CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM NO. 5-01-270

FOR
EAST BAY MUNICIPAL UTILITY DISTRICT
PARDEE RESERVOIR RECREATION AREA
AMADOR COUNTY

This Revised Monitoring and Reporting Program (Revised MRP) describes requirements for monitoring influent, lagoons, effluent, land application area, groundwater, sludge and water supply. This Revised MRP is issued pursuant to Water Code Section 13267. The East Bay Municipal Utility District (Discharger) shall not implement any changes to this Revised MRP unless and until another revision 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).*
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> *(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 Waste Discharge Requirements (WDRs) Order No. 5-01-270, and the reports are necessary to ensure that the Discharger complies with the WDRs.

All samples should 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 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 prior to each monitoring event;
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 Revised MRP.

INFLUENT MONITORING

Influent monitoring shall be performed at the headworks. Influent monitoring shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow	gpd	Meter	Daily	Monthly
20°C BOD_5 [1]	mg/L	Grab	Monthly	Monthly

[1] 5-day Biochemical Oxygen Demand.

LAGOON MONITORING

Samples shall be collected from an established sampling station. Freeboard shall be measured vertically from the surface of the water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet. Monitoring of each lagoon shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Dissolved Oxygen [1, 2]	mg/ L	Grab	Weekly	Monthly
pH [1, 2]	Standard units	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly

[1] Samples shall be collected at a depth of one foot from each pond in use, opposite the inlet. If the water depth is less than one foot, surface sampling is acceptable. Samples shall be collected between 0700 and 0900 hours.

[2] Record any conditions that could effect the monitoring interpretation, such as less than one foot of wastewater in the lagoon.

EFFLUENT MONITORING

Effluent samples shall be collected from April through October. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. Effluent monitoring shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency [1]	Reporting Frequency
Biological Oxygen Demand $_5$	mg/L	Grab	Weekly	Monthly
Total Coliform Organisms	MPN /100 mL	Grab	Weekly	Monthly
Settleable Solids	mL/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
pH	Std units	Grab	Monthly	Monthly
Formaldehyde	mg/L	Grab	Monthly, May-Sept.	Monthly, May-Sept.
Zinc	mg/L	Grab	Monthly, May-Sept.	Monthly, May-Sept.
Phenol	mg/L	Grab	Monthly, May-Sept.	Monthly, May-Sept.
Standard Minerals [2]	mg/L	Grab	Annually	Annually

[1] Samples shall be collected between the months of April and October, unless described otherwise.
[2] Standard Minerals shall include, at a minimum, the following elements/compounds: boron, iron, manganese, calcium, magnesium, potassium, sodium, chloride, sulfate, total alkalinity (including alkalinity series), and hardness.

LAND APPLICATION AREA MONITORING

Monitoring of the land application area shall be conducted daily when wastewater is applied (April through October), and the results shall be included in the monthly monitoring report. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions shall be noted in the report. The tailwater collection ditch and valves shall be checked for leaks and overflows. Effluent monitoring results shall be used to calculate loading rates at the application area. Monitoring of the land application area shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow	Gallons	Continuous	Daily	Monthly
Rainfall	Inches	Measurement	Daily	Monthly
Acreage Applied	Acres	Calculated	Daily	Monthly
Application Rate	gal/acre•day	Calculated	Daily	Monthly
BOD Loading Rate	lbs/acre•day	Calculated	Monthly	Monthly
TN Loading Rate	lbs/ac/month	Calculated	Monthly	Monthly
TDS Loading Rate	lbs/ac/month	Calculated	Monthly	Monthly

BOD denotes Biological Oxygen Demand. TN denotes Total Nitrogen. TDS denotes Total Dissolved Solids.

GROUNDWATER MONITORING

Groundwater samples shall be collected from each groundwater monitoring well in accordance with an approved groundwater monitoring workplan. Prior to sampling, depth to groundwater shall be measured to the nearest 0.01 feet. Water table elevations shall be calculated and used to determine groundwater gradient and flow direction. Samples shall be collected and analyzed using approved EPA methods or other methods approved by the

Central Valley Water Board. Groundwater monitoring shall include, at a minimum, the following:

Constituents	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Depth to Groundwater	± 0.01 feet	Measurement	Quarterly	Semi-annually
Groundwater Elevation	± 0.01 feet	Calculated	Quarterly	Semi-annually
Gradient	feet/feet	Calculated	Quarterly	Semi-annually
Gradient Direction	degrees	Calculated	Quarterly	Semi-annually
pH	pH units	Grab	Semi-annually	Semi-annually
Chloride	mg/L	Grab	Semi-annually	Semi-annually
Sodium	mg/L	Grab	Semi-annually	Semi-annually
Total Coliform Organisms	MPN/100 mL	Grab	Semi-annually	Semi-annually
Total Dissolved Solids	mg/L	Grab	Semi-annually	Semi-annually
Nitrate-N	mg/L	Grab	Semi-annually	Semi-annually
Total Trihalomethanes	µg/L	Grab	Semi-annually	Semi-annually
Zinc	mg/L	Grab	Semi-annually	Semi-annually
Total Phenols	mg/L	Grab	Semi-annually	Semi-annually
Formaldehyde	mg/L	Grab	Semi-annually	Semi-annually
Standard Minerals [1]	mg/L	Grab	Annually	Annually

[1] Standard Minerals shall include the following compounds: boron, iron, manganese, calcium, magnesium, potassium, sulfate, total alkalinity (including alkalinity series), and hardness.

SLUDGE MONITORING

A composite sample of sludge shall be collected when removed from the lagoons in accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, and tested for the following metals:

Cadmium	Copper	Nickel
Chromium	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.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Water supply monitoring shall include at least the following:

Constituents	Units	Sampling Frequency
Total Dissolved Solids	mg/L	Annually
pH	pH units	Annually
Standard Minerals [1]	mg/L	Annually

[1] Standard Minerals shall include, at a minimum, the following constituents: boron, iron, manganese, calcium, magnesium, potassium, sulfate, chloride, sodium, total alkalinity (including alkalinity series), and hardness.

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 Revised MRP shall be reported to the Central Valley Water Board.

A. Monthly Monitoring Reports

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 influent, lagoon, effluent, and land application area 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; and

3. If requested by staff, copies of laboratory analytical report(s).

B. Semi-annual Monitoring Reports

In addition to the monthly monitoring reports, the Discharger shall establish quarterly and semi-annual sampling schedules for groundwater monitoring such that samples are obtained approximately every three and six months. Semi-annual monitoring reports shall be submitted to the Board by the **1st day of February and August.** The semi-annual reports shall include the following:

1. Results of groundwater monitoring;

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDR, this Revised MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater and method of sampling;

3. Calculation of groundwater elevations, an assessment of the groundwater flow direction and gradient on the date of measurement, comparison to previous flow direction and gradient data, and discussion of seasonal trends, if any;

4. A narrative discussion of the analytical results for all media and locations monitored, including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);

5. Summary data tables of historical and current groundwater table elevations and analytical results;

6. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements; and

7. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

In addition to the monthly and semi-annual monitoring reports, an Annual Report shall be prepared. The Annual Report shall be submitted to the Regional Board by **1 February** each year. The Annual Report shall include the following:

1. If requested by staff, tabular and graphical summaries of all data collected during the year;

2. 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;

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

4. A copy of the certification for each certified wastewater treatment plant operator working at the facility and a statement about whether the Discharger is in compliance with Title 23, CCR, Division 3, Chapter 26;

5. Summary of information on the disposal of sludge and/or solid waste;

6. The results from any sludge monitoring required by the disposal facility; and

7. The results from annual monitoring of the effluent, groundwater and water supply.

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 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 on the first day of the month following issuance of this Revised MRP.

Ordered by: Original signed by Ken Landau for

PAMELA C. CREEDON, Executive Officer

26 April 2011
(Date)