

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2022-0026
FOR
CITY OF FARMERSVILLE
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

This Monitoring and Reporting Program (MRP), which is separately issued pursuant to Water Code section 13267, subdivision (b)(1), establishes monitoring and reporting requirements related to the waste discharges regulated under Waste Discharge Requirements Order R5-2022-0026 (WDRs Order). Each of the Findings set forth in the WDRs Order, including those pertaining to the need for submission of reports, are hereby incorporated as part of this MRP.

The City of Farmersville (Discharger) owns the wastewater treatment facility (WWTF) that are subject to the WDRs Order, and the monitoring reports are necessary to determine compliance with the WDRs Order. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopts, or the Executive Officer issues, a revised MRP.

A glossary of terms used in this MRP is included on the last page.

This MRP Order may be separately revised by the Executive Officer, in accordance with their delegated authority under Water Code section 13223.

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 the requested reduction in monitoring frequency.

I. GENERAL MONITORING REQUIREMENTS

A. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. The measurements may be based on flow meter readings or pump run time estimate. The method of measurement must be specified. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request.

B. MONITORING AND SAMPLING LOCATIONS

Samples shall be obtained at the monitoring points specified in this MRP. The Central Valley Water Board Executive Officer shall approve any proposed changes to sampling locations prior to implementation of the change.

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this MRP:

Table 1 - Monitoring Location Designations

Monitoring Location	Monitoring Location Description
INF-001	Location where a representative sample of the WWTF influent can be obtained prior to any additives, treatment processes, and WWTF return flow.
EFF-001	Location where a representative sample of the WWTF effluent can be obtained after treatment and prior to discharge to the evaporation/percolation ponds.
PND-001 through PND-010	Evaporation/Percolation Ponds 1 through Pond 10.
PWS-001	Public water supply for the City of Farmersville
MW-1C, MW-2C, MW-3C, MW-4C, MW-5C, MW-1D, MW-2D, MW-3D, MW-4D, and MW-5D	Existing groundwater monitoring wells and any future monitoring wells added to the WWTF's groundwater monitoring network.
BIO-001	Sludge/Biosolids monitoring

C. SAMPLING AND SAMPLE ANALYSIS

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater. The time, date, and location of each sample shall be recorded on the sample chain of custody form. 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.

Field test instruments (such as those used to measure pH, temperature, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA);

- *Test Methods for Evaluating Solid Waste* (EPA);
- *Methods for Chemical Analysis of Water and Wastes* (EPA);
- *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA);
- *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and
- *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125).

Approved editions shall be those that are approved for use by the United States Environmental Protection Agency (EPA) or the State Water Resources Control Board (State Water Board), Division of Drinking Water's Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

II. SPECIFIC MONITORING REQUIREMENTS

A. INFLUENT MONITORING (INF-001)

The Discharger shall monitor the influent to the Facility at INF-001. **By 21 October 2022**, the Discharger shall install an influent composite sampler and notify the Central Valley Water Board in writing. Influent monitoring shall include the following:

Table 2 – Influent Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
pH	pH Units	Grab	1/Week
EC	µmhos/cm	24-hour Composite (See 1 below)	1/Week
BOD ₅	mg/L	24-hour Composite (See 1 below)	1/Week
TSS	mg/L	24-hour Composite (See 1 below)	1/Week

1. Upon installation of the influent composite sampler at INF-001, **by 21 October 2022**, the Discharger shall begin collecting 24-hour composite samples.

B. EFFLUENT MONITORING (EFF-001)

Effluent samples shall be collected after treatment and prior to discharge to the evaporation/percolation ponds. Effluent monitoring shall include at least the following:

Table 3 – Effluent Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
EC	µmhos/cm	24-hour Composite	1/Week
TDS	mg/L	24-hour Composite	1/Week
BOD ₅	mg/L	24-hour Composite	1/Week
TSS	mg/L	24-hour Composite	1/Week
Nitrate (as N)	mg/L	24-hour Composite	1/Month
Nitrite as N	mg/L	24-hour Composite	1/Month
TKN	mg/L	24-hour Composite	1/Month
Total Nitrogen	mg/L	24-hour Composite	1/Month
Iron	mg/L	24-hour Composite	1/Quarter
Manganese	mg/L	24-hour Composite	1/Quarter
General Minerals	mg/L	24-hour Composite	1/Year

C. POND MONITORING (PND-001 THROUGH PND-010)

The Discharger shall monitor the evaporation/percolation ponds (i.e., Pond 1 through Pond 10) when wastewater is present. Water quality samples (e.g., DO, pH, and EC) shall be collected opposite the pond inlet at a depth of one foot. Freeboard shall be measured to the nearest 0.1 foot vertically from the surface of the water to the lowest elevation of the berm. At a minimum, the ponds shall be monitored as specified in Table 4 below:

Table 4 – Pond Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
DO	mg/L	Grab	1/Week (see 1 and 2 below)
pH	pH Units	Grab	1/Week (see 1 and 2 below)
EC	µmhos/cm	Grab	1/Week
Freeboard	Nearest 0.1 Feet	Measured	1/Week
Odors	--	Observation	1/Week
Solids Depth	Feet	Measured	Once every 5 years (see 3 below)

1. Samples for DO and pH shall be collected between 8:00 am and 10:00 a.m. when there is more than one foot of water in the pond. If there is insufficient water in the pond no sample shall be collected, and the Discharger shall report that in the appropriate monitoring report.
2. If offensive odors are detected by or brought to the attention of the Discharger, the Discharger shall monitor the potential source pond at least daily for DO and pH until the odor issue has been resolved and the DO in the pond is greater than 1.0 mg/L.

3. Thickness of settled solids accumulated at the bottom of the ponds shall be monitored at a minimum at least once every three years, unless solids are removed from the pond.

In addition, the Discharger shall inspect the condition of the evaporation/percolation ponds once per week and document visual observations. Notations shall include observations of:

- a. Weeds developing in the water or along the bank;
- b. Accumulations of dead algae, vegetation, scum, or debris on the pond surface; and
- c. Burrowing animals or insects are present.

A summary of these entries shall be included in the subsequent monitoring report.

D. PUBLIC WATER SUPPLY MONITORING (PWS-001)

The Discharger shall monitor the public water supply for the City at PWS-001. If the supply is from more than one source the sample shall be a flow weighted average of all sources. At a minimum, the public water supply shall be monitored as specified in Table 5 below. In addition, the Discharger shall submit a copy of the City’s most recent Consumer Confidence Report for each 4th quarter monitoring report.

Table 5 – Source Water Monitoring

Parameter	Units	Sample Type	Frequency
EC	µmhos/cm	Grab	1/Quarter

E. GROUNDWATER MONITORING (MW-01C THROUGH MW-05C, MW-01D THROUGH MW-05D AND FUTURE MONITORING WELLS ADDED)

After measuring water levels and prior to collecting samples, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Purging shall continue until pH, EC, and turbidity have stabilized. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 casing volumes.

The Discharger shall monitor the current shallow wells (MW-01C through MW-05C) if water is available. If water is not available in the shallow wells, the Discharger shall monitor the deeper wells (MW-01D, MW-02D, MW-03D, MW-04D, and MW-05D) and any subsequent additional wells as follows:

Table 6 – Groundwater Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
Depth to Groundwater	0.10 Feet	Measured	1/Quarter
Groundwater Elevation (see 1 below)	Feet	Calculated	1/Quarter
Groundwater Gradient	Feet/Feet	Calculated	1/Quarter

Constituent/Parameter	Units	Sample Type	Frequency
pH	pH Units	Grab	1/Quarter
EC	µmhos/cm	Grab	1/Quarter
TDS	mg/L	Grab	1/Quarter
Total Coliform Organisms	MPN/100 mL	Grab	1/Quarter
Nitrate (as N)	mg/L	Grab	1/Quarter
Iron	mg/L	Grab	1/Quarter (see 2 below)
Manganese	mg/L	Grab	1/Quarter (see 2 below)
General Minerals	mg/L	Grab	1/Year (see 2 below)

1. Groundwater elevation shall be calculated based on depth-to-water measurements from a surveyed measuring point.
2. For constituents with Secondary MCLs listed in Title, 22 Table 64449-A (e.g., aluminum, copper, iron, manganese, silver, zinc, color and turbidity), samples shall be filtered with a 1.5-micron filter prior to preservation, digestion, and analysis. For all other constituents, samples shall be filtered with a 0.45-micron filter prior to preservation, digestion, and analysis.

In addition, the Discharger shall maintain its groundwater monitoring well network. If a groundwater monitoring well(s) is dry for more than four consecutive sampling events or is damaged, the Discharger shall submit a work plan and proposed time schedule to replace the well(s). The well(s) shall be replaced following written Executive Officer approval of the work plan and time schedule. Once installed, all new monitoring wells shall be added to the existing groundwater monitoring well network.

F. SLUDGE/BIOSOLIDS MONITORING (BIO-001)

A composite sample of dewatered sludge/biosolids shall be collected at Monitoring Location BIO-001 in accordance with US EPA's *POTW Sludge. Sampling and Analysis Guidance Document*, (August 1989) and tested for the metals listed in Title 22 whenever sludge/biosolids is removed from the WWTF for disposal. Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge qualities generated and handling, application, and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the Annual Monitoring Report.

III. REPORTING REQUIREMENTS

All monitoring reports 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 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board
Region 5 – Fresno Office
1685 “E” St.
Fresno, California 93706

To ensure that your submittal is routed to the appropriate staff, the following information should be included in the body of the email or transmittal sheet:

Program: Non-15
Facility: City of Farmersville, Wastewater Treatment Facility
Order: R5-2022-0026
County: Tulare
Place ID: 273113

A transmittal letter shall accompany each monitoring report. The transmittal letter shall include a discussion of all violations of this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory.

The transmittal letter shall contain a statement by the Discharger or the Discharger’s authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer’s knowledge. 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.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, groundwater, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

Laboratory analysis reports shall be included in the monitoring reports. In addition, all laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3. of the SPRRs. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

A. QUARTERLY MONITORING REPORTS

Quarterly Monitoring Reports shall be prepared and submitted to the Central Valley Water Board by the **1st day of the second month following the quarter** (i.e., the January-March quarterly report is due by 1st May). Each Quarterly Monitoring Report shall include the following:

1. Results of the **Influent Monitoring** as specified in Section II.A., including:
 - a. Calculation of the maximum daily and monthly average flow for each month of the quarter.
 - b. Calculation of the average EC value of the influent for each month of the quarter.
 - c. Calculation of the monthly average BOD and TSS concentrations.
2. Results of the **Effluent Monitoring** as specified in Section II.B., including:
 - a. Calculation of the 12-month rolling average EC of the discharge for each month of the quarter using the EC value for that month averaged with the EC values for the previous 11 months (results must include supporting calculations); and
 - b. Calculation of the monthly average effluent BOD and TSS concentrations, and calculation of the percent removal of the BOD and TSS compared to the influent for each month of the quarter.
3. Results of the **Pond Monitoring** as specified in Section II.C.
4. Results of the **Groundwater Monitoring** as specified in Section II.E. (for the 1st and 3rd Quarterly Monitoring Reports), including:
 - a. A narrative description of all preparatory, monitoring, sampling, and sample handling for groundwater monitoring.

- b. A field log for each well documenting depth to groundwater; sample preparation (e.g., filtering); and sample preservation. For each sampling event, the Discharger may provide a table summarizing this information for all groundwater monitoring wells sampled in lieu of providing a field log for each well. The field logs should be made available on request of the Central Valley Water Board.
 - c. Calculation of groundwater elevation at each monitoring well, and determination of groundwater flow direction and gradient on the date of the measurement.
 - d. For each monitoring well, a table showing groundwater depth, elevation, and constituent concentrations for at least the five previous years, up through the current quarter.
 - e. Summary data tables of analytical results collected during the quarter and the current water table elevations.
 - f. A scaled map showing relevant structures and features of the Facility, the locations of monitoring wells, surface waters, and groundwater elevation contours referenced to an appropriate datum (e.g., National Geodetic Vertical Datum).
5. A comparison of monitoring data with the Effluent Limitations and Discharge Specifications specified in the WDRs Order. Include an explanation for any violations.
 6. Copies of all laboratory analytical reports.
 7. A copy of calibration log page(s) verifying calibration of all hand-held monitoring instruments used during the quarter.

B. FOURTH QUARTER MONITORING REPORT

In addition to the above information, the fourth quarter monitoring report, due **1st February of each year** shall include the following:

1. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.
2. The names and telephone numbers of persons to contact regarding the WWTF for emergency and routine situations.
3. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).

4. The results of an annual evaluation conducted pursuant to Standard Provisions E.4 and a figure depicting monthly average discharge flow for the previous three calendar years.
5. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.
6. An evaluation of the facility's annual average effluent EC (monitored at EFF-001) to the Salinity Action Level of 700 $\mu\text{mhos/cm}$. If the facility's discharge exceeds the Salinity Action Level, the Discharger shall submit a Salinity Action Level Report by 1 March of the year following the exceedance of the Salinity Action Level as described in the WDRs Order.
7. Results of the **Public Water Supply Monitoring** as specified in Section II.D. If multiple sources are used, the Discharger shall calculate the flow-weighted average concentrations for each constituent monitored. Results must include supporting calculations.
8. Copy of the Public Water System's most recent Consumer Confidence Report.
9. Tabulated summary of all monitoring data collected over the year.
10. A statement whether the current operation and maintenance manual, sampling plan, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last reviewed for adequacy.
11. Annual production of total sludge/biosolids in dry tons or cubic yards (if applicable).
12. A description of the sludge/biosolids disposal methods (if applicable), including the following information related to the disposal methods used. If more than one method is used, including the percentage disposed of by each method.
 - a) For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
 - b) For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
 - c) For incineration, include: the name and locations of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving as (if applicable).

- d) For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

C. VOLUMETRIC REPORTING

Per [State Water Resources Control Board's Water Quality Control Policy](https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/) (https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/), amended in December 2018, dischargers of treated wastewater and recycled water are required to report annually monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. The Discharger shall submit an annual report to the State Water Board by April 30 of each calendar year furnished with the information detailed below. The Discharger must submit this annual report containing monthly data in electronic format via the [State Water Board's Internet GeoTracker system](http://geotracker.waterboards.ca.gov/) (<http://geotracker.waterboards.ca.gov/>). Required data shall be submitted to the GeoTracker database under a site-specific global identification number. Any data will be made publicly accessible as machine readable datasets. The Discharger must report all applicable items listed below:

1. **Influent.** Monthly volume of influent wastewater collected and treated by the wastewater treatment facility.
2. **Production.** Monthly volume of wastewater treated, specifying level of treatment.
3. **Discharge.** Monthly volume of treated wastewater discharged to each of the following, specifying level of treatment:
 - a) Inland surface waters, specifying volume required to maintain minimum instream flow.
 - b) Enclosed bays, estuaries and coastal lagoons, and ocean waters.
 - c) Natural systems, such as wetlands, wildlife habitats, and duck clubs, where augmentation or restoration has occurred, and that are not part of a wastewater treatment plant or water recycling treatment plant.
 - d) Underground injections wells, such as those classified by U.S. EPA's Underground Injection Control Program, excluding groundwater recharge via subsurface application intended to reduce seawater intrusion into a coastal aquifer with a seawater interface.
 - e) Land, where beneficial uses is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture or fields with harvested crops.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 MRP, 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 (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided on request.

The Discharger shall implement the above monitoring program **starting 1 May 2022**.

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of the Monitoring and Reporting Program R5-2022-0026 issued by the California Regional Water Quality Control Board, Central Valley Region, on 21 April 2022.

PATRICK PULUPA, Executive Office

IV. 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. Annual samples shall be collected in the third quarter between July and September.
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
General Minerals	Analysis shall include; alkalinity (as CaCO ₃), bicarbonate (as CaCO ₃), boron, calcium, carbonate (as CaCO ₃), chloride, iron, magnesium, manganese, nitrate as N, phosphate, potassium, sodium, sulfate, and verification that the analysis is complete (i.e., cation/anion balance).