

**STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION--DIVISION OF WATER QUALITY
NOVEMBER 6, 2007**

ITEM 3

SUBJECT

CONSIDERATION OF A RESOLUTION APPROVING GUIDELINES AND AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY REGION (BASIN PLAN) CONCERNING THE DISPOSAL OF DREDGED SEDIMENT

DISCUSSION

The San Francisco Bay Regional Water Quality Control Board (San Francisco Bay Water Board) adopted two resolutions to implement the Long Term Management Strategy for the Disposal of Dredged Material in the San Francisco Bay Region (LTMS). The LTMS provides for a phased-in reduction of the volume of materials disposed of in the San Francisco Bay (in-bay disposal).

Dredging within the San Francisco Bay (Bay) has been ongoing for at least 100 years. Initially, dredging was performed mainly to provide fill material for the expansion of land around the Bay. Through the years, maritime commerce to and through the Bay has increased, requiring more and deeper navigation channels and facilities to accommodate more vessel traffic and increasingly larger ships. Each year, about 4000 ocean-going ships move through the Bay carrying over 50 million tons of cargo worth an estimated \$25 billion. Regular maintenance dredging of the navigation channels, docks, and marinas in the Bay is essential in order to prevent these areas from filling in with sediment, thus impeding navigation.

Dredging is an activity that must be performed frequently because large volumes of suspended sediment are continuously carried to the Bay by its tributaries. The Bay is located at the mouth of two major rivers, the Sacramento and the San Joaquin Rivers, which carry approximately 60 percent of the State's surface water to the Pacific Ocean. While much of this transported sediment is flushed to the ocean, some remains in the Bay, where it is constantly circulated, deposited, and re-suspended by the actions of tide, wind, and currents. The San Francisco Bay Water Board staff has estimated that about 100 million cubic yards (mcy) of sediment is re-suspended in the Bay per year.

Annual maintenance dredging results in the need to dispose of between two to eight mcy of dredged material. The average annual historical dredging volume for the period between 1950 and 1990 was six mcy. The most common practice for dredged material disposal during the last century has been to place dredged material at in-Bay locations with the expectation that the material would be removed and redistributed by tides and currents (dispersive disposal). The fate of the materials placed at the in-Bay disposal sites depends on many factors including material type, disposal volume, and disposal frequency.

The U.S. Army Corps of Engineers (USACE) has primary responsibility for maintaining the navigable waters of the United States. Since the 1980s, the USACE has designated only four dispersive disposal sites: Alcatraz, San Pablo, Carquinez, and Suisun Bay.

The U.S. Environmental Protection Agency (USEPA) also has regulatory authority over dredged material. In 1994, USEPA designated a deep ocean disposal site approximately 50 miles offshore of San Francisco. Dredged material has additionally been beneficially reused as fill for wetland restoration projects, levee maintenance, and as daily cover for landfills. Section 404 of the Clean Water Act requires State certification regarding compliance of dredged materials with water quality standards.

In the early 1980s, the problems associated with heavy reliance on in-Bay disposal sites became apparent, including navigational problems associated with a mound of dredged material at the Alcatraz disposal site, as well as potential environmental problems associated with disposal and dredging activities. In 1990, the San Francisco Bay Water Board joined with USACE, USEPA, the San Francisco Bay Conservation and Development Commission, the State Water Resources Control Board (State Water Board), and representatives from the dredging and environmental communities to ensure adequate dredged material disposal and reuse capacity and protection of aquatic resources over a 50-year planning period through development of the LTMS. The LTMS was also initiated to maximize beneficial reuse of dredged material, improve coordination of the agencies governing these activities, and ensure a more predictable regulatory framework.

Several possible long-term dredged material management strategies were examined in the LTMS Policy Environmental Impact Statement/Programmatic Environmental Impact Report (PEIR) using a programmatic level of analysis. The possible strategies considered were framed in terms of distribution of dredged material among the three potential types of disposal available (in-Bay disposal, deep ocean disposal, and beneficial reuse of dredged material). The criteria used to evaluate potential management strategies were: (1) potential risks and benefits to ecological systems, (2) regulatory certainty, and (3) effects on dredging-related economic sectors.

No attempt was made to quantify impacts of dredged material disposal at specific locations or directly quantify impacts of existing or proposed disposal volume targets. However, during the preparation of PEIR, LTMS agencies consulted with the California Department of Fish and Game (CDFG), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS) regarding potential impacts of dredging and dredged material disposal to sensitive biological resources. These resource agencies, in conjunction with LTMS agencies, developed a list of restrictions for such projects to protect critical habitat for special status and important commercial and recreational species.

The PEIR was certified by USACE, USEPA, and the State Water Board (as the Lead Agency) in 1999, thus initiating implementation of the chosen alternative. The chosen alternative specifies that no more than 20 percent of dredged material would be disposed of in the Bay, and the remaining material would be split evenly between ocean disposal and beneficial reuse of dredged material. One mcy has been set as the long-term goal for in-Bay disposal, because this volume is about 20 percent of the average annual historical dredging volume (6 mcy). The PEIR specifies a 12-year transition period to meet this goal, starting with 2.8 mcy per year. This disposal volume is incrementally lowered every three years. If the average annual disposal volume for a three-year period exceeds the specified target, volume allocations can be placed on individual dredging projects. As in-Bay disposal is decreased, deep ocean disposal and beneficial reuse of dredged material can be correspondingly increased.

LTMS agencies, with public participation, went on to develop the LTMS Management Plan that outlines how the selected alternative will be implemented by each of the involved agencies. The

LTMS Management Plan was approved by LTMS agencies in July 2001, with a commitment to reviewing and updating the LTMS Management Plan every three years, if necessary, to reflect changing statutory, regulatory, technical, or environmental conditions. Reviews in 2003 and 2006 indicated that the LTMS Management Plan has met its interim goals for in-Bay disposal, and that future targets remain appropriate. Furthermore, overall dredging has decreased from six to four mcy per year, with most of the dredging occurring when sensitive species are least likely to be present.

San Francisco Bay Water Board Resolution No. 01-064 ([Attachment 1](#)) amends the Basin Plan to implement LTMS consistent with the selected alternative in PEIR and the LTMS Management Plan. The amendment sets a long-term overall goal for in-Bay disposal of dredged material at designated disposal sites of one mcy (or less) per year to be attained step-wise over a 12-year period. Consistent with the chosen PEIR alternative, the endpoint of 1.25 mcy after ten years is slightly higher than the stated long-term goal to account for variability in dredging operations and needs. An additional contingency volume of 0.25 mcy for emergencies is provided, and accommodations are made for small dredging projects. The amendment also establishes a two-phase process of allocating in-Bay disposal volumes (consistent with the LTMS Management Plan), with an initial voluntary phase followed by a second mandatory phase if the voluntary phase does not provide desired results. The amendment also provides revised permit conditions to reflect requirements of the resource agencies (CDFG, USFWS, and NMFS). Because the amendment is based on a consensus approach rather than scientific analysis, scientific peer review was not deemed necessary when developing the amendment.

San Francisco Bay Water Board Resolution No. 01-065 ([Attachment 2](#)) adopts the guidelines contained in the 1998 USACE/USEPA Inland Testing Manual and local implementation procedures developed through the Dredged Material Management Office (DMMO) as the appropriate framework for evaluating the suitability of dredged material for disposal at in-Bay disposal sites, and rescinds outdated Resolution Nos. 80-10, 87-53, and 93-009. In addition, [Resolution No. 01-065](#) recognizes the success of DMMO as a review body for dredging and disposal projects in the Bay and directs staff to continue to participate in this group. The DMMO is jointly operated by the LTMS agencies.

During review of the Basin Plan amendment, it became apparent that it was necessary to make several minor, non-substantive corrections to the language, such as re-numbering sections to be consistent with a recently adopted non-regulatory Basin Plan update, correcting minor errors, and clarifying tables. San Francisco Bay Water Board Resolution No. R2-2006-0085 ([Attachment 3](#)), adopted on December 13, 2006, allows its Executive Officer to make such corrections to the amendment language, if needed. The Executive Officer made the requested corrections in a memorandum, dated April 20, 2007 ([Attachment 4](#)). The memorandum includes the underline/strikeout version of the Basin Plan amendment showing these non-substantive corrections, as well as a clean version incorporating these changes.

POLICY ISSUE

Should the State Water Board approve the proposed guidelines and amendment to the Basin Plan in accordance with the staff recommendations below?

FISCAL IMPACT

San Francisco Bay Water Board and State Water Board staff work associated with or resulting from this action will be addressed with existing and future budgeted resources.

REGIONAL WATER BOARD IMPACT

Yes, San Francisco Bay Water Board.

STAFF RECOMMENDATION

That the State Water Board:

1. Approves the amendment to the Basin Plan that implements the LTMS as adopted under San Francisco Bay Water Board Resolution No. 01-064 ([Attachment 1](#)) and as corrected by the San Francisco Bay Water Board's Executive Officer ([Attachment 4](#)).
2. Approves the guidelines as adopted under San Francisco Bay Water Board Resolution No. 01-065 ([Attachment 2](#)).
3. Authorizes the State Water Board Executive Director or designee to transmit the approved amendment and guidelines and the administrative record for this action to the Office of Administrative Law for approval, and to USEPA for concurrence.

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STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2007-

APPROVING GUIDELINES AND AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY REGION (BASIN PLAN) CONCERNING THE DISPOSAL OF DREDGED SEDIMENT

WHEREAS:

1. The San Francisco Bay Regional Water Quality Control Board (San Francisco Bay Water Board) adopted a revised Basin Plan on June 21, 1995, which was approved by the State Water Resources Control Board (State Water Board) on July 20, 1995 and by the Office of Administrative Law (OAL) on November 13, 1995.
2. The San Francisco Bay Water Board adopted [Resolution No. R2-2005-062](#) on November 16, 2005, incorporating non-regulatory editorial revisions to the Basin Plan.
3. The Long Term Management Strategy for the Disposal of Dredged Material in the San Francisco Bay Region (LTMS) was initiated in 1990, when the San Francisco Bay Water Board joined with the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Conservation and Development Commission, the State Water Board, and representatives from the dredging and environmental communities to ensure adequate dredged material disposal and reuse capacity and protection of aquatic resources over a 50-year planning period. LTMS was also initiated to maximize beneficial reuse of dredged material, improve coordination of the agencies governing these activities, and ensure a more predictable regulatory framework.
4. LTMS agencies developed a Policy Environmental Impact Statement/ Programmatic Environmental Impact Report (PEIR) which examined several possible long-term dredge material management strategies using a programmatic level of analysis. The State Water Board, as the Lead State Agency, certified the PEIR on October 21, 1999. LTMS agencies further prepared a LTMS Management Plan that outlines how the selected alternative will be implemented by each of the involved agencies. The LTMS Management Plan was approved by LTMS agencies in July 2001.
5. The San Francisco Bay Water Board adopted Resolution Nos. 01-064 ([Attachment 1](#)) and 01-065 ([Attachment 2](#)) on June 19, 2001, which together implement LTMS consistent with the selected alternative in PEIR and the LTMS Management Plan.
6. [Resolution No. 01-064](#) amends the Basin Plan to implement the LTMS consistent with the selected alternative in the LTMS PEIR, and the LTMS Management Plan. The selected alternative proposes a reduction of in-Bay disposal, while simultaneously increasing disposal of dredged material at the designated site in the deep ocean and using dredged material as a resource for uses such as wetland restoration, levee maintenance, landfill daily cover, and construction fill.
7. [Resolution No. 01-065](#) adopts the guidelines contained in the 1998 USACE/USEPA Inland Testing Manual and local implementation procedures developed through the Dredged Material Management Office (DMMO) as the appropriate framework for evaluating the

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suitability of dredged material for disposal at in-Bay disposal sites, and rescinds outdated Resolution Nos. 80-10, 87-53, and 93-009. In addition, [Resolution No. 01-065](#) recognizes the success of DMMO as a review body for dredging and disposal projects in San Francisco Bay and directs staff to continue to participate in this group.

8. The San Francisco Bay Water Board adopted Resolution No. R2-2006-0085 ([Attachment 3](#)) on December 13, 2006, which authorizes the San Francisco Bay Water Board's Executive Officer to make minor, non-substantive changes to the language of the Basin Plan amendment submitted with [Resolution No. 01-064](#), if needed for clarity or consistency.
9. State Water Board staff determined that minor, non-substantive changes to the language of the Basin Plan amendment was necessary to correct minor clerical errors, to improve clarity, and to ensure that the amendment is consistent with the Basin Plan update adopted under [Resolution No. R2-2005-062](#). The San Francisco Bay Water Board's Executive Officer made these minor changes in a memorandum dated April 20, 2007 ([Attachment 4](#)).
10. The State Water Board finds that the Basin Plan amendment is in conformance with Water Code section 13240, which specifies that Regional Water Quality Control Boards may revise Basin Plans.
11. The San Francisco Bay Water Board prepared a staff report, the environmental checklist, the assessment of environmental impacts, the discussion of alternatives, and other supporting documents pursuant to the requirements of the State Water Board's certified regulatory California Environmental Quality Act process as set forth in California Code of Regulations, Title 23, section 3775, et seq.
12. Water Code section 13245 specifies that Basin Plan Amendments do not become effective until approved by the State Water Board and Water Code Section 13245.5 specifies that guidelines adopted by Regional Water Boards do not become effective until approved the State Water Board. The regulatory provisions of Plans, Policies and Guidelines must also be approved by OAL before they are effective.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan that implements the LTMS as adopted under San Francisco Bay Water Board Resolution No. 01-064 ([Attachment 1](#)) and as corrected by the San Francisco Bay Water Board's Executive Officer ([Attachment 4](#)).
2. Approves the guidelines as adopted under San Francisco Bay Water Board Resolution No. 01-065 ([Attachment 2](#)).

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3. Authorizes the State Water Board Executive Director or designee to transmit the approved amendment and guidelines and the administrative record for this action to OAL for approval, and to USEPA for concurrence.

CERTIFICATION

The undersigned, Acting Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on November 6, 2007.

Jeanine Townsend
Acting Clerk to the Board