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## Central Valley Regional Water Quality Control Board

3 August 2023

Nick Von Flue  
Chawanakee Unified School District  
26065 Outback Industrial Way  
O'Neals, California 93645

**CERTIFIED MAIL**  
**7021 1970 0001 5446 5075**

**NOTICE OF APPLICABILITY (NOA), STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ-R5394, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; CHAWANAKEE UNIFIED SCHOOL DISTRICT; MINARETS HIGH SCHOOL WASTEWATER TREATMENT FACILITY; MADERA COUNTY**

On 17 January 2023, the Chawanakee Unified School District (Discharger), submitted a Report of Waste Discharge (RWD) for the Minarets High School Wastewater Treatment Facility (WWTF). The WWTF is currently regulated under State Water Resources Control Board's Order 97-10-DWQ, *General Waste Discharge Requirements by Small Domestic Wastewater Treatment Systems* per Notice of Applicability (NOA) 97-10-DWQ-R5058. The Discharger is modifying the WWTF at Minarets High School (High School) and is requesting coverage under the State Water Resources Control Board Water Quality Order 2014-0153-DWQ, *General Water Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order) for the modified WWTF.

Based on the information provided and a review of available information, the WWTF will treat and dispose of less than 100,000 gallons per day (gpd) of domestic wastewater and is eligible for coverage under the General Order. This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described. Therefore, coverage under General Order 97-10-DWQ is terminated. You are hereby assigned coverage under General Order 2014-0153-DWQ enrollee number **2014-0153-DWQ-R5394**.

You should familiarize yourself with the entire General Order and its attachments enclosed with this letter, which describes mandatory discharge and monitoring requirements. Sampling, monitoring and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached Monitoring and

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MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

1685 E Street, Fresno, CA 93706 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

Reporting Program (MRP) No. **2014-0153-DWQ-R5394**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

### **DISCHARGE DESCRIPTION**

The High School was constructed in 2009 at 26065 Outback Industrial Way near the community of O'Neal's in Madera County (see **Attachments A and B**). The WWTF provides sewage service for the High School, which includes approximately 300 students and faculty during the school year (August to May). Minimal flows are reported for the summer months between June and August. Wastewater is generated from restrooms, gym, and a cafeteria at the High School.

Wastewater is conveyed from the High School to the WWTF via two lift stations. The new WWTF will provide secondary treatment with activated sludge and extended aeration followed by a sand filter and chlorine disinfection (a Process Flow Schematic is provided as **Attachment C**). Secondary disinfected effluent will be discharged to an on-site lined effluent evaporation pond with a storage capacity of about 3.3 million gallons assuming two feet of freeboard. The proposed wastewater treatment system is designed to handle peak flows of up to 25,000 gpd slightly higher than the existing system which has a design flow rate of 21,750 gpd. However, average daily flows are generally around 2,000 to 6,500 gpd when school is in session.

The previous NOA 97-10-DWQ-R5058 allowed for use of recycled water for subsurface irrigation at the school. However, due to minimal flows at the WWTF this option was never developed. This NOA does not authorize the reuse of treated wastewater from the WWTF. Prior to initiating a recycled water reuse project, the Discharger will need to submit a Title 22 Engineering Report approved by State Water Resources Control Board, Division of Drinking Water (DDW) and a revised Report of Waste Discharge.

There is no on-site sludge storage. Concentrated sludge is contained in the WWTF's internal digester until it is hauled off-site to the City of Fresno's WWTF or similarly permitted facility for disposal.

### **FACILITY SPECIFIC REQUIREMENTS AND EFFLUENT LIMITATIONS**

The Discharger shall maintain exclusive control over the discharge and shall comply with the terms and conditions of this NOA, General Order 2014-0153-DWQ, all attachments, and MRP 2014-0153-DWQ-R5394.

In accordance with section B.1 of the General Order, **the discharge to the evaporation pond shall not exceed a maximum daily flow of 20,000 gpd.**

As outlined in Section D.1 of the General Order, the Discharger shall comply with the effluent limitations specified in Table 1. Compliance with the effluent limitations shall be determined after all treatment prior to discharge to the evaporation pond (Table 1 of the MRP).

**Table 1. Effluent Limitations**

Constituent	Unit	Average Monthly Limit	7-Day Average Limit
Biochemical Oxygen Demand (BOD)	Milligrams per liter (mg/L)	30	45
Total Suspended Solids (TSS)	mg/L	30	45

The General Order states in Section B.1 that the Discharger shall comply with the setbacks as described in Table 3 of the General Order. This table summarizes the different setback requirements for wastewater treatment system equipment, activities, land application areas and storage and/or treatment ponds from sensitive receptors and property lines where applicable. The Discharger shall comply with the applicable requirements, as summarized in the following table.

**Table 2: Site Specific Applicable Setback Requirements**

Equipment or Activity	Domestic Well	Flowing Stream	Ephemeral Stream Drainage	Property Line	Lake or Reservoir
Impoundment (disinfected sec-2.2 or sec-23 wastewater)	100 ft.	100 ft	100 ft.	50 ft	200 ft
Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System	150 ft.	50 ft	50 ft.	5 ft	200 ft

The Discharger shall comply with all applicable sections in the General Order, including:

1. Activated Sludge System requirements specified in Section B.4 of the General Order.
2. Pond Systems requirements specified in Section B.5 of the General Order;
3. Sludge/Solids/Biosolids Disposal requirements specified in Section B.8 of the General Order; and
4. Groundwater and Surface Water Limitations specified in Section C.1 of the General Order.

Provision E.1 of the General Order requires dischargers enrolled under the General Order to prepare and implement the following reports within **90 days** of the issuance of the NOA (**by 31 October 2023**):

- Spill Prevention and Emergency Response Plan (Provision E.1.a).

- Sampling and Analysis Plan (Provision E.1.b).
- Sludge Management Plan (Provision E.1.c).

The General Order requires that the Sludge Management Plan be submitted to the Central Valley Water Board within 90 days of the issuance of the NOA (X Month 2023). Copies of the Spill Prevention and Emergency Response Plan and the Sampling and Analysis Plan shall be maintained at the WWTF and be presented to Regional Water Board staff upon request.

As stated in Section E.2.w., in the event of a change in control or ownership of the Facility or wastewater disposal areas, the Discharger must notify the succeeding owner or operator of the existence of this General Order by letter, a copy of which shall be immediately forwarded to the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) Executive Officer.

Failure to comply with the requirements in this NOA, General Order 2014-0153-DWQ, with all attachments, and MRP No. 2014-0153-DWQ-R5XXX could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in this NOA is prohibited. If the method of waste disposal changes from that described in this NOA, you must submit a new Report of Waste Discharge describing the new operation.

On 31 May 2018 the Central Valley Water Board adopted Basin Plan amendments incorporating new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley (i.e., Salt and Nitrate Control Programs). These Basin Plan amendments became effective on 17 January 2020. Further details on these strategies are discussed in the enclosed staff memorandum. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of this NOA to ensure the goals of the Salt and Nitrate Control Programs are met.

The required annual fee specified in the annual billing from the State Water Resources Control Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by the General Order ceases, so that we may terminate coverage and avoid unnecessary billing.

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents that are 50MB or larger should be transferred to a disk and mailed to the Central Valley Water Board office at 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

**Program:** Non-15,  
**Place ID:** 706717,  
**Facility Name:** Minarets High School WWTF,  
**Order:** 2014-0153-DWQ-R5394

All documents, including responses to inspections and written notifications, submitted to comply with this NOA shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Omar Mostafa. Mr. Mostafa can be reached at (559) 445-5197 or [Omar.Mostafa@waterboards.ca.gov](mailto:Omar.Mostafa@waterboards.ca.gov). Questions regarding the permitting aspects of the NOA, and notification for termination of coverage under the Small Domestic General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Katie Carpenter. Ms. Carpenter can be reached at (559) 445-5551 or [Katie.Carpenter@waterboards.ca.gov](mailto:Katie.Carpenter@waterboards.ca.gov).

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control 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 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)).

In order to conserve paper and reduce mailing costs, a paper copy of the General Order has been sent only to the Discharger. Others are advised that the [General Order](#) is available on the State Water Board's website ([http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2014/wqo2014\\_0153\\_dwq.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf)).

*Original Signed by Scott J. Hatton for:*  
Patrick Pulupa  
Executive Officer

(see next page for list of Attachments, Enclosures, and cc's)

Attachments:

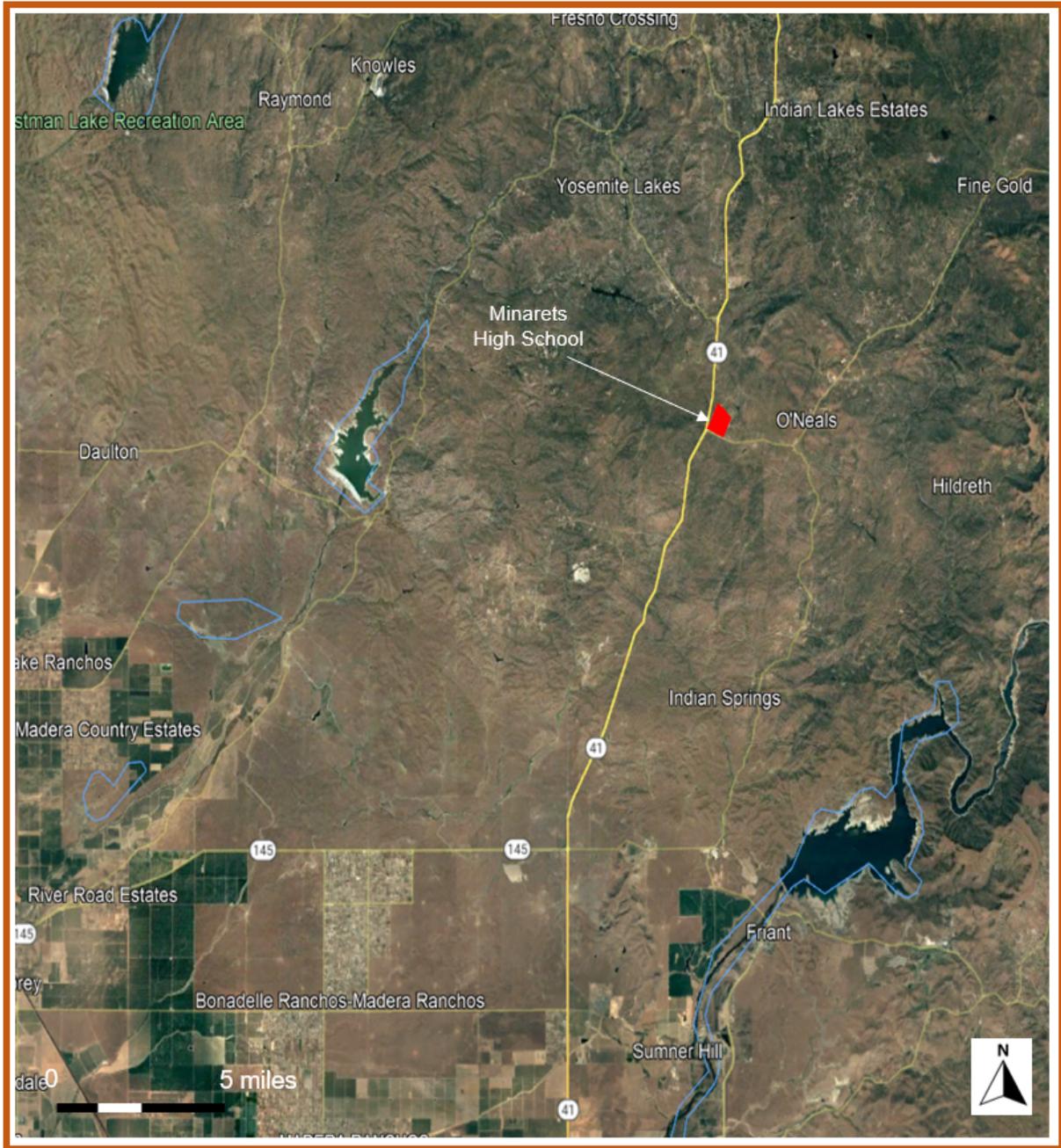
- Attachment A – Location Map
- Attachment B – Site Plan
- Attachment C – Process Flow Schematic

Enclosures:

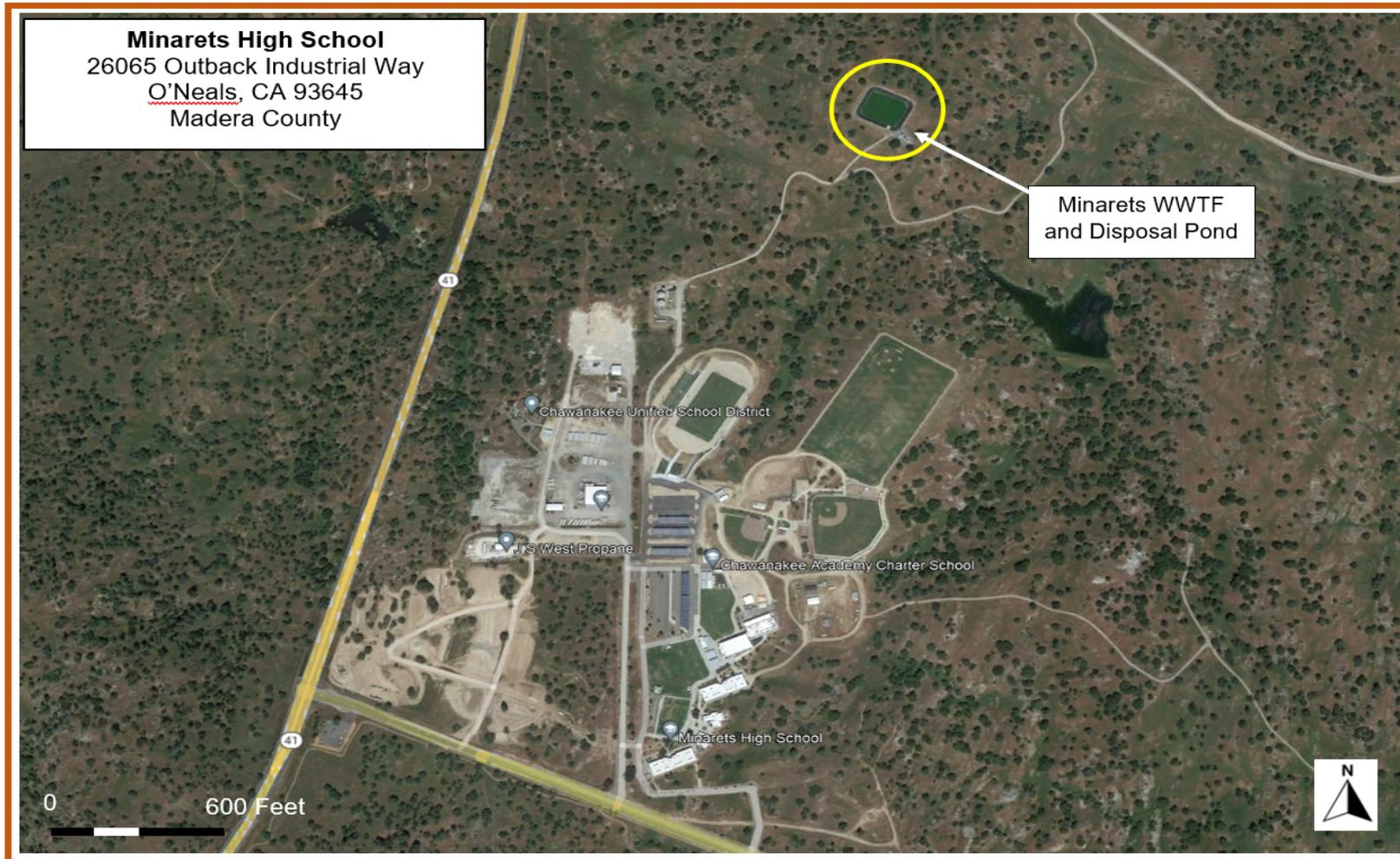
- Monitoring and Reporting Program 2014-0153-DWQ-R5394
- Review Memorandum of Chawanakee Unified School District Minarets High School Wastewater Treatment Facility
- State Water Resources Control Board WQ 2014-0153-DWQ (Discharger Only)

cc:

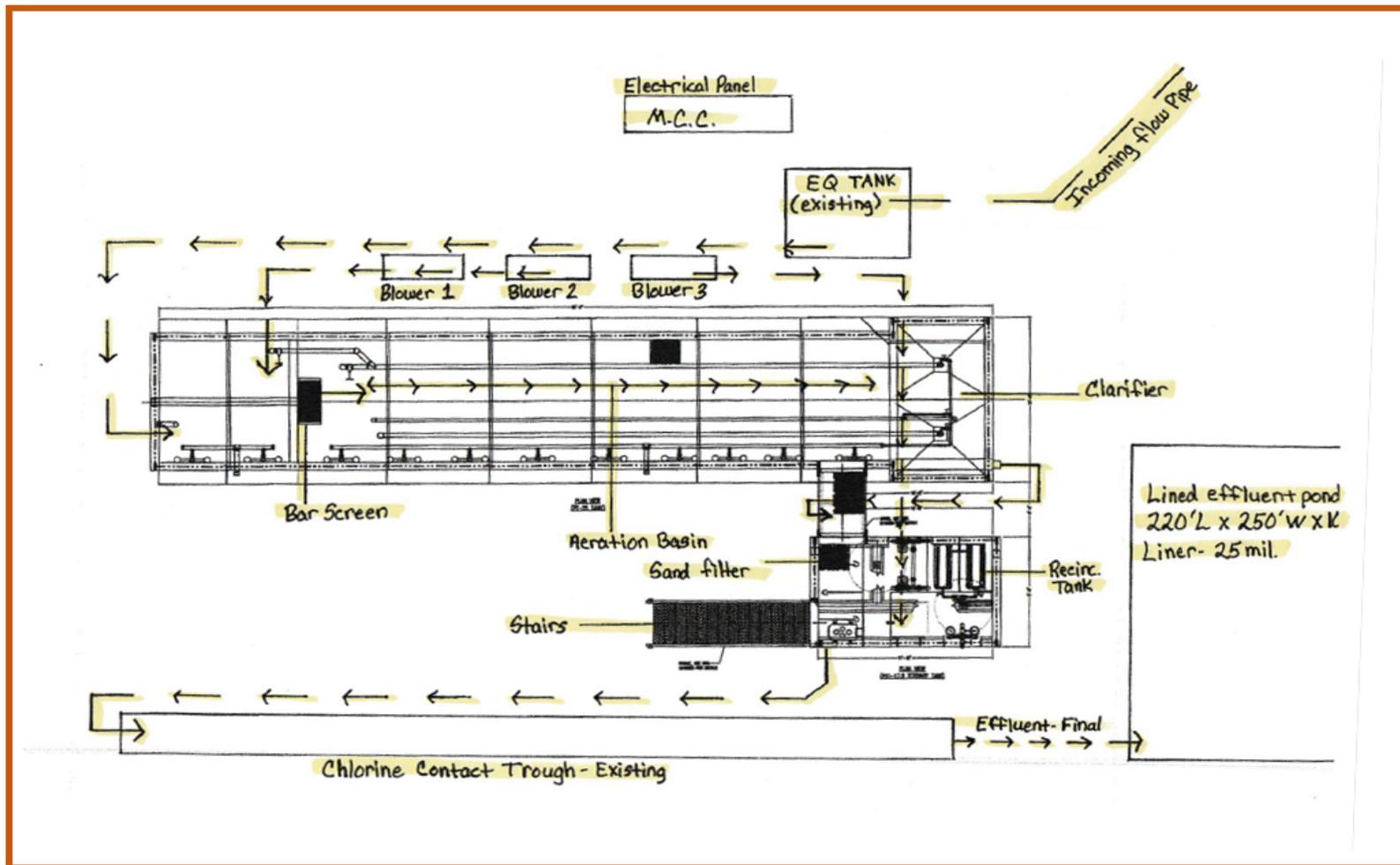
- Chris Moskal, State Water Resources Control Board, OCC (via email)
- Laurel Warddrip, State Water Resources Control Board, Division of Water Quality, Fresno (via email)
- Omar Mostafa, Senior Engineer, Central Valley Water Board, Compliance and Enforcement Unit, Fresno (via email)
- Madera County Environmental Health, 200 West 4<sup>th</sup> Street, Madera, CA 93637
- Jared Steeley, JSWWC Water and Wastewater Management, (via email)
- Debbie Webster, Central Valley Clean Water Association (CVCWA), Sacramento (via email)



**ATTACHMENT A – LOCATION MAP**  
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5394  
FOR  
CHAWANAKEE UNIFIED SCHOOL DISTRICT  
MINARETS HIGH SCHOOL WASTEWATER TREATMENT FACILITY  
MADERA COUNTY



**ATTACHMENT B – SITE PLAN**  
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5394  
FOR  
CHAWANAKEE UNIFIED SCHOOL DISTRICT  
MINARETS HIGH SCHOOL WASTEWATER TREATMENT FACILITY  
MADERA COUNTY



**ATTACHMENT C – PROCESS FLOW SCHEMATIC**  
 NOTICE OF APPLICABILITY 2014-0153-DWQ-R5394  
 FOR  
 CHAWANAKEE UNIFIED SCHOOL DISTRICT  
 MINARETS HIGH SCHOOL WASTEWATER TREATMENT FACILITY  
 MADERA COUNTY

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION  
MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5394  
FOR  
CHAWANAKEE UNIFIED SCHOOL DISTRICT  
MINARETS HIGH SCHOOL WASTEWATER TREATMENT FACILITY  
MADERA COUNTY**

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the Minarets High School Wastewater Treatment Facility (WWTF) in Madera County. This MRP is issued pursuant to Water Code section 13267. The Chawanakee Unified School District (hereafter Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) or Executive Officer.

Section 13267 of the California Water Code states, in part:

*“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.”*

Section 13268 of the California Water Code states, in part:

*“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying and information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).*

*(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”*

The Discharger owns the Minarets High School WWTF subject to Notice of Applicability (NOA) 2014-0153-DWQ-R5394. The NOA enrolled the Facility under State Water Resources Control Board (State Water Board) Water Quality Order 2014-0153-DWQ,

*General Water Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The reports required by this MRP are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Central Valley Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a State Water Resources Control Board, Environmental Laboratory Accreditation Program (ELAP) certified laboratory, or:

1. The user is trained in proper use and maintenance of the instruments.
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer.
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

## **ACTIVATED SLUDGE MONITORING**

### Effluent Monitoring

Samples of the effluent shall be taken at an area that represents the effluent quality sent to the lined evaporation pond. Except for the flow rate effluent monitoring shall only occur when school is in session. At a minimum, effluent monitoring shall consist of the following:

**Table 1. Effluent Monitoring**

<b>Constituent</b>	<b>Units</b>	<b>Sample Type</b>	<b>Sample Frequency</b>	<b>Reporting Frequency</b>
Flow Rate	gallons	Meter (see 1 below)	Continuous	Quarterly

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
pH	pH units	Grab	Weekly	Quarterly
EC	µmhos/cm	Grab	Weekly	Quarterly
BOD <sub>5</sub>	mg/L	Grab	Monthly	Quarterly
TSS	mg/L	Grab	Monthly	Quarterly
Nitrate as N	mg/L	Grab	Quarterly	Quarterly
Nitrite as N	mg/L	Grab	Quarterly	Quarterly
TKN	mg/L	Grab	Quarterly	Quarterly
Ammonia as N	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly

- Flow rate monitoring shall be conducted year-round. The flow rate may be metered or estimated based on pump run time or other approved method. Flow rates may be measured as influent or effluent flow. The method of measurement should be reported.

For disinfection monitoring, samples shall be collected immediately downstream of the disinfection system. At a minimum, disinfection monitoring shall include the monitoring specified in Table 2 below:

**Table 2. Disinfection Monitoring**

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Total Coliform Organisms	MPN/100 mL	Grab	Monthly	Quarterly
Residual Chlorine	mg/L	Grab	Monthly	Quarterly

Wastewater Pond Monitoring

All wastewater ponds (lined and unlined) shall be monitored as specified below:

**Table 3. Wastewater Pond Monitoring**

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Dissolved Oxygen (see 1 below)	mg/L	Grab	Weekly	Quarterly
Freeboard	Feet	Measurement	Weekly	Quarterly
Odors	--	Observation	Weekly	Quarterly

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Berm Condition	--	Observation	Monthly	Quarterly
Liner Condition	--	Observation	Monthly	Quarterly

1. DO shall be measured between 8:00 am and 10:00 am and shall be taken opposite the pond inlet at a depth of approximately one foot, when there is sufficient water in the pond(s). If there is insufficient water in the pond(s) no sample shall be collected and the reason provided in the quarterly monitoring report. Should the DO be below 1.0 mg/L during a weekly sampling event, the Discharger shall take all reasonable steps to correct the problem and commence daily DO monitoring until the problem has been resolved.

### **SOLIDS DISPOSAL MONITORING**

The Discharger shall report the handling and disposal of all solids (e. g., screenings, grit, sludge, biosolids, etc.) generated at the WWTF. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name, address, and permit number, as well as copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

### **REPORTING**

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernable. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents that are 50 MB or larger should be transferred to a disk and mailed to the appropriate Regional Water Board office, in this case 1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

**Program:** Non-15,  
**Place ID:** ,706717  
**Facility Name:** Minarets High School WWTF,  
**Order:** 2014-0153-DWQ-R5394

## **A. Quarterly Monitoring Reports**

Quarterly Reports shall be submitted to the Regional Water Board on the **first day of the second month after the quarter ends** (e.g., the January-March Quarterly Report is due by May 1<sup>st</sup>). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required monitoring.
2. A comparison of monitoring data to the requirements (including flow limitations), disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements.
3. Copies of all laboratory analytical report(s) and chain of custody form(s).

## **B. Annual Report**

Annual Reports shall be submitted to the Regional Water Board **by March 1<sup>st</sup> following the monitoring year**. The reports shall bear the certification and signature of the Discharger's authorized representative. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. An evaluation of the performance of the wastewater treatment systems, including discussion of the capacity issues nuisances' conditions, system problems and a forecast of the flows anticipated in the next year. A flow rate evaluation, as described in the General Order (Provision E.2.c), shall also be submitted.
3. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
5. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

*"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 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."*

The Discharger shall begin implementation of the above monitoring program in the first month following the date of this MRP.

Ordered by:

*Original Signed by Scott J. Hatton for:*  
PATRICK PALUPA, Executive Officer

*3 August 2023*  
(Date)

## GLOSSARY

BOD <sub>5</sub>	Five-day biochemical oxygen demand
CaCO <sub>3</sub>	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Daily	Every day except weekends or holidays.
Twice Weekly	Twice per week on non-consecutive days.
Weekly	Once per week.
Twice Monthly	Twice per month during non-consecutive weeks.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
Mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
NA	Denotes not applicable

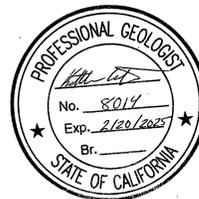


## Central Valley Regional Water Quality Control Board

**TO:** Scott J. Hatton  
Supervising Water Resource Control Engineer

**FROM:** Alexander S. Mushegan  
Senior Water Resource Control Engineer  
RCE 84208

Kathleen Carpenter  
Engineering Geologist  
PG 8014



**DATE:** 3 August 2023

### **APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; CHAWANAKEE UNIFIED SCHOOL DISTRICT; MINARETS HIGH SCHOOL WASTEWATER TREATMENT FACILITY; MADERA COUNTY**

On 17 January 2023, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (RWD) for modifications to the Minarets High School Wastewater Treatment Facility (or WWTF) near O'Neals in Madera County. According to the RWD, Chawanakee Unified School District (hereafter District or Discharger) plans to replace its existing membrane bioreactor (MBR) treatment system with a new packaged activated sludge wastewater treatment plant with extended aeration. The WWTF is currently regulated under a Notice of Applicability (NOA) 97-10-DWQ-R5058, *General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems*.

The RWD included a Form 200 and a technical report prepared and signed by Jared Steeley with JSWWC Water & Wastewater Management. Additional information, including a revised technical report, were submitted on 8 February, 1 March, 15 March, 27 March, and 5 April 2023. In addition, on 13 April 2023, Central Valley Water Board staff received a letter signed and stamped by Thomas Leland (RCE 14320), a California registered engineer with Cranmer Engineering, Inc., certifying that the design plans and

calculations submitted for the new wastewater treatment plant were sufficient to meet the needs of the school.

This memorandum provides a summary of the applicability of this discharge for coverage under the State Water Resources Control Board's WQ Order 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order).

## **LOCATION**

Minarets High School (High School) is approximately 20 miles northeast of Madera on the northeast corner of Road 200 and Outback Industrial Way near the community of O'Neal's in Madera County. The WWTF is located about a half mile north of the Minarets High School (at 37° 08' 00.71" N, 119° 43' 35.84" W).

## **DESCRIPTION OF DISCHARGE**

Minarets High School was constructed in 2009. The WWTF provides sewage service for the High School, which includes approximately 300 students and faculty throughout the school year (August to May). Only minimal flows are reported for the summer months (between June and August). Summer flows are generated from routine maintenance activities and are usually too low to sample. During the school year, wastewater is generated from restrooms, a gym, and a cafeteria at the High School. Source water for the High School is provided by three groundwater supply wells located greater than a half mile from the WWTF and disposal pond.

From the High School, there are two lift stations that pump the sewage up to the WWTF. The WWTF currently consists of a MBR system with disinfection. The plans originally called for ultraviolet light (UV) disinfection but was switched to chlorine disinfection during construction. Due to costs and maintenance associated with maintaining the MBR system, the Discharger proposes to replace the MBR system with a package activated sludge treatment plant with extended aeration. The proposed wastewater treatment system will consist of an equalization tank, bar screen, extended aeration basin with blowers, clarifier, sludge return system, sludge digester, sand filters, and a chlorine contact trench. Secondary disinfected effluent will be discharged to an existing on-site lined effluent evaporation pond with a storage capacity of about 3.3 million gallons. The proposed system will have a design capacity for a peak daily flow of 25,000 gallons per day (gpd). This is slightly higher than the existing MBR plant, which has a design capacity of 21,750 mgd. However, current flows generally range from about 2,000 to 6,500 gpd when school is in session.

NOA 97-10-DWQ-R5058 allows for use of recycled water for subsurface irrigation of the school yard. However, due to minimal flows at the WWTF this option was never developed. The current RWD does not consider use of recycled water. The Discharger will need to submit a Title 22 Engineering Report approved by State Water Resources Control Board, Division of Drinking Water (DDW) and a revised RWD prior to initiating a recycled water reuse project.

According to the RWD there is no on-site sludge storage. Concentrated sludge is contained in the WWTF's internal digester until it is hauled off-site to the City of Fresno's WWTF or similar facility for disposal.

### POTENTIAL THREAT TO WATER QUALITY

Minarets High School is near the community of O'Neals in the foothills of the Sierra Nevada. At an elevation around 1,450 feet above mean seal level, the area consists of shallow soils overlying igneous and metamorphic bedrock. Groundwater in the area is present in fractured bedrock. There is limited soil data for the area. According to the Discharger, the evaporation pond was constructed in the 1990's and equipped with a 25-mil high density polyethylene (HDPE) liner. The WWTF provides chlorine disinfection of its wastewater prior to discharge to the pond to minimize potential impacts from pathogens in case of a leak in the pond liner since there is less than five feet of soil before encountering bedrock beneath the pond.

The WWTF and evaporation pond are approximately a quarter mile from the nearest school building and there are no sensitive receptors in the area. The nearest water supply wells are at the High School and are located more than 2,500 feet from the evaporation pond and the nearest school buildings and surface water body are greater than 1,000 feet from the evaporation pond. These distances meet the minimum setback requirements specified in Table 3: *Summary of Wastewater System Setbacks* in the General Order.

The Discharger collects effluent data on a monthly basis for the current MBR system. Monthly average effluent data for 2022 are presented in the Table 1.

**Table 1. Effluent Quality for 2022**

Constituent	Units	Average	Range
Flow	Gallons	968	339 to 1,878
Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	10.2	Non-detect to 23
Total Suspended Solids (TSS)	mg/L	3.6	Non-detect to 15
Total Nitrogen	mg/L	89.4 (see 1 below)	13 to 152

1. Two suspect samples for total nitrogen possibly due to plant upset. Without the suspect samples average total nitrogen in 2022 was about 49.7 mg/L.

According to the RWD, the new extended aeration treatment plant will provide similar or better effluent quality than the existing MBR Plant with total suspended solids (TSS) and biochemical oxygen demand (BOD) concentrations less than 25 mg/L.

## **NITROGEN LIMIT EVALUATION**

The General Order requires that wastewater treatment systems with a design flow greater than 20,000 gpd be evaluated to determine if nitrogen effluent limits are required, as described in Attachment 1 of the General Order. A limited nitrogen evaluation was prepared as part of the RWD since the proposed package WWTF will have a design flow of 25,000 gpd however, the rest of the system has a design flow of 20,000 gpd. Based on the following information a nitrogen effluent limit is not required at this time:

- Actual flows between 2,000 to 6,500 gpd when school is in session;
- Discharge is to a lined evaporation pond;
- No sensitive receptors in the vicinity of the evaporation pond; and
- Typical domestic sewage with no industrial component.

In addition, a search of the GeoTracker [Groundwater Ambient Monitoring Program \(GAMA\)](https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/) database (<https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/>) reported nitrate as nitrogen concentrations from non-detect to 3.9 mg/L for supply wells within about two miles of the WWTF.

## **MONITORING REQUIREMENTS**

Monitoring requirements included in the following sections from Attachment C of the General Order are appropriate for this discharge:

- Activated Sludge Monitoring
- Pond System Monitoring
- Solids Disposal Monitoring

## **SALT AND NITRATE CONTROL PROGRAMS**

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley at its 31 May 2018 Board Meeting. The Basin Plan amendments became effective on 17 January 2020 and were revised by the Central Valley Water Board in 2020 with [Resolution R5-2020-0057](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf) ([https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/resolutions/r5-2020-0057\\_res.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf)).

Pursuant to the Basin Plan amendments, A Notice to Comply for the Salt Control Program was issued to the Discharger (**CV-SALTS ID 2802**) on 5 January 2021. On 5 April 2023 the District submitted a Notice of Intent and proof of payment selecting to participate in the Prioritization and Optimization Study (P&O Study) as part of the Salt Control Program.

For the Nitrate Control Program, the Minarets WWTF falls outside a prioritized groundwater basin. The closest prioritized basin is Groundwater Basin 5-022.06.

(San Joaquin Valley - Madera) a Priority 2 basin. Implementation within a non-prioritized basin/sub-basin will occur as directed by the Central Valley Water Board Executive Officer. More information related to the Salt and Nitrate Control Programs can be found at the [CV-SALTS Website](https://www.cvsalinity.org/public-info) (<https://www.cvsalinity.org/public-info>).