California Regional Water Quality Control Board (RWQCB) Permit

For the

San Francisco-Oakland Bay Bridge East Span
Seismic Safety Project

October 2001

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

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Gray Davis
Governor

Date: OCT 19 2001
File No. 2198.11 (KHL)

Ms. Mara Melandry
Environmental Manager, Caltrans
Mail Station 12-C
P.O. Box 23660
Oakland, CA 94623-0660

Subject: Corps Interagency Meeting Comments Summary, Bay Bridge Replacement Project, Alameda County.

Dear Ms. Melandry:

Enclosed please find a copy of Order 01-120, which was adopted by the Board on October 17, 2001.

Please note the various required submittals and due dates for reports and plans that are a part of the Order. We look forward to working with Caltrans in the development of these reports. In addition, leading up to the Board's scheduled January 2002 consideration of Waste Discharge Requirements for the project, we will continue to work with you to develop plan schedules, details, and other information for elements of the project including self-monitoring plans during dredging, the post-construction storm water management plan, and the wetland mitigation plan.

If you have any questions, please contact Keith Lichten of my staff via email to khl@rb2.swrcb.ca.gov, or at (510) 622-2380.

Sincerely,

Bruce H. Wolfe, for
Loretta K. Barsamian
Executive Officer

cc: Bruce Wolfe, RWQCB
Dale Bowyer, RWQCB
Tim Vedlinsky, USEPA, WTR-8
Bob Smith, U.S. Army Corps of Engineers, Regulatory Division

cc (cont.):

Richard Smith, USFWS
Margaret Roper, CDFG
Bob Batha, BCDC
David Woodbury, NMFS

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 01-120

WATER QUALITY CERTIFICATION FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT (EAST SPAN PROJECT), CITY AND COUNTY OF SAN FRANCISCO AND CITY OF OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

1. The California Department of Transportation (hereinafter, Caltrans) on September 12, 2001, applied to the Board for Water Quality Certification under Section 401 of the Clean Water Act for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project (hereinafter, the Project). Caltrans proposes to replace the existing East Span of the San Francisco-Oakland Bay Bridge with a new bridge constructed north of that span. The Project will be located on San Francisco Bay between the cities of San Francisco, at Yerba Buena Island (YBI) and Oakland.

2. The existing East Span is not expected to withstand a maximum credible earthquake (MCE) on the San Andreas or Hayward fault. The Project will replace the East Span with a new bridge that will withstand a MCE and will meet current roadway design standards for operations and safety to the greatest extent possible.

3. Caltrans has indicated in its application for water quality certification that the Project is a seismic retrofit project subject to California Streets and Highways Code (CSHC) Section 180, et seq. CSHC Section 180.4 requires that all State and local agencies with permitting authority over a seismic retrofit project act on a permit application within 15 days of its submission. As stated in its October 3, 2001, letter to Board staff, Caltrans recognizes the Board's difficulty in meeting this permitting timeline and agrees to Board staff's strategy that the Board act on Caltrans' water quality certification application at the October 17, 2001, Board meeting and act on an application for waste discharge requirements (WDRs) at the January 16, 2002, Board meeting. As such, that letter states that Caltrans agrees to extend the 15-day action requirement to these dates.

Project Description and Impacts

4. Project construction will occur over a seven-year period, including five years to construct the new bridge and two years to remove the existing East Span. Construction of the new bridge will be divided among four separate contracts as follows: 1) Skyway contract, 2)

Self-Anchored Suspension Span and Transition Structures at Yerba Buena Island contract, 3) Oakland Approach Structures contract, and 4) Geofill contract at the Oakland Touchdown. There would be an additional demolition contract to remove the existing bridge. Caltrans intends to open bids on the Skyway contract on November 14, 2001, and award that contract shortly thereafter.

5. The Project would require the use of large-scale equipment and involve labor-intensive activities. Materials and equipment would arrive to the site by land and water. Dredging of approximately 615,000 cubic yards of Bay mud and soil will also be required.

6. This Order applies to the permanent and temporary direct and indirect impacts to waters of the State associated with the Project, which is comprised of the Project components listed above. Total direct permanent and temporary Project impacts to waters of the State are approximately 8.59 acres. These impacts occur in areas known as special aquatic sites. The majority of Project impacts will occur near the Oakland Touchdown area due to dredging for a temporary barge access channel, placement of fill to construct a new westbound roadway, relocation of Caltrans' existing maintenance road, and permanent shading from the new east and westbound roadways. Relatively minor impacts to eelgrass beds adjacent to YBI to construct a temporary barge dock will occur.

7. The Project's direct permanent impacts include elimination of approximately 3.24 acres of eelgrass habitat and approximately 4.19 acres of sand flat habitat. The Project's direct temporal impacts during construction include approximately 0.36 acres of eelgrass habitat and approximately 0.80 acres of sand flat habitat.

8. The Project may temporarily impact special aquatic sites, including eelgrass and sand flats, and open waters of the Bay over the estimated seven years of bridge construction and demolition. Impacts may occur through the discharge of construction and demolition materials and debris, indirect impacts from equipment access and changes to erosion and sedimentation during project dredging and fill placement.

9. The Project will directly impact the beneficial uses of waters of the State for estuarine habitat and preservation of rare and endangered species through construction stage impacts including pile driving. Pile driving was shown to cause fish kills during a pilot project for the new bridge. Caltrans will complete mitigation, including adaptive management to maximize mitigation effectiveness, to minimize these impacts, and is working with the National Marine Fisheries Service (NMFS) to develop a mitigation plan.

10. To mitigate for the Project's direct impacts, Caltrans plans to implement measures on-site to restore special aquatic sites affected during Project construction including:

    a. Harvesting approximately 0.54 acres of eelgrass from the footprint of the temporary barge access channel prior to dredging, planting test plots in adjacent eelgrass beds, and monitoring to evaluate performance;

b. Restoring to its pre-construction bathymetry up to approximately 1.73 acres of the barge access channel with dredge material and excavated sand to facilitate eelgrass colonization and then replanting with eelgrass. Caltrans will monitor replanted eelgrass to evaluate its performance;

c. Restoring approximately 0.80 acres of sand flats that are temporarily affected by the placement of a geotube or mud boils from engineered fill;

d. Implementing measures on-site to replace and/or restore shorebird roosting habitat and commorant habitat; and,

e. Implementing measures to minimize impacts to protected salmonids and to improve water quality at the Emeryville Crescent and portions of the Eastshore State Park.

11. Caltrans will provide additional mitigation for the Project's direct impacts at off-site locations. Caltrans will provide $10.5 million in funds to be divided between the following:

a. Provide funding to the East Bay Regional Park District (EBRPD) to restore, enhance or create new aquatic habitat and transitional uplands at the Eastshore State Park and within Central San Francisco Bay. Potential mitigation sites include:

- Radio Beach Area-potential shoreline restoration including intertidal habitat and upland transition zones;
- Brickyard Cove Area-potential shoreline restoration including intertidal habitat, the removal of riprap and upland transition zones;
- Albany Beach Area-potential beach restoration/nourishment including the removal of parking areas; and,
- Hoffman Marsh Area – potential tidal marsh restoration including the removal of fill and improving tidal action and water circulation.

b. Provide funding to the United States Fish and Wildlife Service (USFWS) to acquire, cleanup contaminants, and initiate restoration of approximately 3,000 acres of diked historic baylands at Skaggs Island, Sonoma County, to tidal marsh and seasonal wetlands.

12. Operation and maintenance of the Project's new bridge, roads, and reconfigured plaza area will indirectly impact beneficial uses through the discharge of polluted storm water and other urban runoff pollutants (e.g., oil and grease, heavy metals, pathogens, nutrients, etc.).

13. To address the Project's post-construction storm water impacts, Caltrans proposes to permanently capture and treat storm water runoff from a portion of the new bridge, the reconstructed metering lights and toll plaza area, and east to the Powell Street interchange in Emeryville. An area totaling approximately 155 acres is proposed for capture and

treatment. This treatment would improve the quality of water draining into the Emeryville Crescent and Central San Francisco Bay, and thus would enhance wildlife habitat.

14. This Order requires Caltrans to submit, acceptable to the Executive Officer, the following documents, reports, or plans prior to beginning construction of the Project, or within specified dates following contract award for the Skyway, to adequately mitigate the Project's impacts. As of the date of adoption of this Order, the items listed below either have been submitted to the Board and are not complete or not otherwise acceptable to the Board, or have not been submitted. Because of project phasing, some plans may be submitted separately, over time, prior to the beginning of construction for the Project's different contracts.
    a. On-site mitigation plan;
    b. Off-site mitigation proposal;
    c. Dredging Operations Plan;
    d. Storm Water Management Plan for activities identified in Finding 13;
    e. Storm Water Pollution Prevention Plan;
    f. Construction phasing schedule; and,
    g. Financial Assurance/Project Budget Authority.

15. This Order requires Caltrans to prepare and implement a post-construction Storm Water Management Plan for activities identified in Finding 13 (SWMP) and construction-stage Storm Water Pollution Prevention Plan or Plans (SWPPP), in compliance with its statewide NPDES permit for storm water runoff. Because of the Project's proximity to sensitive resources, including special status species habitat, and potential to discharge materials that could significantly impact those resources, this Order requires Caltrans to submit a SWPPP(s) for the Project, at least 30 days prior to the beginning of construction for the Project. As a part of the Board's consideration of appropriate mitigation measures for the Project's post-construction/ operation-stage direct and cumulative impacts, this Order requires Caltrans to submit, within one year of contract award for the Skyway, a site-specific SWMP, acceptable to the Executive Officer, including appropriate design measures and storm water treatment controls to minimize and mitigate these impacts.

16. This Order is conditioned upon Caltrans' compliance with waste discharge requirements (WDRs), to be adopted at a future Board meeting. WDRs are necessary to ensure implementation of the work described in the documents, reports, and plans listed in Finding 14 above to address water quality impacts; to further ensure protection of beneficial uses of waters of the State from the Project; and to allow the Board to timely address any changes to the Project and thus any material changes in the character, location and volume of any proposed waste discharges.

Regulatory Framework

17. The Board, on June 21, 1995, adopted, in accordance with CWC, Division 7, Chapter 3, Article 3, a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan).

The State Water Resources Control Board and the Office of Administrative Law approved this updated and consolidated revised Basin Plan on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. This Order is in compliance with the Basin Plan.

18. The Project is located with the Central portion of San Francisco Bay. Central San Francisco Bay has the following existing beneficial uses defined in the Basin Plan: estuarine habitat, industrial service supply, fish migration, navigation, industrial process supply, preservation of rare and endangered species, water contact recreation, non-contact water recreation, shellfish harvesting, and fish spawning.

19. Caltrans submitted a Clean Water Act 404(b)(1) Alternatives Analysis in its application package, which demonstrates that appropriate effort was made to avoid and then to minimize impacts to waters of the State, as required by the Basin Plan. Board staff held extensive additional discussions with Caltrans regarding its Alternatives Analysis. The Board concurs with the conclusions of the Alternatives Analysis.

20. The Basin Plan Wetland Fill Policy (policy) establishes that there is to be no net loss of wetland acreage and no net loss of wetland value, and a long-term net gain in both, when the project and any proposed mitigation are evaluated together, and that mitigation for wetland fill projects is to be located in the same area of the Region, whenever possible, as the project. The policy further establishes that wetland disturbance should be avoided whenever possible, and if not possible, should be minimized, and only after avoidance and minimization of impacts should mitigation for lost wetlands be considered.

21. The goals of the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993) include ensuring "no overall loss" and achieving a "...long-term net gain in the quantity, quality, and permanence of wetland acreage and values...." Senate Concurrent Resolution No. 28 states that "[i]t is the intent of the legislature to preserve, protect, restore, and enhance California's wetlands and the multiple resources which depend on them for benefit of the people of the State." Section 13142.5 of the CWC requires that the "[h]ighest priority shall be given to improving or eliminating discharges that adversely affect...wetlands, estuaries, and other biologically sensitive areas."

22. The California Environmental Quality Act (CEQA) requires that all projects approved by State agencies comply with CEQA. On September 18, 1998, Caltrans filed a Notice of Exemption indicating that the Project, as an emergency project, is exempt from CEQA, pursuant to CSHC Section 180.2 and Pub. Res. Code Section 21080 and 14 Cal. Code of Regs. Section 15269. The Board finds that the Project is exempt from CEQA pursuant to 14 Cal. Code of Regs. Section 15269.

23. The Board has notified the U.S. Army Corps of Engineers (the Corps) and other interested agencies and persons of its intent to issue Water Quality Certification for the Project.

24. The Board, in a public meeting, heard and considered all comments pertaining to the Project.

IT IS HEREBY ORDERED that, with the incorporation of the following conditions, the Board certifies that any discharge from Caltran's Project described herein, will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. The following conditions are associated with this certification:

1. Caltrans shall submit a Report of Waste Discharge Form 200 to the Board's Executive Officer by November 16, 2001. Upon the Board's issuance to Caltrans of Waste Discharge Requirements pursuant to CWC Section 13263 for the Project, Caltrans shall immediately comply with such requirements.

2. Caltrans shall comply with all necessary approvals and/or permits for the Project and its mitigation projects from applicable government agencies, including, but not limited to, Bay Conservation Development Commission, California Department of Fish and Game, NMFS, USFWS, and the Corps, and submit copies of such approvals and/or permits to the Board's Executive Officer prior to the start of construction activity.

3. Not later than 60 days prior to the beginning of construction activity, Caltrans shall submit a construction-phasing schedule.

4. Not later than 60 days prior to the beginning of dredging, Caltrans shall submit, acceptable to the Executive Officer, a Dredging Operations Plan. Upon the Executive Officer's determination that the Plan is acceptable, the Executive Officer may determine that work may begin sooner than 60 days following submittal of the acceptable Plan. Submittal of plans for later phases (e.g., dredging for demolition access) may be completed at future dates, but not later than 90 days prior to the beginning of construction activity/demolition, including staging and dredging, for those phases.

5. Not later than one year following the contract award for the Skyway, Caltrans shall submit, acceptable to the Executive Officer, a plan that addresses the proposed on-site mitigation for special aquatic sites including eelgrass beds and sand flats. The plan shall include all appropriate detail for earthwork and plantings, as well as an implementation schedule, performance standards, and monitoring.

6. Not later than 60 days prior to the beginning of construction activity, Caltrans shall submit, acceptable to the Executive Officer, a final implementation plan describing the additional mitigation activities to be undertaken with EBRPD and USFWS. The

implementation plan shall include detailed descriptions of the proposed activities, including appropriate project plans, an implementation schedule, and reporting. The plan or subsequent report shall demonstrate that Caltrans has fully funded $10.5 million or has $10.5 million in funds available for all activities identified in Finding 11 to be completed by a third party by no later than 60 days prior to the beginning of construction activity. Upon the Executive Officer's determination that the plan is acceptable, the Executive Officer may determine that work may begin sooner than 60 days following submittal of the acceptable plan.

7. Within one year of contract award for the Skyway, Caltrans shall submit, acceptable to the Executive Officer, a conceptual post-construction SWMP including appropriate design measures and storm water treatment controls to address the project's urban runoff impacts to waters of the State. The SWMP shall provide for the appropriate treatment of at least 85% percent of average annual runoff from the area to be treated and shall include appropriate design details, implementation and completion schedules, planting plans, maintenance plans, funding mechanism(s), and all other information, as appropriate.

8. Not later than 30 days prior to the beginning of construction activity of the design measures and treatment controls in the conceptual SWMP, Caltrans shall submit, acceptable to the Executive Officer, a final SWMP with final construction details and all other information, as appropriate, for all appropriate information included in the conceptual SWMP.

9. As soon as feasible following contract award for the Skyway, and not later than 30 days prior to the beginning of construction activity, Caltrans shall submit, acceptable to the Executive Officer, a SWPPP to address the Project's expected construction stage impacts. SWPPPs may be submitted separately for each phase of construction activity/demolition, but must all be submitted, acceptable to the Executive Officer, at least 30 days prior to beginning of each phase of construction activity/demolition.

10. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to CWC §13330 and 23 CCR §3867.

11. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR Subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

12. Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR Section 3833) and owed by the applicant. The fee for this certification has been paid in full.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 17, 2001.

Loretta K. Barsamian

Loretta K. Barsamian
Executive Officer

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

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Gray Davis
Governor

Date: JAN 30 2002
File Nos. 2198.11, 2199.9430
Site No. 02-01-C0528 (KHL)

Certified #7001 0320 0002 3610 0894

Ms. Mara Melandry
Environmental Manager, Caltrans
Mail Station 12-C
P.O. Box 23660
Oakland, CA 94623-0660

Subject: Transmittal of Adopted Order No. R2-2002-0011 for Caltrans' Bay Bridge East Span Seismic Safety Project.

Dear Ms. Melandry:

Enclosed please find a copy of the above-referenced Order, as adopted by the Board at its January 23, 2002, meeting.

Please note the various required submittals and due dates for reports and plans that are a part of the Order. We look forward to continue to work with Caltrans in the development of these reports.

If you have any questions or further comments, please contact Keith Lichten of my staff via email to khl@rb2.swrcb.ca.gov, or at (510) 622-2380.

Sincerely,

Loretta K. Barsamian
Executive Officer

Enclosure: Board Order No. R2-2002-0011
cc: Dale Bowyer, RWQCB
Bruce Wolfe, RWQCB
Tim Vedlinski, USEPA, WTR-8
Bob Smith, U.S. Army Corps of Engineers, Regulatory Division
Bob Batha, BCDC

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at http://www.swrcb.ca.gov.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. R2-2002-0011

WASTE DISCHARGE REQUIREMENTS FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT (EAST SPAN PROJECT), CITY AND COUNTY OF SAN FRANCISCO AND CITY OF OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

1. The California Department of Transportation (hereinafter Caltrans) on November 28, 2001, submitted a Report of Waste Discharge to the Board for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project (hereinafter, the Project). Caltrans proposes to replace the existing East Span of the San Francisco-Oakland Bay Bridge with a new bridge constructed north of that span. The Project will be located on San Francisco Bay between the cities of San Francisco, at Yerba Buena Island (YBI), and Oakland.

2. The existing East Span is not expected to withstand a maximum credible earthquake (MCE) on the San Andreas or Hayward fault. The Project will replace the East Span with a new bridge that will withstand a MCE and will meet current roadway design standards for operations and safety to the greatest extent possible.

3. The Board issued Water Quality Certification for the Project at its October 17, 2001, meeting, as Order No. 01-120, with the understanding that waste discharge requirements would subsequently be adopted for the Project.

<u>Project Description and Impacts</u>

4. Project construction is proposed to occur over a seven-year period, including five years to construct the new bridge and two years to remove the existing East Span. Construction of the new bridge will be divided among four separate major contracts as follows: 1) Skyway contract, 2) Self-Anchored Suspension Span and Transition Structures at Yerba Buena Island contract, 3) Oakland Approach Structures contract, and 4) Geofill contract at the Oakland Touchdown. There will be an additional demolition contract to remove the existing East Span. Caltrans opened bids on the geofill contract on December 12, 2001, and on the skyway contract on December 19, 2001.

5. The Project would require the use of large-scale equipment and involve labor-intensive activities. Materials and equipment would arrive to the site by land and water. Dredging of approximately 617,000 cubic yards of Bay mud and soil will also be required.

6. This Order applies to the permanent and temporary direct and indirect impacts to waters of the State associated with the Project, which is comprised of the Project components listed above. Total direct permanent and temporary Project impacts to waters of the State are approximately 8.59 acres. These impacts occur in areas known as special aquatic sites. The majority of Project impacts to special aquatic sites will occur near the Oakland Touchdown area due to dredging for a temporary barge access channel, placement of fill to construct a new westbound roadway, relocation of Caltrans' existing maintenance road, and permanent shading from the new westbound roadway. Relatively minor impacts to eelgrass beds adjacent to YBI to construct a temporary barge dock will occur.

7. The Project's direct permanent impacts include elimination of approximately 3.24 acres of eelgrass habitat and approximately 4.19 acres of sand flat habitat. The Project's direct temporal impacts during construction include approximately 0.36 acres of eelgrass habitat and approximately 0.80 acres of sand flat habitat.

8. The Project may temporarily impact special aquatic sites, including eelgrass and sand flats, and open waters of the Bay over the estimated seven years of bridge construction and demolition. Impacts may occur through the discharge of construction and demolition materials and debris, indirect impacts from equipment access and changes to erosion and sedimentation during project dredging and fill placement.

9. The Project will directly impact the beneficial uses of waters of the State for estuarine habitat and preservation of rare and endangered species through construction stage impacts including pile driving. Approximately 259 large piles will be constructed, requiring an estimated 1,300 hours of pile driving time. An additional 1,030 to 2,060 smaller piles will be required for temporary structures, supports, falsework, docks, etc. Pile driving was shown to cause fish kills during a pilot project for the new bridge. In its Biological Opinion for the Project (File No. 151422-SWR99-SR-190), the National Marine Fisheries Service (NMFS) stated:

   "Underwater sound pressure waves generated by [large] pile driving activities are expected to expose both adult and juvenile listed salmonids to lethal and injurious conditions. Most juvenile anadromous salmonids within a 69 m [meter]… radius of the pile during operation of large hammers will be killed instantaneously. …up to a distance of 440 m…from a pile driving operation, fish are expected to experience trauma in many organs including the inner ear, eyes, blood, nervous system, kidney, and liver. These injured fish are expected to have some difficulty in maneuvering or maintaining orientation in the water column, and many will be subject to delayed mortality. Still further out from the pile driving activity, up to possibly 4,400 m…during the driving of

large piles, fish may exhibit temporary abnormal behavior indicative of stress or exhibit a startle response, but not sustain permanent harm or injury."

Caltrans will complete mitigation, including: implementation of a fisheries and hydroacoustic monitoring plan; installation, operation, and maintenance of an air-bubble curtain noise attenuation device around pile driving activities; and funding, in the amount of $4 million, of an off-site steelhead restoration and enhancement fund, to be used to restore and enhance steelhead fisheries in central or south San Francisco Bay tributaries. However, up to $500,000 of the fund may be used for monitoring fisheries impacts, sound pressure levels, and other impacts associated with pile driving. The $4 million fund is in addition to the $10.5 million provided for off-site wetland mitigation, described in Finding 12.

10. To mitigate for the Project's permanent impacts to habitat, Caltrans plans to implement measures on-site to restore special aquatic sites affected during Project construction including:

    a. Harvesting approximately 0.55 acres of eelgrass from the footprint of the temporary barge access channel prior to dredging, planting test plots in adjacent eelgrass beds, and monitoring to evaluate performance;

    b. Restoring to its pre-construction bathymetry up to approximately 1.73 acres of the barge access channel with dredge material and excavated sand to facilitate eelgrass colonization and then replanting with eelgrass. Caltrans will monitor replanted eelgrass to evaluate its performance;

    c. Restoring approximately 0.80 acres of sand flats that are temporarily affected by the placement of a geotube or mud boils from engineered fill;

    d. Implementing measures on-site to replace and/or restore shorebird roosting habitat and cormorant habitat; and,

    e. Implementing measures to improve water quality at the Emeryville Crescent and portions of the Eastshore State Park.

11. Caltrans has committed to an eelgrass habitat mitigation effort negotiated with the National Marine Fisheries Service. This effort consists of a commitment of $800,000 to $1 million by Caltrans to the following elements: survey potential areas of eelgrass beds within San Francisco Bay; investigate appropriate methods to restore, enhance, or create new eelgrass beds; design appropriate studies such as a limiting factors analysis, to define critical elements of restoring eelgrass habitats; design and locate site-specific eelgrass pilot projects for future restoration; prepare a report and guideline for implementing eelgrass replacement in the Bay; and, fully restore two acres of eelgrass. This effort is expected to help guide eelgrass restoration efforts completed as parts of other Project

mitigation.

12. Caltrans will provide additional mitigation for the Project's direct impacts to habitat at off-site locations. Caltrans will provide $10.5 million in funds to be divided between the following:

    a. Provide funding (a minimum of $2.5 million) to the East Bay Regional Park District (EBRPD) to restore, enhance or create new aquatic habitat and transitional uplands at the Eastshore State Park and within Central San Francisco Bay, pursuant to the "Draft Work Plan for Central Bay Mitigation Sites within East Shore State Park," dated November 2001. Potential mitigation sites include:

    - Radio Beach Area – potential shoreline restoration including intertidal habitat and upland transition zones;
    - Brickyard Cove Area – potential shoreline restoration including intertidal habitat, upland transition zones, and the removal of rip-rap;
    - Albany Beach Area – potential beach restoration/nourishment including the removal of parking areas; and,
    - Hoffman Marsh Area – potential tidal marsh restoration including the removal of fill and improving tidal action and water circulation.

    b. Provide funding (a maximum of $8 million) to the United States Fish and Wildlife Service (USFWS), pursuant to the "Draft Work Plan for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Skaggs Island Restoration Program," dated November 2001, to acquire, cleanup contaminants, and initiate restoration of approximately 3,000 acres of diked historic baylands at Skaggs Island, Sonoma County, to tidal marsh and seasonal wetlands.

13. Operation and maintenance of the Project's new bridge, roads, and reconfigured plaza area will indirectly impact beneficial uses through the discharge of polluted storm water and other urban runoff pollutants (e.g., oil and grease, heavy metals, pathogens, nutrients, etc.).

14. To address the Project's post-construction stormwater impacts, Caltrans proposes to permanently capture and treat storm water runoff from a portion of the new bridge, the metering lights and toll plaza area, and east to the Powell Street interchange in Emeryville. An area totaling approximately 155 acres is proposed for capture and treatment. This treatment would improve the quality of water draining into the Emeryville Crescent and Central San Francisco Bay, and thus would enhance wildlife habitat.

15. On November 28, 2001, Caltrans submitted a construction-phasing schedule for the Project, briefly describing the major project activities and their proposed scheduling from

2001 through 2008 (see Appendix A). This phasing schedule is acceptable to the Board.

16. On November 28, 2001, Caltrans submitted a finalized discussion of evidence of financial assurance for the success of the Project and its associated mitigation. This evidence is acceptable to the Board.

17. This Order requires Caltrans to submit, acceptable to the Executive Officer, the following documents, reports, or plans prior to beginning construction of the Project, or within specified dates following contract award for the Skyway, to adequately mitigate the Project's impacts. As of the date of adoption of this Order, the items listed below either have been submitted to the Board and are not complete or not otherwise acceptable to the Board, or have not been submitted. Because of project phasing, some plans may be submitted separately, over time, prior to the beginning of construction for the Project's different contracts.

    a. Dredging Operations Plan. On November 28, 2001, Caltrans submitted a proposed "Self-Monitoring Plan for Turbidity" for the Project. The Self-Monitoring Plan is part of the larger Dredging Operations Plan. The Turbidity Plan is acceptable to the Board, with the incorporation of the requirements of the SMP that is part of this Order;

    b. On November 28, 2001, Caltrans submitted a "Draft Work Plan for Central Bay Mitigation Sites within East Shore State Park," dated November 2001, and a draft Memorandum of Understanding between Caltrans and EBRPD for Central Bay mitigation. These documents provide substantial information on Caltrans' proposed Central Bay wetland mitigation activities. This Work Plan is acceptable to the Board, but may be subsequently amended with the approval of the Executive Officer;

    c. On November 28, 2001, Caltrans submitted a "Draft Work Plan for On-Site Eelgrass Restoration Program," dated November 2001. The Plan provides substantial information regarding Caltrans' proposed on-site eelgrass mitigation, but must be further developed with the participation of the involved agencies prior to acceptance.

    d. On December 3, 2001, Caltrans submitted the "Draft Work Plan for the [Project's] Skaggs Island Restoration Program," dated November 2001. This Work Plan is acceptable to the Board, but may be subsequently amended with the approval of the Executive Officer;

    e. This Order requires Caltrans to prepare and implement a post-construction Storm Water Management Plan for activities identified in Finding 13 (SWMP) and construction-stage Storm Water Pollution Prevention Plan or Plans (SWPPP), in compliance with its statewide NPDES storm water permit (State Water Resources Control Board Order No. 99-06-DWQ). Because of the Project's proximity to sensitive resources, including special status species habitat, and potential to

discharge materials that could significantly impact those resources, this Order requires Caltrans to submit a SWPPP(s) for the Project, at least 30 days prior to the beginning of construction for the Project, except that the Order requires submittal of a SWPPP for the geofill contract at least 21 days prior to the beginning of construction for that phase only. Separate SWPPPs may be submitted for each separate phase (i.e., major contract) of construction and demolition, but at least 30 days prior to the beginning of construction or demolition of each phase.

On November 28, 2001, Caltrans submitted a proposed "Work Plan for Implementation of Stormwater Treatment Measures," dated November 2001, outlining the tasks that must be completed prior to the phased construction of post-construction storm water treatment controls from Fall 2003 to as late as summer 2009. The phasing proposed in this Plan is not acceptable to the Board, and this Order directs Caltrans to submit a finalized work plan, acceptable to the Executive Officer, no later than 60 days after the date this Order is adopted.

18. The Board participates in the Dredged Material Management Office (DMMO); a working group with representatives of the state and federal agencies with regulatory authority over Bay Area dredging projects. Staff representatives of the Board, the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Conservation and Development Commission (BCDC), and the California State Lands Commission meet regularly to jointly review dredging projects and make consensus-based recommendations to their respective agencies about permit conditions and the suitability of sediments for proposed disposal sites. Representatives from the California Department of Fish and Game (CDFG) and from the National Marine Fisheries Service (NMFS) also participate in the DMMO as commenting agencies. Each DMMO agency retains its independent decision-making authority, but the group has significantly reduced project review time by concurrent consideration of projects.

19. The DMMO has reviewed and made recommendations on the suitability of proposed disposal sites for the sediments to be dredged during construction of the new bridge span. The DMMO has not made any recommendations on material proposed for dredging during demolition of the existing span.

    This Order requires that Caltrans submit technical information characterizing these sediments and receive a suitability recommendation from the DMMO and written approval of the Executive Officer prior to commencement of any dredging associated with the demolition of the existing span.

20. The major dredging-related construction features of the Project are described below. The Project would dredge a total of approximately 617,000 cubic yards of material. The major construction features are:

a. Dredging of approximately 216,230 cubic yards of material at the Oakland approach structures for a barge access channel adjacent to the existing East Span at the Oakland Touchdown, foundation construction, and pile cap construction. Immediately adjacent to the Oakland Touchdown, the barge access channel would be dredged to a depth of 12 feet. Elsewhere, the channel would be dredged to a depth of 14 feet. Material from this area is proposed to be disposed of at the San Francisco deep ocean disposal site (SF-DODS), approximately 50 nautical miles west of the Golden Gate Bridge, or beneficial reuse sites;

b. Dredging of approximately 187,087 cubic yards of material for installation of piers, footings, and foundations for the new bridge. A hydraulic or mechanical dredge may be used. Within piles, material will be dredged to a depth of about 164 feet below the Bay bottom. The upper 12 feet of Piers E1 through E6, and E15 through E18 will be disposed of at appropriate upland facilities. Otherwise, material is proposed to be disposed of at the Alcatraz disposal site (SF-11); and,

c. Dredging of approximately 190,680 cubic yards of material for creation of a barge access channel to dismantle the existing bridge and to remove piers from the existing bridge. This material must be appropriately characterized and final reports reviewed and approved by DMMO prior to the commencement of this phase of dredging. At present, this material is conceptually proposed to be disposed of at the deep ocean disposal site (SF-DODS), at an upland wetland reuse site, or at a landfill reuse site. For removal of the existing piers, approximately 22,724 cubic yards of material would be dredged. This material would be disposed of at the Alcatraz Island site (SF-11).

21. The Corps distinguishes the different types of material that will be dredged (or excavated) in the Project as follows:

a. Young Bay Muds. This is an upper layer of materials that was deposited beginning about 10,000 years ago, and which consists primarily of clay, with some silt, sand, and shell fragments. With the exception of pier construction, removed sediment is expected to be comprised of Young Bay Muds.

b. Other materials. Pier construction is expected to result in the removal of Young Bay Muds, Merritt Sands, Yerba Buena Mud, the upper and lower Alameda Formations, and Franciscan Bedrock.

22. **Sediment suitability determinations.**

a. The dredged material to be generated by the construction portion of the Project has been evaluated by Board staff in conjunction with the DMMO. Demolition-related material will subsequently be evaluated by DMMO. After approving the sediment sampling and analysis plan, the DMMO participants review the results of the testing and make recommendations to their respective agencies regarding the suitability of sediments for proposed disposal and reused locations.

b. Sediments to be dredged as part of the Project were or will be characterized to determine their suitability for various disposal options: ocean disposal, in-Bay disposal, wetland creation (cover and non-cover material[1]), construction material, and landfill disposal. None of the sediments were found to have levels of contaminants that would lead to their classification as hazardous waste, therefore requiring disposal in a landfill. However, landfill disposal or reuse of sediments as daily cover are potential disposal options for sediments generated by the Project. Sediments to be dredged for barge access to and pier removal during the demolition phase of the existing East Span have not yet been appropriately characterized, and this Order requires such characterization to be completed, and an acceptable proposal to be submitted before that work may commence.

c. The Board finds that material to be generated by the Project is suitable for placement at locations as described below. The majority of material has been determined to be suitable for aquatic disposal, based on pre-dredge testing. Additional testing may be completed to determine the final suitability of some material. While the DMMO also made suitability determinations relating to use of sediments in wetland restoration, each wetland restoration project will have sediment acceptance and testing criteria established by a site-specific Board action, which would be the final determinant of what sediments could be used at each site.

23. The proposed dredged material disposal sites for material to be generated by the Project are:

a. **San Francisco Deep Ocean Disposal Site (SF-DODS).** Located approximately 50 nautical miles offshore of the Golden Gate, at a depth of about 760 feet, and beyond the jurisdiction of the Board, this disposal site was established by the USEPA in 1994, designated under Section 102 of the Marine Protection, Research, and Sanctuaries Act. Publication of the final rule guiding its use and management in the Federal Register occurred in 1999. Only material determined to be suitable for ocean disposal may be disposed of at this site.

b. **Alcatraz Island Site (SF-11).** This site is located approximately 0.3 miles south of Alcatraz Island, approximately 5 miles from the Project site. The site was formally designated as a sediment disposal site in 1972.

24. Construction of the Project is expected to require construction-stage dewatering, including discharges of groundwater from areas of known groundwater and soil contamination, and other work in areas of known groundwater and soil contamination. These discharges and other work include:

[1] As defined in the 1992 Board staff report "Interim Sediment Screening Criteria and Testing requirements for Wetland Creation and Upland Beneficial Reuse," Wetland Non-Cover material is a category of dredged material suitable for use in wetland creation projects, but that must be covered by at least three feet of cleaner, Wetland Cover material.

a. Construction of piles in an existing landfill at YBI, to support a temporary bridge detour at YBI. Known landfill contaminants include heavy metals and hydrocarbons;

b. Construction of a new storm drain through an area of known hydrocarbon contamination from old pipelines and tanks in the Coast Guard area of YBI;

c. Construction in areas of known surficial lead contamination at YBI;

d. Pile cofferdam dewatering; and,

e. Other dewatering and/or construction activities at contaminated or potentially contaminated sites at YBI and/or at the Oakland Touchdown.

25. To mitigate for the Project's potential construction-stage impacts to water quality and beneficial uses of waters from discharges described in Finding 24, Caltrans has proposed to, separate from this Order, obtain coverage under and comply with the Board's General NPDES Permit No. CAG912002, for the discharge or reuse of extracted and treated groundwater resulting from the cleanup of groundwater polluted by fuel leaks and other related wastes, and/or NPDES Permit No. CAG912003, for the discharge or reuse of extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds. The Board finds that Caltrans' use of these permits for the Project's proposed discharges described in Finding 24, where appropriate, is acceptable.

26. This Order requires Caltrans to submit, at least 30 days prior to the beginning of construction of a project phase in which dewatering is taking place, a dewatering plan that includes a description of how it will address and obtain appropriate approvals for the Project's discharges described in Finding 24.

27. The term "beginning of construction," as used in this Order, refers to the initiation of construction activities with the potential to discharge pollutants to waters of the State (e.g., on-site equipment and/or materials mobilization and staging, in-water construction-related activities, upland earth movement, etc.). It does not include activities without the potential to pollute (e.g., letting the contract and ordering structural steel).

28. The Board, on June 21, 1995, adopted, in accordance with CWC, Division 7, Chapter 3, Article 3, a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan). The State Water Resources Control Board and the Office of Administrative Law approved this updated and consolidated revised Basin Plan on July 20, 1995, and November 13, 1995, respectively. A summary of revisions to the regulatory provisions is contained in 23 CCR Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. This Order is in compliance with the Basin Plan.

29. The Project is located with the Central portion of San Francisco Bay. Central San Francisco Bay has the following existing beneficial uses defined in the Basin Plan: ocean, commercial and sport fishing, estuarine habitat, industrial service supply, fish migration, navigation, industrial process supply, preservation of rare and endangered species, water contact recreation, non-contact water recreation, shellfish harvesting, and fish spawning.

30. Caltrans submitted an Alternatives Analysis, prepared pursuant to federal guidelines, in its application package. The Alternatives Analysis demonstrates that appropriate effort was made to avoid and then to minimize impacts to waters of the State, as required by the Basin Plan. Board staff held extensive additional discussions with Caltrans regarding its Alternatives Analysis. The Board concurs with the conclusions of the Alternatives Analysis.

31. The Basin Plan Wetland Fill Policy (policy) establishes that there is to be no net loss of wetland acreage and no net loss of wetland value, and a long-term net gain in both, when the project and any proposed mitigation are evaluated together, and that mitigation for wetland fill projects is to be located in the same area of the Region, whenever possible, as the project. The policy further establishes that wetland disturbance should be avoided whenever possible, and if not possible, should be minimized, and only after avoidance and minimization of impacts should mitigation for lost wetlands be considered.

32. The goals of the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993) include ensuring "no overall loss" and achieving a "…long-term net gain in the quantity, quality, and permanence of wetland acreage and values…." Senate Concurrent Resolution No. 28 states that "[i]t is the intent of the legislature to preserve, protect, restore, and enhance California's wetlands and the multiple resources which depend on them for benefit of the people of the State." Section 13142.5 of the CWC requires that the "[h]ighest priority shall be given to improving or eliminating discharges that adversely affect…wetlands, estuaries, and other biologically sensitive areas."

33. With the successful implementation of the mitigation measures described in these findings, the Board finds that the Project will comply with the California Wetlands Conservation Policy and Basin Plan Wetland Fill Policy referenced in Findings 31 and 32.

34. The California Environmental Quality Act (CEQA) requires that all discretionary projects approved by State agencies comply with CEQA. On September 18, 1998, Caltrans filed a Notice of Exemption indicating that the Project, as an emergency project, is exempt from CEQA, pursuant to CSHC Section 180.2 and Pub. Res. Code Section 21080(b)(4) and 14 Cal. Code of Regs. Section 15269(e). The Board finds that the Project is exempt from CEQA pursuant to these statutory and regulatory exemptions.

35. The Board has notified the Corps and other interested agencies and persons of its intent to issue WDRs for the Project.

36. The Board, in a public meeting, heard and considered all comments pertaining to the WDRs.

37. Project files are maintained at the Board under file numbers 2198.11, 2199.9430, and site number 02-01-C0528. The Corps file number for the project is 23013S.

IT IS HEREBY ORDERED that Caltrans, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, shall comply with the following, pursuant to authority under CWC Sections 13263 and 13267:

A. Discharge Prohibitions

1. The direct discharge of wastes, including concrete, steel, drilling muds, rubbish, refuse, bark, sawdust, or other solid or liquid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plains, is prohibited.

2. The discharge of floating oil or other floating materials from any activity in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.

3. The discharge of silt, sand, clay, or other earthen materials from any activity in quantities sufficient to cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.

4. The wetland fill activities subject to these requirements shall not cause a nuisance as defined in CWC §13050(m).

5. The discharge of decant water from active dredging or fill sites and dredged material stockpile or storage areas to surface waters or surface water drainage courses, and/or the discharge or potentially contaminated dewatered ground or surface water are prohibited, except as conditionally allowed following the submittal of a discharge plan or plans as described in the Provisions.

6. Surface and groundwater in the vicinity of the Project shall not be degraded as a result of the Project's activities or the placement of fill for the Project.

7. The discharge of materials other than storm water, which are not otherwise regulated by a separate NPDES permit or allowed by this Order, to waters of the State is prohibited.

B. Discharge Specifications

1. 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 this Order, does not exceed the following in waters of the State more than 100 feet beyond the Project Boundary for all areas of dredging, excavation, and/or fill placement, when that work occurs within 3200 feet (1000 meters) of an eelgrass bed or sand flat:

   Turbidity of the waters of the State, as measured in NTUs, shall not increase above background levels by more than the following, to the extent practicable. If turbidity does increase above the below levels, Caltrans shall follow remedial measures as described in the Self-Monitoring Program (SMP) that is part of this Order.

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

   The Project Boundary for the dredged 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.

2. In accordance with Section 13260 of the CWC, Caltrans shall file a report with the Board of any material change or proposed material change in the character, location, or volume of the discharge. Any proposed material change shall be reported to the Executive Officer at least 7 days in advance of implementation of any such proposal.

3. 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 modifications of the Board and/or Executive Officer, for the remedial actions.

C. Receiving Water Limitations

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

a. floating, suspended or deposited macroscopic particulate matter or foam in waters of the State at any place more than 100 feet from the Project Boundary or point of discharge of return flow, except as authorized under Section B, Discharge Specifications, of this Order.
b. visible floating, suspended, or deposited oil or other products of petroleum origin in waters of the State at any place.
c. waters of the State to exceed the following quality limits at any time during construction activities:
   i) 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.
   ii) Dissolved sulfide: 0.1 mg/l maximum.
   iii) pH: A variation of natural ambient pH by more than 0.5 pH units.
   iv) 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.

2. The concentrations of chemicals of concern, as found in grab samples taken no more than 100 feet beyond the Project Boundary, shall not exceed the Receiving Water Limits in Table A-1 of the attached Self-Monitoring Program, unless it can be shown that 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).

D. Provisions

1. Caltrans shall comply with all Discharge Prohibitions, Discharge Specifications, Receiving Water Limitations, and Provisions of this Order immediately upon adoption of this Order or as provided below.

2. Caltrans shall obtain and comply with all necessary approvals and/or permits for the Project and its mitigation projects from applicable government agencies, including, but not limited to, BCDC, CDFG, NMFS, USFWS, and the Corps, and submit copies of such approvals and/or permits to the Board's Executive Officer prior to the start of construction activity. Additionally, Caltrans shall continue to comply with Water Quality Certification Order No. 01-120.

3. Prior to the beginning of construction of a project phase that includes dredging, Caltrans shall submit, a copy of the Dredging Operations Plan submitted to and as accepted by the Corps, and including all revisions required by the Corps.

4. Caltrans shall fully implement its submitted plans accepted in this Order, and plans required to be submitted in the future and that are accepted by the Executive Officer or approved by the Board (e.g., construction SWPPPs, its post-construction storm water management plan, dewatering plans, wetland mitigation work plans, etc.).

5. Not later than 18 months following the contract award for the Skyway, Caltrans shall submit, acceptable to the Executive Officer, a plan that addresses implementation of the proposed on-site mitigation for special aquatic sites including eelgrass beds and sand flats. The plan shall include all appropriate design details for earthwork and plantings, as well as an implementation schedule, performance standards, and monitoring. In the event eelgrass beds cannot be restored on-site, Caltrans shall propose alternate eelgrass and sand flat mitigation equivalent to the on-site mitigation presently proposed and accepted in this Order.

6. Caltrans shall implement its "Draft Work Plan for Central Bay Mitigation Sites within East Shore State Park," dated November 21, 2001, including complying with all dates and deadlines listed therein, and as may subsequently be incorporated into amended versions of the plan accepted by the Executive Officer. This Plan may be amended with the written approval of the Executive Officer. A minimum of $2.5 million shall be deposited into an interest-bearing escrow account no later than 120 days following adoption of this Order. All interest from this account shall be used for the funding of mitigation to be completed as a part of the referenced Work Plan.

7. Caltrans shall implement its "Draft Work Plan for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project: Skaggs Island Restoration Program," dated November 2001 (Skaggs Draft Work Plan), including complying with all dates and deadlines listed therein, and as may subsequently be incorporated into amended versions of the plan accepted by the Executive Officer. This Plan may be amended with the written approval of the Executive Officer. Caltrans shall fund this work with a maximum of $8 million dollars, which total amount shall be deposited into an interest-bearing escrow account no later than 120 days following adoption of this Order. All interest from this account shall be used for the funding of mitigation to be completed as a part of the referenced Work Plan or completed under the "Draft Work Plan for Central Bay Mitigation Sites within East Shore State Park," as referenced above.

8. The funding for the Skaggs Island restoration shall be redirected to other efforts as described below:

    a. If Skaggs Island restoration work fails to meet the dates set forth in the Skaggs Draft Work Plan, Section 5.13 *Contingency,* as may subsequently be amended, then Caltrans shall identify other potential mitigation sites and shall convene an interagency group to determine the acceptability of those sites, including acceptable designs and timing for their construction. Priority shall be given to

potential mitigation sites at the East Shore State Park not already part of the plan described in Provision E.5. Proposed alternative mitigation sites, including proposed plans for construction of alternative mitigation, shall be brought before the Board for its approval. Construction may not begin at alternative mitigation sites until the sites and plans have received approval by the Board.

b. If other funding is obtained for the Skaggs Island work, or it is otherwise determined that the funding for Skaggs Island is greater than that needed for the restoration project, then Caltrans shall identify other potential mitigation sites and shall convene an interagency group to determine the acceptability of those sites, including acceptable designs and timing for their construction. Priority shall be given to potential mitigation sites at the East Shore State Park not already part of the plan described in Provision E.5. Proposed alternative mitigation sites, including proposed plans for construction of alternative mitigation, shall be brought before the Board for its approval. Construction may not begin at alternative mitigation sites until the sites and plans have received approval by the Board.

9. Caltrans shall implement its "Draft Work Plan for On-Site Eelgrass Restoration Program," dated November 2001, including complying with all dates and deadlines listed both therein and below, and as may subsequently be incorporated into amended versions of the plan accepted by the Executive Officer. This Plan may be amended with the written approval of the Executive Officer.

a. Caltrans shall further develop mitigation monitoring standards and success criteria for its proposed on-site eelgrass mitigation as described in the Draft Work Plan, and shall submit a revised Work Plan or a Mitigation Plan/Conceptual Restoration Plan incorporating acceptable standards and criteria no later than August 1, 2002.

b. Preliminary design and engineering for on-site restoration shall be completed no later than October 1, 2002.

c. Other work shall be completed as per the timetable listed in the Draft Work Plan, as may subsequently be amended with the approval of the Executive Officer.

10. Not later than 60 days following adoption of this Order, Caltrans shall submit, acceptable to the Executive Officer, a final work plan for implementation of post-construction stormwater treatment measures (SWMP Work Plan). The SWMP Work Plan shall include:

a. Conceptual designs for all catchments, including proposed treatment measure types and conceptual designs, volumes of water to be treated (i.e., the water quality design storms), treatment times, and all other information, as appropriate. Proposed treatment measures utilizing detention shall have a minimum detention time of 48 hours for treated storms.

b. Completion of designs for catchments 2, 3, 4, 5, and 6 no later than December 2002. Designs shall provide for the appropriate treatment of at least 85% percent of average annual runoff from the area to be treated and shall include appropriate design details, implementation and completion schedules, planting plans, maintenance plans, funding mechanism(s), and all other information, as appropriate.

c. Completion of designs for catchment 1 no later than August 2003, or concurrent with completion of design for the proposed EBRPD park, if that occurs later.

d. Construction of measures proposed for catchments 2, 3, 4, 5, and 6 beginning no later than July 2003, with completion of all related construction in those catchments no later than July 2004.

e. Completion of construction of measures proposed for catchment 1 no later than 1 year following the completion of the demolition contract to remove the existing East Span and no later than concurrently with the construction of the proposed EBRPD park.

f. A proposal to complete a water quality monitoring plan to appropriately monitor the effectiveness of all installed treatment measures for a minimum of 5 years following completion of their construction. The water quality plan shall include provisions for monitoring of removal of stormwater pollutants including, but not limited to, hydrocarbons, heavy metals, pathogens, nutrients, sediment, and trash, and shall include provisions for all other appropriate monitoring, including, but not limited to, treatment measure hydrology (e.g., amount of infiltration, ground water levels, etc.), maintenance requirements, effects of salinity, vegetation growth and survival, and vectors, and shall include provisions for annual reporting of this information to the Board.

g. Not later than 30 days prior to the beginning of construction activity of the design measures and treatment controls specified in the SWMP Work Plan, Caltrans shall submit, acceptable to the Executive Officer, a final SWMP (storm water management plan) with final construction details and all other information, as appropriate, for all appropriate information included in the SWMP Work Plan.

11. As soon as feasible following contract award for each phase of construction and/or demolition, and not later than 30 days prior to the beginning of construction or demolition activity for that project phase, Caltrans shall submit, acceptable to the Executive Officer, a SWPPP to adequately address the Project's expected construction stage impacts. SWPPPs may be submitted separately for each phase of construction or demolition activity, but must all be submitted, acceptable to the Executive Officer, at least 30 days prior to beginning of each phase of construction or demolition activity. However, for the geofill contract only, Caltrans shall submit the required SWPPP for that contract, acceptable to the Executive Officer, at least 21 days prior to the beginning of construction

of that phase.

12. Caltrans shall conduct monitoring and reporting activities according to the Self-Monitoring and Reporting Program (SMP) attached to this Order, and as may be amended by the Executive Officer. At any time after adoption of this Order, Caltrans may file a written request proposing modifications to the attached SMP. If the proposed modifications are acceptable, the Executive Officer may issue a letter of approval incorporating the revisions into the SMP.

13. Caltrans shall provide technical monitoring reports regarding the impacts of the discharge on waters of the State, pursuant to Section 13267 of the California Water Code (CWC). This monitoring provides necessary information about Bay water quality, including both instantaneous data on the impacts of dredged material disposal and information about long-term impacts of that disposal. Caltrans may elect to participate in the San Francisco Estuary Regional Monitoring Program for Trace Substances (RMP) to fulfill this requirement or provide comparable data on an individual basis. Since 1992, many Bay Area dischargers have decided to provide this information through the RMP, rather than through individual monitoring programs. The San Francisco Estuary Institute (SFEI), located in Richmond, California, administers the program with oversight by the Board. Dischargers now contribute annually to the SFEI, and the Board recognizes these payments as fulfilling requirements to provide information on water quality impacts under Section 13267. The SFEI will send an invoice for $0.22 per cubic yard of material disposed in-Bay to all dischargers in July of the year following the disposal episode(s). Disposal volumes will be calculated using pre- and post-dredge surveys, or using bin volumes if surveys are not available.

14. Caltrans shall comply with the conditions of the Biological Opinion issued by NMFS and the Incidental Take Statement issued by CDFG for the Project. Additionally, from December 1 to March 31 of any construction year, a professional biologist will be present to identify herring spawning activity during all dredging operations. If herring spawning is detected at or within 200 meters of the dredging operations, dredging within 200 meters of the spawning activity shall cease within 8 hours of notification to the contractor for a minimum of 14 days, or until it can be determined that the herring hatch has been completed.

15. Discharges of dredged material shall comply with annual and seasonal volume target limits for disposal at in-Bay sites set in the Basin Plan.

16. Dredging shall be limited to the project depths described in the report: *Sediment Sampling and Analysis Report, San Francisco-Oakland Bay Bridge East Span Seismic Safety Project, Alameda and San Francisco Counties, California*, dated June 2000.

17. Caltrans shall submit, on a monthly basis, a report summarizing all dredging and disposal activities and locations. Reports shall be submitted no later than the 15th day of the month following a month in which dredging takes place, and shall include: a summary of dredging and disposal volumes by location, a summary of dredging methods, maps showing dredge and disposal locations, a summary of related activities (e.g., associated dredged sediment dewatering), and all other information, as appropriate. Caltrans is requested to send a copy of these reports to the DMMO and all other interested agencies.

18. Not later than 30 days prior to the beginning of pile driving activities, Caltrans shall submit for Board staff review an effective fisheries and hydroacoustic monitoring plan. The fisheries and hydroacoustic monitoring plan shall include all related requirements of NMFS and CDFG, provision for reporting to the Board of information reported to other agencies, on a schedule consistent with that required by NMFS, and all other information, as appropriate. Staff shall work with NMFS and CDFG regarding the acceptability of the specified plans.

19. Caltrans shall notify the Board immediately whenever violations of this Order are detected.

20. Caltrans shall regularly, as described in the SMP that is part of this Order, monitor total suspended solids concentrations using turbidity meters during excavation/dredging of and/or placement of fill into channels or other project features that are within 1000 meters of mapped eelgrass beds. Turbidity meters shall be calibrated with enough grab samples to reduce the error in any measurement to less than 100 mg/L.

21. Caltrans shall use silt curtains or an equivalent method to effectively control turbidity for all proposed dredging activities.

22. No overflow or decant water shall be discharged from any barge, with the exception of spillage incidental to clamshell dredge operations.

23. To appropriately address potential impacts from its dewatering activities, Caltrans shall file for coverage under and comply with the Board's General NPDES Permit Nos. CAG912002 and/or CAG912003, as appropriate. The Board or Executive Officer may determine that Caltrans must obtain individual NPDES permits for the discharges, pursuant to the relevant NPDES permit provisions.

24. Caltrans shall submit, no later than 30 days prior to the beginning of construction of a project phase in which dewatering is taking place, a dewatering plan, acceptable to the Executive Officer, that includes a description of how it will address and obtain appropriate approvals for its proposed discharges. The dewatering plan shall include:

    a. A description of dewatering locations;

b. An estimate or estimates of discharge rates and volumes;

c. A listing of expected pollutants and concentrations;

d. The expected timing and scheduling of the proposed discharges; and,

e. All other information, as appropriate to mitigate for dewatering impacts (e.g., measures to mitigate the potential for erosion caused by dewatering discharges at their outfall(s)).

25. Caltrans shall install any additional monitoring devices required to fulfill the terms of any SMP issued to Caltrans, in order that the Board may evaluate compliance with the conditions of this Order.

26. Caltrans shall file with the Board a report of any material change or proposed change in the character, location, or quantity of this waste discharge. For the purpose of these requirements, this includes any proposed change in the boundaries of the disposal areas or the ownership of the site.

27. Dredging and disposal of dredged material associated with demolition of the existing East Span shall not commence until authorized in writing by the Executive Officer. The review process for this dredging shall occur through the DMMO by the same process as is used for other Bay Area dredging projects. Caltrans shall follow applicable federal and state guidance on a tiered testing framework and on the preparation of reports.

28. Caltrans shall maintain a copy or copies of this Order at the Project site so as to be available at all times to site operating personnel.

29. Caltrans is considered to have full responsibility for correcting any and all problems that arise in the event of a failure that results in an unauthorized release of waste or wastewater from the Project.

30. Caltrans shall maintain all devices and/or designed features installed in accordance with this Order such that they function without interruption for the life of the Project.

31. Caltrans shall permit the Board or its authorized representative, upon presentation of credentials:

a. Entry onto to premises on which wastes are located and/or in which records are kept.

b. Access to copy any records required to be kept under the terms and conditions of this Order.

c. Inspection of any treatment equipment, monitoring equipment, construction area(s), or monitoring method completed as part of the Project.

d. Sampling of any discharge or surface water covered by this Order.

e. This Order does not authorize commission of any act causing injury to the property of another or of the public; does not convey any property rights; does not remove liability under federal, state, or local laws, regulations or rules of other programs and agencies; nor does this Order authorize the discharge of wastes without appropriate permits from this agency or other agencies or organizations.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 23, 2002.

Loretta K. Barsamian

Loretta K. Barsamian
Executive Officer

Attachments:

Appendix A: Project components: Schedule and brief description.
Appendix B: Self-Monitoring and Reporting Program.

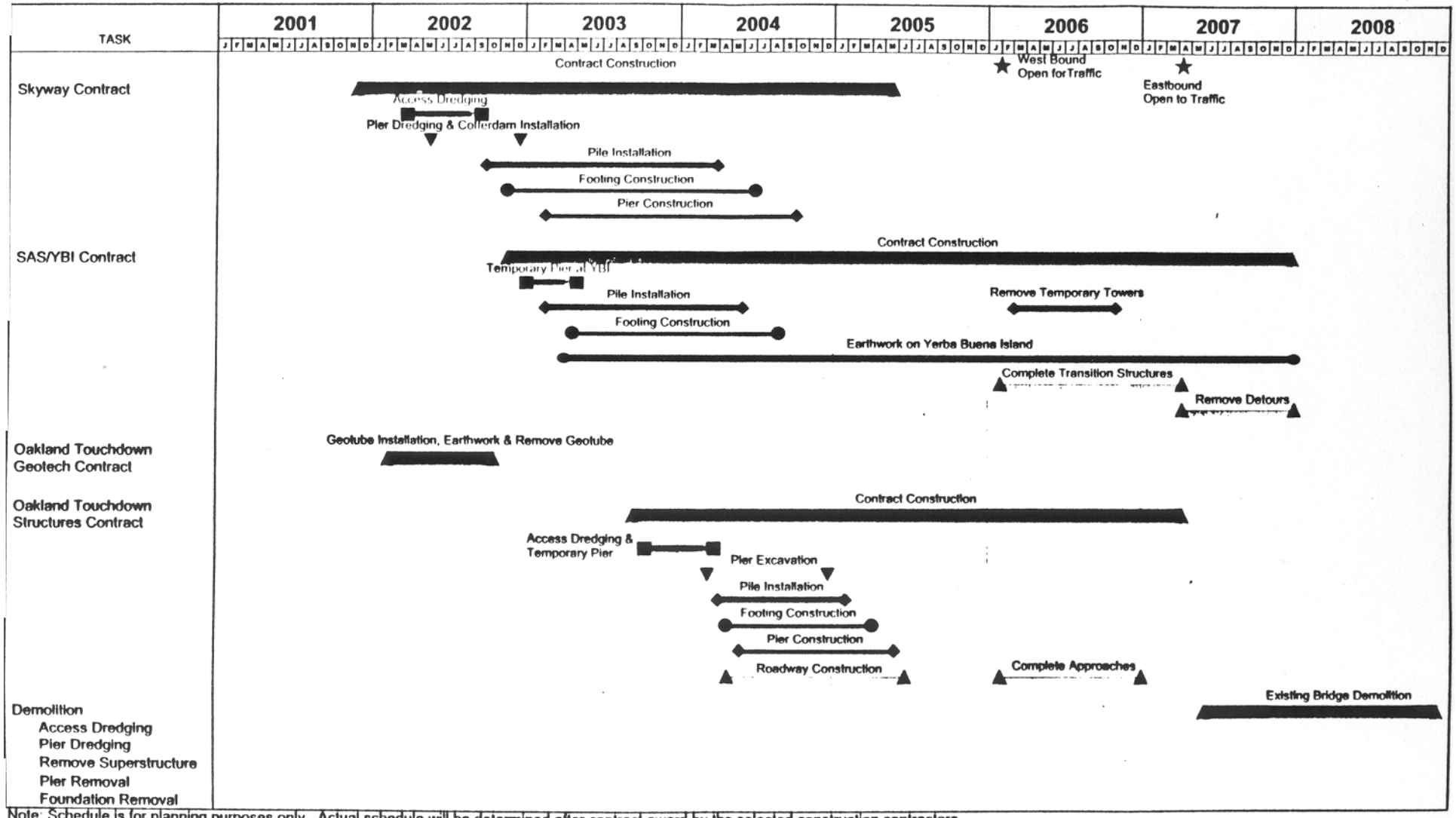
Order No. R2-2002-0011

Appendix A
East Span Project Components:
Schedule and Brief Description

SFOBB - East Span Seismic Safety Project

Construction Milestones

11/14/01



Note: Schedule is for planning purposes only. Actual schedule will be determined after contract award by the selected construction contractors.

A Brief Explanation of Items listed in the Schedule

Access Dredging -

Dredging for barge access channels will occur twice during construction: first, to provide barge access for construction of a replacement structure, and later to provide barge access for dismantling of the existing structure. Approximately 216,230 cubic yards will be dredged for construction access early in the project and 190,680 cubic yards will be dredged late in the project for dismantling access.

Pier Dredging & Cofferdam Installation -

Cofferdams may be installed to construct over-water piers and on-land bents at the Oakland Touchdown and to dismantle the existing bridge piers. Cofferdams will be dewatered and sediment will be removed by reverse circulation drilling, jetting, airlifting or by clamshell excavation. Approximately 22,724 cubic yards may be dredged from cofferdams to remove the existing foundations and piles 1.5 feet below the mud line.

Pile Installation -

Hollow steel pipe piles will be driven and cleaned out. The shells will be filled with composite reinforced concrete. Approximately 187,087 cubic yards will be dredged for new pier construction.

Footing Construction -

For construction of the footings, piles will be driven, sheet pile, soldier piles and/or other temporary shoring may be used to excavate soil so forms can be built for pile caps; the forms will be filled with reinforcing steel and concrete and removed after the concrete has cured. The towers and bent caps will then be erected.

Geotube Installation, Earthwork & Remove Geotube -

At the Oakland Touchdown area, a portion of the new westbound roadway encroaches into the Bay, requiring the use of engineered fill. To construct the westbound roadway, a geotube will be placed north of the Oakland Touchdown to temporarily protect the work area from tidal and wave action. A geotube is a large diameter tube of permeable geotextile fabric into which Bay sand and water will be pumped.

Existing Bridge Demolition -

After the new bridge is constructed, the existing bridge will be dismantled. The techniques for dismantling the superstructure will involve separating and removing large, essentially intact pieces of the span. The pieces will be lowered onto barges, then transported to an upland site for appropriate disposal. The bridge foundations will then be removed and existing piles will be cut off below the mud line.

Temporary Pier at YBI -

Temporary detours will be required on YBI to construct the main span and skyway without interrupting traffic on the existing East Span. For construction of the bents, piles will be driven, forms will be built for pile caps or spread footings; the forms will be filled

with reinforcing steel and concrete and removed after the concrete has cured. The towers and bent caps will then be erected.

Earthwork on Yerba Buena Island -

Excavators, backhoes, haulers, graders and other large scale earth moving and construction equipment would be used to clear and excavate portions of the site on YBI. Excavated material would be stockpiled for reuse or removed from the site by truck or barge for disposal.

Pier Construction -

To construct piers, forms will be constructed, reinforcing steel would be placed in the forms, concrete will be cast into the forms, and the forms will be removed after the concrete has cured.

Order No. R2-2002-0011

Appendix B:
East Span Project
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL PLAN
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR ORDER No. R2-2002-0011

Caltrans San Francisco-Oakland Bay Bridge East Span Seismic Safety Project

I. GENERAL

A. Basis

Reporting responsibilities of the Project Proponent as "waste discharger" are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Self-Monitoring Program (SMP) is issued in accordance with the applicable Provisions of Board Order No. R2-2002-0011.

B. 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 this Board; (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; and, (5) to assist the discharger in complying with the requirements of the California Code of Regulations.

C. Sampling and Methods

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.

II. DEFINITION OF TERMS

Grab Sample is defined as 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 only represent the condition that exists at the time the water and effluent are collected.

Receiving waters refers to any surface or groundwater which actually or potentially receives surface or groundwater, or which pass over, through, or under waste materials or contaminated soils. For these requirements, the samples to evaluate the condition of the receiving water should be taken within 100 feet of the Project Boundary.

Project Boundary, as defined in Board Order R2-2002-0011, is 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 daily project work (e.g., daily limits of dredging).

Standard Observations refer to:

1. Receiving waters

    a. Evidence of floating and suspended materials generated by the construction and/or demolition activities, as recorded by visual observations, video or photographic records, continuous, fixed-turbidity meters that have been calibrated to total suspended solids and grab samples.
    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.

Operations monitoring refers to the following information:

1. A description of and a map showing the area(s) dredged during the previous month, when dredging activity occurs in that month.
2. Estimates of the daily volume in cubic yards and the disposal location(s) of dredged materials removed during each day of the previous month, when dredging activity occurs in that month.

Construction activities refers to dredging, excavation, filling, construction, and demolition activities associated with the Project.

Duly Authorized Representative is one whose:

a. authorization is made in writing by a principal executive officer, or

b. authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity (e.g; field supervisor, project manager, chief engineer).

III. SPECIFICATIONS FOR SAMPLING AND ANALYSES

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

A. Receiving Waters

1. 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 300 yards 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 the following constituents:

Constituents	Type of sample	Units
Turbidity	Grab	NTUs
pH	Grab	Not Applicable
Dissolved Oxygen	Grab	mg/l
Dissolved Sulfide	Grab	mg/l
Total Suspended Solids	Grab	mg/l
Temperature	-	degrees

2. Depth-averaged turbidity measurements shall be completed at established locations along the Project Boundary. Locations shall be established every 500 feet longitudinally along a line parallel to the Project Boundary and 100 feet away from the Project Boundary. Samples shall be taken, or measurements completed 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 measured turbidity levels exceed the following, measured in NTU:

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

3. Samples shall be depth-integrated when possible, or otherwise taken at least one foot below the surface of the water body.

4. If 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. Sampling at this higher frequency shall continue until the exceedance has been corrected.

5. If any receiving water limit for a constituent or constituents is exceeded, then Caltrans shall follow the following process to address the exceedance:

    a. Identify source of exceedance;
    b. Correct source of exceedance;
    c. Resample to determine whether exceedance has been corrected.

6. If any receiving water limit for a constituent or constituents is exceeded for: a continuous period of 4 hours or more; or for 8 hours or more in any 1-week period from October 1 – March 31; or 16 hours or more in any 1 week period from April 1 – September 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 reoccurrence 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.

7. If any receiving water limit for a consituent or constituents is exceeded for: 12 hours or more in any 1-week period from October 1 – March 31; or 24 hours or more in any 1 week period from April 1 – September 30, then 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 they are correcting or will correct the exceedance.

8. For other violations, Caltrans shall notify the Board immediately whenever violations are detected 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.

B. 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 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.

2. Progress and location of active dredging and control measures, noted on a map of the site.

C. 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 three years. Records shall include notes and observations for each sample as follows:

   a. Identity of each sample, sampling station, and observation 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 volumes or reagents used. A reference to a specific section of Standard Methods is satisfactory.

   e. Calculations 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 location 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 flow data:

   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).

IV. REPORTS TO BE FILED WITH THE REGIONAL BOARD

A. Written monitoring reports shall be filed according to the schedule set forth in Table A-1. Reports shall be submitted no later than the 15th of the month following the month they are reporting on. 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 requirement violations found during the last report period, and actions taken or planned for correcting the violations. If Caltrans 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 Caltrans District Director or his duly authorized representative, if such representative is 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. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

i. An estimate of the volume of any Project discharge on a daily, weekly, and monthly basis.
ii. The method and time of measurement, equipment, and methods used to monitor turbidity and other monitored constituents in the field.

c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

d. Laboratory statements of results of analyses specified in Part B must be included in each report. 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 USEPA-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 Project, including the Project Boundary(ies) in the receiving waters.

f. A summary and certification of completion of all water quality analyses.

B. Contingency Reporting

a. A report to the Executive Officer and the 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 five days thereafter. This report shall contain the following information:

   i. A map showing the location(s) of discharge(s);
   ii. Approximate flow rate and/or volume;
   iii. Duration of discharge;
   iv. Day and time of day of discharge;
   v. Nature of effects (i.e., all pertinent observations and analyses); and,
   vi. Corrective measures underway or proposed.

C. Final Reporting

Caltrans shall notify the Board by letter upon completion of each project phase and of the Project. Project completion is considered to be the date on which all dredged material has been deposited at its final disposal location(s), the new bridge has been completed and is open to traffic, the demolition of the existing East Span and removal of temporary structures have been completed, and construction equipment has been demobilized and staging areas have been restored. This date is considered separately from the required monitoring and implementation of other actions associated with post-construction stormwater and wetland mitigation. Caltrans shall also submit a final report containing the following information:

a. A comprehensive discussion of the compliance record, and the corrective actions taken or planned, which were needed for compliance with the Project's WDRs;
b. A comprehensive discussion of the effectiveness of receiving water monitoring methods;
c. An evaluation of the effectiveness of dredging and filling methods used (at minimizing water quality impacts);

d. An estimate of the total volume of material dredged or excavated from each discrete site during the project and the total volume of material placed at each disposal or reuse location; and,
e. An estimate of the total volume of decant water generated from dewatering of the dredged material, if applicable.

PART B: MONITORING AND OBSERVATION SCHEDULE

I. DESCRIPTION OF MONITORING STATIONS AND ANALYSES

1. RECEIVING WATERS

   a. Number and locations of turbidity (optical backscatter) meters:[1]

      i. Minimum of one turbidity meter no more than 100 feet beyond the Project Boundary and longitudinally every 500 feet parallel to the Project Boundary in environmentally sensitive areas (e.g., at eelgrass beds and mud flats) (monitoring for constituents other than turbidity is described in Table A-1);

      ii. Minimum of one turbidity meter per construction area where dredging and/or pile driving are being completed, no more than 100 feet beyond the Project Boundary.

         1. If simultaneous construction activities (e.g., multiple pile driving locations, multiple dredging locations or similar) occur more than 300 yards apart, each construction area will have a turbidity meter located no more than 100 feet beyond the boundary of that particular area, as defined by the silt curtain.

         2. If simultaneous construction areas occur more than 100 feet, but less than or equal to 300 yards apart, Caltrans may deploy one turbidity meter for both areas.

      iii. One turbidity meter located more than 300 yards from all construction activities to measure ambient conditions.

II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis is provided in the attached Table A-1.

III. REPORTING SCHEDULE

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

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16, in order to obtain data and document compliance with discharge requirements established in Regional Board Order No. R2-2002-0011.

2. Was adopted by the Board on, January 23, 2002.

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 Board.

Loretta K. Barsamian

Loretta K. Barsamian
Executive Officer

Attachment: Table A-1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

for

CALTRANS'
SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT
CITIES OF OAKLAND, ALAMEDA COUNTY, AND
SAN FRANCISCO, SAN FRANCISCO COUNTY.

ORDER No. R2-2002-0011

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**[2]
Total Suspended Solids	Daily	Monthly
Turbidity	As specified in SMP	Monthly
pH (units) field	Daily	Monthly
Dissolved Oxygen	Daily	Monthly
Dissolved sulfide	Daily	Monthly
Water temperature & depth: surface, thermocline & bottom, or every 5 feet.	Daily	Monthly

[2] As specified in this table, or as otherwise specified in the SMP.