

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ATTACHMENT E MONITORING AND REPORTING PROGRAM NO. R5-2010-R5065
FOR
THE ELK GROVE UNIFIED SCHOOL DISTRICT
COSUMNES RIVER ELEMENTARY SCHOOL
SACRAMENTO COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the influent, effluent, filtration system inspection, septic tank inspection and monitoring, subsurface dispersal area, groundwater, and septic tank and sludge disposal. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless a revised MRP has been issued by the 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 facility that is subject to the Notice of Applicability (NOA) of Water Quality Order No. 97-10-DWQ. The reports are necessary to ensure that the Discharger complies with the NOA and water quality objectives (WQO). Pursuant to Section 13267 of the California Water Code, 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 time, date, and location of each grab sample shall be recorded on the sample chain of custody form.

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

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 submitted as described in the "Reporting" section of this MRP.

INFLUENT MONITORING

Influent flow shall be monitored prior to the primary septic tank. At a minimum, influent monitoring shall consist of the following:

Constituent/Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow ¹	gpd	Meter	Weekly	Monthly

¹ Flow represents the total combined daily flow to the treatment systems, measured weekly to calculate the average daily flow for the month.

EFFLUENT MONITORING

Effluent samples shall be taken immediately after UV disinfection and prior to subsurface disposal. At a minimum, effluent monitoring shall consist of the following:

Constituent/Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow ¹	gpd	Meter	Weekly	Monthly
BOD ₅	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Grab	Monthly	Monthly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Monthly
Total Coliform Organisms	MPN/100mL ²	Grab	Monthly	Monthly

¹ At a minimum, the total flow shall be measured weekly to calculate the average daily flow for the month.

² MPN denotes most probable number per 100mL.

Effluent sampling shall be conducted concurrently with influent monitoring. The total average daily flow shall be calculated on a monthly basis. Time of collection of grab samples shall be recorded.

FILTRATION SYSTEM INSPECTION

The Discharger shall inspect the filtration system at least weekly and test, adjust, repair, or replace system components as needed to ensure continuous optimal function. The facility inspection and repair information shall include the name of the person conducting the inspection, date of inspection, problems identified, repairs recommended, repairs completed, and dates of completion. At a minimum, the inspection shall include the following elements:

Item	Inspection Frequency	Reporting Frequency
Filter system valves, pumps, switches	Weekly	Monthly
Effluent pumps and switching system	Weekly	Monthly
Flow metering system function	Weekly	Monthly
Visible piping systems and control valves	Weekly	Monthly

SEPTIC TANK INSPECTION AND MONITORING

The Discharger shall monitor each septic tank as follows:

Parameter	Units	Type of Measurement	Inspection Frequency	Reporting Frequency
Septic tank valves, pumps, and switching system	NA	Observation	Weekly	Monthly
Sludge depth and scum thickness in each tank	Feet	Staff Gauge	Annually	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually	Annually

A septic tank shall be pumped when any one of the following conditions exists or may exist before the next inspection:

- a. The combined thickness of sludge and scum exceeds one-third of the tank depth; or
- b. The bottom of the scum layer is within three inches of the outlet device; or
- c. The top of the sludge layer is within eight inches of the outlet device.

An inspection is not required during the year a septic tank is pumped. In lieu of septic tank measuring, the septic tank may be pumped annually. The results of monthly inspections and waste disposal shall be reported in the monthly and annual reports.

SUBSURFACE DISPERSAL AREA MONITORING

Inspections of the subsurface dispersal areas shall be performed weekly. Subsurface dispersal area monitoring shall consist of visual inspection of the dispersal areas and nearby areas. The dispersal areas and nearby areas shall be inspected for the presence of wet areas, leachate or groundwater seepage, objectionable odors, and/or unexpected plant growth. The inspection report shall document the dates of discharge to each dispersal areas and include any findings of surfacing effluent. Records of inspection shall be stored onsite and available for review during inspections.

GROUNDWATER MONITORING

All wells (MW-4002, -4004, -4005, -4006, -4007, and -4008) identified in the groundwater monitoring well network in the NOA, as well as any wells installed thereafter, shall be sampled and analyzed according to the schedule below. Prior to sampling, the groundwater elevations shall be measured and the wells shall be purged at least three well volumes until temperature, pH, and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Samples shall be collected using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling and Reporting Frequency
Depth to Groundwater	0.01 feet	Measurement	Annual ²
Groundwater Elevation ¹	0.01 feet	Calculated	Annual ²
Gradient	feet/feet	Calculated	Annual ²
Gradient Direction	Degrees	Calculated	Annual ²
Total Dissolved Solids	mg/L	Grab	Annual ²
Electric Conductivity	µmhos/cm	Grab	Annual ²
Total Nitrogen	mg/L	Grab	Annual ²
Nitrate as Nitrogen	mg/L	Grab	Annual ²
pH	pH units	Grab	Annual ²
Chloride	mg/L	Grab	Annual ²
Total Coliform Organisms	MPN/100 mL	Grab	Annual ²

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

² Annual samples shall be obtained during the third quarter between the months of July and September.

SEPTIC AND SLUDGE DISPOSAL MONITORING

The Discharger shall keep records regarding sludge generated at the treatment plant, septage removed from the primary septic tanks, the quantity of sludge removed for disposal, and steps taken to prevent nuisance conditions. Records shall be stored onsite and available for review during inspections, and shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the facility, the disposal facility

name and address, and all 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, sludge, etc.), constituents, 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 to the Central Valley Water Board.

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 and stamped by the registered professional.

A. Monthly Monitoring Reports

Monthly monitoring reports shall be submitted to the Central Valley Water Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the monthly monitoring reports shall include:

1. Results of influent monitoring, effluent monitoring, filtration system inspection, septic tank inspection and monitoring, and subsurface dispersal area monitoring.
2. A comparison of monitoring data to the discharge specifications, disclosure of any violations of the General Order, and an explanation of any violation of those requirements. Data shall be presented in tabular format.
3. Copies of current calibration logs for all field test instruments.
4. If requested by staff, copies of laboratory analytical report(s).
5. Any tank pumping activity.

B. 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. Results of the annual groundwater monitoring including the following:
 - a. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be detailed to verify compliance with the NOA and General Order, 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 casing volume; and total volume of water purged;
- b. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;
 - c. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
 - d. Summary data tables of historical and current water table elevations and analytical results;
 - e. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum; and
 - f. Copies of laboratory analytical report(s) for groundwater monitoring.
2. Tabular and graphical summaries of all data collected during the year.
 3. An evaluation of the performance of the wastewater treatment system, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year.
 4. An evaluation of the groundwater quality beneath the subsurface dispersal areas.
 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 waste discharge requirements.
 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 certified wastewater operator responsible for operation, maintenance, and system monitoring.
 8. A summary of information on the disposal of septic and sludge monitoring.

A letter transmitting the self-monitoring reports shall accompany each report. The 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 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 the 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 implement the above monitoring program as of the date of the Order.

Ordered by: Original signed by Ken Landau for
PAMELA C. CREEDON, Executive Officer
14 October 2010
Date