

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO.
FOR
CONTRA COSTA WATER AUTHORITY AND CONTRA COSTA WATER DISTRICT
RANDALL BOLD WATER TREATMENT PLANT AND
BRENTWOOD WATER TREATMENT PLANT
CONTRA COSTA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring flocculation/sedimentation basin and filter backwash lagoon decant (wastewater), lagoons and basins (ponds), and groundwater. This MRP is issued pursuant to Water Code Section 13267. The Dischargers shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Regional Water Board staff shall approve specific sample station locations prior to implementation of sampling activities. The Dischargers are jointly responsible for implementing this MRP, and shall submit joint monitoring reports.

All samples shall 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 measure 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. The 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 the MRP.

INFLUENT FLOW MONITORING

The influent shall be monitored continuously for flow to both water treatment plants and reported as daily average flow (mgd) in the monthly report.

WASTEWATER MONITORING

One sample of decant liquid from each pond shall be collected and analyzed as indicated below. Grab samples will be considered representative of the discharge. Wastewater monitoring shall include the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
pH	Standard	Grab	Monthly	Monthly
Dissolved Metals ^{1, 2}	ug/L	Grab	Quarterly	Quarterly
Standard Minerals ³	mg/L	Grab	Annually	Annually

¹ At a minimum, the following metals shall be included: arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, molybdenum, nickel, silver, thallium, vanadium, and zinc.

- ² Samples shall be filtered through a 0.45-micron filter prior to preservation.
³ Standard Minerals shall include, at a minimum, the following elements/compounds: bromide, chloride, fluoride, and sodium.

POND MONITORING

Each pond shall be monitored as specified below.

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Freeboard ¹	0.1 feet	Staff gauge observation	Weekly	Monthly

¹ If the pond is empty on the scheduled monitoring date, the Dischargers may report the freeboard monitoring result as “dry”.

SOLIDS MONITORING

The volume of solids removed from the ponds for disposal shall be reported annually. Additionally, solids shall be sampled and analyzed annually for Title 22, Section 66261.24 (A) Table II constituents using Title 22 methods.

GROUNDWATER MONITORING

The following program shall begin the 3rd Quarter of 2009. Prior to construction and/or sampling of any groundwater monitoring wells, the Dischargers shall submit plans and specifications to the Board for review and approval. Unless otherwise expressly approved, water supply wells shall not be used as monitoring wells. Once installed, all new monitoring 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 and analyzed using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u> ⁵	<u>Reporting Frequency</u>
Depth to Groundwater	feet	Measurement	Quarterly	Quarterly
Groundwater Elevation ¹	feet	Calculated	Quarterly	Quarterly
Gradient Magnitude	feet/foot	Calculated	Quarterly	Quarterly
Gradient Direction	degrees	Calculated	Quarterly	Quarterly
pH	pH Units	Grab	Quarterly	Quarterly

Constituent/Parameter	Units	Sample Type	Sampling Frequency ⁵	Reporting Frequency
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Bromodichloromethane	ug/L	Grab	Quarterly	Quarterly
Chloroform	ug/L	Grab	Quarterly	Quarterly
Dibromochloromethane	ug/L	Grab	Quarterly	Quarterly
Total Coliform Organisms	MPN/100 mL	Grab	Quarterly	Quarterly
Dissolved Metals ^{2, 3}	ug/L	Grab	Quarterly	Quarterly
Standard Minerals ⁴	mg/L	Grab	Quarterly	Quarterly

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 At a minimum, the following metals shall be included: arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, silver, and zinc.

³ Samples shall be filtered through a 0.45-micron filter prior to preservation.

⁴ Standard Minerals shall include, at a minimum, the following elements/compounds: bromide, chloride, fluoride, and sodium.

⁵ Groundwater monitoring shall begin the 3rd Quarter of 2009.

REPORTING

In reporting monitoring data, the Dischargers shall arrange the data in tabular form so that the date, sample type (e.g., wastewater, storage pond, reuse areas, 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 to the Regional Water Board.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Water 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 all wastewater and pond monitoring performed during the month, including all daily, weekly, monthly, and quarterly sampling data;
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 third Quarter of 2009, the Dischargers shall establish a quarterly groundwater sampling schedule such that samples are obtained approximately every three months. Quarterly monitoring reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarter is due by May 1st) each year. The Quarterly Report shall include the following:

1. Results of groundwater monitoring.
2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the 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, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, 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 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 groundwater elevation contours referenced to mean sea level datum.
8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

An Annual Report shall be submitted to the Regional Water 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 monitoring report for the last sampling event of the year;

2. The contents of the regular quarterly monitoring report for the fourth quarter of the year;
3. Total annual wastewater flows into the wastewater storage ponds;
4. If requested by staff, tabular and graphical summaries of all data collected during the year with data arranged to confirm compliance with the WDRs.
5. An annual evaluation of the groundwater quality at the facility.
6. A narrative description of solids disposal practices including required sampling and the volume sent to off site disposal facilities.
7. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.
8. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
9. A forecast of influent flows for the coming year, as described in Standard Provision No. E.4.

A letter transmitting the self-monitoring reports shall accompany each report. The 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 Dischargers have 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 Dischargers shall implement the above monitoring program as of the date of this Order.

Ordered by:

PAMELA C. CREEDON, Executive Officer

(Date)