

**STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401**

**TIME SCHEDULE ORDER NO. R3-2019-0015**

**REQUIRING THE  
MISSION HILLS COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT PLANT, SANTA BARBARA COUNTY,  
TO COMPLY WITH REQUIREMENTS PRESCRIBED  
IN WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2019-0042**

The Central Coast Regional Water Quality Control Board (Central Coast Water Board) finds that:

1. Mission Hills Community Service District (MHCS D) operates a wastewater treatment facility located at 1550 East Burton Mesa Boulevard, Lompoc, California in Santa Barbara County.
2. On May 17, 2019, the Central Coast Water Board adopted Waste Discharge Requirements Order No. R3-2019-0042. Order No. R3-2019-0042 regulates the discharge of secondary treated effluent from the wastewater treatment plant (WWTP) to percolation ponds overlying the Lompoc Plain sub-basin.
3. Groundwater water quality objectives for the Lompoc Plain sub-basin are specified in the Water Quality Control Plan for the Central Coastal Basin (Basin Plan). These objectives are summarized in Table 1.

**Table 1 – Lompoc Plain Sub-basin Median Groundwater Quality Objectives**

| Constituent            | Units | Concentration |
|------------------------|-------|---------------|
| Total Dissolved Solids | mg/L  | 1,250         |
| Chloride               | mg/L  | 250           |
| Sulfate                | mg/L  | 500           |
| Boron                  | mg/L  | 0.5           |
| Sodium                 | mg/L  | 250           |
| Nitrogen               | mg/L  | 2             |

mg/L = milligrams per liter

4. Order No. R3-2019-0042 prescribes the following effluent limitations for chloride and total nitrogen based on plant performance and the Basin Plan’s groundwater water quality objectives for the Lompoc Plain sub-basin.

**Table 2 – Effluent Limits**

| Constituent           | Units | 25-Month Rolling Median | 30-Day Monthly Average    | Sample Maximum            |
|-----------------------|-------|-------------------------|---------------------------|---------------------------|
| Chloride              | mg/L  | 250 <sup>BP</sup>       | ---                       | 300 <sup>E</sup>          |
| Total Nitrogen (as N) | mg/L  | ---                     | 10 (May-Sep) <sup>C</sup> | 20 (May-Sep) <sup>C</sup> |
|                       |       | ---                     | 15 (Oct-Apr) <sup>C</sup> | 30 (Oct-Apr) <sup>C</sup> |

BP = Basin Plan

C = Central Coast Water Board Order No. 97-35 (Waste Discharge Requirements for Mission Hills Community Service District) established these effluent limits in 1997 based on six samples collected and analyzed for total nitrogen.

E = Highest average value (295 mg/L rounded to 300 mg/L) derived from MHCS D effluent data for composite samples (Ponds 3-7) from 2014-2018.

5. MHCS D currently discharges approximately 250,000 gallons per day (gpd) of treated wastewater to the Lompoc Plain groundwater sub-basin in Santa Barbara County. The WWTP includes a headworks facility (e.g. screen and comminution<sup>1</sup>), two lined biological treatment ponds (facultative<sup>2</sup> lagoons with aerators (Pond 1 with baffles<sup>3</sup> and Pond 2 no baffles)) and eight evaporation/percolation ponds (La Purisima ponds 3, 4, 5, 6, and 7 and Rucker ponds<sup>4</sup> 8, 9, and 10) shown in Figures 3 and 4 of Order No. R3-2019-0042. MHCS D's compliance history indicates it cannot achieve immediate compliance with the chloride and total nitrogen effluent limits prescribed in Order No. R3-2019-0042.
6. In January 2019, MHCS D staff developed a draft plan to upgrade its operations and wastewater treatment facility. MHCS D staff submitted a plan approved by the MHCS D Board to the Central Coast Water Board on May 8, 2019. The upgrades are designed to ensure compliance with permit limitations, improve consistency of effluent quality, improve existing facilities, and provide redundancy for some existing operations. Phased implementation is scheduled to begin in 2019 with estimated completion in 2025.
7. MHCS D's upgrade plan contains proposed modifications to the WWTP and WWTP operations that include: modification of treatment Ponds 1 and 2 aeration and mixing systems; evaluation of pond flow patterns and pond retention times; evaluation of pond sludge volumes; evaluation of the wastewater collection system to identify chloride sources, and public education/outreach.
8. MHCS D completed a preliminary implementation plan targeting the reduction of chloride entering the WWTP and operational changes (e.g. improved wastewater mixing, enhanced oxygen transfer, optimized retention time, etc.) to reduce total nitrogen in the discharge. MHCS D is currently evaluating implementation options and costs for each option.
9. California 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.

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<sup>1</sup> Comminution is mechanical reduction of solid materials by grinding solids found in wastewater into smaller average particle sizes.

<sup>2</sup> A facultative lagoon is used to treat wastewater. The upper layer of a facultative pond is aerobic (aerobic = available dissolved oxygen), while the lower layer is anaerobic (anaerobic = no available dissolved oxygen). Each pond layer supports different types of biologic organisms used to process the wastewater.

<sup>3</sup> Baffles are similar to floating curtains and are designed to create serpentine hydraulic flow patterns, increase hydraulic retention time (the time it takes wastewater to travel from the inlet of the pond to the outlet of the pond), enhance flow characteristics to eliminate dead zones, and create biologic conditions in that improve treatment efficiency.

<sup>4</sup> The Rucker pond site is on a separate parcel from 21-acre WWTP site, is located approximately 1.5 miles southwest of the treatment facility, and is approximately 15 acres in size.

10. Chapter 3, Section II of the Basin Plan states:

Controllable water quality shall conform to the water quality objectives contained herein. When other conditions cause degradation of water quality beyond the levels or limits established as water quality objectives, controllable conditions shall not cause further degradation of water quality.

Controllable water quality conditions are those actions or circumstances resulting from man's activities that may influence the quality of the waters of the State and that may be reasonably controlled.

Water quality objectives are considered to be necessary to protect those present and probable future beneficial uses enumerated in Chapter Two of this plan and to protect existing high quality waters of the State. These objectives will be achieved primarily through the establishment of waste discharge requirements and through implementation of this water quality control plan.

In setting waste discharge requirements, the Regional Board will consider the potential impact on beneficial uses within the area of influence of the discharge, the existing quality of receiving waters, and the appropriate water quality objectives. The Central Coast Water Board will make a finding of beneficial uses to be protected and establish waste discharge requirements to protect those uses and to meet water quality objectives.

11. MHCSD's compliance history indicates it cannot achieve immediate compliance with the existing chloride and total nitrogen effluent limits prescribed in Order No. R3-2019-0042; therefore, a discharge of waste is taking place that violates or threatens to violate requirements prescribed by the Central Coast Water Board. MHCSD has requested until February 2025 to allow MHCSD time to evaluate and implement actions to bring total nitrogen and chloride concentrations into compliance with the conditions of Order No R3-2019-0042. MHCSD believes that total nitrogen compliance is dependent on system optimization and standard sampling methods. MHCSD believes that chloride compliance is dependent on system source identification and public outreach to promote improved water quality.
12. This Order requires MHCSD to refine and implement proposed actions approved by the Central Coast Water Board Executive Officer to achieve compliance with Order No. R3-2019-0042 for both chloride and total nitrogen. MHCSD will propose actions that, as applicable:
- a. Reduce chloride and total nitrogen concentrations in MHCSD's effluent through WWTP modification and source control (e.g., in the case where MHCSD identifies sources and requires the responsible parties to treat or eliminate waste discharges to the MHCSD WWTP), with the goal of achieving compliance with the chloride and total nitrogen effluent limits in Order No. R3-2019-0042, and;
  - b. Develop and implement corrective actions for any man-made conditions or influences within MHCSD's jurisdiction or control that contribute chloride and total nitrogen to the MHCSD WWTP.

13. This Time Schedule Order No. R3-2019-0015 (TSO Order) also prescribes chloride and total nitrogen interim effluent limits that MHCSD must meet until full compliance with effluent limitations is achieved.
14. The interim effluent limits were established through Central Coast Water Board and MHCSD staff evaluation of chloride and total nitrogen concentrations from 2011 through 2018 (e.g. wastewater treatment plant influent and effluent data, monitoring well data, water supply data), evaluation of sucralose and ace-K data, and a hydrologic evaluation of the area within a one-mile radius of their facility. Central Coast Water Board and MHCSD staff also evaluated existing wastewater treatment plant performance. Using this information, data based interim effluent limits were established that would be protective of the groundwater and allow MHCSD to implement actions to achieve compliance with Order No. R3-2019-0042 by February 28, 2025.
15. 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.*
16. All reports required by this TSO Order are required pursuant to section 13267 of the California Water Code. The reports are necessary to determine compliance with this TSO Order and to ensure that MHCSD attains compliance with its waste discharge requirements permit. The burden of producing such reports, including costs, bears a reasonable relationship and is proportional to the need for ensuring compliance with this TSO Order and existing WDRs.
17. Pursuant to California Water Code section 13167.5, the Central Coast Water Board shall provide notice and a period of at least 30 days for public comment prior to the adoption of a time schedule order adopted pursuant to section 13300 that sets forth a schedule of compliance and required actions relating to waste discharge requirements prescribed pursuant to section 13263. The Central Coast Water Board provided notice and a 30-day public comment period on June 14 through July 15, 2019.
18. The Central Coast Water Board has notified MHCSD and interested agencies and persons of its intent to issue the TSO Order concerning violations or threatened violations of waste discharge requirements.
19. This enforcement action is taken for the protection of the environment and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with section 15321, chapter 3, title 14, of the California Code of Regulations.

**IT IS HEREBY ORDERED**, pursuant to California Water Code sections 13300 and 13267, that MHCSD must:

1. Comply with the following interim chloride and total nitrogen effluent limits, effective immediately:

**Table 3 - Interim Chloride and Total Nitrogen Effluent Limits**

| Constituent           | Units | 25-Month Rolling Median | 30-Day Monthly Average | Sample Maximum |
|-----------------------|-------|-------------------------|------------------------|----------------|
| Chloride              | mg/L  | 300                     | ---                    | 330            |
| Total Nitrogen (as N) | mg/L  | ---                     | 15 (May-Sep)           | 20 (May-Sep)   |
|                       |       | ---                     | 20 (Oct-Apr)           | 30 (Oct-Apr)   |

2. The interim chloride and total nitrogen effluent limits shall be effective until all the tasks in Table 4 below are complete or February 28, 2025, whichever comes first.
3. Complete the following tasks on or before the specified dates:

**Table 4 - Task Summary**

|    | Task  | Due Date                          |
|----|---|-----------------------------------|
| 1  | MHCSD Board approved plan to upgrade operations and the wastewater treatment facility | N/A<br>(completed on May 8, 2019) |
| 2  | Evaluate existing pond aeration/mixing system   | August 31, 2019                   |
| 3  | Propose and design an improved aeration/mixing system                                 | October 31, 2019                  |
| 4  | Develop aeration/mixing system bid documents & advertise                              | January 31, 2020                  |
| 5  | Purchase an aeration/mixing system with MHCSD Board approval                          | April 30, 2020                    |
| 6  | Evaluate pond flow patterns and hydraulic retention times                             | April 30, 2020                    |
| 7  | Install an upgraded pond aeration/mixing system                                       | May 31, 2020                      |
| 8  | Evaluate pond sludge distribution in Ponds 2 and 3                                    | December 31, 2020                 |
| 9  | Collect samples to identify chloride sources  | October 31, 2021                  |
| 10 | Evaluate options for a chloride reduction program                                     | October 31, 2021                  |
| 11 | De-sludge Pond 3 if necessary   | December 31, 2021                 |
| 12 | Develop and implement valve repair program  | October 31, 2022                  |
| 13 | Develop a chloride reduction program  | November 30, 2022                 |
| 14 | Evaluate dissolved oxygen levels in all ponds   | Ongoing                           |
| 15 | Continue public outreach for chloride reduction                                       | Ongoing                           |
| 16 | Complete all actions  | February 28, 2025                 |

4. Semiannual status reports must be submitted on July 31 and December 31 of each year. MHCSD must submit semiannual status reports beginning December 31, 2019, and every six months thereafter until this TSO Order is confirmed to be complete by the Central Coast Water Board Executive Officer. At a minimum, the reports must include:
  - i. A summary of progress during the previous six months (significant activities);
  - ii. Significant findings and associated actions;

- iii. Activities scheduled for the next six months; and
  - iv. Raw data from samplings obtained within the previous six months.
5. This TSO Order shall take effect on the date signed by the Executive Officer. The Central Coast Water Board's Executive Officer may modify or rescind this Order at any time during the duration of this Order.

Pursuant to California Water Code section 13320, any aggrieved person may seek review of this TSO Order by filing a petition with 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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)



Digitally signed by Harvey C. Packard  
Date: 2019.07.26 09:35:10 -07'00'

for John M. Robertson  
Executive Officer

HEK  
WDR Program  
Charge Code = A32000  
ECM Subject Name = Mission Hills CSD Time Schedule Order No. R3-2019-0015  
ECM/CIWQS Place ID = 240951  
GeoTracker No. = WDR100033210  
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