

State of San Francisco Bay 2011

Appendix N

STEWARDSHIP – Management Actions

Technical Appendix

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Background and rationale: One example of stewardship expressed through regulatory effort is the work done to alter disposal practices for material dredged from the Bay. An average of 6.84 million cubic yards of material was dredged from the Bay annually until recently, with the majority of the dredged material—roughly 80%—disposed of at three federally-designated in-Bay disposal sites. Concern regarding the impact of this activity on the Bay led to the creation of created the Long Term Management Strategy for the Placement of dredged material in the San Francisco Bay Region (LTMS) by the U.S. Environmental Protection Agency (USEPA), U.S. Army Corps of Engineers (USACE), San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), San Francisco Bay Conservation and Development Commission (BCDC), State Water Resources Control Board (SWRCB), and other stakeholders, with the objective of maintaining economically viable waterways while minimizing the environmental impacts of dredging. The Dredged Material Management Office (DMMO) was established in 1996 to increase coordination between the member agencies of the LTMS and to consolidate handling of dredged material management issues to streamline the permitting process. In 1994, the USEPA established the San Francisco Deep Ocean Disposal Site as an alternative to in-Bay disposal, and the beneficial reuse of dredged material for wetlands construction, levee restoration, and landfill cover projects became another important alternative to in-Bay disposal.

This indicator is presented in the context of building towards a future assessment by SFEP that evaluates both the ecological condition of the Bay and our success at addressing known stressors through regulatory/management activity.

Data sources: This indicator was calculated using dredged material disposal volumes by location (in-Bay, upland/reuse, or deep ocean) reported in the *Dredging and Disposal Road Map* (LTMS 1999) and the *LTMS Management Plan* (LTMS 2001) for the years 1985 through 1999. These reports can be viewed online via the DMMO website (<http://www.spn.usace.army.mil/conops/dmmo.htm>). For the years 2000 through 2009, data for dredged material disposal volumes and disposal site locations were obtained from the US Army Corps of Engineers. Since 1999, the USACE has maintained a detailed dredging project tracking database, which includes information on project locations and volumes of dredged material.

Methods and Calculations: The success of management actions to reduce the negative impacts of dredging on Bay health is measured by examining the annual volume of in-Bay disposal of dredged material and the relative amount of disposal directed toward beneficial reuse. This indicator was calculated for the years 1985 through 2009.

Goals, Targets, and Reference Conditions: These indicators are evaluated using the goals of the 2001 LTMS Management Plan:

- In-Bay disposal is to be reduced to approximately 1.25 million cubic yards per year, to be implemented over a 12-year period (2000- 2012) with annual in-Bay disposal volume targets reduced by approximately 387,500 cubic yards every three 3 years.
- Each year, no more than 20 percent of dredged material is to be disposed of in-Bay, at least 40 percent is to be beneficially reused or disposed of at upland sites, and the remainder is to be disposed of at the deep ocean site.

Results: Management actions have led to a decrease in in-Bay disposal of dredged material since 1990 and an increase in beneficial reuse of dredged material since 2000 (Figures 1 and 2). The goal of reducing in-Bay disposal to 1.25 million cubic yards per year by 2012 is being met. Since 2000, the goal of disposing no more than 20 percent of dredged material in-Bay has been met in one year and was close to being met in 3 of the years evaluated, while the goal of disposing 40% of dredged material at upland or beneficial reuse sites has been met in five of the years evaluated.

References

LTMS. 1999. *Dredging and Disposal Road Map*. Prepared by SFBCDC, USEPA, USACE, SFBWQCB, and CSWRCB. 18 pp.

LTMS. 2001. Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region *Management Plan 2001*.

Figure 1. In Bay Disposal of Dredged Material 1985 - 2009

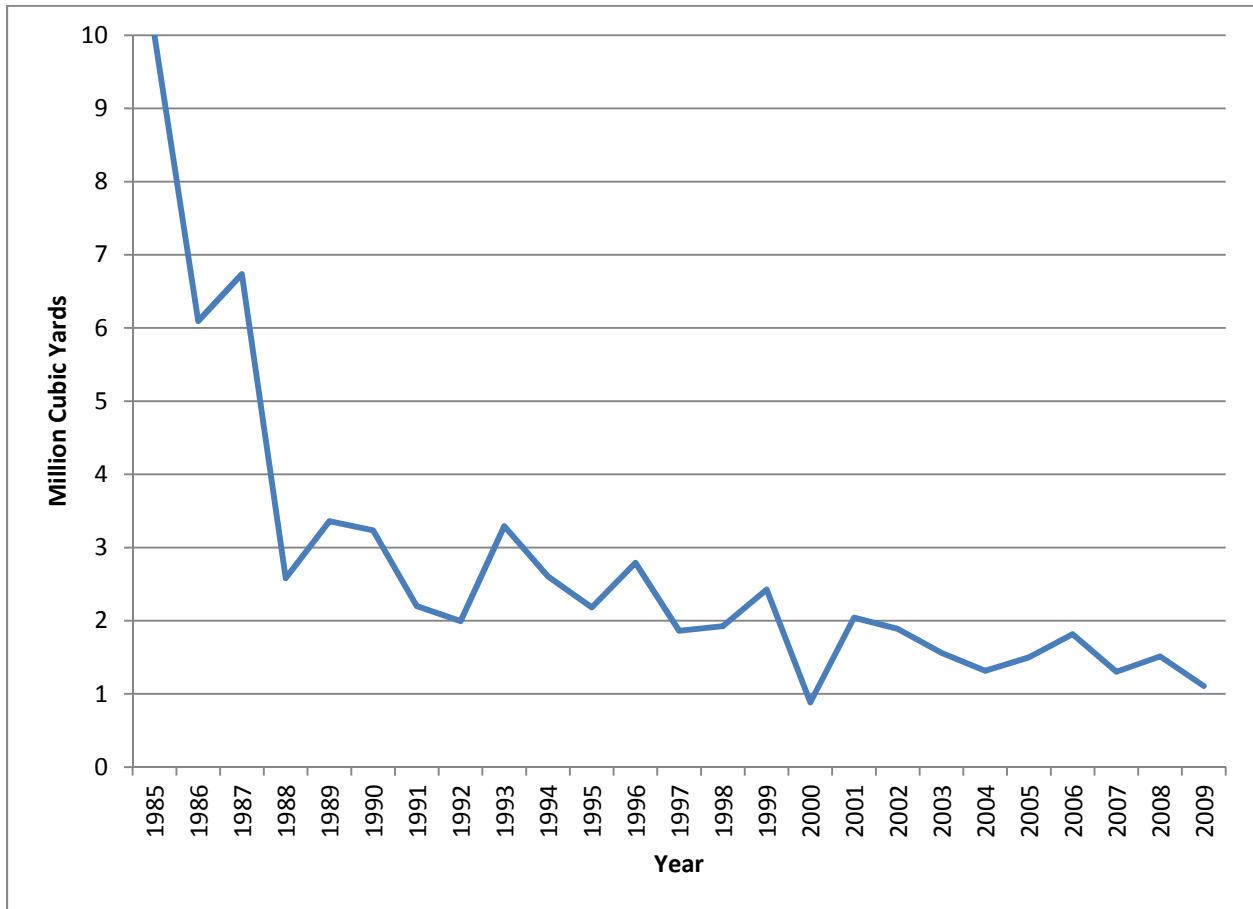


Figure 2. Distribution of Dredged Material by Site 1985 - 2009

