

ATTACHMENT D – MONITORING AND REPORTING PROGRAM (MRP)

This attachment contains the Monitoring and Reporting Program for the WDR permit for the Discharger.

CWC sections 13267 and 13383 authorize the Regional Water Quality Control Board to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring and reporting requirements to implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Board.
- B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:
 1. "A Guide to Methods and Standards for the Measurement of Water Flow," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.
 2. "Water Measurement Manual," U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
 2. "Flow Measurement in Open Channels and Closed Conduits," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
 4. "NPDES Compliance Sampling Manual," U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)
- C. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", (40 CFR Part 136) promulgated by the United States Environmental Protection Agency (USEPA).
- D. The collection, preservation and holding times of all samples shall be in accordance with USEPA approved procedures.
- E. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

- F. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.
- G. The discharger shall comply with the following:
 - 1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - 2. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least 5 years from the date of the sample, measurement, report or application.
 - 3. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements.
 - b. The individual(s) who performed the sampling or measurements.
 - c. The date(s) analyses were performed.
 - d. The individual(s) who performed the analyses.
 - e. The analytical techniques or methods used; and
 - vi. The results of such analyses.
- H. If the facility is not in operation, or there is no discharge during a required reporting period, the discharger shall forward a letter to the Regional Board indicating that there has been no activity during the required reporting period.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstration compliance with the influent limitations, discharge specifications, and other requirements in this Order:

Monitoring Location Name	Monitoring Location Description	Monitoring Location Latitude	Monitoring Location Longitude
M-001	Constructed Wetland Influent	33.05XX ° N	115.63XX ° W
M-Effluent	Constructed Wetland Effluent	33.05XX ° N	115.63XX ° W

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001

1. The Discharger shall monitor the treated wastewater discharged to the FWS constructed wetlands at monitoring location M-001 as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
Flow (Total Plant Influent)	MGD ¹	Flow Meter Reading	Daily ²	Monthly
Biochemical Oxygen Demand (BOD 5-day 20°C)	mg/L ³	24-Hr. Composite	Weekly	Monthly
Total Suspended Solids (TSS)	mg/L	24-Hr. Composite	Weekly	Monthly
Hydrogen Ion (pH)	pH Units	Grab	Weekly	Monthly
Dissolved Oxygen	mg/L	Grab	Weekly	Monthly
Temperature	°F	Grab	Weekly	Monthly
Total Dissolved Solids (TDS)	mg/L	24-Hr. Composite	Monthly	Monthly
Nitrates as Nitrogen (N)	mg/L	24-Hr. Composite	Quarterly	Quarterly
Nitrites as N	mg/L	24-Hr. Composite	Quarterly	Quarterly
Ammonia Nitrogen as N	mg/L	24-Hr. Composite	Quarterly	Quarterly
Total Nitrogen as N	mg/L	24-Hr. Composite	Quarterly	Quarterly
Total Phosphate as Phosphorus (P)	mg/L	24-Hr. Composite	Quarterly	Quarterly
Ortho-Phosphate as P	mg/L	24-Hr. Composite	Quarterly	Quarterly

¹ MGD – Million Gallons-Per-Day

² Reported for each day with average monthly flow calculated

³ mg/L - Milligrams per Liter

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-Effluent

- The Discharger shall monitor the effluent from the FWS constructed wetland at Monitoring Location M-Effluent as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
Daily Effluent Discharge	MGD	Flow Meter Reading	Daily	Monthly
<i>E. Coli</i>	MPN ⁴ /100 ml	Grab	5 samples per month	Monthly
20°C BOD ₅	mg/L	24-Hr. Composite	Weekly	Monthly
TSS	mg/L	24-Hr. Composite	Weekly	Monthly
pH	pH units	Grab	Weekly	Monthly
Dissolved Oxygen	mg/L	Grab	Weekly	Monthly
Temperature	°F	Grab	Weekly	Monthly
TDS	mg/L	24-Hr. Composite	Monthly	Monthly
Nitrates as Nitrogen (N)	mg/L	24-Hr. Composite	Quarterly	Quarterly
Nitrites as N	mg/L	24-Hr. Composite	Quarterly	Quarterly
Ammonia Nitrogen as N	mg/L	24-Hr. Composite	Quarterly	Quarterly
Total Nitrogen as N	mg/L	24-Hr. Composite	Quarterly	Quarterly
Total Phosphate as Phosphorus (P)	mg/L	24-Hr. Composite	Quarterly	Quarterly
Ortho-Phosphate as P	mg/L	24-Hr. Composite	Quarterly	Quarterly

V. ADDITIONAL MONITORING REQUIREMENTS

A. Water Supply Monitoring

- The discharger shall monitor the domestic water supply for the following constituent(s):

Constituent	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
TDS	mg/L	Grab	Quarterly	Quarterly

⁴ MPN - Most Probable Number

B. Operation and Maintenance

The Discharger shall report the following:

Activity	Reporting Frequency
To inspect and document any operation/maintenance problems by inspecting the FWS constructed wetlands system. In addition to the calibration of flow meters.	Annually

C. Sludge Monitoring

1. Sludge that is removed from the FWS constructed wetlands shall be sampled and analyzed for the following constituents prior to disposal:

Constituent	Units	Sample Type	Minimum Sampling Frequency
Arsenic	mg/kg ⁵	Composite	Prior to Disposal
Cadmium	mg/kg	Composite	Prior to Disposal
Chromium	mg/kg	Composite	Prior to Disposal
Copper	mg/kg	Composite	Prior to Disposal
Lead	mg/kg	Composite	Prior to Disposal
Mercury	mg/kg	Composite	Prior to Disposal
Molybdenum	mg/kg	Composite	Prior to Disposal
Nickel	mg/kg	Composite	Prior to Disposal
Selenium	mg/kg	Composite	Prior to Disposal
Zinc	mg/kg	Composite	Prior to Disposal
Fecal Coliform	MPN/gram	Composite	Prior to Disposal

2. The discharger shall report the quantity, location and method of disposal of all sludge and similar solid materials removed from the FWS constructed wetland.

VI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The results of any analysis take, more frequently than required at the locations specified in this Monitoring and Reporting Program shall be reported to the Regional Board.
2. Reporting of any failure in the facility shall be as described in Special Provision No. 2.C. Results of any analysis performed as a result of a failure of the facility shall be provided within ten (10) days after collection of the samples.

B. Self Monitoring Reports

1. The Discharger shall submit monthly, quarterly, annual Self Monitoring Reports including the results of all required monitoring and monitoring conducted in addition to the minimum required monitoring and using USEPA approved test methods or other test methods specified in this Order. Monthly reports shall be due on the 15th day of the second month following the end of each calendar month; Quarterly reports shall be due on January 15, April 15, July 15, and October 15 following each calendar quarter; Annual reports shall be due on January 15 following each calendar year.

⁵ mg/kg – milligrams per kilogram

2. Monitoring periods for all required monitoring shall commence according to the following schedule:

Sampling Frequency	Monitoring Period Starts On...	Monitoring Period	Reporting Due with SMR on...
Daily	May 5, 2005	Calendar day (Midnight through 11:59 PM)	Fifteenth day of the following month of sampling
Weekly	May 8, 2005	Sunday through Saturday	Fifteenth day of the following month of sampling
Monthly	June 1, 2005	1 st day of calendar month through last day of calendar month	Fifteenth day of the following month of sampling
Quarterly	July 1, 2005	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	January 15 April 15 July 15 October 15
Annually	January 1, 2006	January 1 through December 31	January 15

3. The discharger shall report with each sample result the applicable Minimum Level (ML) and the laboratory current Method Detection Limit (MDL) as determined by the procedure in 40 CFR Part 136.
4. The discharger shall arrange all reported data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.
5. The Discharger shall attach a cover letter to its Self Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.
6. Monitoring results must be reported on forms approved by this Regional Board. Duplicate copies of the monitoring reports, signed and certified must be submitted to the address listed below:

Submit monitoring reports to:
 California Regional Water Quality Control Board
 Colorado River Basin Region
 73-720 Fred Waring, Suite 100
 Palm Desert, CA 92260