

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM NO. R5-2003-0054

FOR
FAIRWAY/GLENMOOR LLC
AMADOR WATER AGENCY
FAIRWAY PINES/ MACE MEADOWS COMMUNITY LEACHFIELD SYSTEMS
AMADOR COUNTY

This Revised Monitoring and Reporting Program (Revised MRP) describes requirements for monitoring septic tanks, treated effluent, leachfields, groundwater and surface water. 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 field calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated per the manufacturer's recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

SEPTIC TANK MONITORING

The Discharger 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 the first 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

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.9 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.

PUMP STATION MONITORING

The Discharger shall conduct monthly inspections of automated systems related to the operation of wastewater pump stations, and shall include the observations made in the monthly monitoring reports.

EFFLUENT MONITORING

The Discharger shall conduct effluent monitoring of the wastewater entering each leachfield. Wastewater samples shall be collected from each leachfield dosage siphon. Grab samples are considered adequate to represent the effluent. 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 to each leachfield	gpd	Meter	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly ²
Nitrates as Nitrogen	mg/L	Grab	Quarterly	Quarterly ²
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly ²
Standard Minerals ¹	mg/L	Grab	Annually	Annually

¹ 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.

² Quarterly results shall be reported in the Monthly Monitoring Report for the month during which sampling occurs.

DESIGNATED DISPOSAL AREA MONITORING

The Discharger shall conduct a visual inspection of the leachfields on a monthly basis. Results shall be recorded and submitted with 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 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	Bi-monthly (every other month) ³	Bi-monthly (every other month) 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 Amador Water Agency shall measure and record the distance from the surface of the liquid in the observation port to the surface of the ground, at least once every two months, and once every month after the accumulation of the first five inches of rain in the winter.

⁴ Bi-monthly results shall be reported in the Monthly Monitoring Report for the month during which sampling occurs.

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
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.

MISERY CREEK MONITORING

At least once per month, the Discharger shall monitor (visually inspect) downgradient from the leachfields, between the leachfields and Misery Creek, and along the bank of Misery Creek for evidence of surfacing leachate and wastewater discharges to Misery Creek. The Discharger shall determine whether surfacing liquids are leachate by results of laboratory analyses of samples retrieved of the liquids. If surfacing liquid is observed at any time within a distance of 100 feet downslope from any leachfield sector, and not more than 0.5 inches of rainfall has fallen on the site within the previous 24 hours, the surfacing liquid shall be sampled and analyzed for total coliform, TDS, and MBAS (foaming agents).

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, leachfield, 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, designated disposal area, and Misery Creek 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 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 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 groundwater and locations monitored, including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
5. Summary data tables of historical and current groundwater table elevations and analytical results;
6. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements;
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. Results of the septic tank, effluent, and groundwater annual monitoring;
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 flow meter was calibrated during the year;
12. Attached documents as verification of each operator's certification;
13. Attached documentation describing user education actions; and
14. 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)