Attachment A
Monitoring and Reporting Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

MONITORING AND REPORTING PROGRAM
FOR

SONOMA COUNTY WATER AGENCY

STREAM MAINTENANCE PROGRAM

SONOMA COUNTY

ORDER NO. R2-2011-0020

A. GENERAL

1. This Monitoring and Reporting Program (MRP) is issued in accordance with Provision D.34. of Regional Water Board Order No. R2-2011-0020 (Order) and pursuant to CWC sections 13263 and 13267(b).
2. The MRP is necessary to: 1) document compliance with waste discharge requirements and prohibitions established by the Regional Water Board, 2) facilitate self-policing by the Sonoma County Water Agency (the Applicant) in the prevention and abatement of pollution arising from waste discharge, 3) evaluate the effectiveness of the Stream Maintenance Program (SMP), including assessment of best management practices (BMPs) and mitigation measures, and 4) assist the Applicant in complying with State requirements and policies. The evidence supporting this MRP is in the public file for this matter.
3. The MRP includes monitoring requirements for maintenance and restoration activities including the following monitoring elements: receiving water monitoring for the types of pollutants and conditions listed under the Standard Observations section; surface water monitoring during active water diversions; sediment monitoring from sediment removal projects; erosion and sediment control monitoring for bank stabilization projects; monitoring of revegetation projects and biotechnical bank stabilization projects to determine if plant establishment success criteria have been met; and monitoring BMPs to assess their effectiveness.
4. For monitoring, the Applicant shall follow requirements contained in this MRP and any additional requirements listed in the Sediment Sampling and Analysis Guidelines, Appendix B of the SMP Manual.

B. SAMPLING AND ANALYTICAL METHODS

1. Sample collection, storage, and analyses shall be performed according to the most recent version of U.S. EPA Standard Methods for the Analysis of Water and Wastewater.
2. Water and sediment analysis shall be performed by a laboratory certified for these analyses by the State of California.
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. **Receiving waters** refers to any water body that actually or potentially receives surface or groundwater, which passes over, through, or under dredged sediment during placement, dewatering, settling/consolidation, and excavation/removal activities.
3. A rehandling/disposal site operational **episode** consists of continuous dredged material slurry placement on the disposal site that stops for no more than 30 consecutive days. If placement stops for more than 30 consecutive days and then starts up again, the date of startup will be considered the beginning of a new operational episode for monitoring purposes.
4. **Receiving Waters Standard Observations** refer to:

a. Evidence of floating and suspended materials 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.

5. **Site Standard Observations** refer to visual inspection of:

a. The overall condition of the sediment containment structure(s) and area and any BMPs to contain the excavated sediment.
b. The location of placed material, distance to waters of the State, and whether any discharge of dredged sediments outside of the containment structures has occurred.
c. The condition of the excavated material transport equipment along the entire length of the transport path from the sediment removal area to the point of discharge into the containment area.

D. MONITORING REQUIREMENTS

1. **Observations and Monitoring Schedule -** The schedule of observations and monitoring is provided in Table 1, below:

Table 1 - Observations and Monitoring Schedule for the Sediment Disposal Operations

Observation/Monitoring Frequency	Type	Location	Reporting Frequency
Twice daily (once in AM and once in PM) during operations	Receiving water standard observations	Receiving water within the project area	Annually
	Site standard observations	Along project area	Annually

[1] See Table 4 Standard Analyses for Receiving Water Monitoring

2. **Standard Observations -** The following Standard Observations of the receiving water will be recorded on every day of operation on the field reporting form:

a. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.

b. Discoloration and turbidity: description of color, source, and size of affected area.

c. Odor: presence or absence, characterization, source, distance of travel, and wind direction.

d. Hydrographic condition including: time and height of corrected low and high tides and depth of water columns and sampling depths.

e. Weather condition including: air temperatures, wind direction and velocity, and precipitation.

3. **Active Water Diversion Monitoring** - For all activities involving an active diversion of a stream:

   a. The Applicant shall establish surface water monitoring stations, one representative of typical undisturbed conditions directly upstream of the active work area and the point of diversion, and one representative of surface water affected by the diversion that is directly downstream of the water diversion outlet.

   b. Baseline measurements shall be taken before installation of diversion structures at the established surface water monitoring stations identified above in 3.a.

   c. If for whatever reason work within that reach is interrupted for over one day, new baseline measurements shall be taken.

   d. Water diversion activity monitoring shall be in accordance with Table 2 below:

Table 2
Water Diversion Sampling and Analysis

Parameter	**Units**	**Sample Type**	**Minimum Analysis Frequency**
Dissolved Oxygen	mg/L	Grab	Once Daily at each monitoring station
pH	pH units	Grab	Once Daily at each monitoring station
Temperature	°F	Grab	Once Daily at each monitoring station
Turbidity	NTU	Grab	Once Daily at each monitoring station

   e. The daily sampling set shall be taken during work hours, but not within the first hour after maintenance activities have started each day.

   f. Samples shall be taken with accurately calibrated field measurement instrument(s) and the results shall be saved and logged.

   g. A Quality Assurance/Quality Control (QA/QC) plan equivalent to requirements of the Surface Water Ambient Monitoring Program shall be followed.

   h. The Applicant shall observe surface water conditions upstream and downstream of the active project area to visually detect impacts of the water diversion.

   i. Observations shall be conducted during sampling events at sampling locations for presence of bottom deposits, color, film or coating (from oil, grease, wax, etc.), floating material (including solids, liquids, foams, and scum), and odor. See the Standard Observations section for the complete list of observations that will be tracked. If any visual events occur, additional samples as detailed in Table 2 shall be taken, with results being saved, logged, and reported.

   j. The Applicant shall have equipment and supplies onsite (or readily available nearby) that could be quickly deployed to provide additional filtration if turbidity is observed. These supplies may include: bladders for settling, filter bags and pumps, silt filter dams, or a silt barrier as appropriate depending on site conditions.

   k. Surface water observations detecting exceedances of Discharge Specifications and Receiving Water Limitations are subject to "Reporting" requirements in Section F of this document.

l. During the installation and removal of diversion structures, the Applicant shall monitor surface monitoring stations as described in 3.a. above, and in accordance with Table 3 below:

Table 3
Diversion Structure Monitoring

Parameter	**Units**	**Sample Type**	**Minimum Analysis Frequency**
Turbidity	NTU	Grab	Twice Daily

4. **Sediment Monitoring**

a. Sampling Frequency and Locations

i. For all sediment removal projects and bank stabilization projects that involve the removal and disposal of sediment, one sample will be collected and analyzed for every 500 cubic yards of sediment removed.

ii. For long channel reaches that are not particularly wide or deep with sediment, the Applicant will take sediment samples for every 1000 feet of project length rather than per 500 cubic yards of sediment removal. The Applicant shall use whichever approach results in more samples in order to better characterize the variability along the entire length of the project site.

iii. For project sites that require more than one sample, sampling locations will be selected to represent overall reach conditions. Sampling sites will also specifically target conditions downstream of culvert crossings, culvert outfalls, and key stream confluences.

iv. In all cases, sampling locations shall be within the project area where there is the highest potential for detecting the maximum number of contaminants at the highest concentrations, and the sampling locations shall be the most representative of site conditions.

b. Sediment Sampling Methodology

This guidance applies to discrete (single) samples and composite samples.

i. All samples shall be collected in accordance with U.S. EPA Guidelines and sampling methodologies.

ii. 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 U.S. EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer

iii. Sediment sampling methodology is described in the Sediment Sampling and Analysis Guidelines, Appendix B of the SMP Manual.

iv. For each sediment removal project, the Applicant shall characterize the sediment and summarize all sediment sampling analyses, prior to proposed sediment removal activities.

v. Every sediment sample location shall be sampled for the full list of parameters/analytes listed in Table 4. Sampling parameters/analytes listed in Table 4 may be modified after a history of sampling is obtained. This may result in not requiring monitoring for some of these contaminants under certain situations or at certain locations, or adding more parameters/analytes if deemed necessary by the Executive Officer.

5. **Post-Project Monitoring**

a. Bank Stabilization Erosion and Sediment Control Monitoring

i. For the first year following completion of a bank stabilization project, the Applicant shall inspect surface waters daily following larger storm events to determine if the project and the installed BMPs are adequately functioning to stabilize soil and prevent excessive erosion.

ii. Photos will be taken to document all site inspections.

iii. After the first year of monitoring, the project site shall be monitored once a year for a period of five years thereafter.

iv. The Applicant shall observe surface water upstream and downstream of the bank stabilization site for bottom deposits, color and floating material.

v. If the sites fails such that erosion or degradation is apparent or the appearance of surface water is degraded, the Regional Water Board will be immediately notified and corrective actions will be taken to resolve the problem.

b. Revegetation Monitoring, including Bank Revegetation

i. The Applicant shall monitor all revegetated sites annually for five years after planting, and for at least two years after supplemental watering is discontinued, to determine if supplemental watering, weed control, rodent control, and/or protection from vandalism are required to encourage plant establishment.

ii. The Applicant shall implement all vegetation management success criteria requirements contained within the SMP Manual including the Vegetation Management Plan, Appendix E of the SMP Manual.

c. Geomorphic Shaping Activities

The Applicant shall monitor all projects that require "geomorphic shaping activities" to determine the sustainability of the grading. These projects sites shall be monitored for a minimum of five years and all monitoring results shall be submitted to the Regional Water Board.

d. Maintenance Activities in Alluvial Fans

The Applicant shall monitor all maintenance projects located in or influenced by alluvial fan environments to determine if adaptive management of these areas will inform future management plans. These projects sites shall be monitored for a minimum of five years and all monitoring results shall be submitted to the Regional Water Board.

6. **Best Management Practices Monitoring**

   a. The Applicant shall inspect temporary and permanent structural BMPs at active sites on an on-going basis and at least once each morning and once each afternoon that an activity is being implemented to determine if maintenance, repair, or replacement of BMPs is necessary.

   b. The Applicant shall maintain, repair, or replace BMPs as appropriate to prevent sediment discharge and reduce erosion.

   c. The Applicant shall document BMPs installations and inspections and enter all data in the BMPs inspection log.

   d. The Applicant shall document BMPs effectiveness, maintenance and repair, and corrective actions taken, and enter all data in the BMPs inspection log.

   e. The BMPs inspection log shall be kept onsite while the site is active, and shall be available to Regional Water Board staff upon request.

   f. At a minimum, BMPs at active project sites shall be inspected and maintained within 2 business days (48 hours) prior to each qualifying rain and within two business days (48 hours) after each qualifying rain event. For this requirement, a qualifying rain event is one producing precipitation of ½ inch or more of discharge.

E. QUALITY ASSURANCE AND QUALITY CONTROL

A QA/QC plan is an important component of a monitoring program involving extensive field sampling and laboratory analyses. The two objectives of the QA/QC plan are: 1) to provide a means of ongoing control and evaluation of the sampling and analysis procedures; and 2) to quantify data precision and accuracy for use in data interpretation. The QA/QC plan will be followed in all phases of the monitoring program including sampling, and data validation and reporting. QA/QC requirements are noted below.

a. The Applicant will utilize a sampling contractor or internal staff to use the field instruments and sampling equipment who will be responsible for managing all field sampling and analysis.

b. All equipment used for field sampling will be tested and calibrated before leaving the office and verified upon arrival at the site to ensure the instruments are in proper working condition.

F. REPORTING

1. **General Reporting Requirements**

   a. The Applicant shall comply with reporting dates and requirements within the SMP Manual.

   b. All results of monitoring performed in compliance with this Order shall be made available to Regional Water Board staff upon request.

   c. The Applicant shall submit a transmittal letter with all monitoring reports to demonstrate compliance status with the Order.

2. **Records to Be Maintained**

   Written reports shall be maintained by the Applicant 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 Regional Water Board. Such records shall show the following for each sample:

a. Identity of sample and sample station number.

b. Date and time of sampling and the name of the person performing the sampling.

c. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

e. Calculation and evaluation of results.

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

3. **Reports to Be Filed With the Regional Water Board**

Written monitoring reports shall be filed with the Regional Water Board annually. The reporting requirements are noted below.

a. A letter transmitting the essential points in each report should accompany the annual report. Such a letter shall include:

i. A discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Applicant had previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory.

ii. If no violations have occurred in the last report period this shall be stated in the letter of transmittal.

iii. Monitoring reports and the letter transmitting the monitoring reports shall be signed by the duly authorized representative of the Applicant if such representative is responsible for the overall operation of the facility from which the discharge originates.

iv. 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 Annual Report shall contain the following:

i. A summary of site maintenance activities.

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

iii. A summary and certification of completion of all Standard Observations for the project site.

iv. A description of the compliance record and corrective actions taken or planned that may be needed to bring the Applicant into full compliance with Order No. R2-2011-0020.

v. The Applicant shall submit an annual report to the Regional Water Board by April 30 of each year, covering the previous calendar year activities.

vi. For Each Sediment Removal Project:

1. Characterization of the sediment

2. A summary of all sediment sampling analyses.

vii. For Each Sediment Disposal Event

1. The quantity and locations of excavated material placed at the site and the source of the excavated material.

2. An estimate of the total volume of dried excavated material that was reused or disposed of offsite during the past year along with a description of the reuse or disposal location(s) where this material was sent.

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

c. Laboratory statements of results of analyses specified in the MRP must be included in each sediment removal and sediment disposal report. The laboratory reporting requirements are as follows.

i. 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 Regional Water Board.

ii. Laboratory QA/QC information must be included in the monitoring report.

iii. 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 U.S. EPA method procedures or the laboratory's acceptance limits (if they are more stringent than those in the U.S. EPA 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.

4. **Contingency Reporting**

A report to the Executive Officer and Regional Water 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 Regional Water Board within five days thereafter. This report shall contain the following information:

i. A map showing the location(s) of discharge(s);

ii. Approximate flow rate;

iii. Nature of effects, i.e., all pertinent observations and analyses; and

iv. Corrective measures underway or proposed.

5. **Violation Reporting**

a. Upon discovery of an exceedance, the Applicant shall identify the source of the exceedance, implement corrective action, and resample or make additional observations to determine whether or not the exceedance was corrected.

b. A report to the Executive Officer and the Regional Water 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 Regional Water Board within five days thereafter.

c. The Applicant shall stop all work at the site for violations lasting longer than two hours. The Applicant shall update Regional Water Board staff of site conditions and obtain verbal permission to resume work.

d. The Applicant shall notify Regional Water Board staff in writing within five calendar days of all violations. Written reports shall include time and date of incident, duration, estimate of discharge or bypass volume, and documentation of sampling results/observations determining compliance status. The report shall also include detailed discussion of reasons for noncompliance, and specific steps that were or will be taken to correct the failure and prevent it from reoccurring.

G. MODIFICATION

Any part of this Monitoring and Reporting Program may be revised with the written approval of the Executive Officer.

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

1. Has been developed in accordance with the procedure set forth in this Regional Water Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Order No. R2-2011-0020;
2. Was adopted by the Regional Water Board on April 13, 2011; and
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Applicant, and revisions will be ordered by the Executive Officer or the Regional Water Board.

Digitally signed by Bruce Wolfe
Date: 2011.04.14 16:48:22 -07'00'

Bruce H. Wolfe
Executive Officer

Attachment: Table 4 - Discrete Sediment Sampling and Analysis

Table 4
Discrete Sediment Sampling and Analysis

EPA Test Method[1]	**Analyte**	**Reporting Limit for Soil**[2] (mg/kg)	**Analyte (cont.)**	**Reporting Limit for Soil** (mg/kg)
9045	pH	pH Units		
6010/ CAM 17	Metals			
	Antimony (total)	1.1	Lead (total)	1.1
	Antimony (soluble)	1.0 mg/l	Lead (soluble)	0.50 mg/l
	Arsenic (total)	0.086	Mercury (total)	0.10
	Arsenic (soluble)	0.10 mg/l	Mercury (soluble)	0.10 mg/l
	Barium (total)	0.13	Molybdenum (total)	0.36
	Barium (soluble)	1.0 mg/l	Molybdenum (soluble)	0.10 mg/l
	Beryllium (total)	0.11	Nickel (total)	1.1
	Beryllium (soluble)	0.050 mg/l	Nickel (soluble)	0.10 mg/l
	Cadmium (total)	0.12	Selenium (total)	0.074
	Cadmium (soluble)	0.10 mg/l	Selenium (soluble)	0.10 mg/l
	Chromium (total)	0.66	Silver (total)	0.33
	Chromium (soluble)	0.10 mg/l	Silver (soluble)	0.10 mg/l
	Cobalt (total)	0.30	Thallium (total)	1.1
	Cobalt (soluble)	1.0 mg/l	Thallium (soluble)	0.10 mg/l
	Copper (total)	0.26	Vanadium (total)	0.55
	Copper (soluble)	0.10 mg/l	Vanadium (soluble)	0.10 mg/l
	Fluoride (total)	1.0	Zinc (total)	2.4
			Zinc (soluble)	0.50 mg/l
8081	Organochlorine Pesticides			
	Aldrin	0.0050	Endosulfan I	0.0050
	α-HCH (hexachlorocyclohexane)	0.0050	Endosulfan II	0.0050
	β-HCH	0.0050	Endosulfan sulfate	0.0050
	γ-HCH (Lindane)	0.0050	Endrin	0.0050
	δ-HCH	0.0050	Endrin aldehyde	0.0050
	Chlordane (tech)	0.20	Heptachlor	0.0050
	4,4'-DDD	0.0050	Heptachlor epoxide	0.0050
	4,4'-DDE	0.0050	Kepone	1.0
	4,4'-DDT	0.0050	Methoxychlor	0.0050
	Dieldrin	0.0050	Mirex	0.10
			Toxaphene	0.20
8141	Organophosphorus Pesticides			
	Azinphos-ethyl	0.10	Famphur	0.10

[1] The most recent version of U.S. EPA's Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", also known as SW-846, will be used.
[2] All laboratory analytical reports will include the detection and reporting limits, any flags, and a QA/QC report. Electronic (PDF) submittals are preferred.

EPA Test Method[1]	Analyte	Reporting Limit for Soil[2] (mg/kg)	Analyte (cont.)	Reporting Limit for Soil (mg/kg)
	Azinphos-methyl	0.10	Fenthion	0.025
	Bolstar (Sulprofos)	0.050	Malathion	0.025
	Chlorpyrifos	0.025	Mevinphos	0.050
	Coumaphos	0.10	Parathion, ethyl	0.025
	Demeton-O	0.050	Parathion, methyl	0.025
	Demeton-S	0.050	Phorate	0.025
	Diazinon	0.025	Ronnel	0.050
	Dichlorvos (DDVP)	0.050	Simazine	0.050
	Dimethoate	0.10	Stirophos	0.025
	Disulfoton	0.025	Thionazin	0.050
	EPN	0.050	Tokuthion	0.050
	Ethion	0.025	Trichloronate	0.0050
	Ethoprop	0.050		
8082	Polychlorinated biphenyls (PCBs)			
	Aroclor 1016	0.20	Aroclor 1242	0.20
	Aroclor 1221	0.20	Aroclor 1248	0.20
	Aroclor 1232	0.20	Aroclor 1254	0.20
			Aroclor 1260	0.20
8260	Volatile Organic Compounds (VOCs)			
	Acetone	0.020	1,1-Dichloropropene	0.0050
	Benzene	0.0050	cis-1,3-Dichloropropene	0.0050
	Bromobenzene	0.0050	trans-1,3-Dichloropropene	0.0050
	Bromochloromethane	0.0050	Ethylbenzene	0.0050
	Bromodichloromethane	0.0050	Hexachlorobutadiene	0.0050
	Bromoform	0.0050	Isopropylbenzene	0.0050
	Bromomethane	0.0050	p-Isopropyltoluene	0.0050
	n-Butylbenzene	0.0050	Methyl ethyl ketone	0.015
	sec-Butylbenzene	0.0050	Methyl isobutyl ketone	0.010
	tert-Bertylbenzene	0.0050	Methyl tert-butyl ether (MTBE)	0.0050
	Carbon tetrachloride	0.0050	Methylene chloride	0.0050
	Chlorobenzene	0.0050	Naphthalene	0.0050
	Chloroethane	0.0050	n-Propylbenzene	0.0050
	Chloroform	0.0050	Styrene	0.0050
	Chloromethane	0.0050	1,1,1,2-Tetrachloroethane	0.0050
	2-Chlorotoluene	0.0050	1,1,2,2-Tetrachloroethane	0.0050
	4-Chlorotoluene	0.0050	Tetrachloroethene	0.0050
	Dibromochloromethane	0.0050	Toluene	0.0050
	1,2-Dibromo-3-chloropropane	0.0050	1,2,3-Trichlorobenzene	0.0050
	1,2-Dibromoethane	0.0050	1,2,4-Trichlorobenzene	0.0050
	Dibromomethane	0.0050	1,1,1-Trichloroethane	0.0050
	1,2-Dichlorobenzene	0.0050	1,1,2-Trichloroethane	0.0050
	1,3-Dichlorobenzene	0.0050	Trichloroethene	0.0050
	1,4-Dichlorobenzene	0.0050	Trichlorofluoromethane	0.0050

EPA Test Method[1]	Analyte	Reporting Limit for Soil[2] (mg/kg)	Analyte (cont.)	Reporting Limit for Soil (mg/kg)
	Dichlorodifluoromethane	0.0050	Trichlorotrifluoroethane	0.0050
	1,1-Dichloroethane	0.0050	1,2,3-Trichloropropane	0.0050
	1,2-Dichloroethane	0.0050	1,2,4-Trimethylbenzene	0.0050
	1,1-Dichloroethene	0.0050	1,3,5-Trimethylbenzene	0.0050
	cis-1,2-Dichloroethene	0.0050	Vinyl chloride	0.0050
	trans-1,2-Dichloroethene	0.0050	m,p-Xylene	0.0050
	1,2-Dichloropropane	0.0050	o-Xylene	0.0050
	1,3-Dichloropropane	0.0050	Xylenes (total)	0.0050
8270	Poly Aromatic Hydrocarbons (PAHs)			
	Acenaphthene	0.062	Dimethyl phthalate	0.33
	Acenaphthylene	0.062	4,6-Dinitro-2-methylphenol	1.6
	Anthracene	0.062	2,4-Dinitrophenol	1.6
	Benzidine	1.6	2,4-Dinitrotoluene	0.33
	Benzoic acid	1.6	2,6-Dinitrotoluene	0.33
	Benz(a)anthracene	0.33	1,2-Diphenylhydrazine	0.33
	Benzo(b)fluoranthene	0.062	Fluoranthene	0.062
	Benzo(k)fluoranthene	0.062	Fluorene	0.062
	Benzo(g,h,i)perylene	0.062	Hexachlorobenzene	0.33
	Benzo(a)pyrene	0.062	Hexachlorobutadiene	0.33
	Benzyl alcohol	0.66	Hexachlorocyclopentadiene	1.6
	Bis(2-chloroethoxy) methane	0.33	Hexachloroethane	0.33
	Bis(2-chloroethyl) ether	0.33	Indeno(1,2,3-cd)pyrene	0.062
	Bis(2-chloroisopropyl) ether	0.33	Isophorone	0.33
	Bis(2-ethylhexyl) phthalate	0.33	2-Methylnaphthalene	0.062
	4-Bromophenyl phenyl ether	0.33	2-Methylphenol (o-cresol)	0.33
	Butyl benzyl phthalate	0.33	3 & 4 –Methylphenol (m,p-cresol)	0.33
	4-Chloroaniline	0.66	*N*-Nitrosodi-*n*-propylamine	0.33
	4-Chloro-3-methylphenol	0.33	*N*-Nitrosodimethylamine	0.66
	2-Chloronaphthalene	0.33	*N*-Nitrosodiphenylamine	0.33
	2-Chlorophenol	0.33	Naphthalene	0.062
	4-Chlorophenyl phenyl ether	0.33	2-Nitroaniline	1.6
	Chrysene	0.010	3-Nitroaniline	1.6
	Dibenz(a,h)anthracene	0.062	4-Nitroaniline	1.6
	Dibenzofuran	0.33	2-Nitrophenol	1.6
	Di-n-butyl phthalate	2.0	4-Nitrophenol	1.6
	Di-n-octyl phthalate	0.33	Nitrobenzene	0.33
	1,2-Dichlorobenzene	0.33	Pentachlorophenol	1.6
	1,3-Dichlorobenzene	0.33	Phenanthrene	0.062

EPA Test Method[1]	**Analyte**	**Reporting Limit for Soil**[2] (mg/kg)	**Analyte (cont.)**	**Reporting Limit for Soil** (mg/kg)
	1,4-Dichlorobenzene	0.33	Phenol	0.33
	3,3'-Dichlorobenzidine	0.66	Pyrene	0.062
	2,4-Dichlorophenol	0.33	1,2,4-Trichlorobenzene	0.33
	Diethyl phthalate	0.33	2,4,5-Trichlorophenol	0.33
	2,4-Dimethylphenol	0.33	2,4,6-Trichlorophenol	0.33
8015[3]	Total Extractable Petroleum Hydrocarbons (TPHs)			
	TPH as Diesel	1.0		
	Motor Oil	2.0		
	Gasoline (1,4-Bromoflurobenzene)	1.0		
8290[4]	Dioxin	1.0 pg/g		
	Asbestos	1% (PLM EPA Qualitative Method) 0.005 to 0.001 (TEM by EPA Quantitative Method)		
GCMSSIM	Nonylphenol	0.2		

The Applicant shall maintain records of field sampling in a log containing at least the following information:

- Date and time
- Site location
- Sample collector
- Sampling methods
- Sampling location
- Sampling depth
- Number of sampling containers
- Specific site conditions
- Analysis requested
- Other information describing the sampling event

Field sampling logs shall be made available to Regional Water Board staff upon request.

[3] The full list of TPHs will be reported with all peaks (rather than a limited list of specific compounds).
[4] For dioxin/furans all congeners and their TEQs will be reported.

Attachment B
Stream Maintenance Program Manual

- The Stream Maintenance Program Manual is part of this Order but is not physically attached due to volume. It is available on the Regional Water Board's website at: http://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2011/April/SCWA/Stream_Manual.pdf

Attachment C
Appendices to
Stream Maintenance Program Manual

- The appendices to the Stream Maintenance Program Manual are part of this Order but are not physically attached due to volume. They are available on the Regional Water Board's website at: http://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2011/April/SCWA/Appendices.pdf