

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2019-1003
REQUIRING
CITY OF LINCOLN
WASTEWATER TREATMENT AND RECLAMATION FACILITY
PLACER COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2018-0081
(NPDES PERMIT CA0084476)

The Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds that:

1. On 7 December 2018 the Central Valley Water Board adopted Order R5-2018-0081, renewing NPDES Permit No. CA0084476 and prescribing Waste Discharge Requirements (WDRs) for the City of Lincoln (Discharger) Wastewater Treatment and Reclamation Facility (Facility).
2. Section V.A.15 of Order R5-2018-0081 provides, among other things, the following receiving water limitations for Facility discharges to Auburn Ravine Creek:

The discharge shall not cause the following in Auburn Ravine Creek:

15. **Temperature.** The annual average temperature to increase more than 5 °F compared to the ambient stream temperature and shall not cause the receiving stream temperature to rise above:
 - a. 58 °F on a monthly average and weekly median basis from 1 October through 31 May;
 - b. 64 °F at any time from 1 October through 31 May; and
 - c. 5 °F over the ambient background temperature as a daily average for the period from 1 June through 30 September.

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3. In the late 1990's, during the Environmental Impact Report (EIR) process for the Discharger's first NPDES permit, there were concerns that the temperature of the discharge could impact salmon and steelhead in Auburn Ravine Creek. The California Department of Fish and Wildlife (DFW) commented on the Final EIR regarding the mitigation measures for temperature impacts to Auburn Ravine Creek. The DFW comment was as follows,

[DFW] recommends mitigation measure 7.2(a) be modified to utilize 58°F as the recommended temperature for halting plant discharges to Auburn Ravine Creek. This figure will protect Chinook Salmon and steelhead trout.

DFW further commented that:

It is unclear from the described mitigation criteria, what plant operations would be proposed in a year when ambient water temperatures in Auburn Ravine Creek

were relatively warm over an extended period of time. Regardless of monthly or seasonal fluctuations, the [DFW] recommends that the 58°F water temperature criteria be utilized for the October through May 31 time period every year.

4. In addition to the concerns expressed by DFW during the EIR process, the Discharger was concerned that the proposed discharge to Auburn Ravine would not be able to comply with the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) water quality objective (WQO) for temperature, which allows no more than a 5°F increase from the natural ambient receiving water temperature. The Basin Plan allows modifying the averaging period for evaluating compliance with the WQO if additional limitations are included after consultation with fishery agencies.
5. In 2001, the Discharger and Central Valley Water Board staff consulted with staff of DFW and U.S. Fish and Wildlife Service to address temperature concerns for the proposed discharge to Auburn Ravine Creek and to ensure the NPDES permit included appropriate temperature receiving water limitations that would be protective of salmon and steelhead populations. A site-specific temperature study was not conducted; therefore, the receiving water temperature limitations recommended by the fishery agencies were based on conservative assumptions in order to protect beneficial uses. In October 2001, with input from the fisheries agencies, the Central Valley Water Board adopted Order 5-01-242 that included the site-specific receiving water limitations discussed in **Finding 2**, which allows a longer averaging period for compliance with the Basin Plan temperature WQO and implemented additional receiving water limitations that addressed the mitigation measures required by the EIR.
6. In 2013, available receiving water temperature data indicated that the discharge was able to meet the Basin Plan WQO for temperature. Therefore, in February 2014, Order R5-2014-0007 was adopted containing receiving water limitations for temperature based on the Basin Plan WQO that the discharge shall not increase the receiving water temperature more than 5°F at all times. The additional temperature receiving water limitations were removed.
7. Receiving water temperature data collected between 2014 and late 2018 indicated that the discharge was able to comply with the temperature limitations based on the Basin Plan WQO for Temperature. However, the data also revealed that the temperature of Auburn Ravine Creek sometimes exceeded the former site-specific temperature limitations. Due to concerns that the limitations based on the Basin Plan WQO for temperature may not be adequately protective of salmon and steelhead, on 7 December 2018, the Central Valley Water Board adopted Order R5-2018-0081, which, as discussed above in **Finding 2**, reinstated the conservative site-specific receiving water limitations per section V.A.15.
8. The Discharger has indicated that there is insufficient storage capacity to comply with the site-specific receiving water limitations described in **Finding 2** for temperature. These receiving water limits were developed without conducting a site-specific study, so they are based on conservative assumptions. Before moving forward with costly facility upgrades, the Discharger plans to conduct a site-specific temperature study in consultation with state and federal fishery agencies to determine the appropriate temperature receiving water limitations for protection of salmon and steelhead migration and spawning.
9. On 14 January 2019 the Discharger submitted a request for a compliance schedule supporting the infeasibility of complying with the revised receiving water temperature limitations with the current storage capacity during the term of Order R5-2018-0081. The Discharger has requested time to

study options including determining if the receiving water temperature limits in Order R5-2018-0081 are appropriate or need to be revised. Depending on the outcome of the Auburn Ravine Creek temperature study, the Discharger may require additional storage beyond the total tertiary storage capacity of approximately 330 MG or other facility upgrades, which would require additional time to plan, design, finance, and construct any improvements necessary for compliance with the site-specific temperature receiving water limitations.

10. This Order describes steps that the Discharger will take in order to correct potential violations of the receiving water limitations for temperature. This Order is being issued to provide regulatory coverage for an interim solution to wastewater storage and disposal issues while a long-term solution is being developed.
11. The interim solution to reducing the probability and severity of temperature receiving water limitation violations, as currently proposed:
 - a. Continued use, to the maximum extent possible, of two existing (approx. 95 MG each) Tertiary Storage Basins (TSB) and one planned TSB (approx. 140 MG);
 - b. Followed by interim use of the existing, on-site, Regional Storm Water Basin (RSB), with capacity of approximately 70 MG, to temporarily store tertiary treated disinfected wastewater. The proper use of the RSB will follow the *Summer and Winter Regional Storm Water Basin Standard Operating Procedures (SOPs)* provided by the Discharger to the Central Valley Water Board on 25 March 2019 and revised on 28 March 2019. The SOPs include protocols for storage and discharge from the RSB.
 - c. Implementation of interim seasonal receiving water limitations for temperature.
12. If upon completion of the temperature study of Auburn Ravine Creek additional storage capacity or other facility upgrades are necessary to meet the receiving water limits year-round, the Discharger plans to evaluate compliance options, which include but are not limited to the following:
 - a. Building more tertiary storage basins;
 - b. Increasing reclaimed water use; and/or
 - c. Building effluent cooling features.
13. The Discharger can maintain compliance with the interim seasonal receiving water limitations for temperature included in this Order. Interim limitations are established when immediate compliance with the final limitations cannot be achieved by the existing Facility. Discharge of constituents in concentrations in excess of the final limitations, but in compliance with the interim limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. However, the interim limitations establish an enforceable ceiling concentration until compliance with the final limitations can be achieved.
14. Water Code section 13300 provides as follows:

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.

15. Water Code section 13267, subdivision (b)(1) provides in pertinent part as follows:

[T]he 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.

16. The Discharger owns and operates the wastewater treatment 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.

17. The issuance of this Order is **exempt** from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., on the following grounds:

- a. This Order adopts, implements and/or modifies the NPDES permit for an existing source. (See Wat. Code, § 13389; *Pac. Water Conditioning Assn., Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-56.)
- b. It can be seen with certainty that any new discharges associated with this Order will not possibly have a significant effect on the environment. (See Pub. Resources Code, § 21080, subd. (a).)
- c. In accordance with the CEQA Guidelines, this Order establishes a time schedule for existing facilities, equipment, structures and topographical features, and at most involves a negligible expansion of use(s). (See Cal. Code Regs., tit. 14, § 15301.)
- d. In accordance with the CEQA Guidelines, this Order will only result in minor alterations to the condition of land, water and vegetation, and will not result in the removal of trees. (See Cal. Code Regs., tit. 14, § 15304.)

18. This Order is issued under authority delegated to the Executive Officer in accordance with Central Valley Water Board Resolution No. R5-2018-0057, and Water Code section 13223.

19. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to issue a new order for this discharge and provided them with an opportunity to submit their written views and recommendations.

20. On 10 April 2019, Central Valley Water Board staff issued a notice of public hearing and provided a 30-day comment period for consideration of adopting this Order under Water Code section 13300, and to establish a time schedule for achieving compliance with waste discharge requirements. The notice stated that any member of the public may request an oral hearing before the Executive Officer,

and if no hearing is requested, the Executive Officer’s review of the administrative record, including any written comments received shall constitute the public hearing.

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13267(b)(1) and 13300, the Discharger shall comply with the following time schedule and reporting provisions.

1. To ensure completion of the compliance project described in the Findings above, the Discharger shall submit the following technical reports according to the time schedule set forth below:

Task	Compliance Date
Submit Site-Specific Temperature Study Work Plan The Work Plan shall be developed through consultation with the DFW and National Marine Fisheries Service staff to evaluate the appropriate temperature receiving water limitations for protection of salmon and steelhead migration/spawning in Auburn Ravine.	1 June 2020
Submit Final Temperature Study	1 January 2022
Submit Treatment Feasibility Study Work Plan and Schedule (If Necessary). Work plan and schedule shall consider alternatives to provide for long-term compliance with temperature receiving water limitations.	1 April 2022

2. Discharger shall comply with the following interim receiving water limitation through **1 April 2023**, or when the Discharger is able to come into compliance with the receiving water temperature limitations in Order R5-2018-0081, whichever is sooner.

Receiving Water Limitations for Temperature. The discharge shall not cause the natural temperature in Auburn Ravine Creek to be increased by more than 5°F as a daily average between 1 October and 31 May. The site-specific receiving water limitations in Order R5-2018-0081 shall apply between 1 June and 30 September.

3. For the term of this Order, the Discharger shall manage the discharge of tertiary treated wastewater from the Facility to the RSB in accordance with the SOPs (see **Attachment I**) and the following prohibitions and specifications:
 - a. The two existing TSBs, and planned third TSB, shall be used to the maximum extent possible before tertiary treated wastewater is sent to the RSB for storage.
 - b. If tertiary treated wastewater is discharged to the RSB, all water (i.e., wastewater/storm water mixture) must be removed from the RSB prior to utilizing the RSB as a storm water retention basin.
 - c. The discharge of tertiary treated wastewater to surface waters other than authorized in Order R5-2018-0081 (NPDES Permit No. CA0084476), is prohibited.
 - d. When in use for storage of tertiary treated wastewater, the RSB shall be operated per the Operating Requirements as follows:
 - i. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.

- ii. The RSB shall be managed to prevent breeding of mosquitos. In particular,
 - (a) An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface;
 - (b) Weeds shall be minimized; and
 - (c) Dead algae, vegetation, and debris shall not accumulate on the water surface.
- iv. The discharge of waste classified as “hazardous” (per Cal. Code Regs., tit. 23, § 2521, subd. (a)), or “designated” (per Wat. Code, § 13173) as to the Facility ponds, is prohibited.
- v. Objectionable odors originating at the RSB shall not be perceivable beyond the limits of the wastewater treatment and disposal areas (or property owned by the Discharger).
- vi. A minimum of 2 feet of freeboard is required when storing tertiary effluent in the RSB. Freeboard shall be measured at the spillway thus the water level shall not be allowed to exceed the 106.0-foot elevation, resulting in a capacity of approximately 70 MG.

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.

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 Central Valley Water Board action may petition the State Water Board for review 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. on the 30th day after

the date of this Order, except that if the 30th day 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. Laws and regulations applicable to filing petitions are published on the Internet (at the address below) and will be provided upon request.

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

This Order is effective as of the date below.

Original signed by

PATRICK PULUPA, Executive Officer

22 May 2019

Date

Attachments

Attachment I – Summer and Winter Regional Stormwater Basin Standard Operating Procedures

ATTACHMENT I

SUMMER AND WINTER REGIONAL STORMWATER BASIN (RSB) STANDARD OPERATING PROCEDURES (SOPs)

The following lists provide the requirements to operate the retention basin to the optimum benefit in both summer and winter months.

Preparation Steps for Winter Use:

1. Ensure TSB #3 is drained prior to draining the RSB.
2. Drain reclaim water to the extent possible from RSB through either 6S or 9S valves.
3. Drain any remaining water using a portable pump with connections designed to discharge back into TSB #3.
4. Ensure 1W (Inlet Weir) located on Ingram Slough is free of debris to allow free overflow of stormwater.
5. Ensure 2W (two 36" culverts) control gates are exercised and left closed. These gates are only opened to release stormwater.
6. Ensure 3W (one 36" culvert equipped with control gate) is exercised and remains open between the months of October 16th thru May 14th. This control gate will be closed when flood stages are anticipated in Sutter County.
7. Ensure the 4W Emergency Spillway (set at elevation 108.0') is free of debris to allow excess flow to spill cleanly to Orchard Creek.
8. Close 5S valve (12" culvert equipped with control gate) to prevent transfer of stormwater from the North field to the RSB.
9. Ensure 6S valve (used to transfer reclaim water between RSB and Warm Spring Fields) is closed
10. Ensure 7S valve (18" valve used to transfer flow between TSB3 and RSB) is closed. Valve may be opened during winter only to drain non-comingled stormwater from TSB #3.

Winter Storage and Release Operation:

The Verona Staff Gauge located on the Sacramento River provides the setpoints for retaining and releasing storm water. When the Verona Staff Gauge reaches 37', closure of the RSB is required. Reopening of the RSB is not allowed until the Verona Staff Gauge reaches 34'. Height of the Verona Staff Gauge can be obtained by texting 11425500 to waternow@usgs.gov. Further direction to retain or release stormwater may be given by the Placer County Flood Control District, the National Weather Service, and/or the Department of Water Resources.

Stormwater Drawdown:

The 2-36 pipes (2W) located at the east side of the basin adjacent to the spillway shall be first opened to drain the upper 2/3 of the basin. Approximately 24 hours after the initially opening, the 36" culvert (3W)

adjacent to Fiddymment Road should be opened to drain the lower portion of the basin. Each of the outfalls includes concrete Type 1 energy dissipaters with trash racks from the Bureau of Reclamation to minimize scour within Orchard Creek. The initial outflow velocity was estimated at approximately 15 ft/s when the 2-36" gates (2W) are initially opened. The energy dissipater will reduce the outflow velocities to approximately 2-3 ft/s.

Energy Spillway (4W):

The basin was designed with an energy spillway to maintain normal water level at elevation 108.0' when the RSB is at capacity and drainage has not been initiated. The spillway is located adjacent to Orchard Creek to return excess flow back to Orchard Creek.

Summer Storage Operation Summary:

The RSB will provide the City of Lincoln with the ability to extend tertiary effluent storage during summer months. The RSB will be operated under the supervision of the City of Lincoln WWTRF staff.

1. Keep gate 5S closed (12" culvert equipped with control gate) formerly used to transfer excess irrigation from the North field to the RSB.
2. Keep gate 6S closed (12" culvert equipped with control gates) unless needed to transfer treated effluent from the RSB to the West fields (Warm Springs). The 12" culvert is located under Fiddymment Road and discharges into the Warm Springs recapture system.
3. Ensure 2W gates (2-36" culvert gates) is closed.
4. Ensure 3W gate (1-36" culvert gate) is closed.
5. Open 7S (18" valve) as needed to transfer flow between TSB #3 and the RSB. Monitor levels closely.
6. A minimum of 2' of freeboard is required when storing tertiary effluent in all ponds. For the RSB freeboard shall be measured at the (4W) spillway thus the water level shall not be allowed to exceed the 106.0' elevation (70 MG).

