

Discharge Specifications

Caltrans shall ensure to the extent practicable that the turbidity generated by construction activities including dredging, excavation, and placement in the Bay of solid materials permitted by order # R2-2002-0011, does not exceed the following in waters of the State more than 30 m (100 ft) beyond the project boundary for all areas of dredging, excavation, and/or fill placement, when that work occurs within 1000 meters (3200 feet) of an eelgrass bed or sand flat:

Receiving Waters Background	≥ 50 NTU
Incremental Increase	10% of background, maximum

If turbidity does increase above the levels, Caltrans shall follow remedial measures as described in the Self-Monitoring Program (SMP).

The Project Boundary for the dredge areas is to be defined by the silt curtain required by Caltrans of its contractors. In the event a silt curtain is not used to control turbidity, the Project Boundary shall be defined as the daily limit of dredging, excavation, and/or fill placement in any area where such work occurs.

Caltrans' responsible representative shall immediately notify Board staff by telephone whenever an adverse condition occurs as the result of this discharge. An adverse condition includes, but is not limited to, a violation or threatened violation of the conditions of this Order, a significant spill of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance. Pursuant to Section 13267 (b) of the CWC, a written notification of the adverse condition shall be submitted to the Board within 30 days of occurrence. The written notification shall identify the adverse condition, describe the actions necessary to remedy the condition, and specify a timetable, subject to the modification of the Board and/or Executive Officer, for the remedial actions.

Receiving Water Limitations

The dredging and/or disposal of sediments shall not cause:

1. Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place more than 30 m (100 ft) from the project boundary or point of discharge of return flow, except as authorized under Section B, Discharge Specifications, or this Order.
2. Visible floating, suspended, or deposited oil or other products of petroleum origin in the waters of the State at any place.

3. Waters of the State to exceed the following limits at any time during construction activities:
 - a. Dissolved Oxygen: 5.0 mg/L minimum. When natural factors cause lesser concentrations then this discharge shall not cause further reductions in the concentration of dissolved oxygen.
 - b. Dissolved Sulfide: 0.1 mg/L maximum.
 - c. pH: A variation of natural ambient pH by more than 0.5 pH units.
 - d. Toxic or other deleterious substances: None shall be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.
4. The concentrations of chemicals of concern, as found in grab samples taken no more than 30 m (100 ft) beyond the Project Boundary, shall not exceed the Receiving Water Limits in Table A-1 of the Self-Monitoring Program, unless it can be shown that the site conditions are not significantly different from ambient concentrations of those chemicals (as measured in the open waters of the Central Bay in the vicinity of YBI).

Summary of Self-Monitoring Program in Response to Order #R2-2002-001

Purpose

The principal purposes of a monitoring program by a discharger, also referred to as a Self-Monitoring Program, are:

1. To document compliance with effluent requirements and prohibitions established by the CRWQCB.
2. Facilitate self-policing by the discharger in the prevention and abatement of pollution arising from improper effluent.
3. To develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards.
4. To prepare water and wastewater quality inventories.
5. To assist the discharger in complying with the requirements of the California Code of Regulations.

Definitions

Grab Sample – a discrete individual sample collected in a short period of time not exceeding 15 minutes. They are to be used primarily in determining compliance with receiving water limits. Grab samples represent the condition that exists at the time the water and effluent are collected.

Project Boundary – any point along the silt curtain at areas of dredging, excavation, or fill placement in the vicinity of eelgrass beds or mud flats, or, in the event a silt curtain is not used, the immediate limits of the daily project work (e.g., daily limits of dredging).

Sampling and Method Requirements

Sample collection, storage, and analysis shall be performed according to 40 CFR Section 136, or other methods approved by the Executive Officer.

Water analyses conducted on samples collected for laboratory analysis shall be performed by a laboratory approved by the State of California Department of Health Services (DHS) or a laboratory approved by the Executive Officer.

All monitoring instruments and equipment, including instruments and equipment used in field sampling and analysis, shall be properly calibrated and maintained to ensure accuracy of measurements.

Routine sampling shall follow Quality Assurance/ Quality Control procedures including the use of field, equipment and laboratory blanks and laboratory surrogate samples.

All Quality Assurance/ Quality Control measures and results shall be reported along with the data.

Specifications for Sampling and Analyses

Caltrans is required to perform sampling and analyses as found in accordance with the following conditions and requirements:

Receiving Waters

At least once every 24 hours, and prior to start of dredging, excavation, or fill activities in waters of the State, depth averaged background water samples shall be collected from at least 274 m (900 ft) from active areas of the site. Background samples shall be collected such that they are representative of background conditions unaffected by potential discharges related to the project. These samples shall be analyzed for turbidity (NTU), pH, Dissolved Oxygen (mg/L), Dissolved Sulfide (mg/L), Total Suspended Solids (mg/L), and Temperature (⁰C).

Depth-averaged turbidity measurements shall be completed at established locations along the Project Boundary. Locations shall be established every 152 m (500 ft) along a line parallel to the Project Boundary and 30 m (100 ft) away (perpendicular) from the Project Boundary. Samples shall be taken every 2 hours while work is being completed. Sampling shall continue after work has halted, if measured turbidity levels exceed the following, and for as long as turbidity levels exceed the following:

Receiving Waters Background	≥ 50 NTU
Incremental Increase	10% of background, maximum

Samples shall be depth integrated when possible, or otherwise taken at least 0.30 m (1 ft) below the surface of the water body.

If any analytical results for constituents analyzed on-site show that any grab sample exceeds any receiving water limit, confirmation samples shall be taken within 1 hour and every subsequent hour, and analyzed for all constituents for which on-site analysis is required (turbidity). Sampling at this higher frequency shall continue until the exceedance has been corrected. Caltrans shall follow the following process to address the exceedance:

1. Identify source of exceedance
2. Correct source of exceedance
3. Resample to determine whether exceedance has been corrected

If any receiving water limit for a constituent or constituents is exceeded for:

1. A continuous period of 4 hours or more
2. 8 hours or more in any 1 week period from Oct. 1 – Mar. 31.
3. 16 hours or more in any 1 week period from Apr. 1 – Sept. 30

then Caltrans shall immediately suspend all dredging, excavation or fill work causing or contributing to the exceedance, until turbidity levels have fallen below exceedance levels and remained there for a minimum of 4 consecutive hours. Additionally, Caltrans shall implement control measures necessary to prevent a recurrence of the exceedance when work is resumed and shall immediately notify the Board by telephone and telefax of the exceedance and how it is correcting or will correct it.

If any receiving water limit for a constituent or constituents is exceeded for:

1. 12 hours or more in any 1 week period from Oct. 1 – Mar. 31.
2. 24 hours or more in any 1 week period from Apr. 1 – Sept. 30

the Caltrans shall immediately halt the dredging, excavation, or fill causing the exceedance, until the cause of the violation is found and sampling demonstrates that the exceedance has been corrected or when Caltrans has provided the Board with a corrective action plan, acceptable to the Executive Officer, that provides alternative methods of compliance. Caltrans shall immediately notify the Board by telephone and telefax of the exceedance and of how the are correcting or will correct the exceedance.

For other violations, Caltrans shall notify the Board immediately whenever violations are deleted and discharge shall not resume until Caltrans has provided the Board with a corrective action plan, acceptable to the Executive Officer, that provides alternative methods of compliance.

Standard Observations

The following observations shall be recorded by Caltrans on every day of operation:

1. Receiving water:
 - 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: time and height of corrected low and high tides; and depth of water columns and sampling depths.
 - e. Weather condition: air temperature, wind direction and velocity, and precipitation.
2. Progress and location of active dredging and control measures, noted on a map of the site.

Records to be Maintained

1. Written reports, strip charts, calibration, and maintenance records, and other records shall be maintained by Caltrans and accessible at all times. Records shall be kept for a minimum of 3 years. Records shall include notes and observations for each sample as follows:
 - a. Identity of each sample, sampling station, and observations station by number.
 - b. Date and time of sampling.
 - c. Date and time analyses are started and completed and the name of personnel conducting analyses.
 - d. Complete procedure used, including methods of preserving and analyzing sample and identity and volume or reagents used. A reference to a specific station of Standard Methods is satisfactory.
 - e. Calculation of results.
 - f. Results of analyses and/or observations, including a comparison of the laboratory and field results for duplicate samples, and detection limits for each analysis.
2. Records shall include a map or maps of the site showing the sampling locations, work areas (e.g. coffer dams, dredging areas, etc.), and all other appropriate information.
3. If any receiving water limit for a constituent or constituents is exceeded, or if Caltrans otherwise violates any applicable water quality limits, then Caltrans shall maintain a tabulation showing the following data:
 - a. Total time of exceedance on a daily basis for each monitoring station in exceedance, and an estimate of the area of waters in exceedance (e.g., sketch map).

Monitoring and Observation Schedule

Description of Monitoring Stations and Analyses

Number and locations of turbidity meters:

1. Minimum of one turbidity meter (measurement) no more than 30 m (100 ft) beyond Project Boundary and longitudinally every 152 m (500 ft) parallel to the Project Boundary in environmentally sensitive areas (e.g., at eelgrass beds and mudflats). Monitoring for constituents other than turbidity is described in Table A-1.
2. Minimum of one turbidity meter (measurement) per construction area where dredging and/or pile driving are being completed, no more than 30 m (100ft) beyond the Project Boundary.
 - a. If simultaneous constructions activities (e.g., multiple pile driving locations, multiple dredging locations or similar) occur more than 274 m (300 yd) apart, each construction area will have a turbidity meter (measurement) located no more that 30 m (100 ft) beyond the boundary of that particular area, as defined by the silt curtain.
 - b. If simultaneous construction areas occur more that 30 m (100 ft), but less that or equal to 274 m (300 yd) apart, Caltrans may deploy one turbidity meter (measurement) for both areas.
3. One turbidity meter (measurement) located more than 274 m (300 yd) from all construction activities to measure ambient conditions.

Schedule of Sampling and Analysis

Table A-1: Surface water sampling schedule for samples taken at near-environmentally sensitive area stations, as located pursuant to the SMP.

Sample Type	Sampling Frequency	Reporting Period
Total Suspended Solids	Daily	Monthly
Turbidity	As specified	Monthly
pH	Daily	Monthly
Dissolved Oxygen	Daily	Monthly
Dissolved Sulfide	Daily	Monthly
Water temperature and depth: at surface, thermocline, and bottom, or every 5 feet.	Daily	Monthly

Schedule of Reporting

Reports submitted in compliance with this SMP shall be submitted by Caltrans on the following basis:

Monthly reporting: Monthly reports shall be submitted during all dredging and fill placement operations. Monthly reports shall be submitted by the 15th day of the month following the reporting period, beginning with the first month of dredging. Monthly reports shall include the measurements, observations, and monitoring as described in Table A-1.

Final reporting: Caltrans shall notify the Board by letter upon completion of project phases, within 60 days of completion of each project phase, and within 60 days of project completion.

All reports shall be submitted to the Board case manager at:

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