Central Valley Regional Water Quality Control Board

9 August 2024

Chad Brown
Madera County
200 West 4th St. Suite 3100
Madera, CA 93637

CERTIFIED MAIL
7020 2450 0000 6785 4255

NOTICE OF APPLICABILITY; STATE WATER RESOURCES CONTROL BOARD ORDER WQ-2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; MADERA COUNTY; MAINTENANCE DISTRICT NO. 28 RIPPERDAN WASTEWATER TREATMENT FACILITY; MADERA COUNTY

On 26 July 2023, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) received a Report of Waste Discharge (ROWD) requesting coverage under State Water Resources Control Board Order WQ-2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order), for the Madera County Maintenance Division #28 (Madera County or Discharger), Ripperdan Wastewater Treatment Facility (WWTF or Facility). A revised ROWD for the Facility was received on 29 February 2024. The Facility is currently regulated under Notice of Applicability (NOA) No. 97-10-DWQ-R5162, dated 27 May 2014.

Based on the information provided and a review of available information, the Facility treats and disposes less than 100,000 gallons per day (gpd) of domestic wastewater and is therefore eligible for coverage under the general and specific conditions of the General Order. This letter serves as formal notice that the General Order is applicable to your system and the wastewater discharge described below. You are hereby assigned enrollee number **2014-0153-DWQ-R5406** for your system. This letter and coverage under the General Order supersedes NOA 97-10-DWQ-R5162.

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 Reporting Program (MRP) No. 2014-0153-DWQ-R5406**. The MRP was developed

after consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

The Discharger owns and operates the WWTF (see Attachment A and Attachment B) that services the Ripperdan subdivision, which was built in the 1970s. The collection system collects wastewater from 16 homes. The WWTF consists of a wet well/lift station, settling basin/trash tank, and an extended aeration activated sludge system (aeration basin and secondary clarifier, with return activated sludge recycle line), as shown on Attachment C. The final effluent is routed to twenty-two (22) seepage pits. There is also a 4,700-gallon (estimated) polyethylene holding tank that contains an air diffuser (the air diffuser is not used according to the ROWD) to hold waste sludge. According to the ROWD, the treatment system has a design flow of 7,500 gallons per day.

FACILITY-SPECIFIC REQUIREMENTS AND EFFLUENT LIMITATIONS

The Discharger will maintain exclusive control over the discharge and shall comply with the terms and conditions of this Notice of Applicability (NOA), General Order 2014-0153-DWQ, all attachments, and MRP No. 2014-0153-DWQ-R5406.

In accordance with Section B.1.a of the General Order, the total discharge from the WWTF to the seepage pits **shall not exceed 7,500 gpd (monthly average).**

The General Order states in Section D that discharge shall not exceed the applicable effluent limitations as described in Table 4 of the General Order. Table 1 below summarizes the applicable 5-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) effluent limitations for the Facility's discharge to the seepage pits.

Table 1 - Effluent Limitations

Constituent	Units	Monthly Average Limit	7-Day Average Limit
BOD_5	mg/L	30	45
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. Table 2 below summarizes the site-specific setback requirements for the Facility. The WWTF operator reported the lift station is 90 feet from the water supply well, and the ROWD reports the water supply well is 225 feet from the distribution box. As discussed in the attached technical memorandum, a **setback of 50 feet** from the water supply well to the WWTF is acceptable provided the well seal is properly maintained and no nuisance conditions develop.

Table 2 – Site-Specific Applicable Setback Requirements

Equipment or Activity	Domestic Well (feet)	Flowing Stream (feet)	Ephemeral Stream Drainage (feet)	Property Line (feet)	Lake or Reservoir (feet)
Septic Tank, Treatment Unit, Treatment System, or Collection System	50	50	50	5	200
Seepage Pit	150	150	50	8	200

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

1. Section B.4 - Activated Sludge Systems
2. Section B.6 - Subsurface Disposal Systems
3. Section B.8 - Sludge/Solids/Biosolids Disposal
4. Section C.1 - Groundwater and Surface Water Limitations

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

- Spill Prevention and Emergency Response Plan
- Sampling and Analysis Plan
- Sludge Management Plan

A copy of the Spill Prevention and Emergency Response Plan and the Sampling and Analysis Plan shall be maintained at the treatment facility and shall be presented to the Regional Water Board staff upon request. The sludge management plan shall be submitted to the Central Valley Water Board **by 7 November 2024.**

As stated in Section E.2.w., in the event any 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 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-R5406** 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.

The required annual fee specified in the annual billing from the State Water 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.

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 as part of the Central Valley Salinity Alternatives for Long-Term Sustainability **(CV-SALTS)** initiative. Further details of these strategies are discussed in the enclosed 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 Program are met.

All monitoring reports and other correspondence shall 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. 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: 201072
Facility Name: Madera County MD No. 28 Ripperdan WWTF
Order: 2014-0153-DWQ-R5406

In order to conserve paper and reduce mailing costs, a paper copy of General Order WQO 2014-0153-DWQ 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).

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. 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 Jeff Robins. Jeff Robins can be reached at (559) 445-5976 or by email at Jeff.Robins@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 at Copies of the laws and regulations applicable to filing petitions (https://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

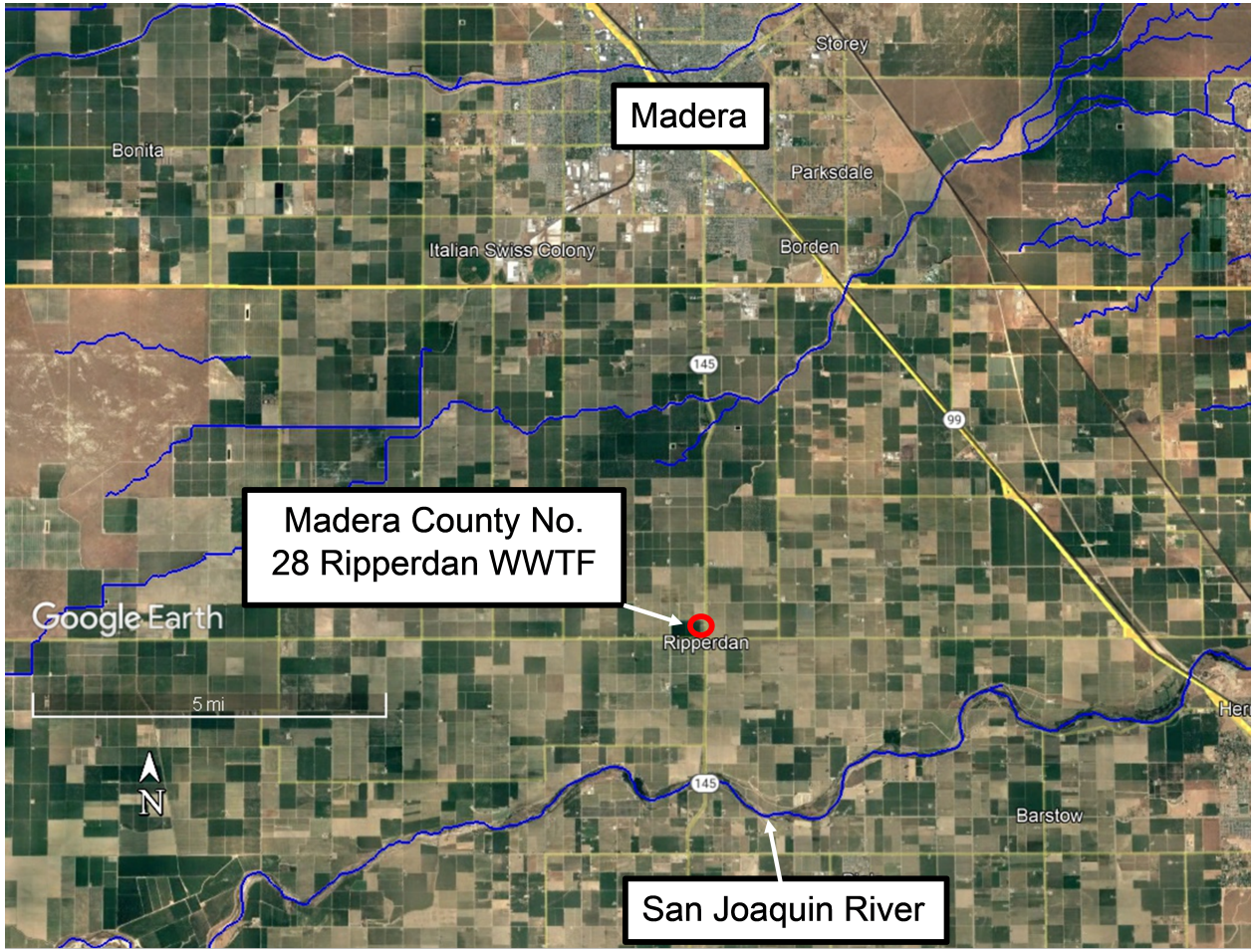
If you have any questions regarding this matter, please contact Jeff Robins by phone at (559) 445-5976 or by email at Jeff.Robins@waterboards.ca.gov.

Original Digitally Signed by Alexander S. Mushegan
For Patrick Pulupa
Executive Officer

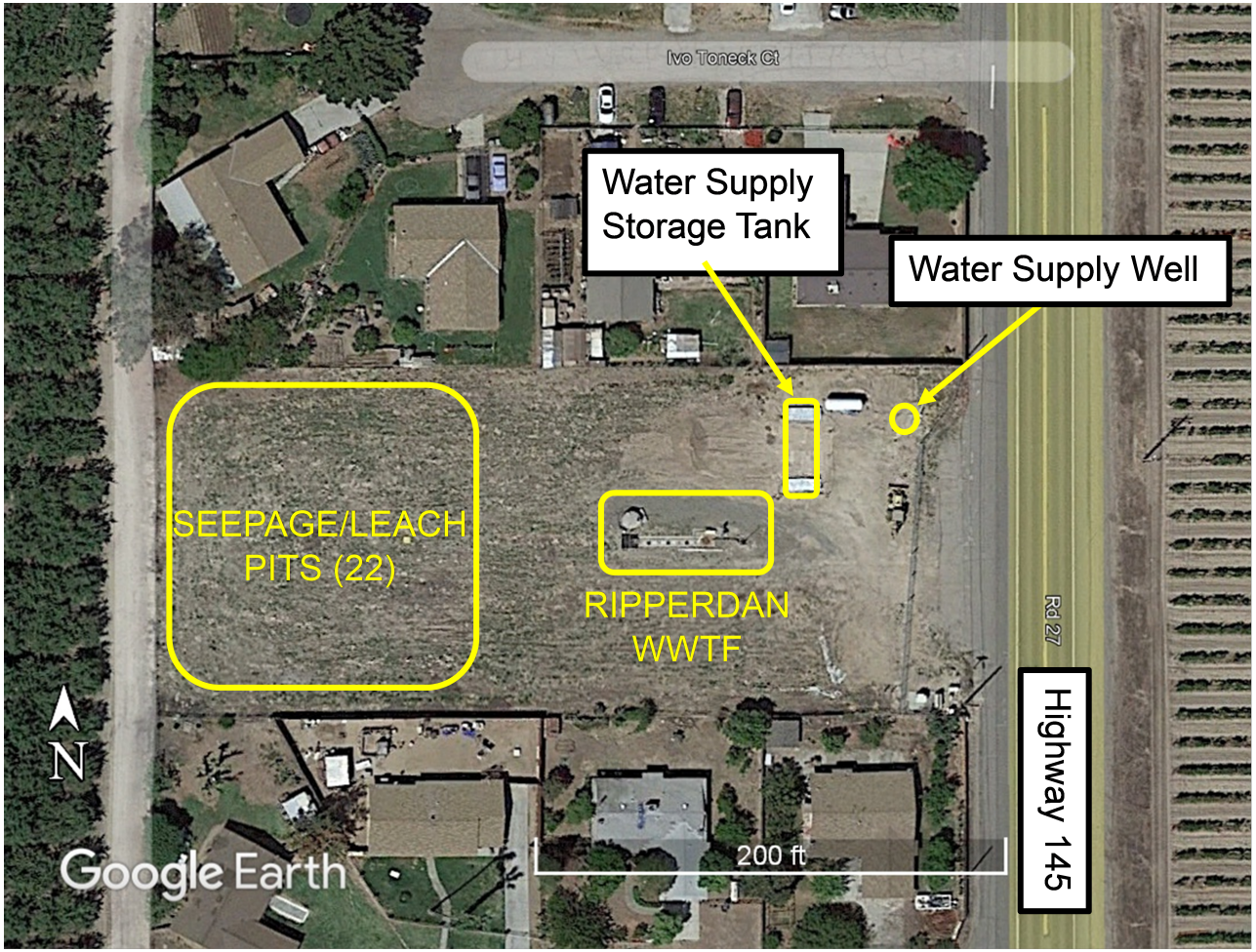
Attachments:
- Attachment A – Site Location Map
- Attachment B – Site Plan Map
- Attachment C – Process Flow Diagram

Enclosures:
- Monitoring and Reporting Program 2014-0153-DWQ-R5406
- Staff Review Memorandum for Ripperdan WWTF
- State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger only)

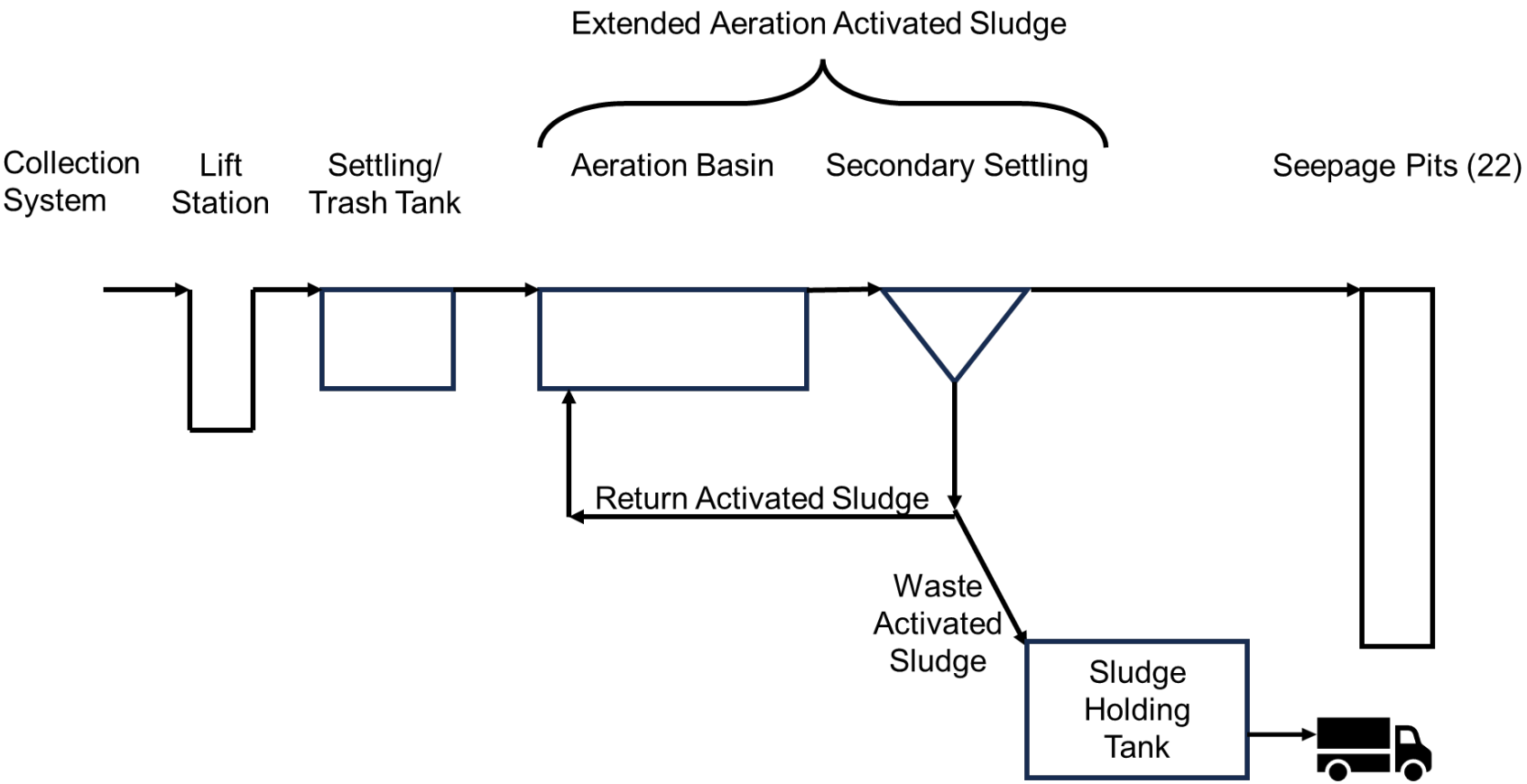
cc's:
- Laurel Warddrip, State Water Resources Control Board, DWQ, Sacramento (via email)
- Kennedy Knight, State Water Resources Control Board, OCC, Sacramento (via email)
- Omar Mostafa, Central Valley Water Board, Fresno (via email)
- Orlando Gonzalez, State Water Resources Control Board, Division of Drinking Water, (via email)
- Sudarshan Poudyal, State Water Resources Control Board, DDW, Fresno (via email)
- Madera County Department of Public Works
- Chad Bown, Madera County, Utility Manager (via email)
- Craig Wagner, Madera County, Public Works Engineering Services (via email)
- Debbie Mackey, CVCWA (via email)



ATTACHMENT A – SITE LOCATION MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5406
FOR
MADERA COUNTY;
MAINTENANCE DISTRICT NO. 28 RIPPERDAN WASTEWATER TREATMENT FACILITY
MADERA COUNTY
Drawing Reference: Google Earth



ATTACHMENT B – SITE PLAN MAP
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5406
FOR
MADERA COUNTY
MAINTENANCE DISTRICT NO. 28 RIPPERDAN WASTEWATER TREATMENT FACILITY
MADERA COUNTY
Drawing Reference: Google Earth



ATTACHMENT C - PROCESS FLOW DIAGRAM
NOTICE OF APPLICABILITY 2014-0153-DWQ-R5406
FOR
MADERA COUNTY
MAINTENANCE DISTRICT NO. 28 RIPPERDAN
WASTEWATER TREATMENT FACILITY
MADERA COUNTY

REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5406 FOR MADERA COUNTY MAINTENANCE DISTRICT NO. 28 RIPPERDAN WASTEWATER TREATMENT FACILITY MADERA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the Madera County, Maintenance District No. 28 Ripperdan Wastewater Treatment Facility (Facility or WWTF). This MRP is issued pursuant to Water Code section 13267. Madera County (hereafter Discharger) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board, Central Valley Region (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 and operates the WWTF that is subject to the Notice of Applicability (NOA) 2014-0153-DWQ-R5387. The NOA enrolls the WWTF under State

Water Resources Control Board Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order). The reports required in 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.

ACTIVATED SLUDGE TREATMENT SYSTEM MONITORING

Effluent Monitoring

Effluent samples shall be taken at a location that represents the effluent quality and effluent flow distributed to the seepage pits. At a minimum, effluent monitoring shall include the monitoring specified in Table 1 below.

Table 1 - Effluent Monitoring

Constituent	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow	MGD	Meter	Continuous (see 1 & 2 below)	Quarterly
BOD_5	mg/L	Grab	Monthly	Quarterly
TSS	mg/L	Grab	Monthly	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Semi- Annually	Quarterly

1. Flow rate may be metered or estimated based on potable water supply meter readings or other approved method. Flow rates may be metered as influent or effluent flow.
2. For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation.

SUBSURFACE DISPOSAL AREA

Subsurface disposal areas may be configured many different ways (e.g. traditional leach field, pressure-dosed, drip system, mound/at grade, etc.). In general monitoring shall be sufficient to determine if wastewater is evenly applied, the disposal area is not saturated, burrowing animals and/or deep-rooted plants are not present, and odors are not present. Inspection of dosing pump controllers, automatic distribution valves, etc. is required to maintain optimum treatment in the disposal area (and any sand or media filter if present). Monitoring shall include, at a minimum, the following constituents.

Table 2 - Subsurface Disposal Area Monitoring

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, etc.	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly
Saturated Soil Condition	Quarterly	Quarterly
Plant Growth	Quarterly	Quarterly
Vectors or Animal Burrowing	Quarterly	Quarterly
Seepage Pit Condition (see 1 below)	Quarterly	Quarterly

1. Seepage pits shall be inspected to ensure they are allowing wastewater to infiltrate as designed. Visual inspection of the water level in the seepage pit is adequate. The Discharger shall also develop a tracking and record-keeping system to ensure all 22 seepage pits are rotated into use on a regular basis.

SLUDGE/BIOSOLIDS MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater treatment facility. 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 and address, and 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 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB 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: 201072
Facility Name: Madera County MD No. 28 Ripperdan WWTF
Order: 2014-0153-DWQ-R5406

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 1st). The reports shall bear the certification and signature of the Discharger's authorized representative. At the minimum, the quarterly reports shall include:

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

B. Annual Report

Annual Reports shall be submitted to the Regional Water Board **by February 1st following the monitoring year.** The Annual Report shall include the following:

1. Results of all required monitoring.
2. A comparison of monitoring data to the requirements (including the flow limitation), disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. Data shall be presented in tabular format.
4. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.

5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program

6. 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 implementing the above monitoring program beginning **1 September 2024.**

Ordered by:

Original Digitally Signed by Alexander S. Mushegan

For PATRICK PULUPA, Executive Officer

9 August 2024

(Date)

GLOSSARY

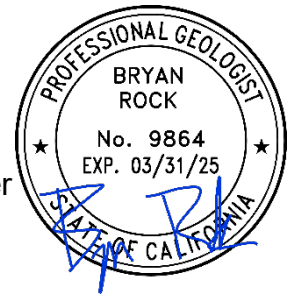
BOD_5	Five-day biochemical oxygen demand
bgs	below ground surface
$CaCO_3$	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be 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
gal/acre/mo	Gallons per acre per month
mgd or MGD	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
NA	Denotes not applicable
NTU	Nephelometric Turbidity Units
UV	Ultraviolet
mJ/cm^2	Millijoules/cm^2
SU	Standard pH units

Central Valley Regional Water Quality Control Board

TO: Alex Mushegan
Supervising Water Resource Control Engineer

FROM: Bryan Rock
Senior Engineering Geologist
PG 9864

Jeff Robins
Water Resource Control Engineer
RCE 94056



DATE: 9 August 2024

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; MADERA COUNTY MAINTENANCE DISTRICT NO. 28, RIPPERDAN WASTEWATER TREATMENT FACILITY; MADERA COUNTY

On 28 November 2022, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a Report of Waste Discharge (ROWD) prepared by California Rural Water Association, signed and stamped by Daniel Lafontaine, a California licensed professional chemical engineer (#6247). In a 14 December 2022 review letter, Central Valley Water Board staff noted that B.1.g of State Water Resources Control Board's Order WQ 2014-0153-DWQ, *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems* (General Order), requires that the ROWD shall be prepared by a California licensed professional civil engineer. Accordingly, Madera County resubmitted the ROWD on 26 July 2023, followed by a revised 29 February 2024 ROWD, stamped and signed by Craig R. Wagner (RCE 41221), Supervising Civil Engineer for Madera County Public Works, Engineering Services, on behalf of Madera County (Discharger). The ROWD was submitted for the Maintenance District (MD) No. 28 Ripperdan Wastewater Treatment Facility (Facility or WWTF). The Facility is currently regulated under Notice of Applicability (NOA) No. 97-10-DWQ-R5162, dated 27 May 2014, and Revised MRP R5-2014-0820, dated 5 June 2014.

This memorandum provides a summary of Central Valley Water Board staff's review of the February 2024 ROWD and subsequent materials, and the applicability of this discharge to be covered under the General Order.

BACKGROUND INFORMATION

Madera County owns and operates the WWTF, which is located in the Ripperdan subdivision, south of the City of Madera and along California State Route 145 (Attachments A and B). The WWTF and seepage pits are located at Madera County Assessor's Parcel Number 040-230-009-000, Section 25, Town 12S, Range 17E (36° 51' 23.14.35" N, 120° 3' 23.14"E). The closest surface water body is the San Joaquin River located approximately two (2) miles South of Ripperdan. The treatment plant was designed for an influent flowrate of 7,500 gallons per day (gpd) and a population of around 64 people. The system does not have a flow meter and flow rates are estimated using pump run times.

The collection system collects wastewater from 16 adjacent residences. The collection system length is approximately 750 linear feet. The Ripperdan subdivision and collection system were built in the 1970's and are functioning properly, according to the ROWD. There are no alarms in the collection system; however, the chief plant operator indicates that inflow and infiltration (I & I) is not an issue. The operator estimates that I & I accounts for less than 10% of the normal dry flow. Operators have spill kits and sandbags on each truck should a sanitary sewer overflow occur. The operators indicate that they hydro-clean the collection lines every other year.

The wastewater treatment system consists of a wet well/lift station, settling basin/trash tank, and an extended aeration activated sludge system (aeration basin, secondary clarifier, with return activated sludge recycle line (Attachment C). The collection system directs wastewater to a 20-foot deep wet well/lift station equipped with two pumps that are each capable of pumping at 100 gallons per minute. The wet well is equipped with a high-level alarm with a flashing light and audible horn. In the event that the wet well backs up there is one manhole to the south that backs up after 24 hours.

The treated final effluent is routed, via a distribution box, to 22 seepage pits. Fourteen of the seepage pits were part of the original construction and the remaining seepage pits were installed in 1991. Seepage pit dimensions and volumes are provided in Table 1 below. The seepage pits are organized into three groups of six seepage pits and one group of four pits, and each group has its own distribution box.

Figure 5 from the ROWD showed a 23rd seepage pit to the east-northeast of the other seepage pits; however, representatives of the Discharger indicated that this seepage pit has been disconnected from the treatment plant, filled with a concrete slurry, and closed.

As part of the review process for this NOA, the Supervising Engineer for Madera discovered Madera County has only been utilizing 6 of the 22 seepage pits. He indicated they would modify their operation of the system to include a rotation of using all 22 seepage pits based on the volume of treated effluent to each seepage pit cluster and the dispersion rate of treated effluent into the sidewalls.

Table 1 - Seepage Pit Volumes

Install Date	Diameter (feet)	Cross Section Area ($ft^{2)}$	Working Depth (see 1 below) (feet)	Volume (gallons)	# of seepage pits	Total Volume (gallons)
1970's	4	12.6	33	3,100	14	43,404
1991	4	12.6	48	4,510	8	36,076
--	--	--	--	**TOTAL**	**22**	**79,480**

1. Working depth does not include 2-foot of freeboard in each pit.

There is also a 10-foot diameter, 8-foot high (around 4,700 gallons) polyethylene holding tank, which contains an air diffuser, to hold waste sludge. The aeration system supplies air into the extended aeration basin via three plumbed diffusers. Two additional diffusers are plumbed into the sludge holding tank and the settling basin/trash tank. According to the ROWD, the two additional diffusers are not presently used.

POTENTIAL THREAT TO WATER QUALITY

Flow rate data for 2021 to 2023 is summarized in Table 2 below.

Table 2 - Wastewater Flows

Date	2021	2022	2023
	Gallons per Day	Gallons per Day	Gallons per Day
Jan	4,220	2,410	3,860
Feb	4,350	2,330	1,960
Mar	4,350	2,050	1,950
Apr	4,400	2,490	2,300
May	5,310	2,400	2,310
Jun	4,650	2,270	2,350
Jul	2,720	2,440	2,170
Aug	2,820	2,930	2,480
Sep	2,820	2,950	1,930
Oct	2,960	2,860	1,890
Nov	2,570	3,730	2,040
Dec	2,830	2,770	1,920
Average	3,670	2,636	2,264
Max	5,310	3,730	3,860
Min	2,570	2,050	1,890

There are no effluent limitations specified in current NOA, 97-10-DWQ-R5162. However, General Order WQ 2014-0153-DWQ specifies the following effluent limitations for activated sludge treatment systems (Table 3 below).

Table 3 - WQ 2014-0153-DWQ Activated Sludge Effluent Limitations

Constituents	Units	Monthly Average	7 Day Average
BOD_5	mg/L	30	45
TSS	mg/L	30	45

Table 4 below summarizes monthly average influent and effluent data for BOD_5 and TSS for 2021 through 2023. The monthly average value for the entire year is presented in each cell of the table and the range of monthly average values for the year is presented in parentheses. Monthly average effluent BOD_5 never exceeded the 30 mg/L monthly average limit specified by the General Order. Most monthly average effluent TSS values were below the 30 mg/L TSS limit specified by the General Order, with the exception of March 2022 and December 2023, where monthly average concentrations were 84 mg/L and 46 mg/L, respectively.

Table 4 - Monthly Average Influent and Effluent Data

Date [# samples]	Monthly Ave. Influent BOD_5	Monthly Ave. Effluent BOD_5	Monthly Percent BOD_5 Removal	Monthly Ave. Influent TSS	Monthly Ave. Effluent TSS	Monthly Percent TSS Removal
Units	mg/L	mg/L	%	mg/L	mg/L	%
2021 [4]	172.5 (110 – 230)	6.2 (3.2 -14)	96	310 (130-530)	4.5 (2-12)	99
2022 [4]	337.5 (230-470)	14.0 (3-29)	96	927.5 (250-2,700)	29.5 (5-84)	97
2023 [9]	252 (84-510)	8.2 (1.5-23)	97	164 (69-340)	13.1 (2-46)	92

Drinking water is supplied to the 16 homes surrounding the Ripperdan WWTF by one groundwater well located inside the WWTF compound (Attachment B). The 20-inch groundwater supply well was drilled in 1984 to a total depth of 520 feet. The well consists of 12.75-inch steel casing that is perforated from 450 to 500 feet bgs, an annular cement seal from 0 to 300 feet below ground surface, and a 3/8-inch gravel pack from 300 to 520 feet bgs. At the time of drilling a 5-hour air lift test resulted in an estimate of 50 gallons per minute. Water is stored in a 15,000-gallon hydropneumatic water tank onsite prior to being pressure fed to the houses.

The groundwater supply well location is shown on Attachment B and is located 90 feet from the WWTF, 191 feet to the closest seepage pit, and 225 feet from the main distribution-box at the seepage pits. The General Order lists various setback distances to domestic wells. For wastewater treatment systems, the General Order provides setback distances of 50 feet (based on the California Plumbing Code), 100 feet (based on California Well Standards), and 150 feet (based on the Onsite Wastewater Treatment System Policy).

The General Order allows the Regional Water Board Executive Officer to allow reduced setbacks from the OWTS Policy and the California Well Standards based on site-specific conditions. The depth to groundwater underlying the WWTF is about 123 feet below ground surface (bgs) based on Spring 2023 nearby groundwater well data available from the California Department of Water Resources (DWR) SGMA Interactive Groundwater Map (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels). The original well log shows a soft brown clay layer from 94 bgs to 102 feet bgs that may impede vertical hydraulic flow. Several other clay containing layers are also shown in the profile.

Table 5, below, summarizes recent water quality results for the Ripperdan water supply well. The data is available from the California Division of Drinking Water's California Drinking Water Watch Website (https://sdwis.waterboards.ca.gov/PDWW/JSP/WSamplingResultsByStoret.jsp?SystemNumber=2000553&tinwsys_is_number=6780&FacilityID=001&WSFNumber=37294&SamplingPointID=001&SystemName=MD+28+RIPPERDAN+SELF+HELP&SamplingPointName=SOURCE+WELL+1&Analyte=&ChemicalName=&begin_date=&end_date=&mDWW=.).

Table 5 - Selected Source Well Water Quality

Constituent	Concentration	MCL	Date Sampled
Nitrate as N (mg/L)	4.5	10	4/1/2024
Nitrite as N (mg.L)	Non-Detect (see 1 note)	1	2/14/2024
Conductivity) µmhos/cm	460	900 (see note 4)	4/1/2024
TDS (mg/L)	420	500 (see note 4)	2/14/2024
Chloride (mg/L)	51	250 (see note 4)	2/14/2024
Sodium (mg/L)	30	--	2/14/2024
pH (S.U.)	7.9	--	2/14/2024
Total Alkalinity (mg/L as $CaCO_3$)	140	--	2/14/2024
Hardness (mg/L as $CaCO_3$)	170	--	1/13/2021
Iron (µg/L)	Non-Detect (see note 2)	300 (see note 5)	2/14/2024
Manganese (µg/L)	Non-Detect (see note 3)	50 (see note 5)	2/14/2024
Magnesium (mg/L)	15		2/14/2024
Arsenic (µg/L)	1.5	10	2/14/2024
Sulfate (mg/L)	17	250 (see note 4)	2/14/2024

1. Reporting limit is 0.3 mg/L

2. Reporting Limit is 100 µg/L
3. Reporting Limit is 5 µg/L
4. Recommended Secondary MCL
5. Secondary Standard

Based on the well construction (including the 300-feet deep cement grout seal, natural clay layers at elevations above the grout seal, and the gravel pack) and water quality data from the water supply well that meets the MCLs in Table 5 above, the existing setback of 90 feet from the water supply well to the lift station at the Ripperdan wastewater treatment facility is acceptable.

Central Valley Water Board staff also reviewed available well data for nearby wells using the National Water Quality Monitoring Council's Water Quality Data Portal (https://www.waterqualitydata.us/portal). Three wells were located within 1.85 miles of the discharge location. Select data is summarized in Table 6 below.

Table 6 - Groundwater Quality From Nearby Wells

Constituent/Parameter	Well #1 (see note 1)	Well #2 (see note 2)	Well #3 (see note 3)
Sample Date	3/18/2014	4/30/2008	2/24/1966
Well Total Depth (ft bgs)	260	397	-
EC (µmhos/cm @ 25ºC)	388 (2)	194 (2)	654
TDS (mg/L)	300	176	405
Nitrate (as N) (mg/L)	-	-	-
pH (s.u.) (see note 4)	7.5 (2)	7.7 (2)	8.7
Hardness, Ca, Mg (mg/L as $CaCO_3$)	116	53.5	280
Alkalinity (mg/L as $CaCO_3$)	136	66.6	220

1. Well #1 = 013S017E01J001M
2. Well #2 = 012S017E25N001M
3. Well #3 = 012S017E23P001M
4. The pH of the average hydrogen ion concentration was used to calculate the average pH.

According to the ROWD, the underlying geology in the area consists of alluvium, and underlying soil is classified as HdA—Hanford (Ripperdan) fine sandy loam by the National Resources Conservation Service's National Cooperative Soil Survey. The profile for this soil series is 0"-26" Fine Sandy Loam, 26" – 60" Silty Loam.

The water balance included in the ROWD assumed the following:

- Percolation in seepage pits occurs primarily though the side walls and not the bottom of the pit, which is clogged by sediment from the treated wastewater,
- Only 6 seepage pits were in operation at any one time,
- The seepage pits in operation are filled to an equal depth (13.3 feet or 7,500 gallons) of treated effluent,

- Infiltration only occurs in the bottom 40% of the 33-foot deep pits and the bottom 27.1 % of the 48-foot deep pits, and
- Infiltration rate consistent with *A Field Method for Measurement of Infiltration* from the Department of Interior (1963) for very fine sandy loam (1.02 ft/day).

Given the above conservative assumptions, the water balance indicates that 7,500 gallons per day of wastewater can infiltrate without wastewater accumulating in the seepage pits. The Discharger also calculated that if the full depth (33 or 48 feet) of the six seepage pits was used for infiltration, the six seepage pits could infiltrate up to 22,000 gpd. All twenty-two seepage pits could infiltrate 81,000 gpd.

The ROWD assumed average occupancy of four people per household implies the WWTF serves about 64 people (4 people/home x 16 homes). Thus, the system must comply with the United States EPA Underground Injection Control requirements (see B.6.g. of the General Order). Based on the size and type of waste the only requirement at this time is to notify the Region 9 office by submitting a UIC Injection Well Inventory Form online. The UIC Injection Well Inventory Form was submitted when the WWTF was installed. The wells are registered under EPA number CA530085.

There is a stormwater collection system for the Ripperdan subdivision. The storm water collects in a drainage basin which is around one-sixth of a mile SSE of the WWTF at the northeast corner of Avenue 7 and State Route 145, in the right-of-way of State Route 145.

NITROGEN LIMIT EVALUATION

The General Order requires that wastewater systems with a flow rate greater than 20,000 gallons per day be evaluated to determine if nitrogen effluent limits are required, as described in Attachment 1 of the General Order. The flow limit for the Ripperdan WWTF is 7,500 gpd. Therefore, a Nitrogen Effluent Limit Evaluation is not required for the Facility.

MONITORING REQUIREMENTS

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

- Activated Sludge Monitoring
- Subsurface Disposal System Monitoring
- Solids Disposal Monitoring

SALT AND NITRATE CONTROL PROGRAMS

At its 31 May 2018 Board Meeting, the Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley (Resolution R5-2018-0034). 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).

Pursuant to the Basin Plan amendments, the Discharger was sent a Notice to Comply (**CV SALTS ID: 1740**) on 5 January 2021 with instructions and obligations for the Salt Control Program. The Discharger has paid their fees for the Salt Control Program through 2023. The Facility is located in a Priority 2 Zone for the Nitrate Control Program. In December 2023, the Discharger received a Notice to Comply with the Nitrate Control Program. They have until February 2025 to select a pathway and file a Notice of Intent. More information on the Salt and Nitrate Control Program may be found on the Internet. (https://www.cvsalinity.org/public-info).