

Central Valley Regional Water Quality Control Board

24 April 2013

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David Omoto
Contra Costa Water District
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Mr. Mike Yeraka
Diablo Water District
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APPROVAL TO CONSTRUCT NEW SOLIDS HANDLING LAGOONS AND REVISED MONITORING AND REPORTING PROGRAM, CONTRA COSTA WATER DISTRICT, RANDALL BOLD WATER TREATMENT PLANT AND BRENTWOOD WATER TREATMENT PLANT, CONTRA COSTA COUNTY

Thank you for the 2 January 2013 letter describing the planned project to construct two new solids handling lagoons at the Randall Bold Water Treatment Plant (WTP). The proposed lagoons are identified in Attachment B of Waste Discharge Requirements (WDRs) R5-2007-0048 as "Future Backwash Lagoons (Randall Bold)" and the project is described in Finding 16 of the WDRs as follows:

The Randall Bold WTP Solids Lagoon Project involves construction of two new lined sedimentation basins. Lagoons 4 and 5 will also be capable of serving as backwash lagoons if necessary. Three additional solids lagoons are planned, but will be constructed later. Like the existing lagoons, each lagoon will be excavated below grade to provide a six-foot total depth with a four-foot operating depth and a minimum of two feet of freeboard. The lagoons will be lined with a minimum of six inches of soil cement on the sides and a minimum of 10 inches of soil cement on the bottom. The lagoons will have 3:1 interior side slopes and will be equipped with a 1,500 gpm decant pump to control water levels. Design data for Lagoons 4 and 5 are summarized below.

<i>Lagoon ID</i>	<i>Surface Area (sq. ft.)</i>	<i>Volumetric Capacity (million gallons)</i>
<i>Lagoon 4</i>	<i>60,000</i>	<i>1.7</i>
<i>Lagoon 5</i>	<i>40,000</i>	<i>1.06</i>

Dried solids from these lagoons will also be disposed of at the ISD reclamation site.

Construction of the lagoons complies with Discharge Specification B.1 of the WDRs, which states in part, "The Dischargers shall construct new [...] sedimentation lagoons [...] to ensure adequate capacity to comply with all requirements [...]." The letter states that the new lagoons will be constructed as described in Finding 16 but to improve operational efficiency, they will be placed in a location different than depicted in Attachment B of the WDRs. The new location will require the destruction of groundwater monitoring well MW-5, which is only sampled for groundwater elevation data.

Based on the information provided in the letter, the proposed location of the new lagoons does not require revision of the WDRs. Because MW-5 is not sampled to determine compliance with groundwater limitations, it may be destroyed. Therefore, Monitoring and Reporting Program (MRP) Order R5-2007-0048 was revised to reflect the absence of MW-5 (see attached revised MRP). The revised MRP is effective on **1 May 2013**.

To ensure compliance with the WDRs, the following technical reports shall be submitted to Guy Childs with the Compliance and Enforcement Section, at (916) 464-4648 or gchilds@waterboards.ca.gov.

- a. **At least 120 days prior** to abandoning MW-5, the Discharger shall submit a Groundwater Monitoring Well Destruction Workplan. The workplan shall describe the proposed abandonment procedures, which shall comply with California Well Standards Bulletin 74-90 (June 1991); State of California Bulletin 94-81 (December 1981); and any more stringent standards adopted by the state or county pursuant to Water Code section 13801.
- b. **Within 60 days after** abandoning MW-5, the Discharger shall submit a *Groundwater Monitoring Well Destruction Report*. The report shall detail the methods used to abandon each well and include copies of the well abandonment permits issued by the Contra Costa County Environmental Health Department.

In addition, all monitoring reports shall be submitted to Mr. Childs by the compliance due dates in the MRP. The enclosed monitoring report transmittal form shall be included with your monthly and annual reports.

If you have any questions regarding this letter, please contact Robin Merod at (916) 464-4697 or by email at rmerod@waterboards.ca.gov.

Original signed by

ANNE OLSON, P.E.
Senior Water Resource Control Engineer
Waste Discharge to Land Section

Enclosures: Monitoring and Reporting Program R5-2007-0048, Revision No. 1
Monitoring Report Transmittal Form

cc: Randall L. Sawyer, Contra Costa County Environmental Health Department, Concord

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0048, REVISION NO. 1
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}	µg/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

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.

Prior to sampling, the groundwater elevations shall be measured in all wells in the monitoring network. Depth to groundwater shall be measured to the nearest 0.01 feet. Compliance wells MW-2, MW-4, and MW-6 shall be purged of at least three well volumes until temperature, pH, and electrical conductivity have stabilized and samples shall be collected and analyzed using standard EPA methods in accordance with the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Arsenic ¹	µg/L	Grab	Annually ²	Annually
Fluoride	µg/L	Grab	Annually	Annually
Depth to Groundwater	feet	Measurement	Annually	Annually
Groundwater Elevation ³	feet	Calculated	Annually	Annually
Gradient Magnitude	feet/foot	Calculated	Annually	Annually
Gradient Direction	degrees	Calculated	Annually	Annually

1. Samples shall be filtered through a 0.45-micron filter prior to preservation.
2. Annual groundwater sampling shall begin in 2012.
3. 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.

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 in the next scheduled monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Engineer or Geologist and signed by the registered professional.

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. 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. Groundwater monitoring shall be conducted annually. Results of groundwater monitoring, which shall include:
 - a. 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.
- b. 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.
 - c. 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).
 - d. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements.
 - e. Summary data tables of historical and current water table elevations and analytical results.
 - f. 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.
 - g. Copies of laboratory analytical report(s) for groundwater monitoring.
2. The contents of the regular monthly monitoring report for the last sampling event 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. A narrative description of solids disposal practices including required sampling and the volume sent to off-site disposal facilities.
 6. 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.
 7. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
 8. 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

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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 on the first day of the month following the date of the signature.

Ordered by: Original signed by Andrew Altevogt for
PAMELA C. CREEDON, Executive Officer

24 April 2013

(Date)

RTM: 07/25/14

Monitoring Report Submittal Transmittal Form

Attn: Guy Childs (916) 464-4648
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Discharger: Contra Costa Water District
Name of Facility: Randall Bold WTP
WDRs Order Number: R5-2007-0048
WDID: 5B07NC00013
County: Contra Costa

I am hereby submitting to the Central Valley Water Board the following information:

Check all that apply:

Monthly Monitoring Report for the month of _____

1st / 2nd / 3rd / 4th (**circle one**) Quarterly Monitoring Report for the year of _____

1st / 2nd (**circle one**) Semi-annual Monitoring Report for the year _____

Annual Monitoring Report for the year _____

Violation Notification

During the monitoring period, there were / were not (circle one) any violations of the WDRs.

1. The violations were:
2. Have the violations been corrected? Yes / No. If no, what will be done to correct the violations:

Certification Statement

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Signature: _____ Phone: _____

Printed Name: _____ Date: _____