

they could be addressed. The document should, for example, discuss whether material could be placed in the Delta during high outflow events when salinity is less of a concern, whether saline runoff could be managed on Delta islands until high outflow events, whether the use of Bay sand would result in less salinity imported to the Delta (in comparison to importing Bay mud) or whether dredged material could be washed and rehandled to reduce salinity.

Conclusion

The Association believes that the above comments will require modifications so extensive that a revised DEIS/DEIR should be issued before a final document is prepared. We believe that such a document would demonstrate the superiority of a modified alternative 3 which addresses the concerns outlined above, and which will lead the Bay Area to reduced disposal in the aquatic environment and, eventually, to the end of in-Bay disposal.

We believe that this document could, if properly modified, establish a new direction for dredging management in the Bay Area which will strengthen the Bay environment while meeting, in a cost-effective manner, the legitimate needs of the Bay Area dredging community.

We thank you in advance for your consideration of these comments.

Sincerely,



Barry Nelson
Executive Director

- cc: Jim McGrath
- Barbara Salzman
- Art Feinstein
- Florence LaRiviere
- Cynthia Koehler

Responses to the SSFBA — Save San Francisco Bay Association, letter dated July 19, 1996

1. Statement noted. Please see the response to Krone comment 3.
2. Please see the responses to DOI comment 5 and Chevron comment 2.
3. Statement noted. Section 2.6 explains that dredging reduction remains a principle goal of the LTMS. Recent estimates of dredging volumes have indicated a dramatic reduction in the volume of material being dredged from the Bay. However, further reductions could be achieved through optimizing shipping channels and berthing areas at Bay Area ports. The Final EIS/EIR has been amended to include updated information derived from the San Francisco Bay Conservation and Development Commission's and the Metropolitan Transportation Commission's *Seaport Plan*, as amended February 16, 1996 (section 2.0). The Final EIS/EIR also reflects an expansion of the discussion of the LTMS dredging reduction goal, in general.
4. The EIS/EIR does consider dredging needs in the context of military base closures. As indicated in Appendix G, the low range estimate assumes dredging will no longer be required at five Bay Area military bases. As a reasonable worst-case scenario, the EIS/EIR assumes that dredging at the five bases will be ongoing to support continued maritime activity at the former base sites.

As suggested, the COE's Composite EIS will evaluate the cost-benefit ratios for dredging channels in the Bay to determine if some channels should be closed or reduced in size.
5. Please see the response to CCCR comment 8.

Revisions to the Management Plan will be made, as needed, every 3 years. Every 6 years a major programmatic review of and revisions to the Management Plan will be undertaken. In addition, on a 6-year cycle, any necessary amendments to the San Francisco Bay and Basin Plans will be initiated. Changes will be implemented by relevant means including, as appropriate: via revisions to the Bay and/or Basin Plans, via rulemaking (e.g., for SF-DODS), or via standard conditions attached to disposal permits or other authorizations.

Please see the response to DOC comment 2 and the new discussion of the transition to Alternative 3 (section 6.5).
6. As described in section 6.2.2.1, regulatory certainty under the No-Action alternative is already increased compared to pre-LTMS conditions, before the SF-DODS was designated and before updated (interim) sediment testing guidelines for the Bay were published. Nevertheless, regulatory certainty under No-Action is less than it would be under any of the action alternatives. Please see the new Tables 6.2-1, 6.2-2, and 6.2-3 for a comparison of the alternatives with respect to the three Evaluation Criteria.
7. For planning purposes, and to facilitate overall comparison among the alternatives, the socioeconomic impacts evaluation in section 6.2.3.2 assumes that the same amount of dredging would occur under each of the alternatives, including No-Action. However, it is impossible to know whether this would be the case in practice. The relatively lower dredging costs under No-Action would likely be offset to some degree by the lower level of regulatory certainty (e.g., projects may more frequently be delayed due to legal challenges or different agency requirements under an uncoordinated regulatory regime). On the other hand, relatively lower costs could lead to slightly more proposed dredging than would be the case under the action alternatives. Since dredging volumes could be either negatively or positively affected, the LTMS agencies believe that the assumption of comparable dredging amounts under each alternative (including No-Action) is appropriate for the programmatic evaluation in this EIS/EIR.
8. Please see the response below to SSFBA comment 9 regarding economic benefits associated with beneficial reuse of dredged material. The potential economic effect of increased disposal costs to the

Bay area economy is generally discussed in section 6.2.3. However, the results of this economic evaluation were not a primary factor in the EIS/EIR and the selection of the preferred alternative. The LTMS agencies believe the level of analysis presented is appropriate for the programmatic decisions being made at this time. Please see the response to NHI comment 19a.

9. Statement noted. This programmatic EIS/EIR is not a "project" to which specific requirements for cost/benefit analysis applies. Nevertheless, the EIS/EIR includes extensive discussion of benefits from reusing dredged material as a resource, and it also includes an extensive discussion comparing potential direct costs. In addition, Appendix L discusses some of the relatively intangible (unquantified) benefits of dredged material reuse. The LTMS agencies have selected Alternative 3, which has the greatest amount of beneficial reuse, as the preferred alternative.
- Please also see the response to Krone comment 3.
10. The document is in accordance with WRDA '96 regarding wetland restoration and has resulted in the selection of Alternative 3. This programmatic EIS/EIR is not a "project" to which specific requirements for cost/benefit analysis apply. Nevertheless, Alternative 3 has been selected as the preferred alternative. Alternative 3 includes the greatest amount of beneficial reuse of any of the alternatives. In addition, a new discussion of the transition to Alternative 3 has been added to section 6.5 of the EIS/EIR. Additional detail will be provided in the Management Plan.
11. For the purposes of this EIS/EIR, seasonal wetlands are considered in the category of the Upland/Wetland Reuse environment and not in the category of the San Francisco Bay. The discussion is included in section 4.4.2. The LTMS agencies see no reason to repeat the discussion in section 4.3.1.
12. Please see the responses to DOI comments 10a and 10b, and SC-LPC comments 3i and 4.
- 12a. Statement noted. The LTMS agencies recognize that the impacts and benefits of each proposed restoration project must be evaluated on a case-by-case basis. The LTMS agencies also appreciate the efforts of the Partnership of the San Pablo Baylands. The Final EIS/EIR includes references to this group and their planning effort (see section 5.1.2.1).
- 12b. Please see the response to OAS comment 7.
- 12c. Statement noted. This phased approach will be important to the success of the LTMS implementation and may serve as a mitigation tool for reuse options. These types of implementation issues are addressed in the Final EIS/EIR and the LTMS Management Plan, as well as the environmental assessments required for each proposed restoration project under CEQA and NEPA. Also please see the response to SC-LPC comment 3i.
- 12d. The LTMS agencies are aware of the concerns associated with converting one type of habitat to another, and the difficulty in determining which type of habitat may be more or less important at one particular site. To adequately address this issue, it is necessary to define long-term, regional goals for different habitat types, including the desired acreage and distribution in and among different areas of the region (as stated near the end of the paragraph cited in the comment). A coordinated effort to develop regional habitat goals is in progress through the coordination of numerous planning and regulatory efforts focused on the recovery of regional wetland and other natural resources. More information on these efforts is located in section 5.1.2.1 of the EIS/EIR. Also see the response to SC-LPC comments 3i and 4.
13. Tables 5.2-3 through 5.2-6 all list habitat conversion under the policy-level mitigation measures required for the Upland/Wetland Reuse disposal alternative category. Habitat conversion is listed in this cell of each table because conversion is a potential impact unless appropriate mitigation measures are implemented. Section 5.1.2.1 of the EIS/EIR outlines the potential impacts of habitat conversion

and the policies that may be implemented to avoid these impacts. Please also see the response to GGAS comment 5.

14. Statement noted. Please see the responses to DOI comments 4, 10a, and 26b and SC-LPC comment 3f.
15. Statement noted; please see the response to GGAS comment 17.
16. Chapter 3 has been expanded to include more information on efforts to reduce sediment contamination in San Francisco Bay (see section 3.2.3.4).
17. Please see the responses to CMC comments 4 and 20.
18. UWR combines the beneficial reuse of dredged material in what is primarily considered to be, at present, true upland and diked baylands environments. Section 4.4 outlines the various dredged material reuse options within the UWR environment. UWR options detailed in the Draft EIS/EIR include urban associated fill, landfill daily cover, levee repair and stabilization, and habitat restoration. The reuse of dredged material for tidal wetland creation would involve the re-introduction of tidal action to restored sites within the diked baylands. Dredged material could also be used for the creation or enhancement of seasonal wetlands. Tables 5.1-3, 5.1-4, and 5.1-5 present the LTMS guidelines for such reuse projects. All UWR reuse projects would need to be reviewed on a project-specific level and evaluated for compliance with NEPA and CEQA regulations.
19. Section 4.4.3.4 of the Draft EIS/EIR specifically evaluated reuse of Bay Area dredged material for levee maintenance and stabilization in the Delta, and assumed that approximately 1 mcy could be reused in years 1-5 (200 kcy per year), 5 mcy in years 6-15 (500 kcy per year), and 20 mcy in years 16-50 (~570 kcy per year). In the Final EIS/EIR, section 4.4.3 has been revised to reflect additional concepts for reuse of San Francisco Bay dredged material in the Delta, including CALFED-based habitat restoration and levee maintenance or protection projects.

The LTMS agencies agree that specific issues such as these will need to be addressed before reuse of San Francisco Bay dredged material could be increased to include significant volumes of sediments with moderate levels of salinity. LTMS has conducted a demonstration project at Jersey Island, described in Appendix K.1, to begin addressing the feasibility of this kind of project. The LTMS agencies are coordinating with CALFED and agencies with jurisdiction over water quality and permitting of dredged material reuse projects in the Delta, to further address these issues for future projects.

Please also see the new discussion regarding CALFED in section 2.2.5 of the EIS/EIR.

20. Statement noted. The LTMS agencies disagree that these issues need to be fully addressed before it is appropriate to select an overall Long-Team Management Strategy for the Bay Area. Although the revised estimates in section 4.4.3 somewhat change the volume of dredged material that may be expected to be reused in the Delta, they do not affect the selection of Alternative 3 (which calls for the greatest degree of beneficial reuse) as the preferred alternative, and therefore delaying or revising the EIS/EIR would serve no purpose. In fact, if reuse in the Delta becomes practicable more rapidly or to a greater extent than assumed in this EIS/EIR, that would simply mean that the goals of Alternative 3 could be achieved more quickly than would otherwise be the case. Also, please see the responses to DOC comment 2, GGAS comment 27, and SSFBA comment 19.

July 14, 1996

LTMS EIS/EIR Coordinator
c/o U.S. Environmental Protection Agency
Region 9 (W-3-3)
75 Hawthorne St.
San Francisco, CA 94947

Dear LTMS EIS/EIR Coordinator,

I wish to comment on the "Long Term Management Strategy For The Placement Of Dredged Material In San Francisco Bay Region Draft Environmental Impact Statement/ Draft Environmental Impact Report"

I have several concerns about omissions in the document and urge that steps be taken to rewrite it:

- The document does not address the impact of dredge disposal on breeding waterbirds, e.g. brown pelican, which are dependent on fish that would be disturbed and dispersed during a disposal period.

- The lack of mention of the effect of disposal on Spring and Fall salmon runs similar to the effect on winter run.

- Seasonal wetland loss and mitigation for that loss is not mentioned.

- The proposed 50 year planning period is too long and should be revised to allow for the impact of new information on planning; the real need for dredging should be continuously appraised.

1

1a

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Thank you for the opportunity to comment on this document.

Sincerely,



Robert R. Wilkinson, member

Sequoia Audubon Society Conservation Committee

Responses to the SASCC — Sequoia Audubon Society Conservation Committee, letter dated July 14, 1996

1. Statement noted. Please see the responses to specific points below.
- 1a. Statement noted. Although the document does not directly discuss the impact of disposal on pelicans it does address the impact of disposal on fish and goes on to discuss the wildlife resources in the various locations in the Bay including brown pelicans (see section 4.3.2). Note that any impacts to foraging pelicans would be reduced to the extent that impacts and risks to their in-Bay fish prey species are reduced. The preferred alternative reduces in-Bay disposal, and therefore associated impacts and risks to the Bay's resources, to the greatest extent of any action alternative.

In addition, an updated discussion of species of special concern is presented in Chapter 5 and Appendix J. It includes new policy-level mitigation measures to minimize both dredging and disposal impacts at times and locations where species of special concern may be present. Brown pelicans have been added to the dredging discussion.
- 1b. Please see the response to MAS comment 18c.
- 1c. Please see the responses to SC-LPC comments 2 and 3a.
- 1d. Please see the response to DOI comment 5, BayKeeper comment 2a, CCCR comment 9, and EDF comment 1c.



SIERRA CLUB • LOMA PRIETA CHAPTER
San Mateo • Santa Clara • San Benito Counties

153 Redding Road
Campbell, CA 95008
July 18, 1996

Ms. Karen Mason
LTMS EIS/EIR Coordinator
c/o U.S. Environmental Protection Agency
Region 9 (W-3-3)
75 Hawthorne Street
San Francisco, CA 94947

RE:: Comments on LTMS DEIS/EIR of April, 1996

Dear Ms. Mason:

This critique of the LTMS DEIS/EIR will begin with comments regarding the need for more clarity on a programmatic DEIS/EIR level. Being one of the facilitating documents to a tiered process of planning policy, it is imperative that strong, clear-cut guidelines be established as much as possible. This will be followed by specific concerns, questions and a request for a revised document. Closing remarks will address an alternative selection.

Programmatic EIS/EIR: 50 Year Time Line

One of the ways NEPA requires an EIS to determine "significance of an impact" on the human environment is to look at the *intensity* of the impact (40 C.F.R. 1508.27(b)). Intensity refers to the severity of the impact. One criteria of intensity is "degree of unique or unknown risk: The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks (Bass and Herson: Mastering NEPA: A Step-by Step Approach. January 1993)."

To make the best possible assumptions and predictions about the intensity of impacts and risks, for planning purposes, the 50 year time line of the LTMS is unrealistic. In order to accomplish the

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↓



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R-573



1 | ↑ planning policies of the LTMS with any level of certainty, adjustments must be made by shortening the plan to a maximum of 20 years with a mechanism built in to require reevaluation every two to three years. Reevaluation is necessary due to the unforeseen, and the on going scientific research and testing. Developing such policy now will increase the viability of all stakeholders staying on target to meet the LTMS goals, particularly if the time line remains at 50 years.

2 | **Compensatory Mitigation:**

Compensatory mitigation is essential to the sequencing of mitigation, and it is rarely addressed in a sufficient manner in the LTMS. Section 7.3.1.6 does allude to compensation in the discussion on Wetland Mitigation Banking, which has the effect (after the majority of the document has been read) of linking compensatory mitigation and mitigation banking synonymous. It appears LTMS is equating compensatory mitigation equal only to mitigation banking. Two concerns with the equation are: (1) Sufficient (long-term) proof dredge material is a successful method of creating wetlands does not exist and (2) mitigation banking is historically tenuous. (See Fixing Compensatory Mitigation: What will it take? Race and Fonseca. Ecological Applications, 1995). The LTMS should not limit compensatory mitigation to banking on unproved methods...but instead lead with vigorous guidelines for all mitigation: avoidance, minimizing, rectifying and reducing. In all probability, the full scope of mitigation will always be useful. Yes, CEQA and NEPA will suffice on a case by case basis, but LTMS should lead with an influential policy regarding all mitigation and monitoring. By stating strong policy for wetlands at the programmatic level, agencies and the public will have additional impact in requiring future compliance from all parties.

3 | **List of Specifics and Questions:**

- 3a | • The LTMS does not propose compensation for the loss of seasonal wetlands. Example: Section 6.1.2.3 "This challenge is made more acute because some degree of *habitat tradeoff*" (6-14). Habitat tradeoff is discussed here as seasonal wetland loss and is justified as an environmental benefit...is this allowable or in violation of NEPA/CEQA? What about *no net loss of wetlands* policy in the short term? What about compensatory mitigation?

- The San Francisco Bay Area Wetlands Ecosystem Goals project is an unfinished event; however the Information Package, October 27, 1995, lists September 1996 as the target date for completion and the release time for the final product. Is this a feasible date for completion? The LTMS is developed with the Wetlands Goals Project(WGP) as an integral tool to the dredge material planning policies. Without the tools in hand the LTMS seems like a leap of faith to the public. How will flawed information from the goals be determined? Without NEPA and CEQA review, how will LTMS agencies *fix* it? Is public review of the goals guaranteed?

3b
- Combining the terms upland reuse of dredge material and wetland reuse of dredge material leads to confusion. It has been pointed out "wetlands are waters of the United States," are regulated separately from uplands, and have very discriminate habitat values from uplands.

3c
- The proposal to dispose of the toxic material "Not-suitable for Unconfined Aquatic Disposal"(NUAD) in wetlands, and disposing of NUAD in the bay should be considered very cautiously. Attempting multiple "new" projects, with such potentially high environmental risk, will require the very best mitigation and MONITORING plans attainable.

3d
- Appendix F (F-1) claims "it is assumed that greater than 80 percent of all the material to be dredged on a yearly basis will fall within this unrestricted SAUD category." What evidence is this percentage assumption based on? How can that assumption continue for 50 years? Paragraph four on the same page states NUAD Category I material is suitable for reuse in "landfills (Class 3,2, and 1) as cover, liner, or berm material, and for disposal in wetland or CAD sites as non-cover material. What evidence exists that Category I material is completely safe for wetland disposal? What evidence exists to the contrary?

3e
- Appendix G discusses experiences with contained aquatic disposal (CAD) in other regions and internationally: primarily in the Port of Los Angeles. Are more studies of other areas planned? Have the Seattle, Puget Sound, and the Netherlands been considered for review? What success and what failure has been documented with the various CAD projects? Have they experienced any measurable seismic activity? What level of guarantee is there

3f

3f | that a CAD cover can withstand a seismic hazard? All these issues, plus the potential impacts to the Bay's waters and wildlife, resulting from a leak or uncovering, need to be evaluated more fully. Mitigation and MONITORING are essential.

3g | • Discrepancies in Tables 5.1-2, 5.1-3, and 5.1-4. "Overall Guidance" for Rehandling Facilities; Wetland Restoration; and CAD sites, inclusively. The above mentioned tables require an evaluation of the project sites before the project implementation. Does the criteria on the tables provide "existing" habitat function analysis? Habitat baseline information is necessary to determine impacts, and thus allows for determination of necessary mitigation. The tables should provide existing habitat function analysis, monitoring plans if needed, remediation plans, and answer if the project conforms to the Regional Wetland Goals.

3h | • Section 7.4.1.7 "Federal Guidelines for Carrying Out Section 404(b) (1) of the Clean Water Act...in Sensitive Jurisdictional Wetland Areas" Can you provide an explanation of the cases of hindered wetland enhancement and restoration projects due to the existing 404(b)(1) guidelines? What would this change really do? What assurance is there that restoration projects will not result in negative impacts with the 404(b)(1) guidelines changed? Can this change really be accomplished as a *positive* for wetlands in today's world?

3i | • Can you verify the statement on page 4-125 that reads "A scheduled restoration approach for tidal wetland habitat creation would create habitat which could augment many seasonal wetland habitat functions, *since many of the functions of the seasonal wetlands can also exist within mature or maturing tidal wetlands?* "There is concern such habitat is far too uncommon. Please provide some data showing what species are supported by these ponds, and do smaller shorebirds use them? Has it been proven that they can be created?

4 | Request for Revision:

The following is a list of requests to revise the LTMS:

↓ Make a time line adjustment.

Strengthen all mitigation policy.

Rely less on compensatory mitigation.

Safeguard the no net loss wetland policy.

Performance bonds should be posted to ensure on-going monitoring, maintenance and remedial action.

Monitoring of dredge materials should be intensive for at least ten to twenty years in order to verify actual impacts on the environment.

Upland reuse alternatives, such as for road base and at landfills, should be actively encouraged.

Tidal and seasonal wetland restoration projects should be driven by habitat restoration needs, not dredge disposal needs.

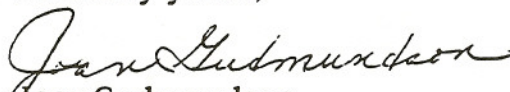
Seasonal wetlands of exceptional value should be avoided as sites for reuse or disposal of dredge materials.

Alternative Selection:

Alternative 3 appears to be the most environmentally beneficial alternative, and the one to strive towards. Maximizing environment benefits, and minimizing risks to the Estuary are both key goals of LTMS, and the public. All the unknowns concerning data must be compiled (i.e. Wetlands Goals Project, testing etc.) before best accurate decisions can be made. The reality of the regulatory uncertainty and economics/costs of dredging also complicate this choice. However, no alternative is without complications. Alternative 3, given time, and with the policy considerations requested above, appears to be the most viable.

Thank you for this opportunity to comment on the LTMS.

Sincerely yours,


Joan Gudmundson
Wetlands Chair

Responses to the SC-LPC — Sierra Club, Loma Prieta Chapter, letter dated July 18, 1996

1. Please see the response to BayKeeper comment 2a.
2. The LTMS Draft EIS/EIR is a programmatic document. Clear policy direction is presented in regard to wetland impact avoidance measures and associated compensatory mitigation where such impacts cannot be avoided and mitigation is determined to be necessary. Guidelines are presented as policy-level mitigation measures in section 5.1. Further, detailed siting criteria, impact avoidance measures, mitigation and monitoring directives, and compliance with federal and state laws and policies are presented in Tables 5.1-3, 5.1-4, and 5.1-5.
3. Please see the response below to SC-LPC's comments 3a through 3i.
- 3a. Statement noted. Compensatory mitigation is not proposed at the policy-level for all UWR projects that may involve the placement of dredged material for habitat creation within diked bayland sites which may contain seasonal wetlands. Section 4.4 and Table 5.1-3 present the LTMS policy directive that habitat creation projects be sited to avoid land parcels with higher concentrations of seasonal wetlands or other such similarly valued ecosystem habitat type. Further, the LTMS agencies will encourage and authorize, as legally appropriate, habitat projects to be based on regional goals for wetlands and/or to minimize the loss of existing habitat functions. These policies will result in an approach that seeks to avoid significant impacts associated with the loss of seasonal wetlands. Full compliance with NEPA and CEQA regulations will also be required at a project-specific level. As such, avoidance and/or mitigation for the loss of seasonal wetland habitat will be reviewed on a project-by-project basis. Compensatory mitigation was not proposed at the Draft EIS/EIR policy level because it was determined that an avoidance approach, combined with the augmentation of habitat loss with equaled or increased habitat functions, would be more beneficial to wildlife and not present a significant adverse impact. See also the response to OAS comment 7.
- 3b. The San Francisco Bay Area Wetlands Ecosystem Goals Project is a separate entity from the LTMS. As such, the LTMS has no control over the timing of the Ecosystem Goals Project's completion or review. The LTMS agencies propose to use whatever information is available and appropriate in their implementation of the LTMS. The LTMS is not reliant on the Ecosystem Goals Project. Other sources of management strategies are also being conducted (see section 4.4.4.1).
- 3c. Please see the response to DOI comments 13 and 25c, and SSFBA comment 18.
- 3d. Statement noted. Please see the responses to DOI comments 3, 4, 10a, and 11.
- 3e. This assumption is based on the analysis and examination of dredging projects in past years. A study conducted by Gahagan & Bryant Associates in 1995 entitled *Dredging Project Profiles and Placement Site Profiles* examined past dredging projects, and figures were extrapolated from these data for future percentages of SUAD and NUAD materials. In the past, dredging projects have produced similar percentages of SUAD and NUAD material, and these percentages were expected to remain somewhat similar in the future. However, the newly formed multi-agency Dredged Material Management Office (DMMO) determined that in 1996, approximately six percent of all Bay dredged material was unsuitable for in-Bay disposal. This figure is much less than the conservative 20 percent used for the LTMS EIS/EIR. The purpose of the LTMS is to reduce the amount of material disposed in the Bay regardless of the suitability percentages.

The concept of CAD is explained in the EIS/EIR (section 3.2.6) and also in Appendix G. Sediment is deposited in a fashion that allows minimal off-site contaminant migration. Construction, placement, and capping must be strictly monitored. The objective of CAD is to isolate the contaminated sediment and any mobile constituents so that those substances are removed from the ecosystem and cannot become bioavailable. Further studies are required to focus on the fate and transport of toxic contaminants in CAD projects.

- 3f. Appendix G of the EIS/EIR describes projects that have been conducted in other regions and internationally. CAD sites have been constructed on the Duwamish River and One Tree Island Marina in Seattle, the Rotterdam 1st Petroleum Harbor in the Netherlands, a site in Belgium, and a sand mining borrow pit near Portland Harbor. CAD has also been studied as an alternative in the New York Harbor area, the Everett Homeport project in Puget Sound, and the Bay Farm borrow pit in the San Francisco Bay. A CAD project is now under construction in the Port of Los Angeles. Also see the response to SC-LPC comment 3f.

The LTMS agencies will need to gather additional information from other projects, both in the United States and abroad, to more fully evaluate how CAD projects would perform in San Francisco Bay. Even though capped, non-dispersive sites have been constructed in other regions, the fate and transport of toxic contaminants may not have been a focus of these projects. Appendix G of this document provides further information on CAD.

As Appendix G of the EIS/EIR explains, further study is required to determine if any constructed CAD sites have experienced seismic activity. However, there are a variety of different approaches to CAD (e.g., borrow pits, dry docks, navigational channels), and the approach to CAD that accommodates seismic activity would be chosen for implementation in the seismically active San Francisco Bay Area. An intensive site assessment would be conducted for any proposed site. A well thought out and detailed engineering study would address issues of seismic stability, sediment movement (erosion), biological perturbation, and groundwater transport. Monitoring of sites over time would be required and remedial action would be taken if problems were detected.

Please see the response above to SC-LPC comment 3f.

- 3g. The criteria under site selection for Tables 5.1-3, 5.1-4, and 5.1-5 have been edited to include the consideration of any regional and/or interagency habitat plans, such as the Wetlands Ecosystems Goals Project. Regional habitat plans will analyze the existing habitat functions of sites, and will ensure the recognition of sites' existing values. The preparation of mitigation and monitoring plans are already noted in the tables. Please see the responses to BPC comment 18 and SC-LPC comment 4.
- 3h. Changes to the Clean Water Act 404(b)(1) Guidelines (40 CFR Part 230) are not proposed in this document or through the LTMS program. Section 4.8.1.2 of the EIS/EIR provides a summary of Clean Water Act 404(b)(1) Guidelines, and states that the COE has the legal authority to regulate, through issuance of a Section 404 permit, the discharge of dredged or fill material in inland waterways, wetlands, and territorial seas. The COE does not issue itself permits, but applies the EPA guidelines to their projects as well. Any proposed wetland restoration projects would require a Section 404 permit.
- 3i. As section 6.1.2.3 states, the LTMS agencies acknowledge that the conversion of seasonal wetland habitat to tidal wetland habitat does not necessarily result in maximizing net environmental benefits. The LTMS report *Potential Impacts of Tidal Marsh Restoration in the North Bay Area of the San Francisco Estuary* (LTMS 1994h) did conclude that many valuable seasonal wetland habitat functions are also available in tidal wetlands. Mature tidal wetlands can provide foraging habitat that would augment seasonal habitat functions for waterfowl and shorebirds. However, tidal marsh habitat provides limited foraging and roosting habitat for migratory shorebirds during high tides and winter storms. Mitigation for the loss of these types of seasonal habitat functions, which are not augmented by tidal wetlands, would need to be determined on a project-specific basis. The general practice, as addressed in the Draft EIS/EIR, would be to avoid areas that have a large area of seasonal wetland habitat, thereby reducing the need for extensive mitigation. Please see the response to OAS comment 7 for more information on mitigation for seasonal wetlands.

Use of a scheduled restoration approach would result in converting habitat functions slowly, with the intent to not lose the availability of important seasonal habitat functions. For instance, while one site is in the process of tidal restoration, seasonal wetlands that have not yet been restored to tidal wetlands can provide habitat during high tide and winter storms. At the same time, mitigation would be taking

place to create or restore seasonal wetlands to provide those habitat functions not available in the newly restored tidal site.

Please see the response to DOI comment 10b.

4. Please see the response to BayKeeper comment 2a.

Please see the response to SC-LPC comments 2 and 3a.

Statement noted. Maintenance and monitoring will be an aspect of each project. Funding will be determined on a case-by-case basis.

Monitoring at wetland restoration sites would likely continue for some time after a project's completion to ensure successful functioning of the system and to determine if any further management actions are necessary. Specific monitoring requirements will be determined on a project-by-project basis.

Please see the response to Gravanis comment 9c. Policy and financing options that could be used to actively encourage dredged material reuse, including use as construction materials, are presented in Chapter 7 and will be developed further in the LTMS Management Plan.

Statement noted. Please see the response to Gravanis comment 9r(2).

The LTMS agencies agree that seasonal wetlands should be avoided. The report *Potential Environmental Impacts of Tidal Marsh Restoration in the North Bay of the San Francisco Estuary* (LTMS 1994h) examined the existing wetland habitats and their relative value. Another LTMS study, *Reuse/Upland Site Ranking, Analysis, and Documentation* (LTMS 1994e), ranked wetlands by existing value. That report as well as other available information and site-specific studies would be used to ensure valuable habitat is not lost (or as a last result fully mitigated), in accordance with NEPA and CEQA requirements.

5. Statement noted; the LTMS agencies agree. Please see the response to DOC comment 2.



SIERRA CLUB SAN FRANCISCO BAY CHAPTER

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ALAMEDA COUNTY • CONTRA COSTA • MARIN • SAN FRANCISCO

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July 18, 1996

LTMS EIS/ EIR Comments
c/o U.S. Environmental Protection Agency
Region 9 (W-3-3)
75 Hawthorne Street
San Francisco, CA 94105-3901

Re: Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region: Environmental Impact Statement/ Environmental Impact Report

The Sierra Club, San Francisco Bay Chapter submits the following comments on the subject document (herein referred to as "the document" or DEIS/ DEIR).

The document is limited to dredge material disposal and does not discuss or evaluate the impacts of dredging activities. Dredging and dredge disposal activities are closely related and interdependent and should both be addressed in the EIS/ R. The document should identify the impacts both of dredging and disposal of dredge material and address methods of minimizing and mitigating adverse impacts. Alternatives that would minimize dredging by eliminating marginal projects should be identified. The relationship between identification and classification of pollutants prior to and during dredging and testing for pollutants for purposes related to dredged material disposal should be clearly explained. | 1

The document covers a 50 year planning period without providing specific intervals at which it will be subject to revision. Most General Plans are good for only 10 years. Technological advances, new biological information, increases in ocean elevations, economic alterations leading to decreased/ increased dredging needs are all possible and could seriously alter the LTMS process. The DEIS/ DEIR should discuss mechanisms for altering the LTMS program based on new information. The document should be subject to agency and public review and appropriate revision at least at the following intervals: | 2

- *every five years
- *upon completion of a proposed management plan to implement the Regional Wetland Goals Plan discussed below
- *after completion, monitoring and evaluation of each pilot project as discussed below
- *upon completion of the review of dredging needs and dredged materials quantities as discussed below.

- 3 | **Dredging projects should be reviewed and revised within five years in order to minimize dredging.** Dredging projects should be justified by compelling public need with an eye toward eliminating marginal projects. The document should provide for preparation of a regional seaport plan which weighs relative environmental benefits with economic benefits and identifies tonnage and value of shipped goods from each port. This information should be correlated with the amount and cost of dredging necessary to keep each such port open. Ports with unfavorable dredge volume to shipping tonnage ratios should be shut down and their operations moved to more "dredge efficient" ports.
- 4 | **Pilot projects should be completed, monitored and and evaluated for success in achieving planned goals.** The science of using dredge materials to construct wetlands is very new and imperfectly understood. The assumption in the document that extensive wetland restoration using dredge materials in the first fifteen years [e.g. App. N] is unreasonable and could lead to unsuccessful and environmentally damaging results. The document should provide for at least two pilot projects:
1. A project [such as Sonoma Baylands] that will be intensively monitored for several years to evaluate the success of tidal restoration using SUAD material; monitoring and evaluation should be completed before the use of such material in another project..
 2. A small project that will evaluate the success of tidal restoration using confined NUAD material; monitoring for at least ten years and evaluation should be completed before the use of such material in another project.
- 5 | **The document does not adequately consider the impacts of dredge material disposal in San Francisco or San Pablo Bay or in the Diked Baylands.** The document should clearly provide for site specific environmental impact statements/ reports to be prepared for each project that involves deposit of SUAD or NUAD material at any diked Bayland site, and for the disposal in the Bay of any quantity of NUAD material or SUAD material from new workin excess of 10,000 cubic yards.
- 6 | **The document fails to clearly differentiate between uplands and seasonal wetlands and to consider the impacts of disposal options on each.** As indicated below, wetlands and uplands have different biological values and are treated differently under the law. The document should provide estimates of acreage and potential impacts on each of these habitats separately. More emphasis should be place on true upland disposal options, including placement on upland parts of abandoned military bases for development purposes.
- 7 | **The document does not contain adequate or effective mitigation provisions for the proposed impacts to seasonal wetlands.**
- 7a | A.The third paragraph of Section 6.1.2.3 states that "...some degree of habitat trade-off [i.e., loss of seasonal wetlands by their alteration into tidal wetlands] would be inevitable with almost any habitat restoration project using dredged material." This statement ignores the concept of "compensatory mitigation".

Mitigation has three components: avoidance, minimization and compensation. The DIES/ DEIR does not consider ways to reduce the amount of dredging. If dredging were reduced the amount of dredge material to be disposed of would be reduced. Thus the DEIS/ DEIR ignores the avoidance component. The same can be said for minimization. The last mitigation component is compensatory mitigation. It is the method by which unavoidable impacts are mitigated. In the case of habitat impacts, compensatory mitigation usually requires project proponents to create or restore new habitat similar to the habitat that is being destroyed, in equal or greater amounts. The document does not propose any compensatory mitigation for the loss of seasonal wetlands.

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The document should require compensatory mitigation for the proposed destruction of seasonal wetlands. If seasonal wetland impacts are mitigated through the creation of new seasonal wetlands, a "habitat trade-off" would not be "inevitable". Failure to consider this violates CEQA and NEPA.

B. The DEIS/ DEIR does propose "mitigation" measures for impacts to seasonal wetlands, but they are completely inadequate and are not even true mitigation measures. In Section 5.1.2.1. The DEIS/ DEIR proposes that the restoration of tidal wetlands using dredge material will be based on the implementation of a Regional Wetland Goals Plan. This Regional Wetland Goal Plan is presently being developed by a group of scientists and its intent is to determine what mix and quantity of wetland types are needed Bay-wide in order to support Bay Area wetland dependent species. According to the DEIS/ DEIR, by implementing the Regional Wetland Goals Plan any loss of seasonal wetlands due to the creation of tidal wetlands using dredge material will be fulfilling scientific determination of the biological needs of the Bay and thus no detrimental impacts will occur.

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The problems with using such a plan as mitigation are manifest: 1) The Plan does not yet exist. Mitigation in a DEIS/ DEIR should not be based on a non-existent document. Such a document may never be completed. 2) The Plan may contain significant flaws. For example, there is insufficient census data on shorebird habitat and any conclusions reached by the scientists will be very subjective. 3) The Regional Wetland Goals Plan is being developed in an ad hoc manner that may not require public scrutiny and comment nor its approval through a CEQA and NEPA process. Thus the "mitigation" for all LTMS habitat impacts could rely on a product that has not undergone CEQA and NEPA analysis and public review. 4) The Plan may well require increases in both tidal and seasonal wetlands, or an increase in tidal wetlands while maintaining existing seasonal wetland acreage. But increases in total wetland acreage are not possible under the current DEIS/ DEIR proposals. For such increases to take place there must be a provision for compensatory mitigation for seasonal wetland losses. One way of looking at this is that the DEIS/ DEIR is essentially predicting, or dictating, what will be in the Regional Wetlands Goal Plan.

The DEIS/ DEIR should include compensatory mitigation in order to allow for all eventualities in the Regional Wetlands Goals Plan.

A second mitigation measure under 5.1.2.1 is described for projects not covered by a Regional Wetlands Goal Plan. Again, this mitigation component requires no

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- 7c compensatory mitigation instead relying solely on "minimization" of project impacts. This proposal violates both CEQA and NEPA, both of which require compensatory mitigation for unavoidable impacts. For all of these projects the DEIS/DEIR should require compensatory mitigation for the loss of seasonal wetlands to replace all habitat values and functions and result in the restoration of at least one acre of seasonal wetland for every acre of seasonal wetland lost. Such mitigation should be on-site or as close as possible to the site of the loss.
- 7d C) In Table 5.2.3 "Habitat Conversion" is indicated as a Mitigation Measure rather than an impact itself. The rationale for this statement is the DEIS/DEIR's conclusion that there is "an increasing recognition of the importance of the Estuary's tidal wetland systems...(pg. 4-101" and that the "conversion of Bayland sites to tidal wetlands reflects the historical distribution of tidal marshes...(pg. 8-4)." However, this ignores the fact that while an increase in tidal wetlands may be desirable, there is no evidence to suggest that a decrease in seasonal wetlands is desirable. Thus "habitat conversion" should be considered a negative impact, even within the context of a Regional Wetlands Goal Plan. By stating otherwise, the DEIS/DEIR is again predicting the outcome of the Regional Wetland Goals Plan or is trying to influence its outcome. Furthermore, by not including the concept of increasing total Bay Area wetland acreage, which would be the result of seasonal wetland conversion plus compensatory mitigation for that conversion, the LTMS is ignoring both federal and State of California wetland goals (no net loss of wetlands in the short term and a net gain in wetlands in the long term.)
- 7e D) By failing to state at the Programmatic DEIS/DEIR level that mitigation for impacts to seasonal wetlands is necessary the DEIS/DEIR may eliminate the ability of agencies to require, or the public to demand, mitigation at a project-specific EIS/EIR level. Project proponents will be able to claim that at the programmatic level it has been determined that no mitigation is required.
- 8 The document lumps upland reuse of dredge material (e.g. as capping for landfills or for levee maintenance) with seasonal wetland alteration (called "wetland reuse") into one category, "Upland/Wetland Reuse" This is not appropriate since wetlands are "waters of the United States", are regulated quite differently from uplands and have quite different biological values. Also, the DEIS/DEIR does not apparently recognize "diked Baylands" as wetlands; it discusses them under the "Uplands Habitats and Resources" section (Section 4.4.2). This needs to be corrected. The DEIS/DEIR should specifically identify "diked Baylands" as wetlands
- 9 The document fails to consider the impacts to several important salmon fisheries. The only salmon fishery considered by the DEIS/DEIR is the endangered winter run salmon. For this fishery the document recommends avoiding dredge disposal during the time these fish are migrating through the Bay. The DEIS/DEIR must also consider spring and fall run salmon, all of which are species that may be listed in the future as threatened or endangered.

The document proposes but does not adequately discuss risks and impacts of disposal of toxic (NUAD) material in or adjacent to wetlands This is dredge material which is not toxic enough to warrant listing as hazardous waste but which has concentrations of toxics great enough that it should not be put into the nation's waters. The DEIS/ DEIR also proposes to use "confined aquatic disposal" sites, i.e. putting NUAD dredge material into Bay waters and then capping them with non-toxic cover material.

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Both approaches are highly questionable. The DEIS/DEIR does not adequately address the issue of impacts to the Bay's wildlife if these NUAD materials are eventually exposed to the Bay's waters. Nor does the DEIS/DEIR adequately discuss the likelihood of the material being uncovered. After all, the NUAD material will have to be covered forever to avoid impacts. How likely is this? What level of guarantee is there that such uncovering will never take place? This should be more fully evaluated in the DEIS/DEIR.

Furthermore, the DEIS/DEIR does not adequately address the seismic stability of wetland restoration sites for which they propose to deposit NUAD material, for example the Montezuma Slough site, which is specifically mentioned in the DEIS/DEIR. The DEIS/DEIR must include such an analysis so that we can be apprised of the likelihood of contaminated material being released into the aquatic environment following an earthquake.

Impacts of in-Bay dredge disposal have not received sufficient attention in the document. The area of dispersion resulting from dumping at the San Pablo Bay site is not adequately addressed nor are the impacts of that dispersion.

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Furthermore, the impacts of in-Bay dredging and dredge disposal on waterbird species is not adequately discussed. The document admits that in-Bay dredge disposal reduces fish populations, at least "during periods of intense disposal (pg. 4-60)", in "a significant portion of the broader embayment". Waterbirds dependent upon those fish for food are thus deprived of their food base for that period of time. How does this affect these avian species, one such species being the California brown pelican? Many of these waterbirds will be breeding. They need these fish to feed their newly hatched young. How does this affect these avian species ability to successfully fledge their young, one such species being the endangered California least tern which may be impacted if the Alameda Borrow Pit is used as a "Confined Aquatic Disposal (CAD)" site or the double-crested cormorant which nests on Alcatraz and the Bay Bridge?

The document does not adequately discuss the impacts of in-Bay disposal on eel grass beds Studies suggest that eel-grass beds are negatively impacted by turbidity. For this reason, the DEIS/DEIR should more fully discuss the impacts of dredge disposal, and dredging itself, on eelgrass beds. There should be an attempt to determine whether eelgrass beds have expanded in recent years as a possible result of reduced in-Bay dredge disposal. If they have, it would provide support to the idea that dredging and dredge disposal impacts eelgrass beds.

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- 13 | No wetland restoration project using dredged material should be used as a mitigation bank. The document suggests that mitigation banks could be established and used as mitigation for future dredging or filling projects [section 7.3.1.6]. Where would such projects be sited and what lost functions would they mitigate? This gratuitous suggestion is not explained or evaluated and should be stricken from the document. Any proposal to establish a mitigation bank in the diked Baylands would be highly controversial and would have to be the subject of a separate site-specific EIS/ EIR.
- 14 | The document suggests altering the 404(b)(1) guidelines to distinguish between fill for projects and fill for restoration [section 7.4.1.7]. This is another gratuitous and controversial statement that should be deleted. As has been demonstrated above, the restoration of seasonal wetlands to tidal wetlands may involve very significant negative impacts to seasonal wetlands. It is appropriate that all wetland fill projects, whether for restoration or not, undergo the 404 permit process including the 404(b)(1) alternate site analysis in order to ensure that the restoration project does not result in a net loss of wetland functions and acres. How can it be assured that no restoration project will result in negative impacts if the 404(b)(1) guidelines are altered.
- 15 | The document does not adequately discuss monitoring plans. Without intensive long-term monitoring the success of restoration projects will not be known and the impacts of NUAD disposal, for example, cannot be evaluated. A monitoring program should be developed in advance for each disposal option and should address the following: developing of baseline studies prior to project implementation, placement techniques and potential project-specific impacts on species, life-cycle functions and habitats, compliance with approved project plan, and success in achieving project goals. Monitoring should be implemented for at least ten to twenty years.
- 16 | The document seeks to minimize impacts resulting from the destruction of seasonal wetlands without substantiation. On pg. 4-125 it is stated that "...many functions of the seasonal wetlands can also exist within mature or maturing tidal wetlands." This is unsubstantiated. The Petaluma Marsh, for example, contains what are called "high tidal marsh drainage divide ponds". They evidently provide some significant habitat to waterbirds. Such ponds are very uncommon anywhere else in the Bay. Such ponds have never been successfully created by man. Data concerning what bird species are supported by these ponds are lacking. Do they provide habitat to the smaller shorebirds? What evidence is there that we can successfully create them?
- 17 | When discussing species that inhabit salt ponds within the planning area the document omits the California least tern.
- 18 | The tables in the document that purport to provide "overall guidance" for site-specific review of rehandling facilities, wetland restoration and CAD sites do not mention the need to evaluate existing habitat functions. Tables 5.1-2, 5.1-3 and 5.1-4 should be revised to include evaluation of existing habitat functions. Such evaluation is necessary

in order to prepare and implement mitigation plans designed to mitigate for project impacts. The tables should also require mitigation plans designed to mitigate the project impacts. These same tables should also list the need for: 1) monitoring plans (is the effort succeeding); 2) remediation plans (if it is not succeeding, how do we fix it); 3) an analysis of how the proposed project conforms to, and meets the goals of the Regional Wetland Goals Plan.

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The cumulative impact analysis under section 8.3.1 "Habitat Conversion" is completely inadequate and the mitigation for the recognized impacts is, again, the Regional Wetlands Goals Plan which, as mentioned above, does not yet exist and is unlikely to provide adequate mitigation.

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A proposed management plan should be included in the document in order to provide an opportunity for the public to comment on important issues of implementation.

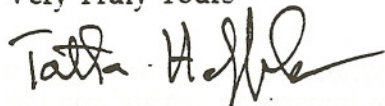
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Attached for your consideration is the Sierra Club Policy on the Disposal of Dredged Material in the San Francisco Bay Region. This policy was adopted by the San Francisco Bay Chapter on April 8, 1996 after many months of consideration by Club leaders each of whom had been actively involved in some of the problems referred to herein.

Because of the extensive revisions that are needed, we submit that the DEIS/DEIR should be completely redone and and again circulated for agency and public comment before it is made final.

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Very Truly Yours



Totton Heffelfinger
Chair, Wetlands Committee

Sierra Club Policy ON THE DISPOSAL OF DREDGED MATERIAL
in the San Francisco Bay Region:

Whereas alternatives to the dumping of dredged material need to be explored;

Whereas any reuse or disposal of dredged material needs thorough analysis, peer review and scientific study of the proposed final disposition;

Whereas dredging and dredged material placement need to be minimized to avoid or reduce adverse environmental impacts;

Whereas dredging and the placement of dredged material has been shown to cause adverse environmental effects on aquatic environments including disposal in-bay, in the ocean, in tidal and seasonal wetlands;

Whereas adverse environmental impacts must be avoided to the extent possible and mitigated where unavoidable;

Whereas the risks associated with dredged material reuse and disposal should be addressed from a holistic perspective so that harm to the environment is eliminated or minimized;

Whereas wetland restoration does not require the use of dredged material;

Whereas it is the policy of the Sierra Club that dredge spoil disposal be severely restricted, greatly discouraged, and completely eliminated as soon as possible from San Francisco Bay sites;

and Whereas, the use of community parks or recreational open space is unacceptable for disposal of any dredged materials,

Therefore, the Sierra Club adopts the following policy statement:

A. GENERAL DREDGING AND DISPOSAL POLICIES

- 1) Navigational dredging should be avoided whenever possible. When dredging is necessary, it should be timed and otherwise conditioned to avoid and minimize impacts on fish and wildlife resources.
- 2) Dredging projects should be justified by compelling public need with an eye toward eliminating marginal projects. Maintenance dredging and new dredging projects should be based on vigorous evaluation of economic and environmental aspects.
- 3) The quantities of material dredged from the Bay should be reduced by eliminating marginal projects and by limiting the depth to which channels can be dredged.
- 4) The LTMS EIS/R analysis of environmental impacts of the three main placement environments should be based on a thorough and objective review of the functions each habitat provides and species that uses that habitat. Identification of functions and assessment of values should be based on reasonably available data.
- 5) No project for disposal of dredged material should take place until the following are in place:
 - (a) a project-specific environmental document containing a thorough analysis of habitat functions, species and other potential environmental impacts. For ocean and in-bay impacts, damage to marine and estuary habitats from increased turbidity, covering of benthic organisms, and for uplands alteration of existing habitat should be addressed.
 - (b) an acceptable mitigation plan
 - (c) an acceptable monitoring plan with funding;
 - (d) documents a, b and c should have been subject to adequate public review.

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6) Sites under consideration for inclusion in local, state and regional open space or refuge systems should not be used as dredged material disposal sites without concurrence by state and federal fish and wildlife agencies.

7) An acceptable Regional Seaport Plan which weighs relative environmental benefits with economic benefits and identifies tonnage and value of shipped goods from each port should be developed. This information should be correlated with the amount and cost of dredging necessary to keep said local port open. Ports with unfavorable dredge volume of shipping tonnage ratios should be shut and their operations moved to more "dredge efficient" ports.

8) Should monitoring indicate that dredging material disposal at a particular site may be causing irreparable harm to mammals, birds, and fish, that site should be immediately removed as a disposal site for dredged material.

9) Except where baylands have been legally filled, any site bayward of the historic high tide should not be referred to as upland.

10) The economic costs to SF Bay resources must be quantified and included in all dredging environmental documents.

B. SPECIFIC DISPOSAL OPTIONS:

Upland

1) Upland reuse alternatives, such as for road base and at landfills, should be actively encouraged.

2) Use of dredged material for daily cover and levee improvements at landfills should be encouraged. As long as impacts on aquatic environments are avoided or minimized, this alternative has the additional benefit of avoiding destruction of marine, Bay and upland habitats.

3) Small dredging projects near landfills that accept dredged material should be required to take their material to that landfill rather than dumping it back into the Bay.

4) Pilot programs should be encouraged that use dredged material to restore seasonal wetlands and to restore or enhance adjacent upland habitats thereby providing complete wetland habitat systems to support biodiversity.

5) Upland disposal of dredged material should be prohibited in dense urban communities, community parks, or recreational open spaces.

Wetlands

1) New techniques of wetland restoration using dredged material should be based on successful completion of a pilot project and monitoring to determine the efficacy and environmental impacts of the proposed techniques.

2) Seasonal wetlands of exceptional value should be avoided as sites for reuse or disposal of dredged material.

3) For each specific restoration project, studies to determine the advantages or disadvantages of using dredged materials on proposed restoration projects should be undertaken for each specific project.

4) Seasonal wetland habitats should not be destroyed by placement of dredged material for the formation of high marsh drainage ponds until it has been demonstrated that these ponds can provide needed habitat.

5) Tidal and seasonal wetland restoration projects should be driven by habitat restoration needs, not dredge disposal needs.

6) Biological goals should be established for each wetland restoration project.

Oceans/In-Bay

- 1) Permittees should not be allowed to avoid mandatory permit requirements in the final rule for the San Francisco Deep Ocean Disposal Site by developing alternatives to mandatory permit conditions.
- 2) All permits issued for ocean disposal should contain controls on time, manner and place of ocean disposal. These controls should be sufficiently stringent to ensure that dredged sediment does not leak or spill into the marine environment during transport to the disposal site.
- 3) No ocean dumping of dredged material should be permitted in the absence of a fully funded and implemented permit compliance program. Reliance on the dredging permittees to self-police permit compliance is unacceptable. Independent inspectors should conduct random, on-board inspections to ensure compliance. Inspectors should report any violations and permit discrepancies to EPA and the Army Corps, as opposed to only the permittee.
- 4) Ocean dumping at the designated deep ocean dump site should be suspended immediately if monitoring indicates that the dredged materials are migrating or are about to migrate, into a National Marine Sanctuary.
- 5) No ocean sites shall be used for the disposal of dredged material that are currently designated or are under consideration for designation as a State or Federal Marine Sanctuary.
- 6) Any final rule developed by the EPA for ocean disposal should indicate that site designation is interim only and will be revised in light of the final LTMS management plan, and monitoring data collected over time regarding migration of dredged sediment, impacts to marine mammals, birds and fish species.
- 7) Under no circumstances shall "new work" above 10,000 cubic yards dredge material be disposed in the SF Bay.

C. GENERAL PERMITTING:

A permit streamlining or consolidation program for dredging and disposal projects should not be used as an excuse to avoid adequate environmental review, and should ensure adequate analysis and consideration of all potential environmental impacts and adequate public review for each dredging project.

D. INTRODUCTION OF POLLUTANTS

- 1) No aquatic disposal of unsortable dredged materials should be allowed under any circumstances, including in a confined aquatic disposal site.
- 2) Sediment standards for dumping of dredged material should be at least as stringent as federal law, including but not limited to the Clean Water Act, ocean standards, the Marine Mammal Protection, Research and Sanctuaries Act.
- 3) Bay sediment standards, if disposal is not stopped, should be at least as stringent as ocean standards.
- 4) Sediment quality standards for all disposal media should be reevaluated every few years as more information about the impact of toxins and other materials on the aquatic environment becomes available. Under no circumstances should dredged material which fails to meet sediment quality standards be dumped into the ocean, bay or wetlands.
- 5) Material unsuitable for disposal in an aquatic environment must should be placed so that its contaminants cannot leach or otherwise be released into ground or surface water, or into aquatic or other habitats.
- 6) More stringent discharge standards, port and marina management programs, stormwater programs and other measures to prevent ongoing contamination of bay sediments should be established and vigorously pursued.

E. MITIGATION AND MONITORING

- 1) A monitoring plan for all disposal media should be implemented at an intensive level for at least the first ten to twenty years in order to verify actual impacts on the environment. Under any such program, data should be collected quarterly for at least three years to establish an adequate level of baseline information.
- 2) Where adverse impacts are unavoidable they should be fully mitigated. Where such impacts are avoidable they should be avoided.
- 3) No wetland restoration project using dredged material may be used as a mitigation bank.
- 4) Until an acceptable Regional Wetlands Management Plan is developed that provides adequate assurance that seasonal wetland functions will be preserved through implementation of this Plan, and unless a dredging project is in accord with this Plan, no seasonal wetlands should be destroyed or degraded for the purpose of restoring seasonal wetlands to tidal action unless mitigation for the loss of seasonal wetlands replaces all habitat values and functions, and results in restoration of at least one acre of seasonal wetland for every acre of seasonal wetland lost. The mitigation should be on-site or as close as possible to the site of loss.
- 5) A Plan to mitigate all environmental impacts caused by the dredging and disposal of dredged material should be developed in advance for each disposal option, ocean, upland, etc.
- 6) Dredge project permittees should be responsible for funding the implementation of mitigation plans, and for short- and long-term monitoring for remediation of any adverse impacts.
- 7) A monitoring program should be developed in advance for each disposal option (ocean, in-bay, etc.) and should address the following: developing of baseline studies prior to project implementation, placement techniques and potential project-specific impacts on species, life-cycle functions and habitats, compliance with approved project plan, and success of the plan in achieving the approved project goals. Monitoring programs should be reviewed and revised as necessary before approval and implementation of a specific disposal project.
- 8) In addition to regular monitoring of all components, monitoring for ocean disposal should include random, independent observers having appropriate scientific technical credentials.
- 9) Disposal projects should be required to make modifications necessary to correct deficiencies and to assure biological goals are achieved.

F. COSTS

- 1) Costs of mitigation and monitoring for ocean, in-bay, wetland and other media should be added to the costs of the dredging itself and should be borne by the dredgers. Required mitigation and monitoring programs should be revised to include recent methodologies and data.
- 2) Required mitigation and monitoring programs should be similar for all disposal modes.
- 3) The total cost figure for each disposal option should include a comprehensive estimate of the net environmental costs.
- 4) The choice of disposal options should be based on environmental benefits and avoidance of environmental impacts, not financial costs.
- 5) Mitigation for potential adverse impacts of ocean and in-bay disposal should be required in the form of a user fee on every cubic yard of dredged sediment designated for such disposal. The user fee should be set at a level sufficient to replace fully the habitat values and functions damaged or lost by the disposal. The payment should be made into a fund established for restoration and research of affected habitats.
- 6) Performance bonds should be posted to ensure on-going monitoring, maintenance and remedial action.

Responses to the SC-SFBC — Sierra Club, San Francisco Bay Chapter, letter dated July 18, 1996

1. Please see the response to DOI comment 5.
2. Please see the response to BayKeeper comment 2a.
3. The regional Seaport Planning process suggested by this comment already occurs under the direction of the San Francisco Bay Conservation and Development Commission in cooperation with the Metropolitan Transportation Commission. The revised San Francisco Bay Area Seaport Plan was published in February 1996. This Seaport Plan document does include an analysis of the need for dredging within San Francisco Bay for maritime purposes. However, the Seaport Plan does not weigh the need for dredging against throughput tonnage. This comment appears to negate the importance of the maritime industry to the overall market economy of the Bay Area. Such an analysis is contained in section 4.6 of the Final EIS/EIR. The viability of port facilities in the San Francisco Bay region cannot be evaluated merely on the economics of ship tonnage throughput. The actual analysis is more complicated and is explained to some degree in sections 4.6.1 and 4.6.2.2.
4. Statement noted. The planning level estimates presented in section 4.4.4 do fully include the provision for smaller scale UWR projects until data regarding the success and problem areas of this type of restoration effort can be analyzed. The LTMS agencies fully support the suggestion that smaller pilot projects using NUAD material occur prior to undertaking larger projects. Also, note that the LTMS is not a finite program; rather it is an ongoing management process that will be revised and updated as additional information on restoration practices and management techniques is acquired over time.
5. Statement noted. However, the LTMS agencies respectfully disagree. The Draft EIS/EIR does adequately evaluate the risk of impacts of dredged material disposal at in-Bay sites, as well as address the potential impacts associated with the beneficial reuse of material in the UWR environments, including the diked baylands (see Tables 5.1-3, 5.1-4, 5.1-5, and 5.1-6). Full compliance with NEPA and CEQA, as well as Clean Water Act and other applicable federal and state regulations, will be required for each project. The LTMS in no way usurps these existing regulation and policies. New work projects in the Bay are already required to meet CEQA and NEPA requirements.
6. Please see the response to DOI comments 13 and 25c.
7. Please see the response to MDAS comment 1, SSFBA comment 18, and SC-LPC comment 3a.
- 7a. In regard to minimizing the need for dredging, the Final EIS/EIR evaluates, as a potential worst-case scenario, the need to manage the disposal of 300 million cubic yards of dredged material (the high-end estimate) that may be generated over the 50-year LTMS planning period. As discussed in Chapter 2, the basic assumptions applied to the programmatic EIS/EIR for this worst-case scenario will be reconsidered under the LTMS Management Plan program every 6 years, or more often if needed. The Final EIS/EIR includes an expanded discussion regarding the Seaport Planning process that was recently completed by the San Francisco Bay Conservation and Development Commission in cooperation with the Metropolitan Transportation Commission and the Bay Area shipping industry and port facilities. The Seaport Planning process provides an estimate of the port facility needs within the Bay Area through the year 2020. This evaluation, though not explicit, does include the need for dredging in order to maintain safe navigation for San Francisco Bay and maritime facilities. Through the Seaport Planning process, unnecessary dredging and/or the construction of under-utilized port facilities can be avoided.

In regard to compensatory mitigation, please see the responses to DOI comments 10a and 10b, and OAS comment 7 regarding mitigation for seasonal wetland habitat loss. Please note that the Final EIS/EIR has been revised to include provisions for compensatory mitigation for lost seasonal wetland habitat functions not augmented by tidal wetland restoration efforts (see section 5.1.2.1 and Table 5.1-4).

- 7b. In regard to the San Francisco Bay Area Wetlands Ecosystem Goals planning process, see the response to SC-LPC comment 3b. In regard to compensatory mitigation, see the response to SC-LPC comment 3a.
- 7c. Statement noted. However, the LTMS agencies respectfully disagree (see the response to SC-LPC comment 3a).
- 7d. Statement noted. Please see the response to MDAS comment 1, SSFBA comment 18, and SC-LPC comment 3a.
- 7e. The Draft EIS/EIR fully complies with the requirements of both NEPA and CEQA regarding policy-level programmatic documents. Further, the document presents policy-level mitigation measures which clearly indicate that full compliance with applicable federal and state laws and policies, including NEPA and CEQA regulations, will be required on a project-specific basis (see Table 5.1-3 for further detail).
8. Statement noted. Please see the responses above to DOI comments 13 and 25c.
9. Please see the response to MAS comment 18c.
10. The Draft EIS/EIR does not promote the placement of NUAD material as non-cover material within wetland restoration projects. Information in this regard is presented in chapters 3, 4, and 5, not as a proposed activity, but for information purposes since there are proposals for such placement in the Bay region. Any such NUAD placement would require extensive analysis to ensure environmental protection and containment of all contaminants. As with all proposed dredged material reuse projects, full compliance with all applicable laws and policies will be required, including NEPA and CEQA review, as is the case for the Montezuma Wetlands Restoration Project.
11. Please see the response to MAS comments 18f and 18k and SASCC comment 1a. Also, please see the updated discussion of species of special concern in Chapter 5, including new policy-level mitigation measures to minimize both dredging and disposal impacts at times and locations where these species (including the California least tern) may be present.
12. Other studies suggest that eelgrass meadows in the Bay area are healthy and there has been some expansion of these meadows. Dredged material disposal is not conducted near any known eelgrass meadows. Some dredging does occur near eelgrass plots, but there is no currently available data to indicate any adverse effect on this resource. However, when this occurs, monitoring is conducted as appropriate as in the case of the recent Richmond Harbor project.
- The Richmond Harbor monitoring work includes turbidity and light attenuation monitoring. In addition, dredged material may be used to expand eelgrass habitat. For example, the Port of Oakland's 50-foot deepening project proposes up to 55 acres of eelgrass habitat.
13. While there are currently no plans to establish a mitigation bank specifically for dredging projects in the San Francisco Bay region, there is guidance that the agencies would follow in the event that any such proposal is made, as noted in section 7.3.1.6.
14. Please see the response to GGAS comment 17.
15. The Draft EIS/EIR is a policy-level document; as such, specific monitoring plans were not proposed. The preparation of such monitoring plans will need to occur at the project-specific level. The LTMS agencies have developed, through the technical studies process, a guidance document to aid in the development of site-specific monitoring programs. This information is contained in a report referenced in the LTMS Draft EIS/EIR, *A Review of the Physical and Biological Performance of Tidal Marshes Constructed with Dredged Material in San Francisco Bay, California* (LTMS 1994d).

16. Statement noted. The LTMS agencies recognize that significant, biologically important features are present within many portions of the diked baylands and associated drainages. Section 4.4 and Table 5.1-3 presents the LTMS policy directive that habitat creation projects be sited to avoid land parcels with higher concentrations of seasonal wetlands or other such similarly valued ecosystem habitat type. This policy will result in an approach that seeks to avoid significant impacts associated with the loss of seasonal wetlands. Full compliance with NEPA and CEQA regulations will also be required at a project-specific level. As such, avoidance and/or mitigation for the loss of seasonal wetland habitat will be reviewed on a project-by-project basis.
17. The Final EIS/EIR has been edited, noting that the California least tern inhabits salt ponds within the LTMS planning area (see section 4.3.1.4).
18. See Tables 5.1-3 and 5.1-4 for new step ("Evaluate existing habitat functions and document other existing baseline conditions"). Additionally, monitoring and remediation aspects are addressed under existing state and federal regulatory permit conditions.
19. Statement noted. However, the LTMS agencies respectfully disagree. The cumulative impacts analysis regarding habitat conversion in section 8.3.1 was conducted at a programmatic level and provides an adequate analysis for the policy decisions being made. In regard to the Wetland Ecosystem Goals process, please see the response above to SC-LPC comment 3b. Additionally, please note that the Final EIS/EIR has been revised to include provisions for compensatory mitigation for lost seasonal wetland habitat functions not augmented by tidal wetland restoration efforts (see section 5.1.2.1 and Table 5.1-4).
20. The LTMS Management Plan is currently being prepared and a draft will be released for public review and comment as close as possible with the finalization of the LTMS EIS/EIR. Since many issues regarding the implementation, notwithstanding the determination of a preferred alternative, required public comment and input, the Management Plan could not be prepared concurrently with the LTMS Draft EIS/EIR.
21. The LTMS agencies believe the EIS/EIR is adequate for the programmatic decisions being made. A more detailed evaluation will be provided in subsequent tiers including the Management Plan, all of which will have opportunity for public comment.