify this section as shown in, in part, underline/strikeout format below:

**15. Temperature.** The natural temperature to be increased by more than 5°F. Compliance to be determined based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002 for discharges to Discharge Point No. 001 and Monitoring Locations RSW-001 and RSW-003 for discharges to Discharge Point No. 002~~3~~.

8. **Diffuser Depth Monitoring Study (Section VI.C.2.c).** Modify footnote 1 in the study schedule at the end of this section as shown in underline format below:

1 As reported by CDEC, the sum of flow rates from Feather River at Gridley (GRL) and Yuba River at Marysville (MRY) or flow and stage at Feather River at Boyd's Landing (FBL) or Feather River at Star Bend (FSB)

9. **Effluent Monitoring (Attachment E, Section IV.A.1).** Modify Table E-3 as shown, in part, in underline/strikeout format below:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Reporting Level	Required Analytical Test Method
<b>Conventional Pollutants</b>					
pH	standard units	Grab	<del>Continuous</del> Grab <sup>4</sup>	--	2,5
<b>Non-Conventional Pollutants</b>					
Chlorine, Total Residual	mg/L	Meter	Continuous <sup>16</sup>	--	2,10
Settleable Solids	ml/L/hr	Grab	5/Week <sup>16</sup>	--	2
Sodium Bisulfite	mg/L	Meter	Continuous <sup>16</sup>	--	2

a) When discharging to the Feather River through the diffuser at Discharge Point No. 001, daily confirmation of flow meeting or exceeding 0.8 feet above the diffuser shall be determined using correlated CDEC data for the Feather and Yuba Rivers,

b) A physical inspection and measurement of the depth of water above the diffuser shall be conducted when the Feather River flow is less than 25,000 cfs.

<sup>10</sup> Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.01 mg/L. Applicable at Discharge Point No. 001 only.

<sup>15</sup> Monitoring only required during effluent discharge to Discharge Point No. 002 ~~or 003.~~

<sup>16</sup> Monitoring only required during effluent discharge to Discharge Point No. 001.

**10. Monitoring Locations RSW-001, RSW-002, and RSW-003. (Attachment E, Section VIII.A.1).** Modify this section as shown in underline format below:

- The Discharger shall monitor the Feather River at Monitoring Locations RSW-001, RSW-002, and RSW-003 when the Feather River is flowing within its normal channel at a flow of less than approximately 25,000 cfs during the weekly monitoring period Sunday through Saturday. When discharging to Discharge Point No. 002, receiving water monitoring is not required.

**11. Temperature Receiving Water Limitations (Attachment E, Section X.B.6.h).** Modify this section in strikeout format as shown below:

**h. Temperature Receiving Water Limitations.** The Discharger shall calculate and report the temperature increase in the receiving water based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002 when discharging at Discharge Point No. 001 and at Monitoring Locations RSW-001 and RSW-003 when discharging at Discharge Point No. ~~002 or 003.~~

**12. Water Quality Based Effluent Limitations (WQBELs). (Attachment F, Section IV.C)**

- Chlorine Residual (Attachment F, Section IV.C.3.c.iii.(b)).** Add the following sentence to the end of the third paragraph of IV.C.3.c.iii.(b) of the Fact Sheet as shown in underline format below:

These limitations are not applied at Discharge Point No. 002 or 003 as chlorine residual in the ponds is expected to dissipate prior to any direct discharge to the Feather River when the ponds are inundated or discharged at Discharge Point No. 003.

- b. **pH (Attachment F, Section IV.C.3.c.xii.(c)).** Modify this section as shown in underline format below:

(c) **WQBELs.** Effluent limitations for pH of 6.5 at Discharge Point Nos. 001 and 003 as an instantaneous minimum and 8.5 as an instantaneous maximum are included in this Order based on protection of the Basin Plan objectives for pH. This Order also includes an instantaneous minimum effluent limitation of 6.0 for discharges to Discharge Point No. 002. The soil beneath the disposal ponds will buffer the lower pH prior to discharge to the Feather River. The reduction in pH will also be minimized by the retention time in the ponds which can increase the pH by the change in temperature.

- c. **Settleable Solids (Attachment F, Section IV.C.3.c.xiii.(c)).** Modify this section as shown in underline format below:

(c) **WQBELs.** Consistent with Order R5-2007-0134-01, this Order contains average monthly and average daily effluent limitations for settleable solids. Because the amount of settleable solids is measured in terms of volume per volume without a mass component, it is impracticable to calculate mass limitations for inclusion in this Order. A daily maximum effluent limitation for settleable solids is included at Discharge Point No. 001 in the Order, in lieu of a weekly average, to ensure that the treatment works operate in accordance with design capabilities. These limitations are not applied at Discharge Point No. 002 or 003 as settleable solids at Discharge Point No. 002 and 003 are expected to settle prior to any direct discharge to the Feather River via Discharge Point No. 003 or when the ponds are inundated.

13. **Summary of Water Quality Based Effluent Limitations.** Modify Table F-12 in Attachment F as shown, in part, in underline/strikeout format below:

**Summary of Water Quality-Based Effluent Limitations  
 Discharge Point No. 001, ~~and 002,~~ and 003**

**Table F-12. Summary of Water Quality-Based Effluent Limitations**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<b>Conventional Pollutants</b>						
pH	standard units	--	--	--	6.5 <sup>9</sup>	8.5
<b>Non-Conventional Pollutants</b>						
Chlorine, Total Residual	mg/L	--	0.011 <sup>2</sup>	0.019 <sup>3</sup>	--	--
Settleable Solids <sup>10</sup>	mL/L/hr	0.1	--	0.2	--	--

<sup>2</sup> Applied as a 4-day average effluent limitation. Applicable at Discharge Point No. 001 only.  
<sup>3</sup> Applied as a 1-hour average effluent limitation. Applicable at Discharge Point No. 001 only.  
<sup>9</sup> The instantaneous minimum effluent limitation for pH is limited to 6.0 standard units for discharges at Discharge Point No. 002.  
<sup>10</sup> Applicable at Discharge Point No. 001 only.

14. **Summary of Final Effluent Limitations.** Modify Table F-14 in Attachment F as shown, in part, in underline format below:

**Summary of Final Effluent Limitations  
 Discharge Point Nos. 001, 002, and 003**

**Table F-14. Summary of Final Effluent Limitations**

Parameter	Units	Effluent Limitations					Basis <sup>1</sup>
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
<b>Conventional Pollutants</b>							
pH	standard units	--	--	--	6.5 <sup>13</sup>	8.5	BP
<b>Non-Conventional Pollutants</b>							
Chlorine, Total Residual	mg/L	--	0.011 <sup>4</sup>	0.019 <sup>5</sup>	--	--	NAWQC
Settleable Solids <sup>14</sup>	mL/L	0.1		0.2	--	--	BP

<sup>4</sup> Applied as a 4-day average effluent limitation. Applicable at Discharge Point No. 001 only.  
<sup>5</sup> Applied as a 1-hour average effluent limitation. Applicable at Discharge Point No. 001 only.  
<sup>13</sup> The instantaneous minimum effluent limitation for pH is limited to 6.0 standard units for discharges at Discharge Point 002.  
<sup>14</sup> Applicable at Discharge Point No. 001 only.

15. **Rationale for Monitoring and Reporting Requirements (Attachment F, Section VI).** Modify this section as shown in underline/strikeout format below.

a. **Effluent Monitoring (Attachment F, Section VI.B.2).** Modify this section as shown in underline/strikeout format below:

2. Effluent monitoring frequencies and sample types for flow (continuous), BOD<sub>5</sub> (three times per week), pH (~~continuous~~ grab), TSS (three times per week), bis (2-ethylhexyl) phthalate (monthly), copper (monthly), dichlorobromomethane (monthly), lead (monthly), mercury (monthly), ammonia (twice per week), chloride (monthly), chlorine residual (continuous when discharging at Discharge Point No. 001 only), dissolved oxygen (three times per week), electrical conductivity (once per month), hardness (monthly), manganese (monthly), nitrite (twice per month), phosphorus (monthly), settleable solids (five times per week when discharging at Discharge Point No. 001 only), sodium bisulfite (continuous when discharging at Discharge Point No. 001 only), sulfate (monthly), temperature (three times per week), total coliform organisms (three times per week when discharging at Discharge Point No. 001 or 003 and weekly when discharging at Discharge Point No. 002), total dissolved solids (monthly), and total Kjeldahl nitrogen (twice per month when discharging at Discharge Point No. 002 only) have been retained from Order R5-2007-0134-01 to determine compliance with effluent limitations for these parameters, where applicable, and to characterize the effluent.
- b. **Surface Water (Attachment F, Section VI.D.1.b).** Modify this section as show in underline/strikeout format below:
    - a. Receiving water monitoring frequencies and sample types when Feather River flow is flowing within its normal channel (approximately 25,000 cfs or less) during the weekly monitoring period Sunday through Saturday and discharging to Discharge Points No. 001 or 003 for dissolved oxygen (weekly), electrical conductivity (weekly), fecal coliform organisms (quarterly), hardness (monthly), pH (weekly), temperature (weekly), and turbidity (weekly) have been retained from Order R5-2007-0134-01.

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 that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final 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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

I, PATRICK PULUPA, 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 31 May 2018.

***Original Signed by***

---

PATRICK PULUPA, Executive Officer