

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
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January 14, 1993

To: Interested Parties
From: Alan R. Pendleton, Executive Director
Subject: **Bay Plan Amendment No. 3-91: San Francisco Bay Plan
Dredging Findings and Policies
(For Information Only)**

On May 21, 1992, the Commission amended the *San Francisco Bay Plan* dredging findings and policies. The new findings and policies are set out below.

Findings

- a. Much of the Bay bottom is shallow. It averages 20 feet in depth, and the bottom is covered with accumulated sediment—silt, sand, and clay sediment is carried into the Bay annually in tributary waterway flows, most of it settling to the Bay bottom. In addition, over 100 million cubic yards of sediment—inflowing and resuspended—lodges in harbors and navigable channels from which it must be dredged at considerable cost.
- b. Dredging consists of excavating or extracting materials from the Bay. Dredging is often necessary to provide and maintain safe navigation channels and harbors for port facilities, water-related industries, and recreational boating, and for flood control channels.
- c. Past and present waste disposal practices have resulted in the introduction of pollutants in to the Bay, some of which have degraded Bay sediments. These pollutant are not distributed evenly in the Bay and localized areas are highly contaminated. Dredging and subsequent aquatic disposal of contaminated sediments in the Bay can resuspend and redistribute pollutants in the water column, making them accessible to Bay organisms and result in possible adverse impacts on natural resources of the Bay.
- d. Material dredged from the Bay has historically been disposed of aquatically in the Bay. In more recent times, most aquatic disposal has occurred at one of four Bay U.S. Army Corps of Engineers designated disposal sites where the material is expected to disperse and the maximum amount would be carried out the Golden Gate on the Ebb tides and cause the least environmental impact as possible. These sites are: (1) off Alcatraz Island; (2) in San Pablo Bay; (3) in Carquinez Strait; and (4) in the Suisun Bay Channel. But even at the site nearest the ocean, off Alcatraz Island, less than half of the disposed material is carried out to sea by the tides.
- e. Capacity at the Alcatraz Island disposal site is limited because over years of use a large mound of material has formed which, unless future disposal is properly managed, may adversely affect water circulation and Bay aquatic life, and pose a hazard to maritime navigation.

f. Alternate locations to Bay aquatic disposal include non-tidal upland and ocean sites. Only small amounts of material have been disposed of in non-tidal sites historically. Additional non-tidal sites with increased capacity should be available for dredged material disposal projects in early 1993, and ocean disposal sites are expected to be available for use in early 1994. Some non-tidal upland sites may be categorized as waters of the United States pursuant to federal law.

g. Certain dredged material can be used beneficially rather than treated as a waste. The material can be used to bolster levees and dikes, create and restore tidal marshes and managed wetlands, cover and seal sanitary landfills, and as fill in construction projects.

h. Dredged material disposed of at sea could return to the Bay with tidal currents or could cause damage to marine organisms or beaches sites. These conditions are capable of being analyzed prior to disposal at sea.

i. The Regional Water Quality Control Board and the Environmental Protection Agency are responsible for determining appropriate dredged material pollutant testing and discharge standards and for assuring that dredging and the disposal of dredged materials are consistent with the maintenance of Bay water quality. The U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers have joint federal responsibility for regulating ocean, Bay, and wetland disposal.

j. The Long Term Management Strategy (LTMS), initiated by the U.S. Army Corps of Engineers in 1991, is a multiple federal and state agency initiative to study comprehensively Bay dredging issues and prepare by 1995, a long-range Bay dredging and dredged material disposal management plan and implementation program. When completed, the LTMS is expected to provide the basis for uniform federal and state dredged material disposal policies and regulations.

k. Underground fresh water supplies are an important supplement to surface water now brought into the Bay Area by aqueduct from mountain reservoirs. Deep dredging of Bay mud, or excavation for tunnels or bridge piers, could strip the "strip" from the top of a fresh water reservoir under the Bay, allowing the salt water to contaminate the fresh water, or allowing the fresh water (if artesian) to escape in large quantities and thus cause land to sink. The precise location of ground water reservoirs under the Bay is not yet well known, however.

Policies

1. Dredging should be authorized when the Commission can find (a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose, (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board, (c) important fisheries and Bay natural resources would be protected, and (d) the materials would be disposed of in accordance with Policy 2.

2. Disposal of dredged materials should be encouraged in non-tidal areas where the materials can be used beneficially, or in the ocean. Disposal in tidal areas of the Bay should be authorized when the Commission can find that: (a) the applicant has demonstrated that non-tidal and ocean disposal is infeasible; because there are no alternate sites available or likely to be available for use in a reasonable period, or the cost of disposal at alternate sites is prohibitively expensive; (b) disposal would be at a site designated by the Commission; (c) the quality and volume of the material to be disposed is consistent with the advice of the San Francisco Bay Regional Water Quality Control Board; and (d) the period of disposal is consistent with the advice of the Department of Fish and Game and the National Marine Fisheries Service.

3. When the annual amount of dredged material proposed to be disposed in tidal areas of the Bay exceeds the disposal volume targets established by the Commission, in determining which projects to authorize, the Commission shall be guided by all relevant factors concerning the proposed projects, including, but not limited to, need for the dredging and the dredging project, regional economic impact, environmental impact, and other regional effects of the project, and the economic feasibility of using alternate disposal sites.
4. To ensure adequate capacity for necessary Bay dredging projects and to protect Bay natural resources, acceptable non-tidal disposal sites should be secured and ocean disposal sites designated. Further, disposal projects should maximize use of dredged material as a resource, such as creating, enhancing, or restoring tidal and managed wetlands, creating and maintaining levees and dikes, providing cover and sealing material for sanitary landfills, and filling at approved construction projects.
5. Once non-tidal or ocean disposal sites have been secured or designated, and prior to completion of the LTMS, the maximum feasible amount of dredged material should be disposed of at non-tidal sites or in the ocean. Until non-tidal upland disposal sites are secured and ocean disposal sites designated, aquatic disposal in the Bay should be authorized at sites designated by the U.S. Army Corps of Engineers and the Commission. Dredged materials disposed of aquatically in the Bay, particularly at the Alcatraz Island disposal site, should be carefully managed to ensure that the amount and timing of disposal does not create navigational hazards, adversely affect Bay currents or natural resources of the Bay, or foreclose the use of the site by projects critical to the economy of the Bay Area.
6. All proposed channels should be carefully designed so as not to undermine the stability of any adjacent dikes, fills or fish and wildlife habitats.
7. The Commission should encourage increased efforts by soil conservation districts and public works agencies in the 50,000-square-mile Bay tributary area to continuously reduce soil erosion as much as possible.
8. To protect underground fresh water reservoirs (aquifers), (a) all proposals for dredging or construction of work that could penetrate the mud "cover" should be reviewed by the Regional Water Quality Control Board and the State Department of Water Resources, and (b) dredging or construction work should not be permitted that might reasonably be expected to damage an underground water reservoir. Applicants for permission to dredge should be required to provide additional data on ground water conditions in the area of construction to the extent necessary and reasonable in relation to the proposed project.
9. Interested agencies and parties are encouraged to explore and find funding solutions to the additional costs incurred by transporting dredged materials to non-tidal upland and ocean disposal sites, either by general funds contributed by ports and other relevant parties, dredging applicants or other wise.
10. Dredged materials should only be used to create artificial islands in the Bay if competent studies demonstrate that these fill islands would have no harmful effect on Bay natural resources.
11. The Commission should encourage, sponsor and participate in the LTMS and other initiatives conducting research on Bay sediment movement, the effects of dredging and disposal on Bay natural resources, alternatives to Bay aquatic disposal, and funding additional costs of transporting dredged materials to non-tidal upland and ocean disposal sites.

