

STATE OF CALIFORNIA
 REGIONAL WATER QUALITY CONTROL BOARD
 CENTRAL COASTAL REGION

MONITORING AND REPORTING PROGRAM ORDER NO. R3-2011-0001
FOR
SAN LUIS OBISPO COUNTY
LOS OSOS WASTEWATER RECYCLING FACILITY

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code Section 13267. This MRP is issued to San Luis Obispo County because it is the owner and operator of the Los Osos Wastewater Recycling Facility. The reports required by this MRP are necessary to determine compliance with the waste discharge requirements and ensure protection of the beneficial uses of waters of the state and public health.

A. Influent Monitoring

Representative samples of the influent to the treatment plant shall be collected and analyzed as follows:

Table 1: Influent Monitoring

Constituent	Units	Type of Sample	Minimum Sampling and Analysis Frequency
Flow Volume	mgd	Metered	Daily
Maximum Daily Flow	mgd	Calculated	Monthly
Suspended Solids	mg/L	24-hr. Composite	Monthly
Biochemical Oxygen Demand, 5-day	mg/L	24-hr. Composite	Monthly

mgd – million gallons per day
 mg/L – milligrams per liter

B. Effluent Monitoring

Representative samples of the effluent shall be collected (downstream of any in-plant return flows of disinfection units) and analyzed as follows:

Table 2: Effluent Monitoring

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Flow Volume	mgd	metered	Daily
Settleable Solids	mL/L	Grab	Daily
Biochemical Oxygen Demand, 5-day	mg/L	24-hr. Composite	Weekly
Suspended Solids	mg/L	24-hr. Composite	Weekly
Total Nitrogen (as N)	mg/L	grab	Monthly
Total Dissolved Solids	mg/L	grab	Semi-annually
Chloride	mg/L	grab	Semi-annually
Sodium	mg/L	grab	Semi-annually

mgd – million gallons per day
 mL/L – milliliters per liter
 mg/L – milligrams per liter

C. Recycled Water Monitoring

Representative samples of water provided for reuse shall be collected and analyzed in accordance with the following table. (in addition to Effluent Monitoring above). Recycled water monitoring shall be consistent with the Discharger's Engineering Report as discussed in Section C.1 of this Order. The Engineering Report must be submitted no less than six months in advance of any proposed reuse project.

Table 3: Recycled Water Monitoring (Producer)

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Flow Volume	mgd	metered	Daily
Site of use	-	Site identification	Daily (as used)
Total Coliform Organisms	MPN/100mL	grab	Daily
Turbidity ¹	NTU	metered	Continuous
Biochemical Oxygen Demand, 5-day	mg/L	24-hr. Composite	Weekly
Suspended Solids	mg/L	24-hr. Composite	Weekly
pH	s.u.	grab	Weekly
Total Chlorine Residual ²	mg/L	metered	continuous
Ultraviolet Disinfection System ³	-	metered	continuous
CECs ⁴	ng/L	grab	annually

mgd – million gallons per day

MPN/100mL – Most Probable Number per 100 milliliters

mg/L – milligrams per liter

ng/L – nanograms per liter

s.u. – standards units

CEC – Chemicals of Emerging Concern

¹ Recycled water shall be sampled for turbidity using a continuous meter and recorder following filtration. Compliance with the 2 NTU daily average limitation shall be determined by averaging the recorded turbidity levels at a minimum of four-hour intervals over a 24-hour period. Compliance with the 5 NTU limitation shall be determined using the recorded turbidity levels taken at intervals of no more than 1.2 hours over a 24-hour period. Should the continuous turbidity meter and recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24 hours. For membrane filtration turbidity shall exceed 0.2 NTU more than 5 percent of the time within a 24-hour period and 0.5 NTU at any time.

² Continuous chlorine residual monitoring may be performed using alternative methods until such time as methods of analysis for continuous chlorine residual monitoring are approved by U.S. EPA under 40 CFR 136. Chlorine monitoring is not required if chlorine is not needed for disinfection.

³ Routine UV disinfection system monitoring based on continuous on-line measurement shall be performed as follows:

- a. Wastewater – flow rate, fluid transmittance (after filtration and prior to UV disinfection), and turbidity (after filtration and prior to UV disinfection); and
- b. UV Disinfection System – UV intensity and lamp age in hours.

⁴ According to the *June 25, 2010 Final Report: Monitoring Strategies for Chemicals of Concern (CECs) in Recycled Water*, Health-based and performance-based indicator CECs and performance surrogates include 17 β -estradiol, triclosan, caffeine, NDMA, gemfibrozil, DEET, loperamide, and sucralose.

D. Groundwater Monitoring

1. Semiannual Groundwater Monitoring - Representative samples of groundwater shall be collected and analyzed semiannually from the following 14 monitoring wells: Well ID Nos. 13G, 13H, 13L5, 13Q1, 17E9, 17F4, 17N4, 18E1, 18J6, 18L3, 18L4, 18N1, 18R1, and 24A (refer to Attachment D of this Order). Additional wells may be added to the groundwater monitoring program as deemed appropriate by the Executive Officer. The semiannual samples are to be analyzed in accordance with the following table.

Table 4: Semiannual Groundwater Monitoring

Constituent	Units	Type of Sample
Depth to groundwater	Feet	measure
Total Dissolved Solids	mg/L	grab
pH	s.u.	grab
Total Nitrogen (as N) (all forms identified)	mg/L	grab
Sodium	mg/L	grab
Chloride	mg/L	grab
Sulfate	mg/L	grab
Boron	mg/L	grab

mg/L – milligrams per liter
s.u. – standard unit

- Annual Groundwater Monitoring** - In addition, representative groundwater samples shall be collected from Well Nos. 24A and 18R1 and analyzed for priority pollutants^{1,2} and total organic carbon on an annual basis. Furthermore, Well No. 18R1 shall be sampled for Total Coliform (MPN/100mL) on a semiannual basis. These annual results shall be reported in the annual summary report.
- Biennial Groundwater Monitoring** - Representative samples of groundwater shall be collected and analyzed every two years from the following 12 monitoring wells: Well ID Nos. 7K3, 7L3, 7N1, 7Q1, 7R1, 8N2, 8Ma, 8Mb, 17D 18A 18B1, and 18C1 (refer to Attachment D of this Order). Additional wells may be added to the groundwater monitoring program as deemed appropriate by the Executive Officer. The biennial samples are to be analyzed in accordance with the following table.

Table 5: Biennial Groundwater Monitoring

Constituent	Units	Type of Sample
Depth to groundwater	Feet	measure
Total Dissolved Solids	mg/L	grab
pH	s.u.	grab
Total Nitrogen (as N) (all forms identified)	mg/L	grab
Sodium	mg/L	grab
Chloride	mg/L	grab
Sulfate	mg/L	grab
Boron	mg/L	grab

mg/L – milligrams per liter
s.u. – standard unit

Monitoring reports shall include tabulated monitoring results and a narrative description of analytical results (general mineral constituents, including all forms of nitrogen, depth to groundwater, and groundwater flow direction) and water quality trends (changes in water quality, impacts from sea water intrusion). Sample procedures and equipment used shall also be reported. Contour maps shall be provided, which include: a) groundwater elevations and flow direction, b) TDS concentrations, and c) nitrate as N concentrations.

¹ California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431

² California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5.5, Section 64444

In addition, analytical results for water quality data collected from water purveyor wells in the basin shall be reported. Any additional monitoring performed shall be submitted with regular monitoring reports.

E. Disposal Area Monitoring

The disposal areas shall be inspected daily for indications of actual or threatened overflow, seepage, surfacing or other problems. An inspection log shall be kept of the disposal areas conditions, observations, problems noted, and corrective actions taken. A summary of the log shall be included with each month's monitoring report.

F. Biosolids Monitoring

Representative samples of biosolids removed from the facilities for disposal shall be collected and analyzed as follows:

Table 6: Biosolids Monitoring

Constituent	Units	Type of Sample	Minimum Sampling and Analyzing Frequency
Volume	Gallons or cubic yards	grab	Annually or when disposal occurs (whichever is less frequent)
Moisture Content	Percent	grab	Annually or when disposal occurs (whichever is less frequent)
Metals ¹	mg/kg	grab	Annually or when disposal occurs (whichever is less frequent)

mg/kg – milligrams per kilograms

¹ – Metals include Cadmium, Copper, Total Chromium, Lead, Mercury, Nickel, Silver, and Zinc.

G. Reporting

Monthly monitoring reports shall be submitted to the Central Coast Water Board by the first day of the second calendar month following the sampling month. Reports shall summarize monitoring data, noncompliance, reasons for noncompliance, corrective action, disposal area monitoring, and any other significant events relating to compliance with Order No. R3-2011-0001. Copies of monitoring reports shall also be submitted to the Department of Public Health at 1180 Eugenia Place, Suite 200, Carpinteria, CA 93013. Annual summary reports shall be submitted in accordance with Standard Provision C.16.

H. Enforcement

Violation of this MRP could subject the discharger to administrative civil liability pursuant to California Water Code section 13268.



Executive Officer

5-6-11

Date