

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM NO. R5-2002-0168

FOR
AMADOR WATER AGENCY
WILDWOOD ESTATES COMMUNITY LEACHFIELD SYSTEM
AMADOR COUNTY

This Revised Monitoring and Reporting Program (Revised MRP) describes requirements for monitoring septic tanks, treated effluent, leachfields, and groundwater. This Revised MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this revised MRP unless and until another revised MRP is issued by the Executive Officer.

All samples shall be representative of the volume and nature of the discharge. 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 and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated prior to each monitoring event;
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.

SEPTIC TANK MONITORING

The Amador Water Agency shall monitor the septic tanks and report this information in the annual reports. Septic tanks shall be inspected annually and pumped as described below.

<u>Parameter</u>	<u>Units</u>	<u>Type of Measurement</u>	<u>Minimum Inspection</u>	<u>Reporting Frequency</u>
Sludge depth and scum thickness in each compartment of each septic 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

Septic tanks shall be pumped when any one of the following conditions exist or may occur before the next inspection:

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

The Discharger shall retain records of each inspection, by street address, noting the date, measured readings and calculations, and calculated projection of whether the limits of Discharge Specification B.8 will be exceeded before the next reading. The Discharger shall also record when cleaning is required, the date of notice to the homeowner, the condition of the tank, and the date that cleaning or repair occurred and by whom. Copies of the Liquid Waste Hauler manifests shall be retained for review as with any other record concerning documentation of compliance with the Order.

EFFLUENT MONITORING

The Amador Water Agency shall conduct effluent monitoring of the wastewater entering the leachfield. Wastewater samples shall be collected from the leachfield dosage siphon. Grab samples are considered adequately composited to represent the wastewater. Effluent monitoring shall include, at a minimum, the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gallons	Metered	Monthly	Monthly
pH	Std.	Grab	Quarterly	Quarterly ³
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly ³
Nitrates as Nitrogen	mg/L	Grab	Quarterly	Quarterly ³
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly ³
BOD ₅ ¹	mg/L	Grab	Quarterly	Quarterly ³
Standard Minerals ²	mg/L	Grab	Annually	Annually

¹. BOD₅ denotes five-day, 20° Celsius Biochemical Oxygen Demand.

². Standard Minerals shall include, at a minimum, the following elements and compounds: Barium, Boron, Calcium, Iron, Magnesium, Manganese, Sodium, Potassium, Chloride, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.

³. Quarterly results shall be reported in the Monthly Monitoring Report for the month during which sampling occurs.

LEACHFIELD MONITORING

The Amador Water Agency shall conduct a visual inspection of the leachfield on a weekly basis and the results shall be included in the monthly monitoring report. Evidence of surfacing wastewater, erosion, field saturation, runoff, or the presence of nuisance conditions shall be noted in the report. If surfacing water is found, then a sample shall be collected and tested for pH, total coliform organisms, and total dissolved solids. In addition to the visual inspections, monitoring of the leachfields shall include the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Application Rate ¹	gal/acre•day	Calculated	Monthly	Monthly
Leachline Riser Inspection ²	Inches	Measurement	Semi-annual ³	Semi-annual ⁴

^{1.} The application rate for each leachfield.

^{2.} The Amador Water Agency shall measure the depth of any ponded wastewater in each inspection riser. The Discharger shall provide the depth of each disposal trench and the corresponding depth of soil remaining between the ponded wastewater and the surface.

^{3.} Semi-annual monitoring shall be conducted during the months of March and October.

^{4.} Semi-annual reporting shall be included with the monthly report for which the data was collected.

GROUNDWATER MONITORING

Groundwater samples shall be collected from each groundwater monitoring well in accordance with an approved groundwater sampling plan. Prior to sampling, depth to groundwater shall be measured to the nearest 0.01 feet. Water table elevations shall be calculated and used to determine groundwater gradient and flow direction. Samples shall be collected and analyzed using EPA methods or other methods approved by the Central Valley Water Board. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Groundwater Elevation ¹	0.01 Feet	Measurement	Semi-annually ⁴
Depth to Groundwater	0.01 Feet	Calculated	Semi-annually ⁴
Gradient	Feet/Feet	Calculated	Semi-annually ⁴
pH	S.U.	Grab	Semi-annually ⁴
Total Dissolved Solids	mg/L	Grab	Semi-annually ⁴
Nitrates as Nitrogen	mg/L	Grab	Semi-annually ⁴
Total Coliform Organisms ²	MPN/100 ml	Grab	Semi-annually ⁴
Standard Minerals ³	mg/L	Grab	Annually ⁵

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

^{2.} Using a minimum of 15 tubes or three dilutions.

^{3.} Standard Minerals shall include, at a minimum, the following elements and compounds: Barium, Boron, Calcium, Chloride, Iron, Manganese, Magnesium, Potassium, Sodium, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.

^{4.} Semi-annual groundwater monitoring shall occur in the first and the third quarter of each calendar year.

^{5.} Annual groundwater monitoring shall occur in the first quarter of each calendar year.

REPORTING

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 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.

A. Monthly Monitoring Reports

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

1. Results of effluent and leachfield monitoring;
2. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format;
3. If requested by staff, copies of laboratory analytical report(s); and
4. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Semi-Annual Monitoring Reports

The semi-annual monitoring reports shall be submitted to the Central Valley Water Board by the **1st day of May and October** each year.

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.

The semi-annual 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 WDRs, this Revised MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater and method of sampling;
3. 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;
4. 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);

5. A comparison of the monitoring data to the groundwater limitations and an 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 any other sampling stations, and groundwater elevation contours referenced to mean sea level datum; and
8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

An 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 annual monitoring of the septic tanks, effluent, and groundwater;
2. Tabular and graphical summaries of all data collected during the year;
3. A digital database (Microsoft Excel) containing historic groundwater data;
4. An evaluation of the groundwater quality beneath the leachfield area;
5. A description of any activity to control vegetation in the leachfield area;
6. The results of the inspection, and if necessary, the maintenance activities performed on the stormwater diversion ditch;
7. Annual summary of the septic tank inspections for the year, including the number of tanks on which notifications for cleaning were issued, and from compilation of Liquid Waste Hauler Manifests, the volumes of sludge removed from the septic tanks and ultimate sludge disposal site(s);
8. A statement of when the O&M Manual was last reviewed for adequacy, and a description of any changes made during the year;
9. A description of the annual evaluation of effluent distribution and adjustments made, if any;
10. A summary of maintenance and repairs activities which were performed on the effluent collection system;
11. A statement regarding whether the dose counter was calibrated during the year;
12. A copy of the certification for each operator; and
13. A discussion of any compliance and the corrective actions taken, as well as any

planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.

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 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 revised monitoring program on the first day of the month following adoption of this Order.

Ordered by: Original signed by Frederick Moss
for Pamala C. Creedon

PAMELA C. CREEDON, Executive Officer

7 December 2011

(Date)