CALIFORNIA REGIONAL WATER QUALITY CONTORL BOARD
CENTRAL VALLEY REGION
MONITORING AND REPORTING PROGRAM WQ 2014-0153-DWQ-R5378
FOR
VALLEY SPRINGS PUBLIC UTILITY DISTRICT
VALLEY SPRINGS WASTEWATER TREATMENT PLANT
CALAVERAS COUNTY

This Monitoring and Reporting Program (MRP) describes monitoring requirements for Valley Springs Wastewater Treatment Plant. This MRP is issued pursuant to Water Code section 13267. The 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.

Water Code section 13267 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."

Water Code section 13268 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 any 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 Valley Springs Public Utility District owns and operates the wastewater system that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5378. The reports 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 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.

Analytical procedures shall comply with the methods and holding times specified in the following: 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 or the California Department of Public Health’s Environmental Laboratory Accreditation Program. 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.

INFLUENT MONITORING

Influent samples shall be collected at the same frequency and at approximately the same time as effluent samples and should be representative of the influent at the headworks prior to treatment. Influent monitoring shall include, at a minimum the following:

Constituents	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gpd	Meter Observation	Daily	Monthly
Monthly Average Flow	gpd	Calculation	-	Monthly
BOD_5	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Nitrite as Nitrogen	mg/L	Grab	Monthly	Monthly
Ammonia as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Calculated	Monthly	Monthly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Monthly

Note: BOD_5 presents five -day biochemical oxygen demand.

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted to the storage reservoir. At a minimum, effluent monitoring shall consist of the following:

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow Rate	gpd	Metered or Estimate	Monthly	Monthly
BOD_5, see note No.1	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Nitrite as Nitrogen	mg/L	Grab	Monthly	Monthly
Ammonia as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Calculated	Monthly	Monthly
Total Coliform Organisms, see note No.2	MPN/100 mL	Grab	Monthly	Monthly
Total Nitrogen Reduction, see note No.3	percent	Calculated	--	Annually
Standard Minerals, see note No.4	mg/L	Grab	Annually	Annually

Notes:

1) BOD_5 presents five -day biochemical oxygen demand.
2) Effluent samples collected for total coliform organism analysis shall be collected at a point after disinfection and prior to discharge to the LAAs.

3) Effluent total nitrogen reduction percent shall be calculated on an annual basis comparing with the effluent nitrogen limitation in the NOA (Data shall be presented in tabular format).

4) Standard Minerals shall include, at a minimum, the following elements and compounds: arsenic, boron, calcium, chloride, dissolved iron, dissolved manganese, magnesium, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness. Samples for metals shall be filtered prior to preservation and digestion using a 0.45-micron filter.

POND MONITORING

Each pond shall be monitored as follows. If the pond(s) is empty on the scheduled monitoring date, the Discharger shall report the freeboard monitoring result as “dry”.

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Dissolved Oxygen	mg/L	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly
Levee condition	--	Observation	Weekly	Monthly

Samples shall be collected at a depth of one foot, opposite the inlet. Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees.

LAND APPLICATION AREA MONITORING

Monitoring of the LAAs shall be conducted when the disposal areas are used, and the results shall be included in the monthly monitoring report. Evidence of erosion, saturation, irrigation runoff, or the presence of nuisance conditions shall be noted in the report. Effluent monitoring results shall be used in calculations to ascertain loading rates at the spray disposal areas. Monitoring of the LAAs shall include the following:

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	gallons	Continuous	Daily	Monthly
Rainfall	inches	Observation	Daily	Monthly
Acreage Applied, see note No.1	acres	Calculated	Daily	Monthly
Water Application Rate	gal/acre/day	Calculated	Daily	Monthly
Total Nitrogen Loading Rate, see note No.2	lbs/ac/month	Calculated	Monthly	Monthly
Total Dissolved Solids Loading Rate, see note No. 2	lbs/ac/month	Calculated	Monthly	Monthly

Notes:

1) Specific disposal fields shall be identified.
2) Calculated average for each disposal field area.

At least once per week when the LAAs are being used, the entire LAAs shall be inspected to identify any equipment malfunction or other circumstances that might allow irrigation runoff to leave the irrigation area and/or create ponding conditions. A daily log of each inspection shall be kept at the facility and be submitted with the monthly monitoring reports. If the LAAs are not used, then the monthly monitoring reports shall state so.

GROUNDWATER MONITORING

Prior to sampling, depth to groundwater measurements shall be measured in each monitoring well to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction. Monitoring wells to be sampled shall be purged of at least three well volumes until temperature, pH, and electrical conductivity have stabilized. Low or no-purge sampling methods are acceptable, if described in an approved *Sampling and Analysis Plan*. Samples shall be collected and analyzed using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Groundwater Elevation, see note No.1	0.01 feet	Measurement	Semi-annually	Semi-annually
Depth to Groundwater	0.01 feet	Calculated	Semi-annually	Semi-annually
Gradient	feet/feet	Calculated	Semi-annually	Semi-annually
Gradient Direction	degrees	Calculated	Semi-annually	Semi-annually
Total Coliform Organisms	MPN/100 mL	Grab	Semi-annually	Semi-annually
Nitrate as Nitrogen	mg/L	Grab	Semi-annually	Semi-annually
Nitrite as Nitrogen	mg/L	Grab	Semi-annually	Semi-annually
Ammonia as Nitrogen	mg/L	Grab	Semi-annually	Semi-annually
Total Kjeldahl Nitrogen	mg/L	Grab	Semi-annually	Semi-annually
Electrical Conductivity	µmhos/cm	Grab	Semi-annually	Semi-annually
Total Dissolved Solids	mg/L	Grab	Semi-annually	Semi-annually
pH	pH units	Grab	Semi-annually	Semi-annually
Total Trihalomethanes, see note No.2	µg/L	Grab	Semi-annually	Semi-annually
Standard Minerals, see note No.3.	mg/L	Grab	Annually	Annually

Notes:

1) Groundwater elevations shall be based on depth-to-water data using a surveyed measuring point elevation on the well and a surveyed reference elevation.

2) EPA Method 8020 or equivalent.
3) Standard Minerals shall include, at a minimum, the following elements and compounds: arsenic, boron, calcium, chloride, dissolved iron, dissolved manganese, magnesium, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness. Samples for metals shall be filtered prior to preservation and digestion using a 0.45-micron filter.

SLUDGE AND SOLID WASTE MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. 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.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Water supply monitoring may be substituted with the annual report of the supplying agency. Water supply monitoring shall include at least the following:

Constituent	Units	Sample Type	Sampling and Reporting Frequency
Total Dissolved Solids	mg/L	Grab	Annually
Electrical Conductivity	µmhos/cm	Grab	Annually
Standard Minerals	mg/L	Grab	Annually

Standard Minerals shall include, at a minimum, the following elements and compounds: arsenic, boron, calcium, chloride, dissolved iron, dissolved manganese, magnesium, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

REPORTING

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: centralvalleysacramento@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
ECM Mailroom
11020 Sun Center Drive, Suite 200
Rancho Cordova, California 95670

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any correspondence used to transmit documents to this office:

Facility Name: Valley Spring Wastewater Treatment Plant
Program: Non-15 Compliance
Order: WQ 2014-0153-DWQ-R378
CIWQS Place ID: CW-270105

In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, 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 the NOA and General Order and spatial or temporal trends, 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 scheduled monitoring report.

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.

If violations occur, the Discharger shall notify the Central Valley Water Board within 10 business days after receiving the analytical laboratory reports.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Board by the **1st day of the second month** following the end of the reporting period (i.e. the January monthly report is due by 1 March). At a minimum, the reports shall include:

1. Results of the influent, effluent, pond, land application area, and solid wastes and sludge monitoring;

2. Copies of inspection logs;

3. A comparison of the monitoring data to the discharge specifications and an explanation of any violation of those requirements;

4. If requested by staff, copies of laboratory analytical report(s), and

5. Date(s) on which the monitoring instruments were calibrated.

B. Semi-annual Monitoring Report

The Discharger shall establish a semi-annual sampling schedule for groundwater monitoring such that samples are obtained approximately every six months. Semi-Annual Monitoring Reports shall be submitted to the Central Valley Water Board by the **1st day of February and August**. The Semi-Annual Monitoring Reports shall include the following:

1. Results of groundwater monitoring;

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the NOA, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of the casing volume; and total volume of water purged;

3. Calculation of groundwater elevations, an assessment of the groundwater flow direction and gradient on the date of measurement, comparison to previous flow direction and gradient data, and discussion of seasonal trends, if any;

4. A narrative discussion of the analytical results for all media and locations monitored, including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);

5. A comparison of monitoring data to the discharge specifications, groundwater limitations and surface water limitations, and explanation of any violation of those requirements;

6. Summary data tables of historical and current water table elevations and analytical results;

7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and other sampling stations, and groundwater elevation contours referenced to mean sea level datum, and

8. Copies of laboratory analytical report(s).

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Engineer or Geologist and signed by the registered professional.

C. Annual Report

The Annual Report shall be submitted to the Central Valley Water Board by **1 February** each year. The Annual Report shall include the following:

1. The results from monitoring of the effluent, groundwater, water supply and sludge and solid waste;

2. Summary of monthly flow rates during the year, the annual total influent flow rate and average dry weather influent flow rate;

3. An I/I Analysis Report based on analysis of seasonal influent rate variation and any proposed tasks to reduce I/I for the next year;

4. A comparison of monitoring data to the discharge specifications, applicable effluent limits, 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);

5. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the NOA and General Order;

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

7. Tabular and graphical summaries of all data collected during the year, and

8. A copy of the certification for each certified wastewater treatment plant operator working at the facility and a statement about whether the Discharger is in compliance with Title 23, CCR, Division 3, Chapter 26.

D. State Water Board Volumetric Annual Reporting

Per State Water Resources Control Board's Water Quality Control 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 thisannual report containing monthly data in electronic format via the State Water Board's Internet GeoTracker system (http://geotracker.waterboards.ca.gov/). Required data shall be submitted to the GeoTracker database under a site-specificglobal 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 wastewater collected and treated by thewastewater treatment plant.

2. **Production.** Monthly volume of wastewater treated, specifying level of treatment.

3. **Discharge.** Monthly volume of treated wastewater discharged to land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture of fields with harvested grounds.

4. **Reuse.** Monthly volume of recycled water distributed.

5. **Reuse Categories.** Annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, Title 22 in each of the use categories listed below:

    a. Agricultural irrigation: pasture or crop irrigation.

    b. Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.

    c. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.

    d. Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.

    e. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.

    f. Geothermal energy production: augmentation of geothermal fields.

    g. Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.

h. Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use.

i. Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in section 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir (Water Code § 13561).

j. Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system as defined in section 116275 of the Health and Safety Code (Water Code§ 13561).

k. Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory.

The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program on the first day of the month following rescission of WDRs Order R5-2005-0066.

This Order is issued under authority delegated to the Executive Officer by the Central Valley Water Board pursuant to Resolution R5-2018-0057 and is effective upon signature.

Ordered by: *Original Digitally Signed*
by John J. Baum on Date: 2023.04.28
10:20:49-07'00'

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for PATRICK PULUPA, Executive Officer

28 April 2023
(Date)