

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
REVISED MONITORING AND REPORTING PROGRAM NO. 90-144

FOR
OAK LANE MOBILE VILLAGE
ROBERT RASMUSSEN
EL DORADO COUNTY

This monitoring and reporting program (MRP) incorporates requirements for monitoring of the wastewater treatment system, including septic tanks, influent, effluent, ponds, surface water, sludge, 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.

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 WDRs cited herein. The monitoring and monitoring reports are necessary to verify that Oak Lane Mobile Village complies with the WDRs.

All wastewater 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. Wastewater flow monitoring shall be conducted continuously using a flow meter and shall be reported in cumulative gallons per day.

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

1. The operator is trained in the proper use of the instrument;
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 as described below. In addition, the Discharger shall visually inspect the tanks for signs of damage, leakage, and/or deterioration.

<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 the 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, noting the date, measured readings and calculations. The Discharger shall also record when cleaning is required, 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.

INFLUENT MONITORING

By **1 August 2007**, the Discharger shall submit a letter certifying that an appropriate flow meter has been installed and calibrated, and is completely functional. Influent monitoring shall be performed at the location where influent is discharged into the evaporation/percolation ponds. Influent monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow ¹	gpd	Flow Meter Observation ¹	Daily	Monthly
pH ²	pH Units	Grab	Weekly	Monthly

¹ Beginning in August 2007.

² Handheld meter may be used.

EFFLUENT MONITORING

Effluent samples shall be collected from an established sampling station located in an area that will provide a sample representative of the water in the evaporation/percolation ponds. Effluent monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
BOD ₅ ¹	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Standard Minerals ²	mg/L	Grab	Annually	Annually

¹ 5-day Biochemical Oxygen Demand

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

POND MONITORING

The Discharger shall monitor all ponds in accordance with the following. Samples shall be collected from permanent monitoring locations that will provide representative samples. Freeboard shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet. Monitoring of the ponds 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>
Dissolved Oxygen ^{1,3}	mg/L	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Berm Seepage ²	NA	Observation	Weekly	Monthly
Odors ⁴	--	Observation	Weekly	Monthly

¹ Samples shall be collected at a depth of one foot, opposite the inlet. Samples shall be collected between 0700 and 0900 hours.

² Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees. If surfacing water is found, then a sample shall be collected and tested for total coliform organisms and total dissolved solids.

³ Handheld meter may be used.

⁴ The presence of strong or unusual odors shall be reported.

SURFACE WATER MONITORING

The Discharger shall observe the creek adjacent to the wastewater ponds weekly for the presence of water in the creek. When water is present the following surface water monitoring shall apply. The Discharger shall establish two sampling stations: one station (S-1) shall be 50 feet upstream of the wastewater ponds, and one station (S-2) shall be 50 feet downstream of wastewater ponds. One water sample per sampling station shall be collected and analyzed for each month when water is present in the creek. If water is not present in the creek, then it shall be noted in the monthly monitoring report.

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Total Dissolved Solids	mg/l	Grab	Monthly
Nitrate as Nitrogen	mg/l	Grab	Monthly

SLUDGE MONITORING

In accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, a composite sample of sludge shall be collected when sludge is removed from the evaporation/percolation ponds for disposal and tested for the following metals:

Cadmium	Copper	Chromium
Nickel	Lead	Zinc

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

GROUNDWATER MONITORING

By **1 June 2008**, the Discharger shall submit a Groundwater Monitoring Workplan prepared in accordance with, and including the items listed in, the first section of the attached "*Items to be Included in a Monitoring Well Installation Workplan and Monitoring Well Installation Report of Results.*" The workplan shall describe a groundwater monitoring network consisting of at least three wells around the ponds specifically designed to ensure that background groundwater quality is adequately characterized and any potential water quality impacts from the discharge are detected. The system shall be designed to yield samples representative of the uppermost portion of the first aquifer underlying the facility site. The workplan shall also include a Sampling and Analysis Plan (SAP) that includes all information listed in the second section of the attachment to this MRP.

By **1 November 2008**, the Discharger shall submit a Well Installation Report that presents well construction, well development, and well surveying details, and as well as any soil sampling details, and contains the information listed in the second section of the attachment to this MRP.

The groundwater monitoring program shall begin in the **first quarter of 2009**. Samples shall be collected from all groundwater monitoring wells at the facility. Prior to construction of any new groundwater monitoring wells, the Discharger shall submit plans and specifications to the Regional Water 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 elevations shall be measured and the wells shall be purged of 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:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency⁴</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
pH ²	pH units	Grab	Quarterly	Quarterly
Total Coliform Organisms	MPN/100 mL	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly
Standard Minerals ³	mg/L	Grab	Annually	Annually

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 Hand held meter may be used.

³ Standard Minerals shall include the following: boron, calcium, iron, manganese, magnesium, potassium, sodium, chloride, total alkalinity (including alkalinity series), and hardness.

⁴ Beginning with the first quarter 2009.

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.

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 California Registered Engineer or Professional Geologist and signed/stamped by the registered professional.

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 influent, effluent, pond and surface water 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. Quarterly Monitoring Reports

Beginning with the first quarter 2009, the Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Quarterly monitoring reports shall be submitted to the Regional Water 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.

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

The Quarterly Report shall include the following:

1. Results of the 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 WDR, 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;
3. Calculation of groundwater elevations 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 prepared as the December monthly monitoring report. The Annual Report will include all monitoring data required in the monthly and quarterly schedule. The Annual Report shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. The contents of the regular monthly and quarterly monitoring report for the last month and quarter of the year, respectively, including the results for all effluent and groundwater monitoring parameters;
2. If requested by staff, tabular and graphical summaries of all data collected during the year;
3. An annual summary of the septic tank inspections for the year, including the number of tanks which were cleaned and from compilation of Liquid Waste Hauler Manifests, the volumes of waste removed from the tanks;
4. A statement of when the O&M Manual was last reviewed for adequacy, and a description of any changes made during the year;
5. A summary of the inspections, repair activities, and pipeline replacements that were performed on the effluent collection system during the previous year;
6. A statement regarding whether the flow meter was calibrated during the year;
7. A summary of information on pond sludge monitoring and disposal as described in the "Sludge Monitoring" section;
8. A discussion of any compliance issues or violations and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements; and

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

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 a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

The Discharger shall implement the above monitoring program as of **1 August 2007**.

Ordered by: original signed by
PAMELA C. CREEDON, Executive Officer

6 June 2007
(Date)