California Regional Water Quality Control Board
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2002-0037
(Amended on May 2, 2013)

FOR

CALIFORNIA REDWOOD COMPANY
WOODWASTE DISPOSAL SITE
CLASS III WASTE MANAGEMENT UNIT

WDI.D. NO. 1B75147OHUM

Humboldt County

WASTE MANAGEMENT UNIT MONITORING

Groundwater Monitoring

The objectives of groundwater monitoring are leak detection and evaluation of naturally-occurring variations in groundwater quality, if any.

Monitoring Wells No. 1 and 2, as shown in Attachment B of Waste Discharge Requirements Order No. R1-2002-0037, and any additional wells that may be installed, shall be monitored as follows:

1. Static water levels shall be recorded in April and September of each year. Top of casing, depth to groundwater, and water table elevation shall be reported in tabular fashion.

2. Representative grab samples shall be collected in April and September of each year. Prior to sampling, the bore hole shall be properly purged. Purging protocol and field sampling logs including equilibrium measurements, pumping rate, and other appurtenant information shall be submitted. Samples shall be analyzed for the following constituents:

Chemical Oxygen Demand	pH
Total Dissolved Solids	Hardness

3. Every 5 years all wells shall be sampled for the Constituents of Concern (COC) listed below, in addition to the monitoring parameters listed above:

ICAP metals	Specific Conductance	Calcium
Magnesium	Potassium	Nitrate
Sodium	Bicarbonate Alkalinity	Sulfate Chloride

Leachate Monitoring

The objectives of leachate monitoring are to characterize leachate quality and evaluate its potential impacts on receiving waters.

The landfill shall be inspected for leachate seeps monthly during the period October through May. An inspection log shall be included in the monitoring report. The log will note, at a minimum, the date, time, flow, weather conditions, extent of the seep (i.e. was it contained onsite or entering surface water drainage courses), and corrective measures employed. Regional Water Board staff shall be notified verbally within 24 hours in the event of an offsite discharge. Leachate seeps shall be corrected immediately upon discovery. If leachate is observed, a representative grab sample shall be taken and analyzed for the constituents listed below:

Chemical Oxygen Demand	Tannins/Lignins
pH	Total Dissolved Solids

General Inspections

The landfill shall be inspected monthly during the period October through May for erosion, drainage problems, cover integrity, and ponding atop the landfill. Problem areas shall be identified and corrected immediately. A log of the inspections and corrective measures shall be submitted with the monitoring report.

Settlement Monitoring

The objective of settlement monitoring is to track the cumulative settlement of the low-permeability layer in order to determine when the layer requires repair.

The site shall be inspected visually each winter for signs of ponding. The site shall be surveyed for settlement every five years after closure. Results of the survey and settlement evaluation shall be included in the July monitoring report. The survey shall be presented on 24" x 36" maps with a maximum 2-foot contour. The evaluation shall include:

1. Initial closure grades and contours,
2. Current grades and contours,
3. Map showing any interim repairs to the vegetative layer and/or the low-permeability cap,
4. Tracking forms showing cumulative settlement and/or repairs to the individual cover layers, and
5. Iso-settlement contours of the vegetative layer and low-permeability layer.

WASTE MANAGEMENT UNIT REPORTING

Waste management unit monitoring reports shall be submitted by July 1 and February 1 of each year. Monitoring reports shall contain any information from monitoring performed

more frequently than required or at locations not required by this Program. Data shall be arranged in tabular form so that date, constituent, and concentration are readily discernable.

The July 1 monitoring report shall present current and historical data plotted vs. time. Data for specific constituents shall be plotted with the inter-well background value, which is calculated using a prediction interval method. In the event that groundwater monitoring data from two consecutive quarters exceeds the upper prediction limit, the permittee shall prepare a report evaluating the cause of the increase and propose corrective action measures. A tabular summary of the previous monitoring data, operational problems, violations, and corrective actions employed shall also be provided.

REPORTING SUMMARY

The following table summarizes the due dates for the required reports (note that the due date is the date the report must be *received* by the Regional Water Board):

Due date	**Required submittal**
First day of each month	Monthly discharge sampling results and visual observations from two months prior, (e.g. January results must be received by the Regional Water Board by March 1)
February 1	Semiannual landfill report, including: ▪ results of September groundwater monitoring, and ▪ landfill inspections from October through December
July 1	Semiannual landfill report, including: ▪ test results of April groundwater monitoring, and ▪ landfill inspections from January through May

All monitoring reports shall be transmitted in accordance with the specifications of Resolution 71-5 adopted by the Regional Water Board on February 3, 1971.

Original Signed By

Ordered by _____
Matthias St. John
Executive Officer

May 2, 2013