

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM NO. 5-01-811

FOR
COLUSA AND SOLANO COUNTIES CALIFORNIA YOUTH AUTHORITY
UNITED STATES FOREST SERVICE, MENDOCINO NATIONAL FOREST
FOUTS SPRINGS YOUTH FACILITY
COLUSA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring septic tanks, subsurface disposal areas, surface water, and groundwater. 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 Executive Officer.

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 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.

SEPTIC TANK AND OIL/GREASE SEPARATOR MONITORING

The Discharger shall monitor each septic tank as follows:

<u>Parameter</u>	<u>Units</u>	<u>Type of Measurement</u>	<u>Inspection and Reporting Frequency</u>
Surfacing wastewater	NA	Observation	Monthly
Sludge depth and scum thickness in each compartment	Feet	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually

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

- a. The combined thickness of sludge and scum exceeds one-third of the tank depth in the first

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compartment; 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.

Septic tank monitoring is not required for one calendar year following septic tank cleaning.

All oil/grease separator tanks shall be inspected monthly, and oil/grease and solids shall be removed as necessary to ensure optimal operation. The results of monthly inspections and waste disposal shall be reported in the monthly and annual reports.

SEPTIC TANK EFFLUENT MONITORING

Effluent samples shall be collected from the discharge side of each septic tank and the wash rack tank. Grab samples are considered representative of the discharge. At a minimum, the Discharger shall monitor the effluent as follows:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	Gpd	Meter Observation or Estimate ¹	Daily	Monthly
pH	Std.	Grab	Monthly	Monthly
<u>Electrical Conductivity</u>	<u>umhos/cm</u>	Grab	Monthly	Monthly

¹ An estimate based on population and/or water usage may be used if no flow meter exists.

SUBSURFACE DISPOSAL AREA MONITORING

The Discharger shall conduct a **weekly** visual inspection of each leachfield. Evidence of surfacing wastewater, erosion, field saturation, runoff, seepage along the creek banks, or the presence of nuisance conditions shall be noted in the report. If surfacing or seeping water is found, 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>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Effluent depth ¹	Inches	Measurement	Quarterly	Quarterly ²
Flow to each leachfield	gpd	Meter Observation or Estimate ³	Daily	Monthly

¹ Measure the depth to any ponded wastewater in each inspection riser. The Discharger shall provide the depth of the ponded wastewater for each at-grade mound and leaching trench (when used).

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- ² Results shall be reported in the monthly monitoring report for month during which monitoring occurs.
³ An estimate based on population and/or water usage may be used if no flow meter exists.

GROUNDWATER MONITORING

Beginning with the **third quarter of 2006**, the Discharger shall establish a quarterly groundwater sampling schedule with samples obtained approximately every three months. All wells shall be sampled and analyzed according to the schedule below.

Prior to construction of any new groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below.

Prior to sampling, the groundwater elevation shall be measured in each well, and the wells shall be purged of at least three casing 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 and analyzed using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Depth to groundwater	0.01 feet	Measurement	Quarterly	Quarterly
Groundwater elevation ¹	0.01 feet	Calculated	Quarterly	Quarterly
Gradient	feet/feet	Calculated	Quarterly	Quarterly
Gradient direction	Degrees	Calculated	Quarterly	Quarterly
Total dissolved solids	mg/L	Grab	Quarterly	Quarterly
Electrical conductivity	umhos/cm	Grab	Quarterly	Quarterly
Nitrate nitrogen	mg/L	Grab	Quarterly	Quarterly
Ammonia nitrogen	mg/L	Grab	Quarterly	Quarterly
Chloride	mg/L	Grab	Quarterly	Quarterly
pH	standard	Grab	Quarterly	Quarterly
Total coliform organisms	MPN/100 ml	Grab	Quarterly	Quarterly

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.

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

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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 Regional 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

All daily, weekly, and monthly monitoring data shall be reported in 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 septic tank, septic tank effluent, and subsurface disposal area monitoring;
2. Results of oil/grease separator inspections and documentation of oil/grease and solids disposal (when performed).
3. A comparison of monitoring data to the discharge specifications and effluent limitations and an explanation of any violation of those requirements. Data shall be presented in tabular format;
4. Copies of all laboratory analytical report(s); and
5. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Quarterly Monitoring Reports

Quarterly monitoring reports shall be submitted to the Regional Board by the **1st day of the second month after the quarter** (i.e. the January-March quarterly report is due by May 1st) and may be combined with the monthly report. The Quarterly Report shall include the following:

1. Results of groundwater monitoring for all groundwater sampling activities during the quarter;
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 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;

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3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date(s) 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 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;
8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

Beginning in **February 2007**, an Annual Report shall be prepared and submitted to the Regional Board by **1 February** each year. The Annual Report shall include all monitoring data required in the monthly/quarterly schedule. In addition, the Annual Report shall include the following:

1. The contents of the regular groundwater monitoring report for the last quarter of the year;
2. Tabular and graphical summaries of all groundwater monitoring data collected during the year and quarterly groundwater elevation contour maps;
3. An intrawell statistical analysis of each groundwater monitoring parameter for each well; time versus concentration plots for each constituent for each well, and comparison to the established background groundwater concentrations;
4. A discussion of 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;
5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;
6. The results for analyses that are performed annually (as set forth above);
7. A summary of information on the management and disposal of biosolids and oil/grease separator waste;
8. The results from any analytical testing performed to characterize the biosolids prior to off-site disposal;
9. A forecast of influent flows for the coming year, as described in Standard Provision No. E.4; and

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10. The name and contact information for the certified wastewater operator responsible for operation, maintenance, and system 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 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 as of the date of this Order.

Ordered by: Original Signed by
PAMELA C. CREEDON, Executive Officer

June 29, 2006
(Date)

ALO:6/28/2006