California Regional Water Quality Control Board
North Coast Region

REVISED MONITORING AND REPORTING PROGRAM NO. 93-42
(Revised September 15, 2008)

FOR

OCCIDENTAL COUNTY SANITATION DISTRICT

Sonoma County

MONITORING

NPDES regulations at section 122.48 of 40 CFR require that all NPDES Orders specify monitoring and reporting requirements. Sections 13267 and 13383 of the CWC also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and State regulations.

I. GENERAL MONITORING PROVISIONS

A. Wastewater Monitoring Provision. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.
B. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the monthly and annual discharger monitoring reports.
C. Laboratories analyzing monitoring samples shall be certified by the State Department of Health Services, in accordance with the provision of the California Water Code (CWC), section 13176 and must include quality assurance/quality control data with the reports.

II. MONITORING LOCATIONS

Table 1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	M-INF	Untreated wastewater influent collected at a representative point preceding primary treatment
001	M-001	A representative point immediately following all treatment and disinfection processes and before transfer to Graham's Pond
002	M-002	Discharge from Graham's Pond – samples are to be collected from the end of the discharge pipe

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	RSW-001	Samples shall be representative of background conditions in the Dutch Bill Creek watershed
---	RSW-002	Samples shall be representative of conditions in Dutch Bill Creek following introduction and mixing of effluent from the wastewater treatment plant.

III. INFLUENT MONITORING REQUIRMENTS

The Discharger shall monitor influent to the facility at Monitoring Location M-INF as follows:

Table 2. Influent Monitoring

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
BOD (20°C, 5-day)	mg/L	8-hr composite	monthly	Standard Methods
Settleable Solids	ml/L	grab	monthly	Standard Methods
Suspended Solids	mg/L	8-hr composite	monthly	Standard Methods
Mean Daily Flow[1]	mgd	continuous	daily	Meter

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001 (Effluent Monitoring Prior to Discharge)

1. The Discharger shall monitor disinfected secondary wastewater at Monitoring Location M-001:

Table 3. Effluent Monitoring – Monitoring Location M-001

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
BOD (20°C, 5-day)[2]	mg/L	grab	weekly	Standard Methods
Settleable Solids	ml/L	grab	weekly	Standard Methods
Suspended Solids[2]	mg/L	grab	weekly	Standard Methods

[1] During the irrigation season, when there is no discharge from Graham's Pond to the tributary of Dutch Bill Creek, mean daily influent and effluent flow may be calculated based on a totalizer reading that is not read daily.

[2] The mass loading (lbs/day) of BOD and suspended solids shall be calculated and reported during periods of discharge from Graham's pond.

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hydrogen Ion	pH units	grab	daily	Standard Methods
Chlorine Residual[3]	mg/L	grab	daily	Standard Methods
Mean Daily Flow	mgd	continuous	daily	Meter
Acute Toxicity Bioassay[4]	96-hr % survival or TUa	8-hour composite	monthly	See Acute Toxicity Monitoring Requirements in Section V. Below
Total Coliform Organisms	MPN/100 mL	grab	weekly	Standard Methods
Hardness[5]	mg/L	grab	monthly	40 CFR 136
Dichlorobromomethane	ug/L	grab	monthly	40 CFR 136
Lead	ug/L	grab	monthly	40 CFR 136
Silver	ug/L	grab	monthly	40 CFR 136
Zinc	ug/L	grab	monthly	40 CFR 136
Ammonia Nitrogen	mg/L	grab	monthly	Standard Methods
Unionized Ammonia	mg/L	---	monthly	Calculation
Nitrate Nitrogen	mg/L	grab	monthly	Standard Methods
Total Phosphorus	mg/L	grab	monthly	Standard Methods

B. Monitoring Location M-002 (Discharge from Graham's Pond to Dutch Bill Creek)

1. The Discharger shall monitor disinfected, dechlorinated, secondary wastewater at Monitoring Location M-002 during periods of discharge to Dutch Bill Creek as follows:

Table 4. Effluent Monitoring – Monitoring Location M-002

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Mean Daily Discharge Flow	mgd	continuous	daily	Meter
Stream Flow[6]	mgd	visual	daily	Gage
Dilution Rate[6]	% of stream flow	---	daily	Calculation

[3] Chlorine residual shall be measured both prior to and after dechlorination.

[4] Samples to be taken only during periods of discharge to Dutch Bill Creek.

[5] Effluent and receiving water hardness samples shall be collected at the same time as samples for lead, silver and zinc.

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	grab	weekly	Standard Methods
Hydrogen Ion	pH units	grab	weekly	Standard Methods
Turbidity	NTU	grab	weekly	Standard Methods
Temperature	°C	grab	weekly	Standard Methods
Hardness[5]	mg/L	grab	monthly	Standard Methods

2. The Discharger shall visually observe the discharge on a daily basis and record observations of the discharge with regard to coloration, floating materials, oil and grease, and odors.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Control

The Discharger shall conduct acute whole effluent toxicity (WET) testing to determine compliance with the Basin Plan narrative toxicity objective and the effluent limitation for acute toxicity in Effluent Limitation B.5 of Order No. 93-42.

1. **Test Frequency**. The Discharger shall conduct acute WET testing in accordance with the schedule established by this MRP, as summarized in Table 3, above, when discharging to Dutch Bill Creek.
2. **Sample Type**. For 96-hour static renewal or 96-hour static non-renewal testing, the effluent samples shall be 8-hour composite, representative of the volume and quality of the discharge from the facility, and collected at monitoring Location M-001.
3. **Test Species**. Test species for acute WET testing shall be an invertebrate, the water flea, *Ceriodaphnia dubia*, and a vertebrate, the rainbow trout, *Oncorhynchus mykiss*, for at least the first two suites of tests. After this screening period, monitoring shall be conducted monthly using the most sensitive species. At least one time every five years, the Discharger shall re-screen with the two species identified above and continue routine monitoring with the most sensitive species.
4. **Test Methods**. The presence of acute toxicity shall be estimated as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA Report No. EPA-821-R-02-012, 5th edition or subsequent editions), or other methods approved by the Executive Officer.

   Test procedures related to pH control, sample filtration, aeration, temperature control and sample dechlorination shall be performed in accordance with the USEPA method and fully explained and justified in each acute toxicity report submitted to the Regional Water Board. The control of pH in acute toxicity

[6] During periods of discharge, stream flow shall be measured on Dutch Bill Creek at the Camp Meeker Dam. Discharge dilution rate shall be calculated based on this flow measurement and the formula approved by the Executive Officer.

tests is allowed, provided the test pH is maintained at the effluent pH measured at the time of sample collection, and the control of pH is done in a manner that has the least influence on the test water chemistry and on the toxicity of other pH sensitive materials such as some heavy metals, sulfide and cyanide.

5. **Test Dilutions.** The acute toxicity test shall be conducted using 100 percent effluent collected at Monitoring Location M-001.
6. **Test Failure.** If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.
7. **Accelerated Monitoring.** If the result of any acute toxicity test fails to meet the single test minimum limitation (70 percent survival), and the testing meets all test acceptability criteria, the Discharger shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. If any one of the additional samples do not comply with the three sample median minimum limitation (90 percent survival), the Discharger shall initiate a Toxicity Reduction Evaluation (TRE). If the two additional samples are in compliance with the acute toxicity requirement and testing meets all test acceptability criteria, then a TRE will not be required. If the discharge stops before additional samples can be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the effluent limitation.
8. **Notification.** The Discharger shall notify the Regional Water Board in writing 14 days after the receipt of test results exceeding the acute toxicity effluent limitation. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by this Order, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.
9. **Reporting**. Test results for acute toxicity tests shall be reported according to section 12 (Report Preparation) of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* or in an equivalent format that clearly demonstrates that the Discharger is in compliance with effluent limitations, and other test results and requirements.

VI. RECEIVING WATER MONITORING

Samples shall be collected at locations upstream and downstream of Graham's Pond as approved by the Executive Officer. One station shall be located on the main channel that drains into Graham's Pond and sampled during two significant storm events (1/2 " or greater rainfall in 24 hours) during the discharge season. The second station shall be located downstream of Graham's Pond on the unnamed tributary of Dutch Bill Creek near the town of Occidental. The following shall constitute the receiving water monitoring program:

Table 6. Receiving Water Monitoring

Constituent	Units	Type of Sample	Sampling Frequency
Dissolved Oxygen	mg/L	grab	monthly
Hydrogen Ion	pH Units	grab	monthly
Turbidity	NTU	grab	monthly
Temperature	°C	grab	monthly
Hardness[5]	mg/L	grab	monthly

VII. REPORTING REQUIREMENTS

A. Report Due Dates

1. Monthly monitoring reports shall be submitted to the Regional Water Board for each month by the first day of the second calendar month following the month of sampling.

2. Annual reports are due by February 1 of each year.

B. Self-Monitoring Report Content and Format.

1. Monthly reports. The purpose of the monthly report is to document treatment performance, effluent quality, and compliance with WDRs prescribed by Order No. 93-42. For each calendar month, an SMR shall be submitted to the Regional Water Board in accordance with the following:

   a. Letter of transmittal: Each SMR shall be submitted with a letter of transmittal. This letter shall include the following:
      i. Identification of facility: Name, address, WDID number;
      ii. Date of report and monitoring period;
      iii. Identification of all violations of discharge prohibitions, effluent limitations or other discharge requirements found during the monitoring period;
      iv. Details of the violations: parameters, magnitude, test results, frequency, and dates;
      v. The cause of the violation(s);
      vi. Discussion of corrective actions taken or planned to resolve violations and prevent recurrence, and dates or time of action implementation;
      vii. Authorized signature and certification statement.
      viii. During periods of no discharge, the reports shall certify “No Discharge”.
   b. Compliance Evaluation Summary: Each report shall include a compliance evaluation summary. The summary shall illustrate clearly the facility’s compliance (or lack thereof) with all effluent limitations and

other WDRs. During periods of no discharge, the reports shall certify "no discharge".

c. Results of Analyses and Observations.
   i. Tabulations of all required analyses, including parameter, sample date and time, sample station, and test result.
   ii. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and report of the data submitted in the Discharger's SMR.
   iii. Calculation of all effluent limitations that require averaging, taking of a median, or other calculation.

2. Annual Reports. The Discharger shall submit an annual report to the Regional Water Board for each calendar year. The report shall include the following, at a minimum:
   a. Both tabular and, where appropriate, graphical summaries of the monitoring data and disposal records from the previous year. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and report of the data submitted SMR.
   b. A comprehensive discussion of the facility's compliance (or lack thereof) with all effluent limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.
   c. Sanitary Sewer System Reporting. The Discharger shall submit, as part of its annual report to the Regional Water Board, a description of the Discharger's activities within the sanitary sewer system over the previous twelve months. The report shall contain:
      i. A description of any change in the local legal authorities enacted to implement the Sewer System Management Plan (SSMP);
      ii. A summary of the SSOs that occurred in the past year. The summary shall include the date, location of overflow point, affected receiving water (if any), estimated volume, and cause of the SSO, and the names and addresses of the responsible parties as well as the names and addresses of the property owner(s) affected by the sanitary sewer overflow.
      iii. A summary of compliance and enforcement activities during the past year. The summary shall include fines, other penalties, or corrective actions taken as a result of the SSO. The summary shall also include a description of public participation activities to involve and inform the public;
      iv. Documentation that all feasible steps to stop and mitigate impacts of sanitary sewer overflows have been taken;

v. Documentation that the annual report has been made available to the public.

vi. A summary of public participation activities to involve and inform the public.

d. Biosolids handling and disposal activity reporting. The Discharger shall submit, as part of its annual report to the Regional Water Board, a description of the Discharger's solids handling, disposal and reuse activities over the previous twelve months.

Ordered by _____
Catherine Kuhlman
Executive Officer

September 15, 2008

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