

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2018-0902
REQUIRING

OAKWOOD LAKE WATER DISTRICT
WASTEWATER TREATMENT FACILITY
SAN JOAQUIN COUNTY

TO COMPLY WITH WASTE DISCHARGE REQUIREMENTS R5-2006-0114-002

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

1. On 26 October 2006, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2006-0114, which prescribes requirements for the treatment and disposal of domestic wastewater for the Oakwood Lake Wastewater Treatment Facility (WWTF) in San Joaquin County near the City of Manteca. The WWTF is located at 874 East Woodward Avenue, in Section 10, T2S, R6E and Section 11, T2S, R6E, MDB&M.
2. Order R5-2006-0114 was originally issued to both Oakwood Lake Water District (OLWD or Discharger) and Beck Properties, Inc. (Beck) because OLWD owned and operated the WWTF while Beck owned the land associated with it. The associated land has since been transferred to OLWD, which remains the sole WWTF owner and operator. OLWD owns the portion of recycled water use areas where subsurface application is used; Oakwood LT Ventures II (Lafferty), the developer of the Oakwood Shores Subdivision, owns the portion of the Land Application Areas (LAAs) which are used for above ground spray fields. Lafferty has granted a permanent exclusive easement to OLWD for access to the above ground spray fields.
3. On 7 February 2014, the Central Valley Water Board adopted Order R5-2014-0023, which amended certain Discharge Specifications in WDRs Order R5-2006-0114, and authorized the Executive Officer to approve certain technical reports authorizing incremental flow rate increases up to but not in excess 136,200 gallons per day (gpd).
4. Order R5-2006-0114-001 required OLWD to connect to a regional wastewater treatment system by 26 October 2016. Due to issues beyond OLWD's control, the regional connection could not occur by the deadline. On 19 August 2016, the Central Valley Water Board adopted Order R5-2016-0068, which further amended Order R5-2006-0114-001 by extending the deadline to connect to a regional treatment plant by 19 August 2026.

WASTEWATER SYSTEM

5. The WWTF serves the Oakwood Shores Subdivision and a neighboring mobile home park. As of 31 December 2017, there were 370 occupied residences connected to the system, with an average influent flow of 77,200 gallons per day (gpd) in 2017. The current flow limit for the WWTF is 86,300 gallons per day (gpd), which was approved by the Executive Officer to OLWD in a letter dated 15 November 2016.

6. The WWTF includes a sanitary sewer collection system, a wastewater treatment plant, and Land Application Areas. The wastewater treatment plant provides tertiary treatment using a sequential batch reactor (SBR) system, sand filters, and disinfection. The tertiary-treated wastewater is conveyed to three restricted-access storage ponds where it is then discharged to 17.5 acres of LAAs. Wastewater is discharged using drip and spray irrigation. The tertiary-treated recycled water is required to comply with California Code of Regulations, title 22 (Title 22), section 60301.230.

VIOLATIONS OF WASTE DISCHARGE REQUIREMENTS

7. Since issuance of the 2006 WDRs, OLWD has a history of violations which have resulted in enforcement actions, including:
 - a. On 28 August 2012, a Notice of Violation (NOV) was issued to the OLWD based on observations made during a 9 August 2012 site inspection conducted by Central Valley Water Board staff. A summary of the inspection findings included the following:

[T]he WWTF is not operating as designed because raw sewage is bypassing the headworks/bar screen. Additionally, the WWTF reportedly does not have an adequate sized generator to operate the facility should a loss of power occur. Additional maintenance/repairs are needed to remove floating vegetation from the treatment and storage ponds and preclude public access to land application areas. Lastly, the wastewater treatment plant is not currently operated by a certified wastewater treatment operator and incomplete monitoring reports have been submitted.

The 2012 NOV also noted several violations in the monitoring reports, including missing information, nonsubmittal of an annual monitoring report, and effluent limit exceedances.
 - b. On 13 April 2017, another NOV was issued to the OLWD regarding its discharge of 2.5 million gallons of treated wastewater/recycled water to land application areas in violation of the WDRs, which provided that "Irrigation with recycled water shall not be performed within 24 hours of a forecasted storm, during or within 24 hours after any precipitation event, nor when the ground is saturated." Based on discussions with OLWD, the unauthorized discharges occurred when there was insufficient storage capacity in the WWTF wastewater ponds. Several factors resulted in capacity issues, including: prolonged storms beginning in January 2017, and continuing through February 2017; high volumes of infiltration and inflow into the sewer collection system; the WDRs prevented irrigation during rainfall events or oversaturated conditions; and high volumes of rainfall directly into the ponds during the month of February 2017. The lack of storage and treatment capacity has slowed the construction of new houses for the developer of the Oakwood Shores Subdivision.

In response to the 2017 NOV, OLWD submitted a Sanitary Sewer Collection System Inspection Report dated July 2017. The report identified several sewer

collection laterals needing repairs, but did not identify areas with high infiltration and inflow (I/I) issues. However, the source of I/I is suspected to be the privately-owned mobile home park. The mobile home park sewers are not maintained by OLWD despite their connection to the WWTF. OLWD will continue to investigate flows from the mobile home park, and if flows are significant or other I/I issues are identified, OLWD will require the mobile home park owner address those issues. In addition, Central Valley Water Board staff will continue ongoing discussions with OLWD to identify short-term and long-term actions to address noncompliance.

8. Effluent concentrations for turbidity, total nitrogen, total coliform, total dissolved solids (TDS), and total suspended solids (TSS) have intermittently exceeded WDR requirements since 2012, and odor complaints have been documented. The number of exceedances has increased as flow rates have increased, with numerous exceedances occurring in recent years (2015-2017).
9. There was a total of 434 effluent limitation exceedances during 2017. For total Nitrogen, there were 34 exceedances of effluent daily maximum and monthly average limits (10 mg/L). For TSS, there were two months where the monthly average effluent limit (10 mg/L) was exceeded. For total coliform, there were 12 exceedances of the daily maximum limit (240 MPN/100mL); 29 exceedances of the seven-day median maximum limit (2.2 MPN/100mL), and 19 instances of more than 23 MPN/100 mL more than once per month. For turbidity, there were 113 exceedances of the daily maximum turbidity limit (10 NTU), 163 exceedances of the daily average turbidity limit of 2 NTU, and 62 exceedances of the 95-percentile turbidity limit of 5 NTU in 2017.

PROPOSED ACTIONS AND IMPLEMENTATION SCHEDULE

10. On 11 April 2018, OLWD submitted a Compliance Plan to provide the proposed measures to address noncompliance with effluent limits and capacity issues related to WDR Order No. R5-2006-0114-002. The plan includes short-term and long-term corrective measures and proposes interim effluent limits that would allow continued operation of the WWTF until the OLWD either connects to the City of Manteca's wastewater treatment plant or upgrades its own WWTF. On 12 April 2018, OLWD submitted a letter to the State Water Resources Control Board Division of Drinking Water summarizing the proposed interim actions to be taken prior to redirecting the discharge to the City of Manteca or upgrading on-site wastewater treatment and disposal.
11. The proposed short-term corrective actions and schedule include:
 - a. Identifying and implementing approaches to optimize the performance of the current sequential batch reactor (SBR). OLWD retained the services of an operations consulting engineer to work with operating staff to improve performance, and to assess the capacity of the treatment system. The consulting engineer recommended several improvements, including increased operation of sand filters and modification to improve aeration and mixing (both of which have been implemented).

- b. OLWD conducted an I/I investigation. Further monitoring for I/I issues will continue. As a follow-up to the I/I investigation and to further optimize system performance, the OLWD proposes the following implementing schedule for short-term actions:

<u>Action</u>	<u>Status</u>
Request budget approval for the cost of the items in the Action Plan	Completed (22 Aug. 2017)
Assess I/I potential from sewer laterals (see Finding 7.b)	Completed (31 Oct. 2017)
Assess I/I potential by isolating the operation of Pump Station #3 to determine how much flow is coming from the mobile home park	In Progress ¹
Work with the mobile home park owner to film private mains and to correct identified deficiencies and/or minimize I/I	In Progress ¹
Install “fly lines” to correct the I/I observed at nine laterals in Aplicella Court	Design Underway ¹
Repair the source of the I/I identified in the sewer main on Riva Trigoso Drive	Design Underway ¹
Complete several repairs along laterals between the following manholes (MHs): MHs 37-38; MHs 11-36; MHs 4-5; MHs 5-6; MHs 6-7; MHs 9-8; MHs 47-48; MHs 40-41; and MHs 41-42.	Design Underway ¹

¹ As of April 2018

12. In accordance with Central Valley Water Board Order R5-2016-0068, OWLD’s long-term approach to protect groundwater quality is to connect to a regional treatment plant by 19 August 2026, and thereby cease operations of the recycled water application areas within Oakwood Shores. This Order and Option A herein (“Connection to the City of Manteca”) would achieve the Central Valley Water Board’s adopted objective for OLWD. In exchange for allowing OLWD to connect to its regional treatment plant, the City of Manteca desires to route surface storm water drainage from new developments immediately east and south of Oakwood Shores (and which are outside the boundary of the South San Joaquin Irrigation District which otherwise provides drainage services to lands within the City of Manteca) to the San Joaquin River through Oakwood Shores while possibly utilizing land and existing infrastructure owned by OLWD. OLWD and Manteca are currently negotiating the terms of these arrangements. Additionally, engineering studies and cost estimates for the sewer and drainage projects are currently being prepared jointly by the City and OLWD. This drainage project would be implemented by the City and OLWD would allow the use of its property and infrastructure only if OLWD implements Option A herein.
13. Alternatively, if efforts to connect to the Manteca municipal sewer system are unsuccessful, OLWD will proceed with construction of a new membrane bioreactor

facility designed for a monthly average flow of 113,200 gpd. The cost of the new membrane bioreactor facility would be shared between OLWD and Oakwood LT Ventures II (Lafferty), the developer of the Oakwood Shores Subdivision. OLWD will continue to work with the responsible parties identify and repair sources of I/I into the WWTF.

14. OLWD’s proposed implementation schedule for connecting to the City’s wastewater treatment system or constructing a new facility is shown below.

<u>Milestone</u>	<u>Proposed Completion Dates</u> ¹
<i>Preliminary Actions</i>	
Submit a completed Engineering Study for connection to the City of Manteca’s municipal sewer system to Central Valley Water Board. ²	Sept. 2018
Notify the Central Valley Water Board, in writing, regarding the status of OLWD’s negotiations with the City of Manteca, and its tentative selection (pending completion of negotiations with the City of Manteca) of a long-term compliance option (i.e., connection to sewer system or WWTF upgrades). ³	Dec. 2018
<i>Option A—Connection to City of Manteca</i>	
Submit to the Central Valley Water Board a copy of the OLWD’s executed agreement with City of Manteca (if such an agreement has been executed), or alternatively, provide written notification regarding the results of negotiations with the City of Manteca. ⁴	Mar. 2019
Submit to the Central Valley Water Board a Notice of Award for the construction of wastewater conveyance infrastructure necessary to connect to the City of Manteca’s municipal sewer system. ³	Sept. 2019
Submit to the Central Valley Water Board a Completion Report certifying that a connection to the municipal sewer system has been completed. ²	Jan. 2022
<i>Option B—Treatment Plant Upgrade</i>	
Submit a Facilities Improvements Plan that includes the engineering design for the treatment plant and disposal system upgrade. ²	Jan. 2020
Submit Notice of Award to construct treatment plant and disposal system upgrades ³	Sept. 2020
Submit Facilities Improvement Completion Report certifying that upgraded treatment plant and disposal system is in operation. ²	Jan. 2022

Compliance with Final Effluent Limits or Elimination of WWTF Discharges

Jan. 2023

1. OLWD did not specify the exact dates for completion (only months). It is therefore presumed that completion will occur on or before the last day of the given month.
2. For the purposes of the TSO, these documents are considered “technical report.”
3. These documents are not considered “technical reports” under this TSO.
4. In the event that OLWD is unable to execute a final written agreement by 29 March 2019, OLWD shall become responsible for submitting a Facilities Improvement Plan per Option B.

PROPOSED EFFLUENT LIMITATIONS

15. Interim effluent limits were developed and proposed by OLWD using effluent monitoring data collected as part of the required Monitoring and Reporting Program. OLWD utilized EPA guidance, which suggests acceptable compliance rates of no more than one exceedance in three years. To calculate a Daily Maximum limit, OLWD applied a statistical probability based on a daily monitoring frequency.
16. Central Valley Water Board staff reviewed the proposed effluent limits submitted by OLWD and determined that they are appropriate on an interim basis until OLWD can redirect the discharge or improve treatment to comply with the limits in the existing WDRs. This short-term change in effluent limits would allow OLWD to continue pursuing connections to the City or construction of a new facility while minimizing effluent limit violations. Proposed interim limits for BOD, total nitrogen, TDS, total coliforms, and turbidity are as follows:

Proposed Interim Effluent Limits			
<u>Constituent</u>	<u>Units</u>	<u>Daily Maximum Limit</u>	<u>Monthly Average Limit</u>
BOD	mg/L	126	120
TSS	mg/L	56	54
Total Nitrogen	mg/L	38	38
TDS	mg/L	869	868
Total Coliform	MPN/100mL	1,600	1,600
Turbidity	NTU	20	20

17. A monthly average total coliform effluent limit is acceptable provided that where spray fields are used, wastewater is only discharged into an area prohibited from public access. The interim limit shall be set to minimize the number of exceedances while still providing a method to monitor compliance should monthly average concentrations increase. The spray field disposal area must be fenced and signage provided notifying the public of the access limitation.
18. The State Water Resources Control Board Division of Drinking Water issued a letter on 16 July 2018 recommending that recycled water inadequately treated to meet Title 22 standards not be spray irrigated to recycled water use areas. Upon further

discussion with Division of Drinking Water during a conference call on 13 June 2018, a consensus was reached between the Division of Drinking Water and Central Valley Water Board. The interim spray discharge of inadequately treated wastewater could only occur as disposal within dedicated area(s) that is fenced to prevent public access and that the area(s) be adequately identified with signage warning the public of partially undisinfected wastewater discharge.

REGULATORY CONSIDERATIONS

19. Pursuant to Water Code section 13300, “[w]henver 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 that the waste collection, treatment, or disposal facilities ... are approaching capacity, the board may require the discharger to submit for approval..., 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.”
20. Time Schedule Orders (TSOs) are appropriately issued when it appears that a discharger will not be able to comply with existing WDRs. (See Cal. Code Regs., tit. 23, § 2231, subd. (a).)
21. Based on OLWD’s pattern of effluent limitation exceedances (see Finding Nos. 7-9), until OLWD either diverts all WWTF discharges to the City’s municipal sewer system, or until OLWD installs a new membrane bioreactor at the WWTF (see Finding Nos. 12-14), there is a substantial likelihood that WWTF discharges will continue to violate existing WDRs with respect to BOD, TSS, total nitrogen, TDS and total coliform. Accordingly, a TSO is appropriately issued to OLWD for WWTF discharges.
22. In accordance with California Code of Regulations, title 23, section 2231, the time schedule proposed by OLWD (and incorporated as part of this TSO) assures compliance with existing WDRs as rapidly as practicable, avoids unnecessary time lags, and requires periodic progress reports.
23. Water Code section 13267, subdivision (b)(1) provides as follows:

In conducting an investigation..., the regional board may require that any person who has discharged, discharges, ... 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.
24. The reports required under this TSO, pursuant to Water Code section 13267, are necessary to ensure OLWD’s most rapid compliance with this TSO and existing WDRs. The burden of producing such reports, including costs, bears a reasonable relationship and is proportional to the need for ensuring compliance with this TSO and existing WDRs.

25. Failure to comply with this TSO may result in the assessment of administrative civil liability, pursuant to the Water Code sections 13268, 13350, and/or 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

IT IS HEREBY ORDERED THAT, pursuant to Water Code sections 13300 and 13267, Oakwood Lake Water District (OLWD or Discharger), its agents successors, and assigns, shall comply with the following.

1. **Effective immediately**, OLWD shall comply with the following Interim Effluent Limits.

<u>Constituent</u>	<u>Units</u>	<u>Daily Max Limit</u>	<u>Monthly Avg. Limit</u>
. BOD	mg/L	126	120
TSS	mg/L	56	54
Total Nitrogen	mg/L	38	38
TDS	mg/L	869	868
Total Coliform	MPN/100mL	---	240
Turbidity	NTU	20	20

2. **By 31 October 2018**, OLWD shall restrict public access to all spray irrigated disposal areas with fencing/barriers and appropriate signage shall be posted notifying the public. OLWD shall also implement measures to prevent surface runoff of partially undisinfecting irrigation water beyond the perimeter of the designated disposal area(s).
3. **By 31 December 2018**, OLWD shall notify the Central Valley Water Board regarding its tentative selection (pending successful completion of negotiations with the City of Manteca) of a long-term compliance option, i.e., Option A (connection to municipal sewer system) or Option B (WWTF upgrades), per the status of its negotiations with the City of Manteca.
4. **By 1 February 2023**, OLWD shall either:
- Eliminate WWTF discharges altogether to LAAs, if connecting to the City of Manteca's municipal treatment system (per Option A); *or*
 - Comply with the effluent limits specified in WDRs Order R5-2006-0114, as amended (per Option B)
5. OLWD shall comply with all relevant implementation deadlines set forth in Finding No. 14 (deadlines shall fall on the last day of given month). Copies of any materials submitted to the City of Manteca shall be concurrently mailed to the Central Valley Water Board. If, after the tentative selection of Option A (by 31 Dec. 2018), OLWD is unable to execute a final agreement with the City of Manteca by 29 March 2019 (or if the agreement is thereafter rescinded), OLWD shall instead become responsible for complying with all deadlines listed under Option B, beginning with the submission of a Facilities Improvement Plan by 30 January 2020. In other words, OLWD shall be deemed to have selected Option B. However, if OLWD executes a final agreement with the City of Manteca after 29 March 2019, OLWD may re-elect to

comply with the deadlines listed under Option A (which shall not be extended, except as provided below) by submitting a written notice to the Central Valley Water Board.

6. **By 30 January 2020**, a Facilities Improvement Plan shall be submitted to the Central Valley Water Board, if OLWD selects Option B as proposed in Finding 14, or is otherwise unable to execute an agreement with the City of Manteca on or before 29 March 2019. The Facilities Improvement Plan shall include the engineering design for an upgraded treatment and disposal system that will comply with the effluent limits specified in WDRs Order R5-2006-0114.
7. **On 1 February and 1 September of each year**, OLWD shall submit Semiannual Progress Reports describing the progress made to connect to the City of Manteca's treatment system or to construct a new WWTF in addition to the requirements in the existing Monitoring and Reporting Plan (MRP). These Semiannual Progress Reports are considered "technical reports" for the purposes of this TSO.
8. To the extent applicable, all reports and work plans designated as a "technical report" under this TSO (or otherwise involving planning, investigation, evaluation, or design or other work requiring interpretation and proper application of engineering or geologic sciences), shall:
 - a. Be prepared by, or under the direction of, a person registered to practice in California, per Business and Professions Code sections 6735, 7835 and 7835.1;
 - b. Contain a statement of the qualifications and responsible registered professional(s), demonstrating compliance with California Code of Regulations, title 16, sections 415 and 3065; and
 - c. Bear signature(s) and seal(s), and otherwise be presented in a manner clearly attributing work to the registered professional responsible for its preparation.
9. All documents submitted to the Central Valley Water Board under this TSO (including non-technical reports) shall be signed by appropriate OLWD personnel and include 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.
10. Except as provided below, the deadlines set forth in this TSO shall not be extended.
 - a. To obtain an extension of any deadline, OLWD shall submit a written Request for Extension to the Executive Officer within 30 days of discovering new facts or circumstances anticipated to prevent compliance.
 - b. The Request for Extension shall:

- i. Identify all deadlines to be extended;
 - ii. Describe cause of any delays in compliance (i.e., new facts or circumstances);
 - iii. Explain why delays could not have been reasonably foreseen and/or avoided with the exercise of due diligence;
 - iv. Estimate the length of all resulting delays, and the anticipated date of compliance; and
 - v. Include a proposed schedule for compliance with all remaining relevant deadlines (including those to be extended).
 - c. Unless it is approved in writing by the Executive Officer within 30 days of submission, a Request for Extension shall be deemed denied.
 - d. The Executive Officer may, in their discretion, approve a Request for Extension, either as proposed or with modifications, within regard to the following considerations:
 - i. Whether OLWD has engaged in timely, good faith efforts to prevent and/or mitigate delays in compliance with this TSO;
 - ii. Whether delays result from circumstances beyond the control of OLWD, its agents, employees, contractors and consultants;
 - iii. Whether delays could have been prevented with the exercise of due diligence;
 - iv. The magnitude and number of estimated delays; and
 - v. Any other relevant considerations appropriate under the circumstances.
 - e. Upon approval, the proposed schedule for compliance (as modified) shall be automatically incorporated as part of this TSO.
 - f. The Executive Officer may designate an Assistant Executive Officer or other Central Valley Water Board employee to approve or deny Requests for Extension submitted pursuant to this section.
11. The Executive Officer may modify or rescind this TSO at any time. However, except as provided above regarding Requests for Extension, all modifications and rescissions must be in a writing signed by the Executive Officer, whose authority is not subject to delegation.

If, in the opinion of the Executive Officer, OLWD fails to comply with the provisions of this TSO, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, issue a complaint for administrative civil liability, or take other enforcement actions.

Failure to comply with this TSO or the operative WDRs (as modified herein) may result in the assessment of Administrative Civil Liability, depending on the violation, pursuant to the Water Code section 13268, *inter alia*. 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 Resources Control Board (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 pm on 30th day after the date of this Order, except that if the 30th 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 pm on the next business day. Copies of the law and regulations applicable to filing petitions are available online at the address below, or will be provided upon request.

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

SO ORDERED.

BY: --original signed by Andrew Altevogt for--
PATRICK PULUPA,
Executive Officer

DATE: 28 September 2018