

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. _____

FOR
MARCON, INC., RARE EARTH SUBDIVISION
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL FACILITIES
BUTTE COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring domestic wastewater, treated effluent, wastewater disposal field performance, septic tanks, solids disposal, and groundwater. This MRP is issued pursuant to Water Code Section 13267. Regional Board staff shall approve specific sample station locations prior to implementation of sampling activities.

All samples shall be representative of the volume and nature of the discharge or material sampled. The time, date, and location of each sample shall be recorded on a chain of custody form for the sample.

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 in accordance with the manufacturer's recommendations, and the method has been accepted by Regional Board Staff;
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.

FLOW MONITORING

The following shall constitute the flow monitoring program to the disposal fields:

<u>Parameter</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	Gallons/Day	Continuous	Daily

SEPTIC TANK MONITORING AND SYSTEM MAINTENANCE AND INSPECTIONS

Each individual homeowner shall authorize the homeowner's association access to the septic tank for the purpose of conducting inspections, and shall follow the homeowner's association recommendations for pumping the tank(s). The Discharger shall monitor the septic tanks and report this information in the annual reports. Septic tanks shall be inspected **every five years** as described below and pumped as necessary.

<u>Parameter</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Sludge depth and scum thickness in each compartment of each septic tank	Inches	Staff Gauge	Every five years
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Every five years
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Every five years

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 annual report shall indicate the number and locations of tanks that were inspected or pumped the previous year.

EFFLUENT MONITORING

The Discharger shall conduct monitoring of the wastewater discharging to each disposal field. Wastewater samples shall be collected between the disposal fields and discharge of the treatment unit. Effluent monitoring shall include, at a minimum, the following constituents:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gallons	Meter	Continuous	Monthly
Nitrate as Nitrogen	mg/l	Grab ¹	Monthly ^{2,3}	Monthly
Total Kjeldahl Nitrogen	mg/l	Grab ¹	Monthly ^{2,3}	Monthly
Total Dissolved Solids	mg/L	Grab ¹	Every two months	Monthly
BOD ₅ ⁴	mg/l	Grab ¹	Every two months	Monthly
Total Suspended Solids/EC	mg/L or umh/cm	Grab ¹	Every two months	Monthly
Nitrite	mg/L	Four point composite ⁵	Annually ⁶	Annually
Boron	mg/L	Four point composite ⁵	Annually	Annually
Chloride	mg/L	Four point composite ⁵	Annually	Annually
Iron	mg/L	Four point composite ⁵	Annually	Annually
Manganese	mg/L	Four point	Annually	Annually

MARCON, INC., RARE EARTH SUBDIVISION
 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL FACILITIES
 BUTTE COUNTY

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u> composite	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
¹ . Two of the monthly samples shall consist of four point composites (see note 5). Four point composites shall be taken approximately six months apart. After 3 years of data are gathered following 75% buildout of the subdivision, the executive office may waive the requirement for compositing if it is found there is no substantial difference between composite and grab sample analytical results. ² . Until project buildout reaches 50%, sampling frequency may be reduced to one half that designated. ³ . If the previous three samples have demonstrated compliance with effluent limitations, frequency may be reduced to once every two months. ⁴ . BOD ₅ denotes five-day, 20° Celsius Biochemical Oxygen Demand. ⁵ . A four point composite shall consist of four discrete samples of equal volume obtained between 0800 and 2000, and blended prior to analysis. Samples shall be obtained at approximately 0900, 1200, 1500 and 1900 hours and be at least 3 hours apart. ⁶ . Annually during the month of January or February (buildup of nitrite is most likely to occur during cold weather).				

DISPOSAL FIELD MONITORING

The WRCSD shall conduct a visual inspection of the disposal fields every month and the inspection results shall be included in the monthly monitoring report. Evidence of surfacing wastewater, erosion, field saturation, or the presence of nuisance conditions shall be noted in the report. If any standing liquid is found in the disposal field area, then a sample shall be collected and tested for pH, total coliform organisms, fecal coliform organisms, and total dissolved solids. In addition to the visual inspections, monitoring of the leachfields shall include the monthly inspection of each of the leachline monitoring ports to determine depth of wastewater in each disposal field. Disposal field piezometers shall be checked monthly from December through June, and the depth to groundwater determined for each piezometer.

GROUNDWATER MONITORING

The Discharger shall conduct the following groundwater monitoring program. Prior to construction of any groundwater monitoring wells, the Discharger shall submit well plans and specifications to the Regional Board for review and approval in accordance with the provisions. 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, groundwater elevations shall be measured to the nearest 0.01 feet. The wells shall then be purged of at least three well volumes, and then until pH and electrical conductivity have stabilized (depth measurement shall be performed prior to purging). Water table elevations shall be calculated and used to determine groundwater gradient and direction of flow. Samples shall be collected using approved USEPA methods. Groundwater monitoring shall include, at a minimum, analysis for each well for the following parameters:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Groundwater elevation	0.01 Feet	Measurement	Quarterly ²
Groundwater Flow Direction	Degrees	Calculation	Quarterly ²
Groundwater Gradient	Ft/ft	Calculation	Quarterly ²
pH	pH units.	Grab	Quarterly ²

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Total Dissolved Solids	mg/L	Grab	Quarterly ²
Nitrate as Nitrogen	mg/L	Grab	Quarterly ²
Total Coliform Organisms ¹	MPN/100 mL	Grab	Quarterly ²
Chloride	mg/L	Grab	Annually ²
Boron	mg/L	Grab	Annually
Iron	mg/L	Grab	Annually
Manganese	mg/L	Grab	Annually

¹ Using a minimum of 15 tubes or three dilutions, or other approved EPA method.

² If groundwater flow direction does not change substantially during the year, frequency may be reduced to twice per year by the executive officer.

BIOSOLIDS MONITORING

The Discharger shall keep records regarding the quantity of biosolids generated by the treatment processes; any sampling and analytical data; the quantity of biosolids temporarily stored on site; and the quantity removed for disposal. The records shall also indicate steps taken to reduce odor and other nuisance conditions, if necessary. Records shall be stored onsite and available for review during inspections.

When biosolids are transported off-site for disposal, then the Discharger shall submit records identifying the hauling company, the amount of biosolids transported, the date biosolids were removed from the facility, the location of disposal, and copies of all analytical data required by the facility accepting the waste. If biosolids are disposed of onsite, then the Discharger shall submit the annual report information as contained in the Statewide General Order for the Discharge of Biosolids (Water Quality Order No. 2000-10-DWQ or any subsequent document which replaces Order No. 2000-10-DWQ).

All biosolids records shall be submitted as part of the Annual Monitoring Report.

FINANCIAL ASSURANCE

By 30 January, the Discharger shall provide financial assurance that the Homeowners association has accrued adequate funds in accordance with provision 6.b. of the Order.

REPORTING

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

Monitoring reports shall be submitted to the Regional Water Board the first day of the month following the monitoring period (monthly, quarterly, annual), i.e. March and 1st quarter monitoring is due 1 May.

The Discharger shall submit an annual report by **30 January of each year**. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with the waste discharge requirements.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by:

PAMELA C. CREEDON, Executive Officer

(Date)

RSD: sae