Central Valley Regional Water Quality Control Board

22 November 2022

George Ritchie, President
Fresno County Waterworks District No. 18
PO Box 846
Friant, CA 93626-0092

CERTIFIED MAIL
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NOTICE OF APPLICABILITY (NOA); STATE WATER RESOURCES CONTROL BOARD ORDER WQ-2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; FRESNO COUNTY WATERWORKS DISTRICT NO. 18; MIRA BELLA ONSITE WASTEWATER TREATMENT SYSTEM; FRESNO COUNTY

On 22 April 2004, Rod Strahm (RCE 18303) with Strahm Engineering Associates, Inc., submitted a Report of Waste Discharge (RWD) for the proposed Mira Bella Onsite Wastewater Treatment System (OWTS or Facility) on behalf of Fresno County Waterworks District No.18 (Discharger). The Facility has not previously been issued waste discharge requirements (WDRs). Subsequent submittals/correspondences between the Discharger and the Central Valley Water Board occurred over the years for the project. These submittals/correspondences include requiring the installation of a groundwater monitoring well network for the OWTS and a 25 February 2020 13260 Letter requiring the Discharger to submit an updated RWD by 26 May 2020 to enroll the OWTS under State Water Resources Control Board's *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems*, WQ 2014-0153-DWQ (General Order).

On 23 September 2021, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received a revised RWD, including Form 200 and a technical report, on behalf of Discharger. The RWD was signed and stamped by Michael L. Giersch (RCE 38160) and Kenneth F. Hutchings (RCE 42304) from Giersch and Associates, Inc. On 6 September 2022 Central Valley Water Board staff received an updated Form 200.

Based on the information provided in the RWD, the Facility treats and disposes of 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-R5379** for your system.

You should familiarize yourself with the entire General Order and its attachments enclosed with this letter, which describe 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-R5379**. This MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum.

DISCHARGE DESCRIPTION

The Facility is located about one-half mile south southeast of the Friant Dam at Millerton Lake on Millerton Road (see Attachments A and B). The septic tank is at approximately 36.992º N, 119.699º W, the leach field is at approximately 36.982º N, 119.694º W). The Facility currently receives domestic wastewater from 48 residential properties (the development has a total of 58 residential lots).

Attachment C is a process flow diagram which provides a schematic overview of the facilities. The system is designed for a flow of 17,400 gallons per day (gpd). Gravity sewer lines convey the wastewater to a splitter box, where the flow is split into two flow streams, followed by two, 15,000-gallon septic tanks, in series. Following the septic tanks, wastewater is conveyed to a lift station, where it is then pumped to the leach field.

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 NOA, General Order 2014-0153-DWQ, all attachments, and MRP No. 2014-0153-DWQ-R5379. In accordance with Section B.1.a of the General Order, the monthly average total discharge from the WWTF to the leach field **shall not exceed 17,400 gpd.**

The enclosed MRP requires the installation of a groundwater monitoring well network. The Discharger shall install a groundwater monitoring well network around its subsurface disposal system to monitor changes in groundwater quality associated with its discharge. Groundwater quality samples and groundwater elevations shall be taken/measured from all wells.

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 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 setback requirements, as summarized in the Table 1 below:

Table 1 – 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	150	50	50	5	200
Leach Field	100	100	50	5	200

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

1. Septic Systems requirements in Section B.2. of the General Order;
2. Subsurface Disposal Systems requirements in Section B.6 of the General Order;
3. Sludge/Solids/Biosolids Disposal requirements 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 **by 20 February 2023.**

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

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.

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-R5379** 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. If wastewater flows to the Facility substantially increase and the monthly average flows approach or exceed 17,400 gpd, the Central Valley Water Board staff must be contacted to determine if further analysis is required.

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 correspondences 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: 240892,
Facility Name: Mira Bella Onsite WastewaterTreatment System,
Order: 2014-0153-DWQ-R5379.

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 Dale Harvey. Mr. Harvey can be reached at (559) 974-1965 or dale.harvey@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.

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).

Original Signed by Clay L. Rodgers for:
Patrick Pulupa
Executive Officer

Attachments:

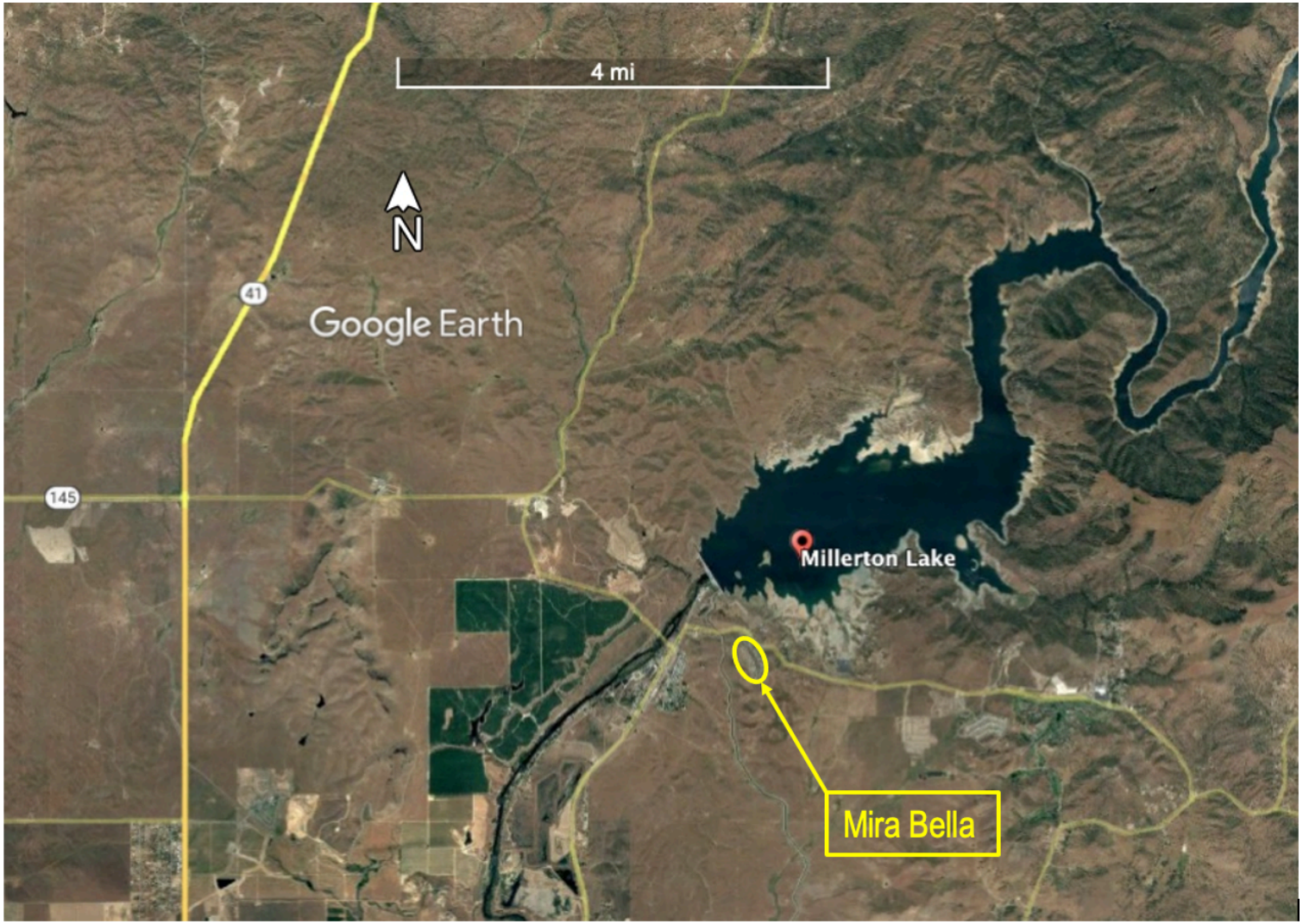
- Attachment A – Site Location Map
- Attachment B – Site Plan Map
- Attachment C – Process Flow Diagram

Enclosures:

- Monitoring and Reporting Program 2014-0153-DWQ-R5379
- Staff Review Memorandum for Mira Bella OWTS
- State Water Resources Control Board Order WQ 2014-0153-DWQ (Discharger only)

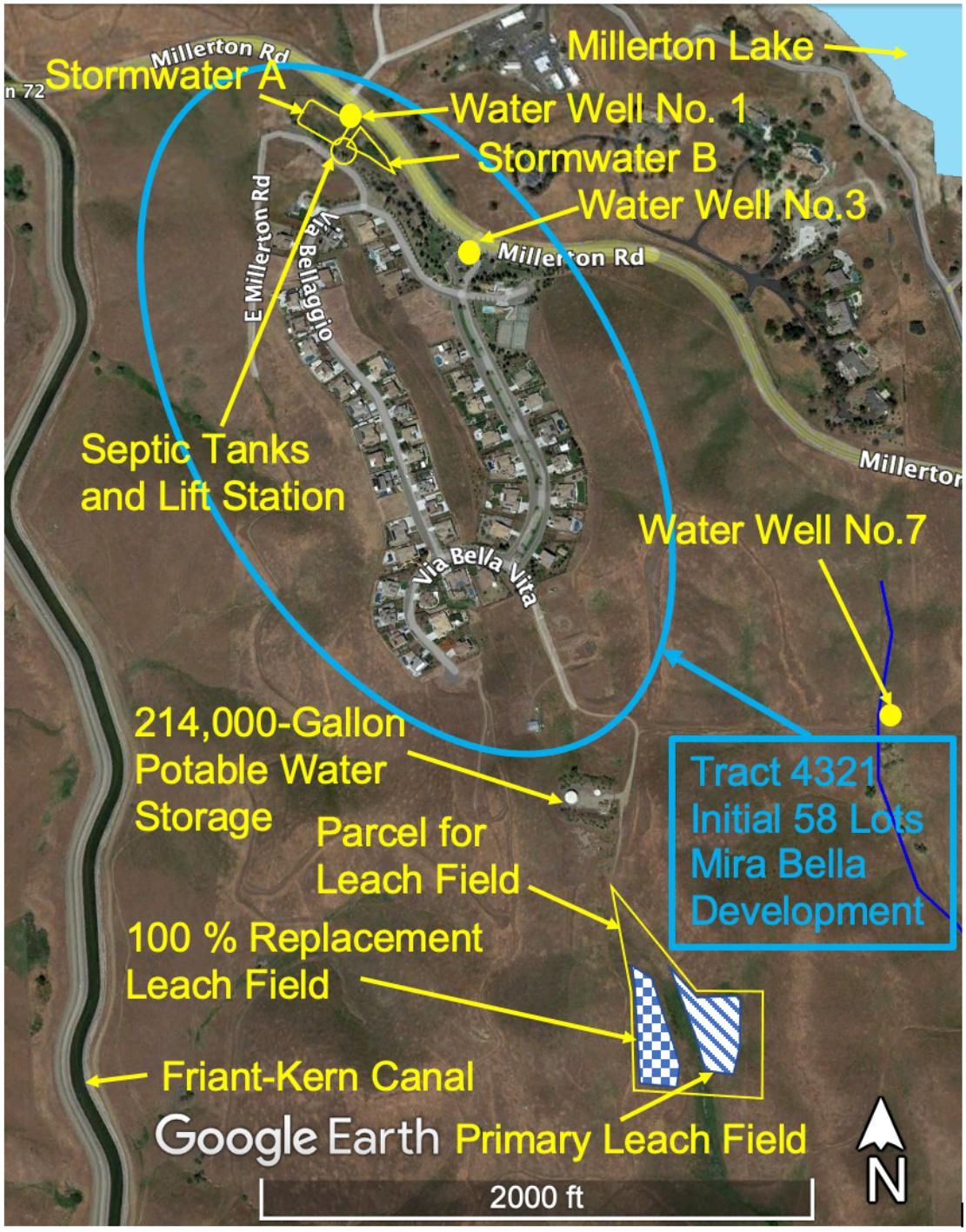
cc's

- Christopher Moskal, State Water Resources Control Board, OCC, Sacramento (via email)
- Laurel Warddrip, State Water Resources Control Board, DWQ, Sacramento (via email)
- Dale Harvey, Central Valley Water Board, Fresno (via email)
- Tricia Wathen, State Water Resources Control Board, DDW, (via email)
- Fresno County Public Works and Planning Department, Fresno, CA
- Fresno County Environmental Health, Fresno
- Michael Giersch, Giersch and Associates (via email)
- Kenneth Hutchings, Giersch and Associates (via email)
- Diego Noriega, Fresno County Waterworks District No. 18 (via email)
- Debbie Webster, CVCWA (via email)



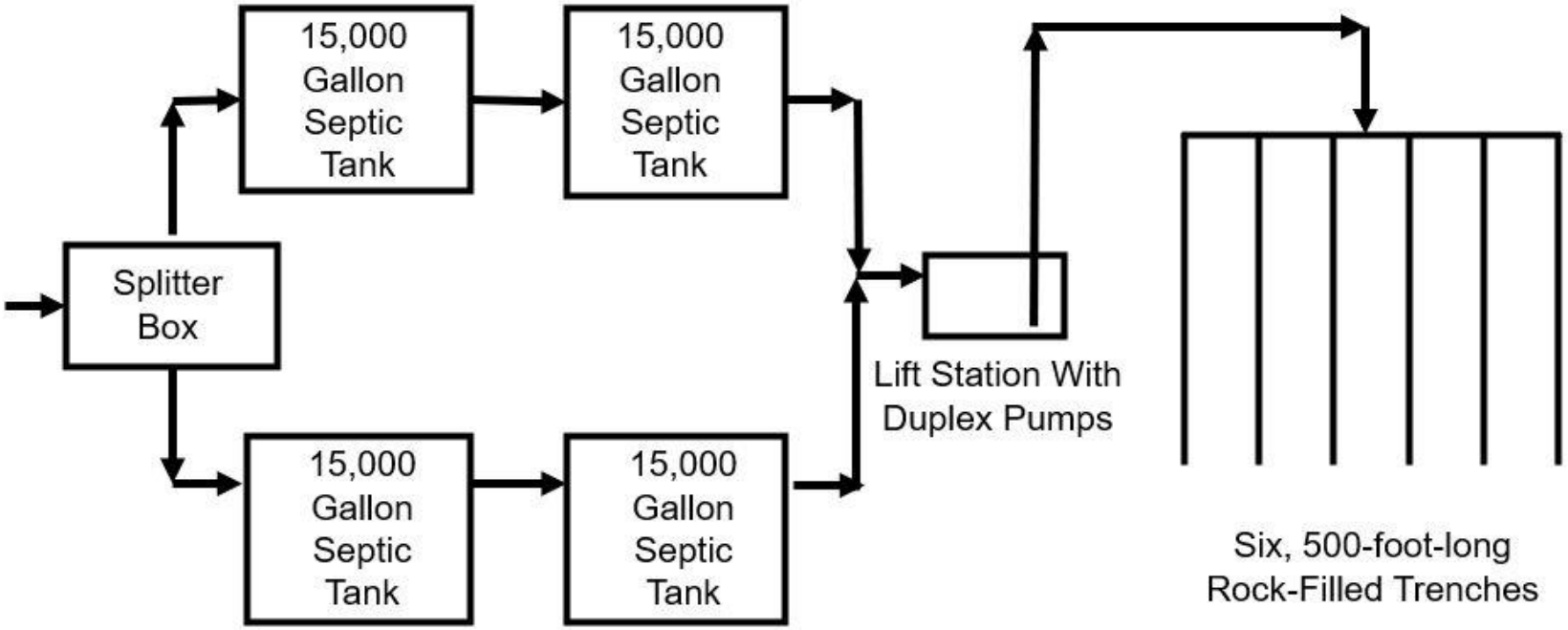
ATTACHMENT A – SITE LOCATION MAP

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5379
Drawing Reference: Google Earth



ATTACHMENT B - SITE PLAN MAP

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5379
Drawing Reference: Google Earth



ATTACHMENT C – PROCESS FLOW DIAGRAM

NOTICE OF APPLICABILITY 2014-0153-DWQ-R5379

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5379 FOR FRESNO COUNTY WATERWORKS DISTRICT NO. 18 MIRA BELLA ONSITE WASTEWATER TREATMENT SYSTEM; FRESNO COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for the Mira Bella Onsite Wastewater Treatment System (OWTS of Facility). This MRP is issued pursuant to Water Code section 13267. Fresno County Waterworks District No. 18 (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 OWTS that is subject to the Notice of Applicability (NOA) 2014-0153-DWQ-R5379, which enrolls the OWTS 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.

SEPTIC TANK MONITORING

Septic tank effluent samples shall be taken from a location that represents the effluent from the lift station (Attachment C) leading to the leach field. At a minimum, effluent monitoring shall include the following:

Table 1. Septic Tank Effluent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Metered or Estimated (See 1 below)	Continuous (See 2 below)	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
BOD_5	mg/L	Grab	Monthly	Quarterly
TSS	mg/L	Grab	Monthly	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Quarterly	Quarterly

1. The flow rate may be metered or estimated based on potable water supply meter readings, pump run times, or other approved method.
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.

All septic tanks shall be inspected and/or pumped at least as frequently as described below in Table 2. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.

Table 2. Septic Tank Monitoring Requirements

Parameter	Units	Sample Type	Inspection/ Reporting Frequency
Sludge depth and scum thickness in each compartment of each tank.	Feet	Staff Gauge	Annually
Distance between the bottom of the scum layer and bottom of the outlet device.	Inches	Staff Gauge	Annually
Distance between the top of the sludge layer and the bottom of the outlet device.	Inches	Staff Gauge	Annually
Effluent filter condition (if equipped, clean as needed)	N/A (See 1 below)	N/A (See 1 below)	Annually (See 2 below)

1. N/A denotes not applicable
2. Provide a qualitative description of the filter condition and normal maintenance.

Septic tanks shall be pumped when any of the following conditions exists:

1. The combined thickness of the sludge and scum exceeds one-third of the tank depth of the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

If a septic tank is pumped during the year, the pumping report shall be submitted with the annual report. All pumping reports shall be submitted with the next regularly scheduled monitoring report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

SUBSURFACE DISPOSAL AREA MONITORING

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 of the leach field systems shall, at a minimum, include the monitoring specified in Table 3 below.

Table 3. Subsurface Disposal Area Monitoring

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, Etc. (See 1 below)	Monthly	Quarterly
Nuisance Odor Conditions	Monthly	Quarterly
Saturated Soil Conditions (See 2 below)	Monthly	Quarterly
Plant Growth (See 3 below)	Monthly	Quarterly
Vectors or Animal Burrowing (See 4 below)	Monthly	Quarterly

1. All pump controllers and automatic distribution valves shall be inspected for proper operation as recommended by the manufacturer.
2. Inspect a disposal area for saturated conditions.
3. Shallow-rooted plants are generally desirable, deep-rooted plants such as trees shall be removed as necessary.
4. Evidence of animals burrowing shall be immediately investigated, and burrowing animal populations controlled as necessary.

GROUNDWATER MONITORING

The Discharger shall install and monitor a groundwater monitoring well network at the OWTS. The groundwater monitoring network shall be sufficient to characterize up-gradient groundwater conditions and evaluate the OWTS discharge on underlying groundwater.

By 20 February 2023, the Discharger shall submit a **Monitoring Well Installation Workplan** for Executive Officer approval. The Workplan shall be prepared in accordance with, and include the items listed in, the first section of Attachment A of this MRP (*Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports).* At a minimum, the monitoring well network shall include one monitoring well up-gradient of the leach field to establish background groundwater quality and at least two down-gradient monitoring wells. The monitoring wells shall comply with appropriate well standards as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards, State of California Bulletin 74-81 (December 1981), and any more stringent standards adopted by local agencies pursuant to Water Code section 13801.

Within 6 months of receiving Executive Officer approval of the Monitoring Well Installation Workplan, the Discharger shall submit a **Groundwater Monitoring Well Installation Report** for the new groundwater monitoring wells constructed to comply with the well standards cited above. The report shall be prepared in accordance with, and include the items listed in, the second section of Attachment A of this MRP. The report shall describe the installation and development of all new monitoring wells and explain any deviation from the approved workplan.

Analysis of the data and groundwater flow directions shall be performed at least annually and shall be performed under the supervision of a California-licensed civil engineer or geologist. The Discharger may request a reduced monitoring and reporting schedule once adequate data has been collected to characterize the site.

Prior to sampling, groundwater elevations shall be measured, and the wells shall be purged of at least three well volumes and until pH and electrical conductivity have stabilized. No-purge, low-flow, or other sampling techniques are acceptable if they are described in an approved Sampling and Analysis Plan. Depth to groundwater shall be measured to the nearest 0.25 inches. Groundwater elevations shall be calculated. Samples shall be collected using approved USEPA methods.

Groundwater monitoring shall include, at a minimum, the monitoring specified in Table 4 below.

Table 4. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Groundwater Elevation (See 1. below)	0.25 inches	Calculated	Monthly	Quarterly
Depth to Groundwater	0.25 inches	Measurement	Monthly	Quarterly
Total Coliform Organisms	MPN/100 mL	Grab	Quarterly	Quarterly
EC	µmhos/cm	Grab	Quarterly	Quarterly
Nitrate (as Nitrogen)	mg/L	Grab	Quarterly	Quarterly

1. Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the monitoring well/piezometer and a surveyed reference elevation.

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: 240892,
Facility Name: Mira Bella OWTS,
Order: 2014-0153-DWQ-R5379

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).
4. A copy of the logs from the wastewater collection system observations conducted during the quarter. The Discharger shall note if any repairs were conducted or need to be conducted.
5. For each groundwater monitoring well, a table showing the results of groundwater monitoring for the parameters/constituents listed in Table 4 above for at least the last five years, up through the current quarter.

B. Annual Report

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

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. A groundwater monitoring report summarizing the groundwater data collected during the calendar year with an analysis of the data and groundwater flow directions performed under the supervision of a California licensed professional. The report shall include a groundwater contour map based on groundwater elevations for each quarter of the calendar year. The maps shall show the gradient and direction of groundwater flow under/around the facility and/or effluent disposal area for each quarter. The maps shall also include the locations of monitoring wells and subsurface wastewater disposal area. The report shall include an evaluation of the groundwater quality beneath the site and determination of compliance or noncompliance with the Groundwater Limitations specified in Section C.1 of the General Order
3. An evaluation of the performance of the wastewater treatment system, including discussion of the capacity issues, nuisance 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.
4. Copies of laboratory analytical report(s) and chain of custody form(s).
5. 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.
6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
7. 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 **1 December 2022.**

Ordered by:

Original Signed by Clay L. Rodgers for:
PATRICK PULUPA, Executive Officer

11/22/2022
(Date)

GLOSSARY

BOD_5	Five-day biochemical oxygen demand
$CaCO_3$	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	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

ATTACHMENT A
MONITORING AND REPORTING PROGRAM 2014-0153-DWQ-R5379
REQUIREMENTS FOR
MONITORING WELL INSTALLATION WORKPLANS AND
MONITORING WELL INSTALLATION REPORTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2 below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 -Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large-scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- Description of the on-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details:
  - Borehole diameter
  - Casing and screen material, diameter, and centralizer spacing (if needed)

- Type of well caps (bottom cap either screw on or secured with stainless steel screws)
- Anticipated depth of well, length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.

F. Schedule for Completion of Work

G. Appendix: Groundwater Sampling and Analysis Plan (SAP)

The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

Provide a detailed written description of standard operating procedures for the following:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal

- Analytical methods and required reporting limits
- Sample containers and preservatives
- Sampling
  - General sampling techniques
  - Record keeping during sampling (include copies of record keeping logs to be used)
  - QA/QC samples
- Chain of Custody
- Sample handling and transport

SECTION 2 - Monitoring Well Installation Report

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells
- Number of monitoring wells installed and copies of County Well Construction Permits
- Topographic map showing facility location, roads, surface water bodies
- Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

- On-site supervision of drilling and well installation activities
- Drilling contractor and driller’s name
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals and logging methods
- Well boring log (including the following):
  - Well boring number and date drilled
  - Borehole diameter and total depth

- Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
- Depth to first encountered groundwater and stabilized groundwater depth
- Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form).

- Well construction diagram, including:
  - Monitoring well number and date constructed
  - Casing and screen material, diameter, and centralizer spacing (if needed)
  - Length of well casing, and length and position of perforated interval
  - Thickness, position and composition of surface seal, sanitary seal, and sand pack
  - Type of well caps (bottom cap either screw on or secured with stainless steel screws)

D. Well Development:

- Date(s) and method of development
- How well development completion was determined
- Volume of water purged from well and method of development water disposal
- Field notes from well development should be included in report

E. Well Survey (survey the top rim of the well casing with the cap removed):

- Identify the coordinate system and datum for survey measurements
- Describe the measuring points (i.e. ground surface, top of casing, etc.)
- Present the well survey report data in a table

Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix.

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

Jeff Robins
Water Resource Control Engineer
RCE 94056

DATE: 22 November 2022

APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2014-0153-DWQ; GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS; FRESNO COUNTY WATERWORKS DISTRICT NO. 18; MIRA BELLA ONSITE WASTEWATER TREATMENT SYSTEM; FRESNO COUNTY

On 22 April 2004, Rod Strahm (RCE 18303) with Strahm Engineering Associates, Inc. submitted a Report of Waste Discharge (RWD) for the proposed Mira Bella Onsite Wastewater Treatment System (OWTS or Facility) on behalf of Fresno County Waterworks District No. 18 (Discharger). Subsequent submittals/correspondences occurred over the years for the project, including correspondences about installation of a groundwater monitoring well network for the OWTS. On 25 February 2020, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) issued a 13260 Letter requiring the Discharger to submit an updated RWD by 26 May 2020 to enroll the OWTS under State Water Resources Control Board's *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems*, WQ 2014-0153-DWQ (General Order).

On 23 September 2021, Central Valley Water Board staff received a RWD, including Form 200 and a technical report for the OWTS. The RWD was signed and stamped by Michael L. Giersch (RCE 38160) and Kenneth F. Hutchings (RCE 42304) from Giersch and Associates, Inc. On 6 September 2022, the Discharger provided an updated Form 200. This memorandum provides a summary of Central Valley Water Board staff's

review of the RWD, and other provided documents, and the applicability of the Facility's discharge to be covered under the General Order.

BACKGROUND INFORMATION

Waterworks District No. 18 is an independent special district. Independent special districts obtain their authority directly from the community they serve through a governing body that serves independently from other government agencies. The Discharger owns and operates the Facility, which is on Millerton Road, about 1.5 miles south southeast of the Friant Dam on Millerton Lake. Discharges to the OWTS began in 2015 once home construction started for the community.

The Assessor's Parcel Numbers (APN) for components of the system are summarized in Table 1.

Table 1 – Assessor's Parcel Numbers (APN)

Feature	Assessor's Parcel Number
Leach Field and 100% Back-up	300-021-68T
Septic Tanks, Lift Station, Stormwater Basins	300-550-09T

The Facility receives domestic wastewater from 48 residential lots (48 of 58 lots had been developed at the time the September 2021 RWD was submitted). The system is designed for a flow of up to 17,400 gallons per day (gpd) based on 300 gallons per home per day. There are no recreational vehicle (RV) waste connections and RV waste discharge to the OWTS is not authorized.

Attachment C of the NOA is a process flow diagram which provides a schematic overview of the facilities. Gravity sewer lines convey the wastewater to primary clarification community septic tanks. The incoming wastewater feeds into a splitter box, which separates the influent into two equivalent flow volumes. Each split flow is conveyed through a series of two, 15,000-gallon septic tanks (total four septic tanks). Following the septic tanks, wastewater is conveyed to a lift station with duplex pumps (each pump rated at 95 gallons per minute at 142 feet total dynamic head). The wastewater is discharged from the lift station to a leach field through a four-inch diameter force main.

The leach field and 100% back-up area are located on a single parcel. A drainage course runs through the parcel from the northwest to the south and divides the parcel (see Attachment B of the NOA for a Site Plan Map). The primary leach field is on the east side of the parcel. The 100% replacement area is on the west side of the parcel. The leach field consists of six sub-areas that operate on a sequencing basis. Each leach field sub-area contains 500 lineal feet of dosing line rock-filled trench. Trenches are 6.5 feet deep with a width of 1.5 feet. The separation of the trenches is 20 feet.

Both the primary leach field and the 100% back-up leach field are designed to meet the required 50-foot separation between the leach field and the ephemeral stream.

Sludge was removed from the septic tanks from a qualified contractor in 2021. The operator estimates that sludge will be removed once every five years.

POTENTIAL THREAT TO WATER QUALITY

There is no known historical wastewater monitoring data for this facility. To help determine underlying groundwater quality, Central Valley Water Board staff reviewed available well data for nearby wells using the National Water Quality Monitoring Council's Water Quality Portal website (https://www.waterqualitydata.us/portal). Two wells were located within 5.5 miles of the discharge location (Well #A = 011S021E18E001M and Well #B = 001S021E18E001M). The data are summarized in Table 2 below. In Table 2, non-detect readings are shown as "ND". If a detection/reporting limit was provided for an ND reading, it follows the ND reading in parentheses. If two readings were provided for the same day, the average is listed.

Table 2 – Groundwater Quality from Nearby Wells

Constituent/Parameter)	Well #A	Well #B
Date Sampled	5/6/2008	4/17/2008
Well Hole Depth (ft bgs)	200	310
EC (µmhos/cm @ 25°C)	244	413
TDS (mg/L)	204	258
Nitrate (as N) (mg/L)	1.75	4.18
Ammonia and Ammonium (as N) (mg/L)	ND (0.02)	ND (0.02)
Organic Nitrogen	ND (0.14)	ND (0.05)
pH (SU)	7.2	7.8
Hardness (mg/L as CaCO3)	77.7	95.5
Sodium (mg/L)	17.8	42.9
Potassium (mg/L)	4.4	4.36
Chloride (mg/L)	15.0	21.7
Sulfate (mg/L)	8.44	22.5
Alkalinity (mg/L as CaCO3)	86.9	132

Waterworks District No. 18 utilizes three wells for drinking water; Well No.1, Well No. 3, and Well No.7 (locations identified in Attachment B of the NOA). The well water is treated for iron and manganese removal via oxidation (liquid sodium hypochlorite) and filtration (manganese greensand filtration). The most recent untreated source water quality test results are shown in Table 3 below. The Safe Drinking Water Information System (https://sdwis.waterboards.ca.gov/PDWW/index.jsp) provides the source water quality data.

Table 3 – Source Water Quality

Constituent/Parameter	Well No.1	Well No.3	Well No.7
Date Sampled	4/12/2021	4/12/2021	4/12/2021
EC (µmhos/cm @ 25ºC)	830	1,200	370
Total Dissolved Solids (mg/L)	540	830	210
Nitrate as Nitrogen (mg/L)	<0.4	<0.4	2
Hardness, Total (mg/L as $CaCO_3$)	300	500	100
Sodium (mg/L)	37	62	22
Potassium (mg/L)	10	13	7.4
Chloride (mg/L)	32	42	14
Sulfate (mg/L)	190	380	44
Total Alkalinity (mg/L as $CaCO_3$)	190	220	94
Manganese (µg/L)	610	460	230
Iron (µg/L)	4,600	14,000	9,300

Well No. 1 was originally drilled to 630 feet in 1993 and was later deepened in 1993 to 810 feet. The well has a steel casing to a depth of 59 feet and is an open bore from 59 feet to 810 feet. The casing has a bentonite seal to a depth of 50 feet. Well No .3 was drilled in 1980 to a depth of 330 feet and was deepened in 1993 to 950 feet. It has a steel casing to a depth of 51 feet and a cement grout annular seal to a depth of 50 feet. Well No. 7 was drilled in 1980 to a depth of 600 feet. A steel casing was installed to a depth of 82 feet. A cement grout annular seal was provided to a depth of 50 feet. In 2006 the well was cleaned and an 8-inch liner was installed to a depth of 470 feet. In 2007 Well No. 7 was deepened to 820 feet.

Backwash water for the manganese greensand filters is stored in a steel 28,694-gallon storage tank (tank dimensions are around 24 feet diameter and 8 feet high). The backwash tank and manganese greensand filters are located next to the 214,000-gallon water storage tank (Attachment B). Filter backwash water is allowed to settle. The clarified water is then decanted and pumped back into the headworks of the drinking water treatment plant. The backwash water storage tank has effluent discharge outlets at two feet, three feet, four feet, and five feet above the bottom of the tank to allow decanting from various heights. As of 31 May 2019, no sludge has reportedly been removed from the filter backwash storage tank, but the plan is to remove and haul sludge offsite as necessary.

Based on data collected at the site (i.e., test pits), groundwater was encountered around eight to ten feet below the ground surface at the leach field. As previously noted, the disposal area straddles a surface water drainage course. In an 8 August 2005 Central Valley Water Board letter, staff notes the original Report of Waste Discharge for the OWTS stated groundwater monitoring wells would be installed prior to use of the disposal area. Therefore, the 8 August 2005 letter required the submittal of a groundwater monitoring workplan for approval by 7 October 2005. A workplan was submitted on 21 August 2007, and a revised workplan was submitted on 28 July 2008. In a 5 September 2008 letter, Central Valley Water Board staff determined the revised

workplan, dated 28 July 2008, was incomplete and requested a resubmittal of the workplan by 6 October 2008.

Based on staff's review, there is no record that a revised groundwater monitoring work plan was submitted, and it does not appear groundwater monitoring wells have been installed at the site. Therefore, the MRP should require the Discharger to submit a revised groundwater monitoring work plan to install the appropriate amount of monitoring wells around the leach field to characterize groundwater quality upgradient and downgradient of the leach field.

MONITORING REQUIREMENTS

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

- Septic Tank Monitoring;
- Subsurface Disposal Area Monitoring;
- Solids Disposal Monitoring; and
- Groundwater Monitoring

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 design capacity for the facility is 17,400 gpd. Therefore, a Nitrogen Effluent Limit Evaluation is not required for the Facility.

SALT AND NITRATE CONTROL PROGRAMS

As part of the Central Valley Salinity Alternatives for Long Term Sustainability (CVSALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (Resolution R5-2018-0034). Pursuant to the Basin Plan amendments, dischargers were sent a Notice to Comply on 5 January 2021 with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments. Upon receipt of the Notice to Comply, the Discharger was given until 15 July 2021 to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). The Discharger signed up for the P&O study and paid their fee on 7 December 2021. The Discharger submitted a Notice of Intent for the Salt Control Program (CV SALTS ID: 2282) on 6 September 2022.

For the Nitrate Control Program, the OWTS is not within a prioritized basin. The San Joaquin Valley-Kings (Basin 5.022.08) is the nearest basin/sub-basin, about one-half mile to the west. Implementation within an unprioritized basin/sub-basins will occur at the direction of the Executive Officer. More information on the Salt and Nitrate Control

Programs can be found at the CV-SALTS Website (https://www.cvsalinity.org/public-info).