CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING AND REPORTING PROGRAM
FOR

HAMILTON WETLAND RESTORATION PROJECT

NOVATO, MARIN COUNTY

ORDER NO. R2-2005-0034

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

1. Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Board's Resolution No. 73-16. This Self-Monitoring Program is issued in accordance with Provision E.4 of Board Order No. R2-2005-0034.
2. The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance and toxicity standards, (4) to assist the dischargers in complying with the requirements of the California Code of Regulations.

B. SAMPLING AND ANALYTICAL METHODS

1. Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods for the Analysis of Water and Wastewater
2. Water and sediment analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.
3. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A **grab sample** is a discrete sample collected at any time.
2. **Decant Water**, also known as overlying water, or return water, is the water entrained with the sediment particles during dredging or upland placement of dredged material. After suspended sediment concentrations have been reduced through discrete settling (primary settling in the sediment placement cells and secondary settling in Nina's Pond and other basins), clarified decant water will discharge to an existing storm water pumping station from which it will be pumped to San Pablo Bay.
3. **Receiving waters** refers to any waterbody that actually or potentially receives surface or groundwater, which passes over, through, or under dredged sediment during placement, dewatering, and settling/consolidation activities. The outboard drainage ditch which runs along the outboard levee is the receiving water body for the decant water discharge. The outboard drainage ditch is a tributary to San Pablo Bay, which will receive the decant water flow.
4. A **dredged material placement episode** consists of continuous dredged material slurry placement that stops for no more than 15 consecutive days. If placement stops for more than 15 consecutive days and then starts up again, the date of start-up will be considered the beginning of a new dredged material placement episode for monitoring purposes.
5. A **decant water discharge episode** consists of continuous decant water discharge that stops for no more than 15 consecutive days. If discharge stops for more than 15 consecutive days

and then starts up again, the date of start-up will be considered the beginning of a new decant water discharge episode for monitoring purposes.

6. **Receiving Waters Standard Observations** refer to:
   a. Evidence of floating and suspended materials generated by project activities, as recorded by visual observations.
   b. Discoloration and turbidity: description of color, source, and size of affected area.
   c. Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
7. **Site Standard Observations** refer to visual inspection of:
   a. The overall condition and integrity of the sediment placement cell and settling basin perimeter containment berms.
   b. The location of placed material, amount of freeboard available, and whether any discharge of dredged sediments outside of the containment berms has occurred.
   c. The overall condition and integrity of the dredged material effluent (decant water) discharge weir/s.
   d. The overall condition and integrity of the dredged material transport pipeline from the intake at the connection point at the off-loader in San Pablo Bay to the point of discharge into the sediment placement cells.
   e. The overall condition and integrity of the off-loader and whether any discharge of dredged sediments from the off-loader into San Pablo Bay has occurred.

D. SAMPLING, ANALYSIS AND OBSERVATIONS

1. The total suspended solids (TSS) in the top of the water column in each secondary settling basin prior to discharge over the weir shall be continuously estimated with turbidity meters (optical backscatter sensors) that have been calibrated with grab samples.

The Discharger is required to perform observations and monitoring according to the schedule in Part B.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or its laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.
2. Date and time of sampling and the name of the person performing the sampling.
3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written monitoring reports shall be filed each quarter, by the 30th day of the month following the reporting period, during which placement of material onto the site occurs.

Reporting Period	Report Due Date
January to March	April 30
April to June	July 30
July to September	October 30
October to December	January 30

The reports shall contain the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any Waste Discharge Requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by the duly authorized representative of the HWRP responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. The quantity and locations of dredged material placed at the site and a description of maintenance activities occurring during the reporting period.

c. A map or aerial photograph showing observation and monitoring stations.

d. Laboratory statements of results of analyses specified in Part B; the director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

i. The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer.

ii. In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is less than the recovery acceptance limits specified in the USEPA method procedures or the laboratory's acceptance limits, if they are more stringent than those in the USEPA

method procedures; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

e. A summary and certification of completion of all Standard Observations for the facility.

2. By March 1 of each year, the Discharger shall submit an annual report to the Board covering the previous calendar year's activities. This report shall contain the following:

   a. Summaries of the quantities and locations of dredged material placement and the source of the dredged material.

   b. An estimate of the total volume of decant water generated from dewatering the dredged material.

   c. A summary of site maintenance activities.

   d. Tabular and graphical summaries of the monitoring data obtained during the previous year.

   e. A description of the compliance record and corrective actions taken or planned which may be needed to bring the Discharger into full compliance with Order No. R2-2005-0034.

3. **Contingency and Corrective Action Reporting**

   a. A report to the Executive Officer and Board case manager shall be made by telephone of any accidental discharge of whatever origin immediately after it is discovered. A written report shall be filed with the Board within fifteen days thereafter. This report shall contain the following information:

      - A map showing the location(s) of discharge(s);
      - Approximate flow rate;
      - Nature of effects, i.e., all pertinent observations and analyses; and
      - Corrective measures underway or proposed.

   b. If the Decant Water Limitation for Total Suspended Solids (TSS) in Order No. R2-2005-0034 is exceeded (i.e., more than 10% of the measurements in a 24 hour period of discharge are greater than 100 mg/L or more than 50% greater than 50 mg/L), the Discharger shall submit a Corrective Action Report within 15 days of the end of the month in which the exceedance occurred. The report shall contain at a minimum:

      - A summary of the continuous monitoring data for each day of the month that decant water discharge occurred. At a minimum, the daily data summary should include the minimum, maximum, mean, median, standard deviation, and percentage of measurements greater than 100 mg/L and percentage of measurements greater than 50 mg/L on a daily basis.
      - A description of the actions that the discharger has taken to adjust site operations to stay within the TSS Decant Water Limitation. These actions may include temporarily delaying material placement to increase retention time in placement cells and settling basins, installing structures to control the flow rate of dredged

material slurry through the site, enlarging the overall size or changing the shape of the cells/basins to increase retention time, or other measures.

- An evaluation of the effectiveness of the corrective actions taken.

PART B: MONITORING AND OBSERVATION SCHEDULE

A. DESCRIPTION OF OBSERVATION AND MONITORING STATIONS

1. **Receiving water standard observations** shall be made within a 100-foot radius of the pump station outfall into the outboard drainage ditch.
2. **Site standard observations** shall be made along the entire length of the dredged material placement cell berms, the secondary settling pond berms, and along the visible portion of the dredged material transport pipeline and within a 100-foot radius of the Off-Loader Facility.
3. Continuous TSS measurements and grab samples of water for **decant water monitoring** shall be taken on the inboard side of settling basin discharge weir spillways.

B. SCHEDULE OF OBSERVATIONS AND MONITORING

1. The schedule of observations and monitoring is provided in Table 1, below:

Table 1. Observations and Monitoring Schedule for the Hamilton Wetland Restoration Project

Constituent/Type of Analysis (units)	Location	Observation/Monitoring Frequency	Reporting Frequency (Due Date)
Site standard observations (visual)	Along placement cell and settling basin containment berms, and along slurry transport pipeline	Daily during dredged material placement episodes	Quarterly (30th of the month following the reporting period)
	Off-Loader Facility within a 100-foot radius	Daily during dredged material placement episodes	Quarterly (30th of the month following the reporting period)
Receiving water standard observations (visual)	Outboard drainage ditch within a 100-foot radius of the pump station.	Daily during decant water discharge episodes	Quarterly
			(Same as above)
<u>Decant Water Monitoring</u>[1]			
Flow rate (mgd)	Effluent	Continuous during each 24 hour period that decant water discharge occurs	Quarterly
			(same as above)

Constituent/Type of Analysis (units)	Location	Observation/Monitoring Frequency	Reporting Frequency (Due Date)
TSS estimated from turbidity measurements	Inboard side of secondary settling basin discharge weir	Continuous during each 24 hour period that decant water discharge occurs	Quarterly (Same as above) If TSS limit has been exceeded report monthly, until limit is met (see F.3.b. of Part A).
Dissolved Oxygen (DO)	Inboard side of secondary settling basin discharge weir	Continuous (May through October) during each 24 hour period that decant water discharge occurs.	Quarterly (Same as above)
pH	Inboard side of secondary settling basin discharge weir	Continuous (May through October) during each 24 hour period that decant water discharge occurs.	Quarterly (Same as above)
Dissolved sulfide Metals (µg/L) Arsenic Cadmium Chromium VI Copper Lead Mercury (total) Nickel Selenium (total) Silver Zinc	Grab sample from inboard side of secondary settling basin discharge weir Grab sample of San Pablo Bay influent water at the off-loader	Daily for the first 15 days of a Decant Water Discharge Episode, thereafter a monthly average Daily for the first 15 days of a Decant Water Discharge Episode, thereafter a monthly average	Quarterly (Same as above)
Wetland Monitoring (will be expanded once Wetlands Monitoring Plan is submitted)	Aerial photography and field survey locations to be determined.	Annual for first five years after outboard levee breach, then every other year until established	Annual Summary Report (March 1 of the following year)
Levee Dimensions	Visual Observation and field survey locations to be determined	Visual walkover inspection twice annually (pre and post winter conditions). Annual field survey.	Annual Summary Report (March 1 of the following year)

Constituent/Type of Analysis (units)	Location	Observation/Monitoring Frequency	Reporting Frequency (Due Date)
Fill and Marsh Development Elevations	Field survey, locations to be determined.	Prior to levee breach (after sediment placement completed), annually for first five years and then every five years until design expectations met.	Annual Summary Report (March 1 of the following year)

[1]For decant water effluent limits, refer to Section C. Effluent Limitations of Order No. R2-2005-0034

2. The Discharger may submit a written request to reduce the frequency of monitoring for constituents listed in Table 1 based on monitoring data collected and analyzed according to the conditions of this SMP, which demonstrate that the temporal variability of these constituents is low enough to justify less frequent monitoring. The request should include a proposed revised monitoring schedule for the subject constituents. The request and schedule must be approved in writing by the Executive Officer prior to implementation.
3. All reports shall be submitted to the Board's case manager at:

California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

I, Bruce H. Wolfe, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Board Order No. R2-2005-0034.
2. Was adopted by the Board on July 20, 2005; and
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger, and revisions will be ordered by the Executive Officer or the Board.

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Bruce H. Wolfe
Executive Officer