

# **RECORD OF DECISION**

**LONG TERM MANAGEMENT STRATEGY FOR THE  
PLACEMENT OF DREDGED MATERIAL IN THE  
SAN FRANCISCO BAY REGION**

**July, 1999**

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 9  
UNITED STATES ARMY CORPS OF ENGINEERS, SOUTH PACIFIC DIVISION**

# RECORD OF DECISION

## LONG TERM MANAGEMENT STRATEGY FOR THE PLACEMENT OF DREDGED MATERIAL IN THE SAN FRANCISCO BAY REGION

July, 1999

### I. INTRODUCTION

In 1990, the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE, or Corps), the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), the San Francisco Bay Conservation and Development Commission (BCDC) and the California State Water Resources Control Board (SWRCB) joined together with navigation interests, fishing groups, environmental organizations, and the public in a cooperative effort to establish a comprehensive Long-Term Management Strategy (LTMS) for the placement of dredged material in the San Francisco Bay Region. The LTMS was designed to produce a long-range approach to meeting the San Francisco Bay Region's dredging and disposal needs over the next 50 years, which begins with the signing of this Record of Decision (ROD).

The LTMS agencies formally adopted the following goals on June 7, 1991:

- Maintain in an economically and environmentally sound manner those channels necessary for navigation in the San Francisco Bay and Estuary and eliminate unnecessary dredging activities in the Bay and Estuary;
- Conduct dredged material disposal in the most environmentally sound manner;
- Maximize the use of dredged material as a resource; and
- Establish a cooperative permitting framework for dredging and dredged material disposal applications.

The San Francisco LTMS process was divided into five phases, each of which leads to decision-making before continuing to the next phase as specified in the document entitled *Long-Term Management Strategy for the Corps' Navigation Dredging Program*, by Francingues and Mathis, 1989. The five phases are: Evaluate Existing Management Options; Formulate Alternatives; Detailed Analysis of Alternatives; LTMS Implementation; and Periodic Review and Update. This Record of Decision marks the end of the third phase, Detailed Analysis of Alternatives.

The LTMS agencies completed Phase I (Evaluate Existing Management Options) in 1990. The Phase I report concluded: there was a shortfall in disposal capacity, especially for planned "new work" dredging projects; no multiuser capacity existed for disposal of contaminated dredged material; environmental concerns about the practice of in-Bay disposal needed to be addressed; and beneficial reuse options for dredged material should be considered as a high priority wherever possible. As a result of the Phase I evaluation, the LTMS agencies decided to move to Phase II of the LTMS process.

The objective of Phase II (Formulate Alternatives) was to identify a list of viable long-term options for the management of dredged material. Phase II called for equal consideration of upland, wetland, intertidal, and open water (in-Bay and ocean) placement sites for dredged material and consideration of potential structural measures to reduce the need for dredging. In this phase, the need for environmental, engineering, and economic studies was determined, and a study plan was developed and adopted by the LTMS agencies in 1991.

Phase III (Detailed Analysis of Alternatives) provided for analysis of existing dredged material management, and screening, evaluation, and selection of the preferred long term dredged material management strategy to achieve the LTMS Goals. The Phase III LTMS evaluation was presented and documented in the *Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region, Draft Policy Environmental Impact Statement/Programmatic Environmental Impact Report*, (Draft LTMS EIS/EIR) dated April 1996. The draft LTMS EIS/EIR suggested but did not select a preferred alternative. A notice of availability was published in the Federal Register in April 1996. Written comments were received through July 19, 1996. A public hearing to receive comments on the Draft LTMS EIS/EIR was held in Oakland, California on June 20, 1996.

The LTMS agencies reviewed and considered all public and agency comments. Based upon this review, the LTMS agencies concluded that no additional alternatives needed to be considered, and that some revisions to the Draft LTMS EIS/EIR were necessary. As a result of the review, the LTMS agencies selected the preferred alternative and prepared the Final LTMS EIS/EIR, including a third volume which includes the public comments and agencies responses. *The Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region Final Policy Environmental Impact Statement/Programmatic Environmental Impact Report*, (Final LTMS EIS/EIR) dated October 1998 was released on October 16, 1998. A notice of availability was published in the Federal Register on October 16, 1998 and public comments were accepted through November 16, 1998. Fourteen comment letters were received. After consideration of the comments the LTMS agencies have determined that no changes to the Final EIS/EIR are necessary and that the comments do not affect the selection of the preferred alternative. The comment letters and responses to the letters are included as an attachment to this ROD and incorporated in the EIS/EIR Administrative Record. Copies of the Final LTMS EIS/EIR are available from the San Francisco District.

This Record of Decision (ROD) formally selects, from those alternatives considered in the LTMS EIS/EIR, the alternative which will guide federal dredged material disposal decisions in the San Francisco Bay Region for the next 50 years. This ROD has been prepared in accordance with 40 CFR 1505.2 to document USEPA and USACE's (the Federal LTMS agencies) decision on the management of dredged material disposal in the San Francisco Bay Region. The decision of the USEPA and USACE is based on the Environmental Impact Statement developmental (40 CFR 1502) and Commenting processes (40 CFR 1503). The lead agency for the State of California, the State Water Resources Control Board, will certify the final document (as a final EIR) pursuant to the requirements of the California Environmental Quality Act.

## II. ACTIONS COVERED

This action applies to all navigational dredging and dredged material disposal projects, as well as other projects with similar effects as identified by the LTMS agencies, within the San Francisco Bay Region LTMS Planning area (as delineated on Figure 1). Some projects that are outside of the LTMS planning area may also be covered based on project specific review by the LTMS agencies. This action also satisfies consultation requirements in accordance with section 7 of the Endangered Species Act, and the California Endangered Species Act, for certain dredging projects within the LTMS planning area that meet the restrictions resulting from formal programmatic consultation on the Final LTMS EIS/EIR (listed in revised Appendix J, attached to this ROD). Otherwise, the LTMS EIS/EIR is a policy/programmatic document; individual projects must still undergo project-specific evaluations pursuant to all appropriate environmental regulations.

## III. DECISION

A no-action alternative and three action alternatives were formulated and evaluated in detail in the LTMS EIS/EIR. The alternatives were formulated with public input and were chosen from a broad array of alternatives that included varying amounts of placement in-Bay, in the ocean, and at upland/wetland reuse sites as well as alternatives such as disposal/placement in a single environment and eliminating dredging entirely. The final action alternatives considered in detail were:

- No-Action (80% in-Bay disposal, 10% ocean disposal, 10% upland/wetland reuse);
- Alternative 1 (40% in-Bay disposal, 40% ocean disposal, 20% upland/wetland reuse);
- Alternative 2 (40% in-Bay disposal, 20% ocean disposal, 40% upland/wetland reuse); and
- Alternative 3 (20% in-Bay disposal, 40% ocean disposal, 40% upland/wetland reuse).

The final action alternatives were evaluated against a range of environmental impacts, as well as additional evaluation criteria derived from the public scoping process.

The LTMS agencies have jointly identified Alternative 3 as the environmentally preferred alternative in the Final LTMS EIS/EIR. Alternative 3 is a long term approach that emphasizes beneficial reuse and ocean disposal of dredged material, with limited in-Bay disposal. It combines the highest level of upland/wetland reuse and the lowest level of in-Bay disposal of all of the alternatives. It includes as its long-term goal low disposal volumes at in-Bay sites, medium disposal volumes in the ocean, and medium volumes of upland/wetland reuse placement.

Alternative 3 best meets the overall LTMS Goals and provides the best balance between minimizing environmental risk and maximizing environmental benefit. Of all of the final action alternatives considered, it provides for the greatest reduction of risk and adverse impacts to the San Francisco Bay because it allows the least amount of dredged material disposal in the Bay. It also provides the greatest environmental benefit of the action alternatives because it has the greatest amount of upland/wetland reuse for habitat restoration projects (which can benefit water quality, fish and wildlife habitat, and special status species) or other projects such as levee maintenance or construction fill (which can have flood control benefits or reduce cumulative

effects). Alternative 3 also allows the greatest amount of ocean disposal of the final action alternatives. The risks of adverse impacts from disposing suitable dredged material at the designated ocean disposal site ("SF-DODS") are negligible compared to potential impacts of medium to high volumes of in-Bay disposal.

Alternative 3 provides regulatory certainty that adequate capacity will be available for the disposal of dredged material; this certainty will increase over time as more beneficial use sites become available. Alternative 3 also provides the highest level of certainty that environmental impacts will be minimized and that environmental enhancement will occur, because it allows the least amount of disposal in-Bay and the greatest amount of beneficial use. In addition, Alternative 3 best reflects the national dredging policy as it encourages the beneficial use of dredged material as a resource.

Alternative 3 is potentially the most expensive of the final action alternatives, but it can be economically implemented in the long term. Its potential for higher cost is largely due to increased expense that can be associated with beneficial reuse projects, and increased transportation costs to dispose at the San Francisco Deep Ocean Disposal Site (SF-DODS) compared to in-Bay disposal. However, determinations to require alternatives to in-Bay disposal (including beneficial reuse and ocean) will be made on a project-specific basis. In each individual case, the alternative must be practicable in accordance with the existing regulations at 40 CFR Part 230 [the 404(b)(1) Guidelines]. Therefore, actual overall costs are expected to be less than the potential costs discussed in the EIS/EIR.

A transition period will be required to fully implement the selected alternative because the various LTMS agencies will need to take policy and management actions, and upland/wetland reuse sites will need to be made available. The multi-year transition period will include a stepped decrease in disposal capacity at the in-Bay disposal sites. As described in the Final EIS/EIR, with the signing of this ROD the Federal LTMS agencies will begin to implement the initial stage of the transition period by allocating the (reduced) total in-Bay disposal volume on a first-come, first-served basis.

More detailed procedures for allocating the allowable total in-Bay disposal volume at any time, including procedures for determining which material may be placed at which disposal site(s), are expected to be determined through the Management Plan development process and incorporated as appropriate in the State LTMS agencies' Bay and Basin Plans.

#### **IV. MEANS TO AVOID OR MINIMIZE ADVERSE ENVIRONMENTAL EFFECTS**

The selected alternative also includes the numerous Policy Level Mitigation Measures (PLMMs) described in detail in Chapter 5 of the Final LTMS EIS/EIR (as modified by Section V of this ROD). The PLMMs were developed by the LTMS agencies to address potential adverse environmental impacts within the three placement environments. They ensure that potentially significant environmental impacts will not occur as a result of dredging or dredged material disposal. The PLMMs are *in addition to* provisions of any of the agencies' official mitigation policies, which require avoidance and minimization of impacts prior to considering restoration or compensation.

The policy level mitigation measures do not vary among the final action alternatives that were considered in the LTMS EIS/EIR. Some of them are specific to individual LTMS agencies and some of them are project-specific. The PLMMs cover the following broad topics:

- 1) Material Suitability and Sediment Quality Testing;
- 2) Site Management and Monitoring;
- 3) Review of the Need for Dredging;
- 4) Coordination of Dredged Material Management;
- 5) Small Dredger Set Aside;
- 6) Upland Habitat Conversion Associated with Restoration Projects;
- 7) Habitat Protection for Species of Concern;
- 8) Rehandling Facilities and Dedicated Confined Disposal Facilities;
- 9) Wetland Restoration;
- 10) Confined Aquatic Disposal; and
- 11) Levee Reuse.

Even though the LTMS Final EIS/EIR is a policy and programmatic document, in many cases the PLMMs include extensive requirements for project-specific evaluation of or mitigation for various kinds of potential impacts. In other cases, the PLMMs articulate the broad policies that the LTMS agencies will follow when making project-specific dredging and disposal decisions, including mitigation requirements for individual projects. The PLMMs will also be incorporated as appropriate in the LTMS agencies' Management Plan.

## **V. ENDANGERED SPECIES ACT CONSULTATIONS**

The PLMMs originally proposed by the LTMS agencies (summarized in Chapter 5 and included as tables in Appendix J of the Final LTMS EIS/EIR) include Habitat Protection Measures for species of concern developed through informal consultation with the National Marine Fisheries Service (NMFS), the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). Subsequently, EPA and USACE requested formal consultation under section 7 of the Endangered Species Act with NMFS and USFWS, and the State Water Resources Control Board requested formal consultation with CDFG under the California Endangered Species Act, to formalize and finalize these Habitat Protection Measures. The biological opinions resulting from these consultations are attached to this ROD. They include some changes and clarifications to the tables in Appendix J, as described below. The revised tables, also attached to this ROD, replace the original tables in Chapter 5 of the Final EIS/EIR. The biological opinions provide for updating these tables in the future, based on approval by the resource agencies. Future changes shall be reflected in updates to the LTMS Management Plan and/or State implementation plans.

### *Conclusion of Consultation with USFWS*

The attached USFWS biological opinion reaches the following conclusions:

“After reviewing the current status of the clapper rail, salt marsh harvest mouse, least tern, pelican, Pacific Coast population of the plover, delta smelt, and splittail, the environmental baseline for the action area, the effects of the proposed LTMS and the cumulative effects, it is the Service’s biological opinion that the LTMS, as proposed, is not likely to jeopardize the continued existence of the clapper rail, harvest mouse, least tern, pelican, Pacific Coast population of plover, delta smelt, and splittail, and is not likely to destroy or adversely modify designated critical habitat. No critical habitat has been designated for the clapper rail, harvest mouse, least tern, pelican, and splittail; therefore none will be destroyed or adversely modified. Critical habitat has been designated for the delta smelt, but the action is not likely to result in destruction or adverse modification of critical habitat. Critical habitat has been proposed for designation for the plover, but none will be adversely modified or destroyed.”

In addition, the USFWS biological opinion includes several procedural requirements for the LTMS agencies to follow when authorizing dredging and dredged material disposal projects, and requires changes to the tables in Appendix J of the EIS as specified below:

“To be exempt from the prohibitions of section 9 of the Act, EPA and Corps must ensure compliance with the following terms and conditions... These terms and conditions are nondiscretionary. The EPA and Corps shall ensure the project is implemented as proposed, except for the following additions and modifications:

- 1) “The EPA and Corps shall modify the mitigation ratio for impacts to suitable clapper rail and harvest mouse habitats, which is proposed as 3:1. Greater or lesser ratios may be authorized for individual projects based upon habitat quality at the impact site and mitigation site, but shall not be less than 2:1.
- 2) “The EPA and Corps shall modify the timing of the restriction on dredging in least tern foraging habitat from the Berkeley Marina to San Lorenzo Creek to extend from March 15 through July 31. Within this area, silt curtains or other physical or operational measures shall be employed during any dredging operations to minimize sediment dispersal into adjacent least tern and pelican foraging areas beyond the footprint of the dredging areas. The EPA and Corps shall eliminate the proposed exception to the timing window which would allow dredging to occur if CDFG was contacted and an observer documented there were no herring spawning within 200 meters of the work site.
- 3) “The proposed restriction that prohibits dredging within 300 feet of pelican night-time roosts from April 1 through November 30 shall be modified. The new restriction shall prohibit dredging and disposal activities within 300 feet of known night-time communal roosts from July 1 through September 30, and only during the time period between one hour before sunset to sunrise.
- 4) “The LTMS agencies shall not authorize any dredging projects east of Sherman Island in the Sacramento-San Joaquin River Delta (Delta) without completing separate endangered

species consultation, as appropriate. Proposed dredging projects in the Delta may be authorized through the Service's programmatic formal consultation and conference with the Corps' Sacramento District (Service File No. 1-1-97-F-91).

- 5) "The EPA and Corps shall include a condition requiring that shallow water habitat in Suisun Bay lost as a result of dredging be mitigated at a 3:1 ratio, in kind, and in the vicinity of the project (Consultation and Permit Requirement D in the EIS/R). For the delta smelt and splittail, shallow water habitat is defined as waters less than 3 meters deep at mean lower low water. If a Service approved mitigation bank is established (e.g., Kimball Island) an equal number of credits as defined in the Mitigation Bank Enabling Instrument may be purchased to offset impacts to shallow water habitat construction. A copy of a Mitigation Bank invoice shall be provided to the Service prior to startup of project.
- 6) "The EPA and Corps shall submit the Management Plan, including the additions and modifications described above, for the Service's review and approval prior to finalization and implementation."

#### *Conclusion of Consultation with NMFS*

The attached NMFS biological opinion reaches the following conclusions:

"...NMFS concludes that implementation of the LTMS program ... is not likely to jeopardize the continued existence of any listed or proposed salmonid ESU's (evolutionarily significant units), including the Sacramento River winter-run chinook salmon..., the Central Valley steelhead..., the Central California Coast steelhead..., the Central California Coast Coho (salmon)..., the Central Valley spring-run chinook salmon..., Central Valley fall/late-fall run chinook salmon..., and Southern Oregon/California Coastal chinook salmon.... Implementation of the LTMS program is also not expected to result in the destruction or adverse modification of winter-run critical habitat, or other proposed critical habitats."

The Terms and Conditions in the NMFS biological opinion specify that the LTMS agencies will actively manage the LTMS program to minimize impacts to salmon, steelhead, and their habitat. Active management shall include implementation of all proposed mitigation and seasonal windows presented in Appendix J of the LTMS EIS/EIR. Any NMFS approved deviations from the tables will be reflected in subsequent Management Plan revisions.

#### *Conclusion of Consultation with CDFG:*

The attached CDFG biological opinion makes the following recommendations and reaches the following conclusions:

The CDFG recommends, that the policy level mitigation measures, "...be incorporated into regulatory actions during the permitting process for individual projects, as they apply to specific environments, to alleviate adverse effects of the proposed dredging activities to listed species."

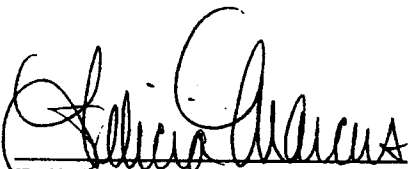


“Pursuant to Fish and Game Code Section 2090, regarding potential effects to threatened and endangered species, the Department finds that the proposed mitigation measures would provide adequate protection to those listed species in habitats influenced by the proposed dredging activities. The Department recommends, pursuant to Section 2091, that the aforementioned reasonable and prudent alternatives (recommendations) be stipulated and implemented to mitigate or alleviate the effects of the proposed dredging activities, and to avoid jeopardizing the continued existence of any endangered or threatened species. However, the proposed dredging activities are not likely to jeopardize any listed species provided the that recommendation are adhered to and fully implemented. These recommendations also would minimize the likelihood of any taking of listed species incidental to the proposed activities.”


CDFG also recommended changes to Table J-1 of the Final LTMS EIS/EIR. The table has been revised per the CDFG recommendations and is attached to this ROD.

## VI. CONCLUSION

In consideration of the foregoing including all the information presented in the LTMS EIS/EIR, public comments received, and Endangered Species Act consultations conducted pursuant thereto, the USEPA and USACE hereby adopt Alternative 3 as specified in the Final LTMS EIS/EIR as the selected alternative for the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region. The selected alternative includes all of the PLMM's specified in the Final LTMS EIS/EIR, with modifications to the Habitat Protection Measures specified in this ROD pursuant to formal ESA consultations. This action therefore includes all practicable means to avoid or minimize environmental harm as required for NEPA (40 CFR Part 1505.2). USEPA and USACE will implement Alternative 3 and the PLMM's as appropriate based on agency-specific authority and applicability.

  
Felicia Marcus  
Regional Administrator  
USEPA, Region IX

7/16/99  
Date

  
Colonel Peter P. Madsen,  
COL (P), EN  
Commanding  
South Pacific Division

16 July 99  
Date

**ATTACHMENTS (6):**

- A. Public comments on the Final EIS/EIR
- B. Responses to comments on the Final EIS/R
- C. USFWS Biological Opinion
- D. NMFS Biological Opinion and related correspondence
- E. CDFG Biological Opinion and related correspondence
- F. Revised Appendix J Tables

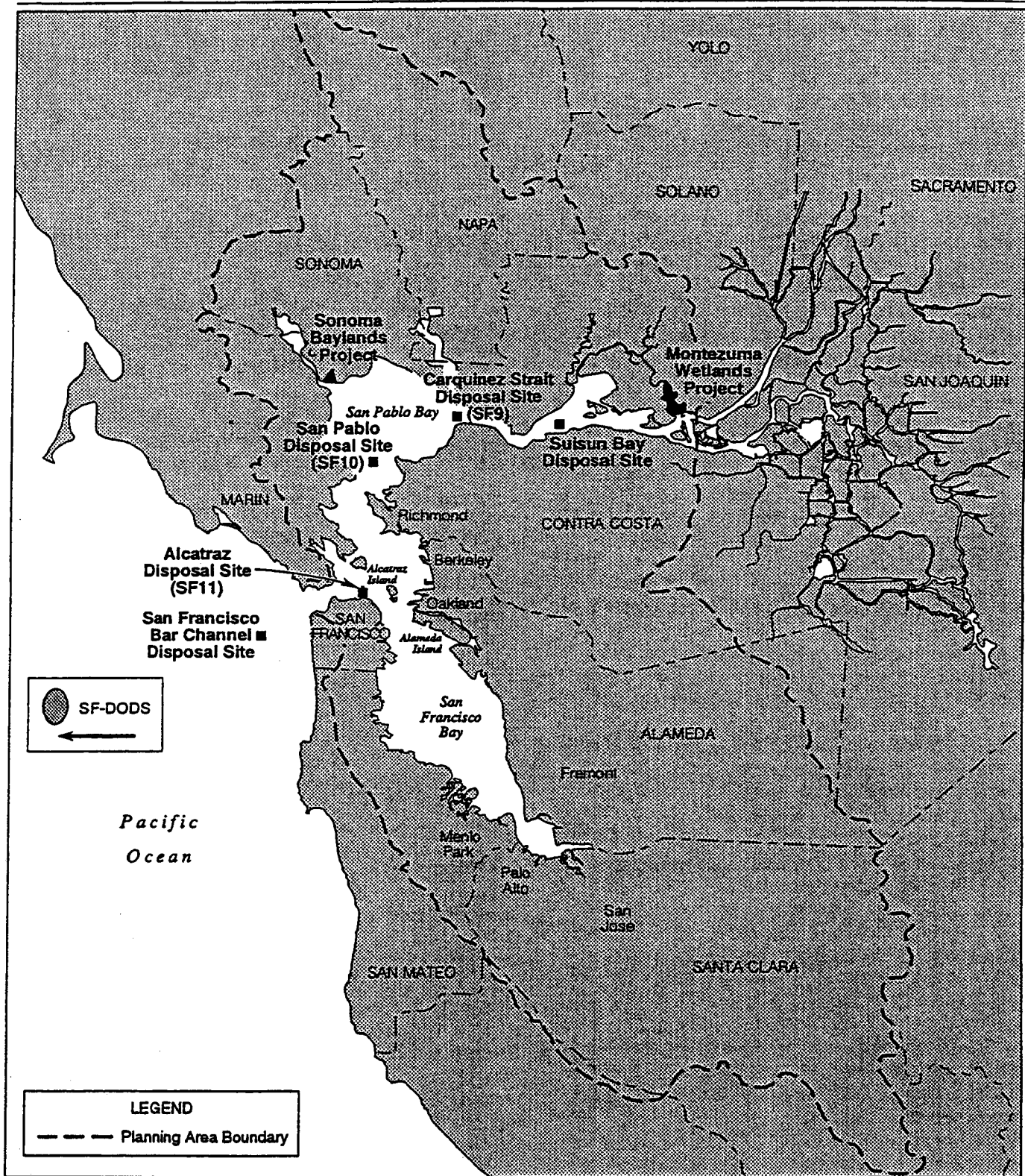


FIGURE 1: LTMS EIS/EIR Planning Area