

# SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

50 California Street • Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • www.bcdc.ca.gov

May 13, 2010

**TO:** Commissioners and Alternates  
**FROM:** Will Travis, Executive Director (415/362-3653 [travis@bcdc.ca.gov](mailto:travis@bcdc.ca.gov))  
Jessica Hamburger, Coastal Planner (415/352-3660 [jessicah@bcdc.ca.gov](mailto:jessicah@bcdc.ca.gov))  
**SUBJECT:** **Staff Recommendation on Consistency Determination No. CN 2-10; U.S. Army Corps of Engineers; Maintenance Dredging of Federal Navigation Channels**  
(For Commission consideration on May 20, 2010)

## Recommendation Summary

The staff recommends conditional concurrence with the U.S. Army Corps of Engineers (Corps) San Francisco District's determination that its 2010, 2011, and 2012 operations and maintenance dredging and disposal program for federal navigation channels in San Francisco Bay is consistent to the maximum extent practicable with the Commission's laws and policies, and its coastal zone management program for San Francisco Bay.

The Corps' proposed program includes dredging an estimated 500,000 cy (up to a maximum of 700,000 cy) of sediment per year from Oakland Inner and Outer Harbors, an estimated 400,000 cy (up to a maximum of 600,000 cy) of sediment per year from Richmond Inner Harbor, an estimated 200,000 cy (up to a maximum of 300,000 cy) of sediment per year from Richmond Outer Harbor, an estimated 175,000 cy (up to a maximum of 300,000 cy) of sediment per year from Suisun Bay Channel, an estimated 175,000 cy (up to a maximum 300,000 cy) of sediment per year from Pinole Shoal, an estimated 150,000 cy (up to a maximum of 250,000 cy) of sediment from San Rafael Creek Across-the-Flats and from San Rafael Canal, an estimated 450,000 cy (up to a maximum of 550,000 cy) of sediment from Brooklyn Basin South Channel, an estimated 500,000 cy (up to a maximum of 650,000 cy) of sediment from the Napa River, an estimated 200,000 cy (up to a maximum of 300,000 cy) of sediment from the Petaluma River, an estimated 500,000 cy (up to a maximum of 650,000 cy) of sediment from Petaluma Across-the-Flats, an estimated 350,000 cy (up to a maximum of 500,000 cy) of sediment from Redwood City Harbor Channel, and an estimated 350,000 cy (up to a maximum of 500,000 cy) of sediment from the San Francisco Main Ship Channel. The Corps's proposed program also includes conducting annual "knockdown events" of up to five percent of any estimated volume, or up to



*Making San Francisco Bay Better*

15,000 cy, whichever is greater; dredging up to 90,000 cy of sediment from the Corps' navigational channels only if needed in emergency situations; and conducting advanced maintenance of projects when the volume, depth and existing footprint are within the existing authorization.

Conditions are included in this concurrence that would minimize any short-term impacts to water quality, subtidal areas, and fish and wildlife as a result of implementing this program. In the long term, it will maintain the safe navigation for commercial and recreational vessels and assist in meeting the Long Term Management Strategy for Placement of Dredged Material in the San Francisco Bay Region (LTMS) goals. The operations and maintenance dredging program will achieve the following:

1. Maintain federal navigation channels in the Bay and provide safe and efficient navigation conditions for commercial, transportation and recreational vessels;
2. Beneficially reuse dredged material at the Hamilton Wetland Restoration Project, Bair Island Wetland Restoration Project, Montezuma Wetlands, and various other upland or reuse sites located outside of the Bay or dispose at the deep ocean disposal site, and thereby reduce in-Bay disposal in accordance with the LTMS Management Plan;
3. Dispose of dredged material in the Bay at state- and federally-designated disposal sites in a manner that will preserve navigational safety, protect the Bay's natural resources, and maintain the viability of the in-Bay disposal sites, which are critical to the regional economy.

#### **Staff Recommendation**

The San Francisco Bay Conservation and Development Commission (Commission), pursuant to the federal Coastal Zone Management Act of 1972, as amended, is required to review federal projects within San Francisco Bay and agree or disagree with the Federal agency's determination that the project is consistent with the Commission's amended coastal zone management program for San Francisco Bay, as approved by the Department of Commerce. The Commission concurs with the determination of the U.S. Army Corps of Engineers, San Francisco District (Corps) that the following project is consistent to the maximum extent feasible with the Commission's amended management program for the San Francisco Bay segment of the California Coastal Zone, subject to the Corps' acceptance of the conditions contained in Section II below and the incorporation of those conditions into the project. If the Corps fails to agree to the conditions, and fails to incorporate the conditions into the project, the Corps should treat this conditional concurrence as an objection and should notify the Commission immediately. If this conditional concurrence is converted into an objection, the provisions of Title 15 Code of Federal Regulations Sections 930.43, 930.44, and 930.45 shall apply.

The staff recommends that the Commission adopt the following resolution:

**I. Agreement**

- A. The San Francisco Bay Conservation and Development Commission conditionally agrees with the determination of the U.S. Army Corps of Engineers, San Francisco District that the 2010-2012 maintenance dredging program of the federal navigation channels (Exhibit A), and the disposal of dredged material at a variety of sites including in-Bay, beneficial reuse, upland and the deep ocean disposal site are consistent with the Commission's amended management program for San Francisco Bay.

The project descriptions for each channel include both an estimated volume and a maximum volume to be dredged and disposed of due to the variability of sedimentation from year to year. The Corps will provide more accurate estimates to the Commission prior to dredging each project. The volumes presented are estimated volumes unless noted as maximum volumes.

**In the Bay and Certain Waterways:**

1. Dredge an estimated 500,000 cy (up to a maximum of 700,000 cy) of sediment per year from Oakland Inner and Outer Harbors with a project depth of -50 feet MLLW, plus two feet over-dredge depth, and beneficially reuse the sediment at the Hamilton Wetland Restoration Project, the Montezuma Wetlands Restoration Project, or another approved upland location. If upland reuse is infeasible, dispose of the sediment at the San Francisco deep ocean disposal site (SF-DODS);
2. Dredge an estimated 400,000 cy (up to a maximum of 600,000 cy) of sediment per year from Richmond Inner Harbor with a project depth of -38 feet MLLW, plus two feet over-dredge depth. Beneficially reuse the sediment at the Hamilton Wetland Restoration site or another approved upland location. If upland reuse is infeasible, dispose of the sediment at SF-DODS;
3. Dredge an estimated 200,000 cy (up to a maximum of 300,000 cy) of sediment per year from Richmond Outer Harbor with a project depth of -45 feet MLLW, plus two feet over-dredge depth. Dispose of the sediment at the Hamilton Wetland Restoration Site, Alcatraz (SF-11) disposal site or an approved upland location;
4. Dredge an estimated 175,000 cy (up to a maximum of 300,000 cy) of sediment per year from Suisun Bay Channel with a project depth of -35 feet MLLW, plus two feet over-dredge depth, and dispose of the sediment at the Suisun Bay (SF-16) or Carquinez Strait (SF-9) disposal site, or an approved upland location;
5. Dredge an estimated 175,000 cy (up to a maximum 300,000 cy) of sediment per year from Pinole Shoal with a project depth of -35 feet MLLW, plus two feet over-dredge depth, and dispose of the sediment at the San Pablo Bay (SF-10) or Carquinez Strait (SF-9) disposal site, or an approved upland location;
6. Dredge an estimated 150,000 cy (up to a maximum of 250,000 cy) of sediment from San Rafael Creek Across-the-Flats with a project depth of -8 feet MLLW, plus two feet over-dredge depth, and from San Rafael Canal with a project depth of -6 feet MLLW, plus two feet over-dredge depth, which is partially outside the Commission's jurisdiction. Place the sediment at the Alcatraz (SF-11) disposal site or an approved upland location (see Table 1);

7. Dredge an estimated 450,000 cy (up to a maximum of 550,000 cy) of sediment from Brooklyn Basin South Channel with a project depth of -30 in the area adjacent to Government Island and a project depth of -35 feet MLLW in the area west of Government Island, plus two feet over-dredge depth, and beneficially reuse the sediment at the Hamilton Wetland Restoration Project or the Montezuma Wetland Restoration Project. If upland and ocean placement are infeasible, place the sediment at the Alcatraz (SF-11) disposal site (see Table 1);
8. Dredge an estimated 500,000 cy (up to a maximum of 650,000 cy) of sediment from Napa River, upper reach outside of the Commission's jurisdiction, with a project depth of -10 feet MLLW, plus two feet over-dredge depth, and Napa River, lower reach within the Commission's jurisdiction with a project depth of -15 feet MLLW, plus two feet over-dredge depth, and dispose of the sediment at a sponsor-provided upland disposal site adjacent to the Napa River located outside the Commission's jurisdiction (see Table 1);
9. Dredge an estimated 500,000 cy (up to a maximum of 650,000 cy) of sediment from Petaluma Across-the-Flats with a project depth of -8 feet MLLW, plus two feet of over-dredge depth, and beneficially reuse the sediment at the Hamilton Wetland Restoration Project or another approved upland location. If upland beneficial reuse is infeasible, dispose of the sediment at the San Pablo Bay (SF-10) disposal site (see Table 1);
10. Dredge an estimated 200,000 cy (up to a maximum of 300,000 cy) of sediment from the Petaluma River within the Commission's jurisdiction with a project depth of -8 feet MLLW, plus two feet over-dredge depth, and dispose of the sediment at a sponsor-provided upland disposal site (see Table 1);
11. Dredge an estimated 350,000 cy (up to a maximum of 500,000 cy) of sediment from Redwood City Harbor Channel with a project depth of -30 feet MLLW, plus two feet over-dredge depth. In 2011, dispose of the sediment at Bair Island or the Hamilton Wetland Restoration Site. If upland beneficial reuse is infeasible, dispose of sediments at the Alcatraz (SF-11) or San Pablo Bay (SF-10) disposal site (see Table 1);
12. Dredge an estimated 350,000 cy (up to a maximum of 500,000 cy) of sediment from the San Francisco Main Ship Channel and dispose of the sediment each year at the San Francisco Bar Channel (SF-8) disposal site or at the Ocean Beach nourishment site (SF-17), (both dredging and disposal sites are outside the Commission's jurisdiction);
13. Conduct annual "knockdown events" of up to five percent of any estimated volume, or up to 15,000 cy, whichever is greater (the largest knockdown would be up to 25,000 cy under this scenario);
14. Upon review and approval by the Commission staff, conduct individual advance maintenance episodes that do not exceed yearly maximum authorized volumes for the specified federal channel; and
15. Dredge up to 90,000 cy of sediment from the Corps' navigational channels only if needed in emergency situations, as defined by state and federal regulations, with each episode totaling 30,000 cy or less and no more than three episodes per year during the three-year span of this consistency determination, and place sediment at various state- and federally-designated in-Bay or ocean disposal sites or upland sites.

Richmond Inner and Outer Harbors, Oakland Inner and Outer Harbors, Pinole Shoal, Suisun Bay Channel and the San Francisco Main Ship Channel are annual projects. The other listed projects depend on annual Congressional appropriations for execution and funding provided by the local project sponsor. If Congress does not fund a particular project in the year that the Corps scheduled the project or the local sponsor cannot provide the matching funds, it may be delayed until sufficient funding is appropriated. Depending on the length of delay, the project volume may increase due to additional sedimentation but should be within the maximum volume.

---

**Table 1: Authorized Maintenance Dredging Volumes and Placement Sites, 2010-2012**

Channel	Project Depth mllw (ft.) <sup>a</sup>	Estimated Volume (cy)	Maximum Volume (cy)	Proposed Placement Site	Alternate Placement Site	Beneficial Use/Upland	In-Bay Disposal	Ocean Disposal
<b>2010</b>								
Oakland Harbor	-50	500,000	700,000	HWRP	SF-DODS	500,000	0	0
Richmond Inner Harbor	-38	400,000	600,000	SF-DODS	HWRP	0	0	400,000
Richmond Outer Harbor	-45	200,000	400,000	SF-11	HWRP	0	200,000	0
Suisun Bay and NY Slough	-35	175,000	300,000	SF-16	SF-9	0	175,000	0
Pinole Shoal (San Pablo Bay)	-35	175,000	300,000	SF-10	SF-9	0	175,000	0
San Rafael	-8	150,000	250,000	SF-11	HWRP	0	150,000	0
<b>Total Dredging Volume w/o SF Main Ship Channel</b>		1,600,000	2,550,000			500,000	700,000	400,000
				<b>Percentages</b>		31%	44%	25%
<b>2011</b>								
Oakland Harbor	-50	500,000	700,000	HWRP	SF-DODS	500,000	0	0
Richmond Inner Harbor	-38	400,000	600,000	HWRP	SF-DODS	400,000	0	0
Richmond Outer Harbor	-45	200,000	400,000	SF-11	HWRP	0	200,000	0
Suisun Bay and NY Slough	-35	175,000	300,000	SF-16	SF-9	0	175,000	0
Pinole Shoal (San Pablo Bay)	-35	175,000	300,000	SF-10	SF-9	0	175,000	0
Redwood City	-30	350,000	500,000	Bair Island	SF-11	350,000	0	0
<b>Total Dredging Volume w/o SF Main Ship Channel</b>		1,800,000	2,800,000			1,250,000	550,000	0
				<b>Percentages</b>		69%	31%	0%
<b>2012</b>								
Oakland Harbor	-50	500,000	700,000	HWRP	SF-DODS	500,000	0	0
Richmond Inner Harbor	-38	400,000	600,000	HWRP	SF-DODS	400,000	0	0
Richmond Outer Harbor	-45	200,000	400,000	SF-11	HWRP	0	200,000	0
Suisun Bay and NY Slough	-35	175,000	300,000	SF-16	SF-9	0	175,000	0
Pinole Shoal (San Pablo Bay)	-35	175,000	300,000	SF-10	SF-9	0	175,000	0
<b>Total Dredging Volume w/o SF Main Ship Channel</b>		1,450,000	2,300,000			900,000	550,000	0
				<b>Percentages</b>		62%	38%	0%
<b>2010 - 2012 Potential Projects</b>								
Brooklyn Basin South Channel	-30/-35	450,000	550,000	HWRP	MWP, SF-DODS, SF-11 <sup>b</sup>	450,000	0	0
Petaluma ATF	-8	500,000	650,000	HWRP	SF-10	500,000	0	0
Petaluma Upper	-8/-4	200,000	300,000	Upland	Upland	200,000	0	0
Napa River	-10/-15	500,000	650,000	Upland	Upland	500,000	0	0
<b>Total Dredging Volume for Potential Projects</b>		1,650,000	2,150,000			1,650,000	0	0
				<b>Percentages</b>		100%	0%	0%
<b>2010 - 2012 Summary Without Potential Projects</b>								
<b>Total Dredging Volume w/o SF Main Ship Channel</b>		4,850,000	7,650,000			2,650,000	1,800,000	400,000
				<b>Percentages</b>		55%	37%	8%
<b>With Potential Projects</b>								
<b>Total Dredging Volume w/o SF Main Ship Channel</b>		6,500,000	9,800,000			4,300,000	1,800,000	400,000
				<b>Percentages</b>		66%	28%	6%

<sup>a</sup> All contracted dredging includes 2 feet of over depth allowance (1 foot paid, 1 foot unpaid) beyond project depth. All government hopper dredging includes 1 foot of over depth allowance beyond project depth, with the exception of 2 feet at the SF Main Ship Channel.

<sup>b</sup> Only if needed for emergency dredging.

<sup>c</sup> If feasible due to additional available funding or other unforeseen circumstances, these projects may be beneficially reused at Hamilton or other available sites.

- B. This agreement is given based on the information submitted by or on behalf of the U.S. Army Corps of Engineers, San Francisco District, in its consistency determination dated and received January 21, 2010, and filed complete on April 30, 2010, including all accompanying and subsequent correspondence and exhibits.

## II. Special Conditions

If the Corps does not agree with the following conditions or fails to incorporate them into the project, the Corps shall notify the Commission immediately of its refusal to agree or to incorporate the conditions into the project and the conditional concurrence shall be converted into an objection. The Corps shall also immediately notify the Commission if the Corps determines to go forward with the project despite the Commission's objection.

- A. **Limits on Dredging.** This consistency determination authorizes maintenance dredging only within areas as shown on Exhibits B through K to the project depths for each channel as listed in the authorization section plus two feet allowable over-dredge depth and a total volume of 6,370,000 cy. No dredging in other areas or additional volume is authorized.
- B. **Water Quality Approval.** At least thirty days prior to the commencement of any dredging episode authorized herein, the Corps shall submit to the Executive Director water quality certification, waste discharge requirements, or any other required approvals from the California Regional Water Quality Control Board, San Francisco Bay Region. Failure to obtain such certification prior to the commencement of any dredging episode shall terminate the Commission's concurrence for that episode. The Executive Director may, upon review of the Regional Board approval, either: (1) approve the dredging episode consistent with this authorization; or (2) amend this authorization, as necessary, related to water quality issues. Unless the Corps agrees to amend this authorization in a manner specified by or on behalf of the Commission, this consistency determination shall become null and void.

The Water Board's 2007 Waste Discharge Requirements authorized the Corps to conduct maintenance dredging of a total maximum volume of 12,100,000 cy. Of the volume authorized by the Water Board, 6,370,000 cy remains. Therefore, prior to dredging additional volume, the Corps must obtain a new Water Board authorization and request an amendment to the Commission's letter of agreement.

- C. **Barge Overflow.** For clamshell dredging operations, no overflow shall be discharged from any barge, with the exception of incidental spillage. In hopper suction dredging, return water overflow is limited to 15 minutes at the dredge site during any single excavation action.
- D. **Annual Schedule.** No later than November 30<sup>th</sup> of each year, the Corps shall provide the Dredged Material Management Office (DMMO) agencies a schedule of the projects confirmed for execution in the following calendar year. An updated schedule shall be provided to the Commission staff quarterly if changes are made to the schedule affecting execution of the project. If a project receives funding after November 30<sup>th</sup> of any year, the Corps shall provide a project description and schedule to the DMMO agencies within two weeks of receiving funding.

**E. Dredging and Disposal Activity.**

1. **In-Bay Disposal Volumes.** In-Bay disposal of dredged sediments shall not exceed the monthly or annual disposal targets set forth in the LTMS Management Plan, or state regulations. The Corps shall also coordinate with and give consideration to other dredging projects using in-Bay disposal sites when planning the disposal of sediment from federal projects.
2. **Pre-Dredging and Disposal Report and Notice.** At least thirty days before the commencement of any dredging and disposal episode authorized herein, the Corps shall submit to the Commission's staff:
  - a. An episodic approval request package containing the current condition survey based on MLLW with the areas above project depth shown, a current estimated volume to be dredged based on that survey and information regarding the DMMO's suitability determination for the material to be dredged. The estimated volume will include the two feet of allowable over dredge depth and this will be identified separately from the volume of material above project depth. The Corps conducts a pre-dredge survey within two weeks of the dredge start date. The estimated volumes based on the pre-dredge survey shall be evaluated against the volume estimate provided in the episodic approval request. If there is a 15% or greater increase in the dredge volumes, the agencies shall be notified immediately. This notification shall include the new estimated volume and the Corps proposal for placement of that material.
  - b. A written statement to the Executive Director that contains: (1) the proposed beneficial or upland disposal site and quantity of material to be disposed; (2) dates within which the disposal episode is proposed; (3) the results of chemical and biological testing of sediment proposed for reuse or disposal. The Corps has prepared an integrated alternative disposal site analysis to maximize beneficial reuse, minimize in-Bay disposal, and, when upland sites are unavailable, use ocean disposal over the next three years. If the proposed placement site identified in the integrated alternatives analysis is unavailable, then an evaluation of alternative disposal sites shall be provided to the Commission. This analysis should include the feasibility of the following reuse or disposal options: habitat restoration, levee restoration, beneficial reuse, rehandling sites, and ocean disposal.
  - c. Advance maintenance dredging is defined as additional depth and/or width specified to be dredged beyond the authorized project channel dimensions. Thirty days prior to conducting advance maintenance dredging in any channel, the Corps shall provide to the Commission staff for review and approval a pre-dredge or condition survey, and the proposed advance maintenance (1) footprint; (2) depth; (3) volume; (4) disposal or beneficial reuse location; (5) schedule for the project; and (6) rationale for the purpose of and need for the advance maintenance.
3. **Authorization of In-Bay Disposal.** The authorization for the proposed in-Bay disposal shall become effective only if the Executive Director: (1) informs the Corps in writing that the episode is consistent with the authorization provided herein, alternative disposal and beneficial reuse options are infeasible, the volume proposed for disposal is consistent with both in-Bay disposal allocations, (if applicable) and the disposal site limits, and the material is suitable for in-Bay disposal; or (2) does not respond to the Corps' pre-disposal report within 30 days of its receipt. If the Executive Director determines that: (a) ocean disposal, upland

disposal, or beneficial reuse of the material is feasible; (b) the material proposed for disposal is unsuitable for the Bay; or (c) the proposed disposal is inconsistent with in-Bay allocations and disposal site limits, the Commission's concurrence for in-Bay disposal shall be terminated.

4. **Post-Dredging Requirements.** Within sixty days of completion of each dredging episode authorized by this consistency determination, the Corps shall submit to the Commission a bathymetric map showing the actual area(s) and depths dredged including over-dredge depth based on MLLW, any dredging that occurred outside the area or below the depths authorized herein, and a written statement indicating the total volume (in situ) of material dredged from each channel and disposed, and the disposal location.
- F. **Knockdown Dredging.** The knockdown episodes proposed in this consistency determination must meet the following conditions: (1) the shoal must be located within the maintenance dredging footprint of the channel; (2) the depression into which the shoal will be knocked must be located within the maintenance dredging footprint of the channel; (3) each individual shoal to be knocked down must be no greater than 3,000 cy; (4) the Corps must use either a clamshell or towed I-beam to knock down the shoal into the depression; (5) each knockdown episode must be conducted to minimize the re-suspension of sediment; (6) the knockdown material must meet chemical and biological criteria specified by Water Board and/or the Commission before being knocked down; and (7) the Corps must meet the knockdown dredging episode notification requirements in Special Condition G.
- G. **Knockdown Dredging Episode Notification**
1. **Prior Notice of Knockdown Episode.** The Corps shall notify the staff by telephone or in writing at least seven days prior to undertaking any knockdown episode. At this time, the Corps must also confer with the Commission and the Regional Water Board as to whether any testing for this knockdown material is required, and must submit a description of the project and a pre-dredge bathymetric survey of the knockdown area.
  2. **Approval of Knockdown Episode.** Approval (by letter or email) by the Commission's staff authorizing each individual knockdown episode will be required before a knockdown episode may commence. Please be advised that consultation and subsequent approval may be required from appropriate resource agencies before a knockdown episode may commence if the knockdown episode falls outside the Long Term Management Strategy (LTMS) environmental work windows.
  3. **Knockdown Episode Report.** Within thirty days of completion of each knockdown dredging episode authorized by this consistency determination, the Corps shall submit to the Commission a report which contains: (1) a post-dredge bathymetric survey showing (a) the location of all areas authorized to be knocked-down and the authorized depth based on MLLW, and (b) the actual areas, and the depth after completion of the knockdown episode based on MLLW, and any knockdown activity that occurred outside the area authorized to be knocked-down or below the authorized depths; and (2) the actual volume of the material relocated in the knockdown episode.

4. **Knockdown Study.** If the knockdown episode is larger than 5,000 cy, a plume study will be required, unless and until sufficient information is provided to the Commission staff regarding the potential impact of knockdown episodes. The Corps shall provide the plume study results and analysis to the Commission staff no later than ninety days after the knockdown episode has concluded.
- H. **Seasonal Limitations.** Dredging and disposal operations shall be confined to the amended work windows consistent with Tables F-1 and F-2 of Appendix F, "In-Bay Disposal and Dredging" and Figures 3.2 and 3.3 of the *Long-Term Management Strategy (LTMS) Management Plan* (2001) as amended by the U.S. Fish and Wildlife Service (FWS) on May 28, 2004. No work inconsistent with the time and location limits contained in these tables may be conducted without the approval of the Executive Director. Such approval may only be issued after: (1) consultation with the US. Fish and Wildlife Service and/or National Marine Fisheries (NOAA Fisheries) has occurred; and (2) the Executive Director has determined that dredging and disposal outside of the work window would be consistent with the Commission's laws and policies.

To protect the Pacific herring fishery, no dredging shall occur between December 1<sup>st</sup> and February 28<sup>th</sup> of any year without the written approval of the Executive Director, provided that such approval may only be issued: (1) after the Corps' representative requests from the California Department of Fish and Game (DFG) that they be allowed to dredge outside of the work window, discussions between the Corps and the DFG have occurred and the outcome of those discussions has been provided to the Commission staff; and (2) the Executive Director has determined that dredging and disposal outside of the work window would be consistent with the Commission's laws and policies.

- I. **Green Sturgeon.** As a result of the listing of green sturgeon under the federal Endangered Species Act, the LTMS agencies have initiated a new programmatic consultation with NOAA Fisheries regarding salmonids and green sturgeon and expect to receive an amended biological opinion from NOAA Fisheries in 2010. This amended biological opinion will refine the environmental work window set forth in 2000 for salmonids and will likely include new terms and conditions to protect the listed green sturgeon.

The Endangered Species Act "4(d) Rule" prohibiting take of green sturgeon will be issued on May 21, 2010 and becomes effective June 21, 2010. NOAA Fisheries staff has informed the Commission staff that as long as the programmatic consultation is underway and moving towards completion, NOAA Fisheries does not need to provide separate take authorization for maintenance dredging projects occurring between June 21, 2010 and the date the biological opinion is finalized. In the event that the programmatic biological opinion is not completed, the Corps must consult with NOAA Fisheries on a project-by-project basis for impacts to green sturgeon. If, at any time during the effective life of this agreement, the LTMS programmatic biological opinion is changed, this agreement shall become null and void unless the Corps agrees to amend this authorization to comply with the revised measures in a manner specified by or on behalf of the Commission.

- J. **Longfin Smelt.** In April, 2010, the DFG determined that the Corps' maintenance dredging projects completed with a hydraulic dredge (e.g., the *Essayons*) are likely to result in incidental take of two fish species listed as threatened or endangered under the California Endangered Species Act; the delta smelt and longfin smelt. Further, on April 29, 2010, DFG provided to the Corps a letter clarifying that the potential take was limited to hydraulic dredging, and outlining the following 17 take

minimization, notification, reporting, mitigation and funding measures. Therefore, to protect the state listed longfin smelt, and state and federally listed Delta smelt, the Corps shall implement the following measures:

1. Dredging may proceed anywhere when water temperature exceeds 22 degrees C.
2. No dredging shall occur in water less than 2 parts per thousand salinity between December 1 and June 30.
3. The dredge shall be primed and cleared within 3 feet of the bottom when downstream of X2<sup>1</sup> between December 1 and June 30.
4. The dredge shall be primed and cleared within 3 feet of the surface when downstream of X2 between July 1 and November 30 and dredge operation in the water column above the substrate shall be minimized.
5. Before initiating in-water project activities, the Corps shall designate a representative (Designated Representative) responsible for communications with DFG and BCDC and for overseeing compliance with these measures. The Corps shall notify DFG and BCDC in writing prior to commencement of in-water project activities of the Designated Representative's name, business address, and contact information, and shall notify DFG and BCDC in writing if a substitute Designated Representative is selected or identified at any time during the term of this Project.
6. The Corps shall utilize biologist(s) knowledgeable and experienced in the biology and natural history of the covered species (Designated Biologist). The Designated Biologist shall monitor dredging activities within the project area. At least 10 days prior to initiating in-water project activities, the Corps shall submit to DFG and BCDC in writing the proposed Designated Biologist's name, qualifications, business address, and contact information for review and approval. The Corps shall not commence in-water project activities until DFG and BCDC approve the Designated Biologist.
7. To ensure compliance with these measures, the Designated Biologist shall have authority via communication with the Corps' contracting officer, administrative contracting officer, or contracting officer's representative to require project-related personnel to immediately stop any activity that is not in compliance with these measures, and to order any reasonable measure to avoid the take of longfin smelt. Neither the Designated Biologist nor DFG or BCDC shall be liable for any costs incurred in complying with these measures.
8. The Corps shall conduct an education program for all persons employed or otherwise working on the project site prior to performing work on-site. Instruction shall consist of a presentation by the Designated Biologist that includes a discussion of the biology and general behavior of longfin smelt, information about the distribution and habitat needs of longfin smelt, sensitivity to human activities, longfin smelt status under CESA including legal protection, recovery efforts, and project-specific protective measures described in these measures. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site project activity. Copies of these measures shall be maintained at the worksite with the Project Manager. The Corps shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry

---

<sup>1</sup> X2 is defined as the location of the two parts per thousand near-bottom salinity contour (isohaline), as measured in kilometers (km) upstream from the Golden Gate.

on-site. Upon completion of the program, employees shall sign an affidavit stating they attended the program and understand all protection measures. These forms shall be filed at the Corps's offices and be available to DFG and BCDC upon request.

9. The Corps shall immediately stop/repair and clean up any fuel or hazardous waste leaks or spills on the Project site during Project activities at the time of occurrence. The Corps shall exclude the storage and handling of hazardous materials from construction and operations zones and shall properly contain and dispose of any unused or leftover hazardous products off-site.
10. The Corps shall maintain cleanliness of the dredger by removing from the site and properly disposing of all debris.

**Notification and Reporting Measures**

11. Corps shall notify DFG and BCDC 14 calendar days before commencing initial dredging activities and shall document compliance with all pre-project measures before initiating those activities.
12. The Designated Biologist shall be on-site daily while dredging operations are taking place to minimize take of longfin smelt and to check for compliance with all mitigation and avoidance measures. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing oversight activities and compliance inspections, observations of longfin smelt, survey results, and monitoring activities required by these measures. These inspections shall be compiled into a Monthly Compliance Report and submitted to DFG's regional representative at [vfrey@dfg.ca.gov](mailto:vfrey@dfg.ca.gov) and BCDC with attention to Brenda Goeden at [brendag@bcdc.ca.gov](mailto:brendag@bcdc.ca.gov). If no activities take place during a given month, the Corps shall provide a letter stating such and submit it to DFG's regional representative. DFG and BCDC may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If DFG or BCDC determines the reporting schedule is inadequate, DFG or BCDC will notify the Corps by letter of the new reporting schedule.
13. The Corps shall immediately notify DFG and BCDC in writing if it determines that it is not in compliance with any of these measures, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods indicated in these measures.
14. All observations of longfin smelt during project activities shall be conveyed to the Corps' Designated Representative or Designated Biologist. This information shall be included in the next Monthly Compliance Report submitted to DFG and BCDC by the Corps.
15. No later than December 31, 2010, the Corps shall provide DFG and BCDC with an annual report. The annual report shall be prepared by the Designated Biologist and shall include, at a minimum: (1) a table with notes showing when each of the measures was implemented; (2) all available information about project-related incidental take of longfin smelt; (3) information about other project impacts on longfin smelt; (4) operation dates; (5) an assessment of the effectiveness of these measures in minimizing project impacts; (6) recommendations on how measures might be changed to more effectively minimize and mitigate the impacts of future projects on longfin smelt; and (7) any other pertinent information, including the level of take of longfin smelt associated with the project.

16. If a longfin smelt is killed by a project-related activity, or if longfin smelt is otherwise found dead within the project boundary, the Corps shall immediately notify the Designated Biologist. The Designated Biologist or Designated Representative shall provide initial notification to DFG and BCDC by calling the DFG Marine Region contact at (707) 445-7830. The initial notification to DFG shall include information regarding the location, species, number of animals injured or killed, and the project name. Following initial notification, Corps shall send DFG's regional representative and BCDC a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the carcass, and if possible provide a photograph, explanation as to cause of death, and any other pertinent information.

**Monitoring, Mitigation and Funding Measures**

17. DFG and the Corps shall establish a working group to develop and standardize minimization, mitigation, funding, and effectiveness monitoring measures for these projects and future years' projects. The working group shall be initiated by June 1, 2010 and develop measures by July 31, 2010. DFG will provide final measures to BCDC at that time. The measures developed shall minimize and fully mitigate the impacts of the taking of longfin smelt. The mitigation shall be roughly proportional in extent to the impact of the taking and all measures shall be capable of successful implementation. The Corps shall provide adequate funding assurance to ensure implementation of the mitigation. Past mitigation for longfin smelt has included restoration of lands to tidal wetlands.

The Corps shall implement items 1-16, and item number 17 to the extent that the final measures are within authorizations and funding provided by Congress. The Corps will request any additional authorization and/or funding needed to implement these measures.

- K. **Environmental Assessment.** At least 30 days prior to the commencement of any dredging episode authorized herein, the Corps shall submit to the Executive Director the project description and Environmental Analysis as described in the statement of consistency. Once the Commission staff has reviewed the Environmental Assessment and provided comments to the Corps, the Corps shall respond to the Commission's comments within 15 calendar days.
- L. **Management and Monitoring of In-Bay Disposal of Dredged Material.** The Corps shall maintain administrative controls on disposal volumes at the in-Bay disposal sites so the LTMS target volumes are not exceeded. The Corps shall manage overall disposal volumes and disposal locations within each site to prevent build-up of dredged materials at each of the sites.
1. **Quarterly Reports.** The Corps shall provide to the Commission staff quarterly reports, acceptable to the Executive Director, summarizing dredging and disposal activities in San Francisco Bay Region. The reports are due on June 1<sup>st</sup> (covering January 1<sup>st</sup> through March 31<sup>st</sup>), September 1<sup>st</sup> (covering April 1<sup>st</sup> through June 30<sup>th</sup>), December 1<sup>st</sup> (covering July 1<sup>st</sup> through September 30<sup>th</sup>), and March 1<sup>st</sup> (covering October 1<sup>st</sup> through December 31<sup>st</sup>) of each year. The quarterly reports shall include the following information for each dredging project: (1) project name; (2) dates dredged; (3) volume dredged and disposed ("in-situ" volumes when available, if not available "bin" volumes); (4) disposal

sites used; and (5) the name of any affiliated permittees. The Corps shall also provide, upon request, digital information regarding the above described dredging projects.

At any time, the Corps may submit a written request to the Executive Director to discontinue submitting quarterly reports if it can demonstrate that the data listed above is immediately accessible to the Commission staff in electronic format via the Web-based DMMO data management system (database).

2. The Corps shall continue bathymetric monitoring of the in-Bay disposal sites, monthly at SF-11, quarterly at SF-9, SF-10, and SF-16. The Corps shall provide these condition surveys within 60 days of their completion to the Commission staff.
  3. No later than July 1<sup>st</sup> of each year, the Corps shall provide to the Commission an annual report acceptable to the Executive Director, analyzing the status of the mounding at the Alcatraz disposal site. This report shall include:
    - a. A description of results of the previous year's bathymetric surveys and a description of the trends in mound shape and size;
    - b. An estimate of the annual net change in volume of the mound overall, and at depths above -60, -50, -40, and -30 feet MLLW;
    - c. An estimate of the annual volume of dredged material disposal at the site;
    - d. An analysis of the relationship between disposal volumes, site management practices, and net change in mound volume;
    - e. Assessment of whether management practices are achieving satisfactory results; and
    - f. Recommendations for future site management practices, as informed by the analysis and assessment of items d and e, above.
- M. **Observation of Dredging and Disposal Operations.** The Corps shall allow the Commission staff or representatives of other state or federal agencies to come aboard the dredge or barge associated with any dredging, knockdown or disposal episode and observe the operation(s) to ensure that these activities are consistent with pre-dredging reports required herein and other terms and conditions of this permit. Further, the Commission reserves the right to have post-dredging reports inspected by a reliable third party familiar with bathymetric mapping in order to verify the contents of these reports.
- N. **Long-Term Management Strategy Program.** If, at any time during the effective life of this agreement, the Commission's laws, Bay Plan policies, or regulations are changed and are in effect regarding dredging, dredged material disposal, and beneficial reuse consistent with the multi-agency Long-Term Management Strategy Program (LTMS), this agreement shall become null and void unless the Corps agrees to amend this authorization to meet the new laws, policies, or regulations in a manner specified by or on behalf of the Commission.

### III. Findings and Declarations

This authorization is given on the basis of the Commission's findings and declarations that the work authorized herein is consistent with the McAteer-Petris Act, the *San Francisco Bay Plan*, the *Suisun Marsh Protection Plan*, the California Environmental Quality Act, and the Commission's amended coastal zone management program for San Francisco Bay for the following reasons:

- A. **Project Description.** The Corps maintains various federal navigation channels in San Francisco Bay to support safe waterborne commerce, transportation, military and recreation. Historically, the Corps has prepared a single consistency determination covering a group of navigation channels to be maintained over a defined period of time rather than individual determinations for separate maintenance episodes. Consistency Determination No. 2-10 is for maintenance dredging projects in federal channels during calendar years 2010, 2011 and 2012.
- B. **San Francisco Bay Plan Policies.** The McAteer-Petris Act states, in part that “dredging is essential to establish and maintain navigational channels for maritime commerce, which contributes substantially to the local, regional and state economies....”

The Bay Plan Dredging Policy No. 1 states, in part, that “[d]redging and dredged material disposal should be conducted in an environmentally and economically sound manner. Dredgers should reduce disposal in the Bay over time to achieve the LTMS goal of limiting in-Bay disposal volumes to a maximum of 1.25 million cubic yards per year....”

The Bay Plan Dredging Policy No. 2 states, in part, that “[d]redging should be authorized when the Commission can find: (a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose such as safe navigation; (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board; (c) important fisheries and Bay natural resources would be protected through seasonal restrictions established by the California Department of Fish and Game, the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service, or through other appropriate measures; (d) the siting and design of the project will result in the minimum dredging volume necessary for the project; and (e) the materials would be disposed of in accordance with Policy 3.”

The Bay Plan Dredging Policy No. 3 states, in part, that “[d]redged materials should, if feasible, be reused or disposed outside the Commission's Bay and certain waterway jurisdictions. Except when reused in an approved fill project, dredged material should not be disposed in the Commission's Bay and certain waterway jurisdiction unless disposal outside these areas is infeasible and the Commission finds: (a) the volume to be disposed is consistent with applicable dredger disposal allocations and disposal site limits adopted by the Commission by regulation; (b) disposal would be at a site designated by the Commission; (c) the quality of the material disposed of is consistent with the advice of the San Francisco Bay Regional Water Quality Control Board and the inter-agency Dredged Material Management Office (DMMO); and (d) the period of disposal is consistent with the advice of the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.”

The Bay Plan Dredging Policy No. 5 states, in part, that “[t]o ensure adequate capacity for necessary Bay dredging projects and to protect Bay natural resources, acceptable non-tidal disposal sites should be secured and the deep ocean disposal site should be maintained. Further, dredging projects should maximize use of dredged material as a resource consistent with protecting and enhancing Bay natural resources, such as creating, enhancing, or restoring tidal and managed wetlands, creating and maintaining levees and dikes, providing cover and sealing material for sanitary landfills, and filling at approved construction sites.”

The Bay Plan Dredging Policy No. 6 states, in part, that “[d]redged materials disposed in the Bay and certain waterways should be carefully managed to ensure that the specific location, volumes, physical nature of the material, and timing of disposal do not create navigational hazards, adversely affect Bay sedimentation, currents or natural resources, or foreclose the use of the site for projects critical to the economy of the Bay Area.”

The Bay Plan Dredging Policy No. 10 states, in part that “[i]nterested agencies and parties are encouraged to explore and find funding solutions for the additional costs incurred by transporting dredged materials to non-tidal and ocean disposal sites, either by general funds contributed by ports and other relevant parties, dredging applicants or otherwise.”

1. **Reduce In-Bay Disposal.** Bay Plan Dredging Policy No. 1 calls for the reduction of in-Bay disposal of dredged material. The Corps, as a partner in the LTMS Management Plan, has shown its commitment to the LTMS goal of reducing disposal of dredged material in the Bay through its integrated alternatives analysis and commitment to beneficially reuse sediment from several of its projects. In the years past, the Corps has acquired additional federal funds to implement beneficial reuse of sediment, ocean and upland disposal. However, federal funding has not increased for the operations and maintenance program, therefore the Corps must continue to utilize existing funding to maximize beneficial reuse.

Bay Plan Dredging Policy No. 3 states, in part, that “[d]redged material should, if feasible be reused or disposed outside the Commission’s Bay and certain waterways jurisdiction” and that “the disposal would be at a site designated by the Commission....” During the period from 2010 to 2012, the Corps proposes to dispose of an estimated total of 1,800,000 cy of dredged sediment at three state- and federally-designated in-Bay disposal sites and an estimated total of 400,000 cy of material at the deep ocean disposal site, and place an estimated total of 4,300,000 cy at beneficial reuse and upland sites.

However, if beneficial reuse or upland disposal facilities are not available or feasible to use during this period, some or all of the sediment proposed for beneficial reuse may be disposed of in the deep ocean disposal site or in the Bay. According to the Corps’ consistency determination, the Corps will “support the LTMS objective as long as alternatives to in-Bay placement are available and economically feasible.”

Currently, there is approximately 1.5 mcy of available space at the Hamilton Wetlands Project. It is possible that the project would be filled to capacity in 2010 or 2011. Once this project is complete, the Bel Marin Keys V Expansion of Hamilton (Expansion) would need to be both permitted and available for the Corps projects. It is possible that the Expansion may not be available in time for the Corps’ projects, which would then be likely disposed of at the deep ocean disposal site as described in the project description section. The Corps is working diligently with its state sponsor, the California Coastal Conservancy (Conservancy) to move the Expansion forward. The Expansion is key to providing a centrally located beneficial reuse site not only for Corps projects, but the entire dredging community, including refineries, ports and other projects.

In the event that the Hamilton site and/or the Expansion are not available at any time during the period 2010 to 2012, an estimated 900,000 cy per year (for a total of 2.7 million cy) would be placed at the deep ocean disposal site.

The expected volumes for in-Bay disposal for 2010 through 2012 are within the annual target limits of the Commission's regulations and the LTMS Plan as long as beneficial reuse sites and the deep ocean disposal site remain available. In addition the Corps also states "[p]er [Dredging] Policy 4 of the Bay Plan, the Corps plans the total volume of all of these dredging projects to fall within the LTMS target limits for in-Bay sites. Therefore, no justification will be necessary to exceed these targets."

Because the Corps has committed to placing the majority of the dredged sediment at Hamilton, including the Expansion, and other upland reuse or disposal sites, as well as the deep ocean disposal site, and to provide additional analyses if it determines that in-Bay is the only feasible option, the Commission determines that this conditional consistency determination is consistent with Dredging Policy No. One.

2. **Water-Oriented Uses.** Policy No. 2, in part, states that "[d]redging should be authorized when the Commission can find: (a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose such as safe navigation..." The Corps maintains the federal navigation channels located in San Francisco Bay, pursuant to Congressional authorization, to support waterborne commerce, transportation, and recreation. The Federal channels are maintained for the express purpose of safe navigation for commercial and recreational vessels in San Francisco Bay. Historically, the Corps has prepared a single consistency determination covering a group of navigation channels to be maintained over a defined period of time rather than submitting individual determinations for separate maintenance episodes. Consistency Determination No. 2-10 covers maintenance dredging projects in federal channels to be completed in 2010, 2011 and 2012.

The Corps consistency determination states that "[m]aintenance of deep draft channels is essential for the continued efficient operation of the ports serving commercial vessels. Dredging the shallow draft channels is essential for access to the Bay by recreational and fishing vessels and commercial ships and barges. Without regular dredging, our shallow-draft channels would become unnavigable, and our deep-draft channels would not safely serve the vessels that use them." The proposed maintenance dredging activities would ensure that deep draft channels remain navigable and ensure efficient and safe conditions for commercial and recreational vessels, all serving valuable water-oriented uses.

Therefore, the Commission determines that this project for safe navigation in the federal channels, and as such is a water-oriented use.

3. **Water Quality and Regional Board Requirements.** Dredging Policy No. 2 states in part, that "[d]redging should be authorized when the Commission can find:... (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board..."

In addition, the Bay Plan Dredging Policy No. 3(c) states, in part that "the quality of material disposed is consistent with the advice of the Regional Board and the Dredged Material Management Office." The Corps states in the consistency determination that the material will be determined suitable for the proposed disposal or reuse by the DMMO (which includes the Regional Board) or the material will be disposed of at an appropriate alternate site.

Water Quality Policies Nos. 1 and 2 state respectively "Bay water pollution should be prevented to the greatest extent feasible. The Bay's tidal marshes, tidal flats, and water surface area and volume should be conserved and, whenever

possible, restored and increased to protect and improve water quality...” and “[w]ater quality in all parts of the Bay should be maintained at a level that will support and promote the beneficial uses of the Bay as identified in the San Francisco Bay Regional Water Quality Control Board's Water Quality Control Plan, San Francisco Bay Basin and should be protected from all harmful or potentially harmful pollutants. The policies, recommendations, decisions, advice and authority of the State Water Resources Control Board and the Regional Board, should be the basis for carrying out the Commission's water quality responsibilities.”

The San Francisco Bay Regional Water Quality Control Board (Water Board) issued its Waste Discharge Requirements for the Corps maintenance dredging projects at the Board's meeting on March 14, 2007. The Waste Discharge Requirements identified targets for maximum monthly discharge of dredged sediments at the Alcatraz, Carquinez, San Pablo Bay, and Suisun Bay disposal sites, and described self-monitoring activities that the Corps must follow for maintenance dredging and the management of the disposal sites, including providing quarterly reports on all in-Bay disposal volumes. The same information provided to the Water Board will be provided to the Commission. The Commission staff has reviewed the order, has incorporated several of its provisions. However, the Water Board did not issue a new Board Order for the Corps 2010—2012 operations and maintenance program. Therefore the Commission must rely on the existing Order for this consistency determination. The Water Board's 2007 Waste Discharge Requirements authorized the Corps to conduct a total maximum volume of 12,100,000 cy of maintenance dredging. During the period from 2007 to 2009, the Corps' actual volume of maintenance dredging and disposal was 5,730,000 cy. Therefore, the Commission authorizes the Corps to dredge no more than 6,370,000 cy of sediment at this time. Condition II-B requires that the Corps apply for and receive a new Board Order prior to dredging or disposing of sediments beyond the 6,370,000 cy authorized by this consistency determination.

Regarding water quality issues for each dredging episode, the Corps states in the consistency determination that it will prepare an approval request package for each dredging episode in accordance with the Dredged Material Management Office (DMMO) guidelines. “This package shall contain the current condition survey, the estimated volume to be dredged based on that survey, and either a Tier 1 Evaluation [i.e., a request for an exemption from testing] or the sampling and analysis data report.” The Corps states that it will provide copies of all laboratory results, sediment testing data and findings, and will comply with the self-monitoring and reporting requirements in the Water Board's Waste Discharge Requirements for in-Bay disposal. In addition, the Corps also states that the material will be determined suitable for the proposed disposal or reuse by the DMMO (which includes the Water Board), or the material will be disposed of at an appropriate alternate site.

The Water Board has issued Waste Discharge Requirements for the dredging and disposal of up to 12,100,000 cy of sediment from the federal navigation channels described above, and the Corps has dredged and disposed of 5,730,000 cy. The Corps proposes to dredge up to 9.8 million cy of sediment between 2010 and 2012, and has committed to obtaining a new Board Order from the Water Board prior to dredging beyond the currently authorized volume (limited to 6,370,000 cy). Therefore, the Commission determines that this project as conditioned is consistent with its laws and policies.

4. **Protection of Fish, Other Aquatic Organisms and Wildlife.** Bay Plan Dredging Policy No. 2, in part, states that “[d]redging should be authorized when the Commission can find:... (c) important fisheries and Bay natural resources would be protected through seasonal restrictions established by the California Department of Fish and Game, the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service, or through other appropriate measures....” In addition, the Bay Plan Fish, Other Aquatic Organisms and Wildlife Policies Nos. 1 and 2 state, in part and respectively, “[t]o assure the benefits of fish, other aquatic organisms, and wildlife for future generations, to the greatest extent feasible, the Bay’s tidal marshes, tidal flats, and subtidal areas should be conserved, restored and increased,” and “[s]pecific habitats that are needed to conserve, increase or prevent the extinction of any native species, species threatened or endangered, ... or any species that provides substantial public benefits, should be protected....” In addition, Policy No. 4 directs Commission staff to consult with and give appropriate consideration to the advice of the California Department of Fish and Game, the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service “whenever a proposed project may adversely affect an endangered or threatened plant, fish or other aquatic organism, or wildlife species.” Finally, Policy No. 4 directs the Commission to not authorize projects that would result in “taking” of any listed species “...unless the applicant has obtained the appropriate ‘take’ authorization....”

The Corps’ consistency determination states that the “environmental effects of each of the District’s maintenance dredging projects in San Francisco Bay were originally presented in the *Final Composite Environmental Statement for Maintenance Dredging, Existing Navigation Projects, San Francisco Bay Region, California (1975)*. Since 1975, the District has conducted an environmental review of each new dredging episode and has prepared a written environmental assessment for each project. All such environmental documentation has been provided to the relevant regulatory agencies. This practice will continue to be followed with submittal of the environmental assessment thirty days in advance of the commencement of dredging. Special Condition II—I requires that the Corps continue to provide this documentation. The Corps continues to believe that only short-term impacts occur at the dredging and placement sites and that there are no significant impacts to the Bay’s environment and biological resources from the proposed dredging and placement operations, supporting the findings of the 1975 document.

The Corps is currently developing a 20-year Dredged Material Management Plan for the San Francisco Region, which will be consistent with the LTMS Management Plan and will involve preparation of an environmental impact statement (EIS) under the National Environmental Policy Act. Once this process is complete, it is expected that the Dredged Material Management Plan EIS will supersede the 1975 Final Composite Environmental Statement.

To further demonstrate the Corps’ commitment to reducing impacts to the Bay resources, the Corps installed an “Anti-Turbidity Valve” on the hopper dredge *Essayons* to reduce the amount of air in the overflow water returning to the Bay, thus reducing turbidity and potential effects to aquatic organisms.

As part of the regional coordination for the LTMS Management Plan, the DFG, the FWS and NOAA Fisheries completed consultation on the LTMS Environmental Impact Statement/Environmental Impact Report and issued, in 2000, (Amended in 2004 by FWS) a programmatic biological opinion for dredging and disposal projects in the Bay. In their opinion, the resource agencies identified

periods of the year for specific geographic areas within the Bay and Delta when dredging and disposal can occur without significantly impacting threatened, endangered and other important Bay species. It also identified periods of the year for specific geographic areas and species where further consultation is required if dredging or disposal is proposed. These environmental work windows are included in the LTMS Management Plan.

In its consistency determination, the Corps states that “[t]he dredging and disposal of sediments will be completed within these work windows, or we will consult with the appropriate resource agencies.” In addition, the Corps has been actively involved in the LTMS Environmental Windows Work Group, a multi-agency and stakeholder group seeking to identify ways to lessen the impacts of dredging to Bay resources while completing as many of the dredging projects as possible within the environmental work windows, or providing avenues for efficient consultations.

However, since the issuance of the LTMS Programmatic Biological Opinion, there have been additional species listed by both DFG (longfin smelt) and NOAA Fisheries (green sturgeon), and it is anticipated that FWS will list the longfin smelt in 2011. Further, through the LTMS program and other scientific endeavors, additional information has been provided to the resource agencies regarding these species and the potential effects of dredging on them. As a result of these listings and the additional information, the LTMS agencies have initiated a new programmatic consultation with NOAA Fisheries regarding salmonids and green sturgeon and expect to receive an amended biological opinion from NOAA Fisheries in 2010. This amended biological opinion will refine the environmental work window set forth in 2000 for salmonids and will likely include new terms and conditions to protect the listed green sturgeon.

The Endangered Species Act “4(d) Rule” prohibiting take of green sturgeon will be issued on May 21, 2010 and becomes effective June 21, 2010. NOAA Fisheries staff has informed the Commission staff that as long as the programmatic consultation is underway and moving towards completion, NOAA Fisheries does not need to provide separate take authorization for maintenance dredging projects occurring between June 21, 2010 and the date the biological opinion is finalized. In the event that the programmatic biological opinion is not completed, the Corps would be required to consult with NOAA Fisheries on a project-by-project basis for impacts to green sturgeon. Once the programmatic biological opinion is complete, the Corps must comply with the specified measures or consult with NOAA Fisheries. Special Condition II-I requires the Corps to implement the terms and conditions of the amended biological opinion or consult with the appropriate resource agencies and/or amend this consistency determination.

In April, 2010, the DFG determined that the Corps’ maintenance dredging projects completed with a hydraulic dredge (e.g., the *Essayons*) are likely to result in incidental take of two fish species listed as threatened or endangered under the California Endangered Species Act (CESA); the delta smelt and longfin smelt. Although the Corps, as a federal agency, is not subject to CESA, the Corps must comply with the federal consistency requirements of Coastal Zone Management Act (CZMA). Section 930.39 (a) of the CZMA federal regulations requires the Corps to submit a consistency determination that indicates whether their proposed dredging will be undertaken “in a manner consistent to the maximum extent practicable with the enforceable policies of the management program,” i.e., the Commission’s laws and policies. The Bay Plan’s Fish, Other Aquatic Organisms and Wildlife Policy No. 4(b) states that the Commission must “[n]ot

authorize projects that would result in the ‘taking’ of any...species listed as endangered or threatened pursuant to the state or federal endangered species acts...unless the project applicant has obtained the appropriate “take” authorization...” Therefore, the Corps has agreed to implement measures to avoid, minimize or mitigate taking of longfin smelt, as described in Special Condition II-H.

Further, on April 29, 2010, DFG provided to the Corps a letter clarifying that the potential take was limited to hydraulic dredging, and outlining 17 take minimization, notification, reporting, mitigation and funding measures. The DFG has stated they do not object to the proposed project moving forward if conducted pursuant to these measures. These measures have been incorporated as conditions of this consistency determination. With the commitment of the Corps to implement measures 1—16, and item 17 to the extent the Corps has authority, the project is consistent to the maximum extent practicable with the Commission’s amended coastal zone management program for San Francisco Bay.

Similarly, the Corps, through the LTMS Program, is conducting a programmatic consultation with NOAA Fisheries regarding Essential Fish Habitat (EFH), a requirement of the Magnuson Stevenson Fisheries Management Act. Through this programmatic EFH consultation, NOAA Fisheries will provide conservation recommendation measures to protect the habitat of managed species. While these measures are recommendations only, the Corps is currently considering actions that will further minimize impacts to habitat of Bay species.

The *Essayons* is scheduled to begin dredging on June 1, 2010 at Pinole Shoals. The DFG staff has notified the Commission staff that they will not object to this project going forward as long as the Commission’s letter of agreement with the consistency determination, with the appropriate measures, is in place.

For these reasons, the Commission determines that this project, as conditioned, is consistent to the maximum extent practicable with the Dredging Policy No. 2, and the policies on Fish, Other Aquatic Organisms and Wildlife.

5. **Tidal Marshes and Tidal Flats.** Bay Plan Policies Nos. 1 and 2 state, respectively, “that tidal marshes and tidal flats should be conserved to the fullest possible extent...dredging projects that would substantially harm tidal marshes or tidal flats should be allowed only for purposes that provide substantial public benefits and only if there is no feasible alternative” and “...any proposed dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and designed to minimize, and if feasible, avoid any harmful effects.”

Redwood City Harbor Channel, Petaluma River, San Rafael Creek, and Napa River are federal channels that are adjacent to tidal mudflat and marsh areas. The Corps has committed to dredging all of the channels during the environmental work windows recommended by the resource agencies to minimize impacts to listed species. The dredging of these channels provides public benefits of navigational safety and economic benefits to the communities who use them. The Commission staff is unaware of any analysis regarding impacts to tidal mudflats or marshes adjacent to these federal channels. While the deep draft channels are not located near tidal marshes or mudflats, the shallow draft channels are. There is potential for the sediment taken from the shallow channels during dredging operations to be replaced over time with sediment from nearby mudflats or marshes.

Consistent with Tidal Marshes and Tidal Flats Policy 2, the Corps has prepared an Environmental Impact Statement and continues to supplement that document with annually prepared Environmental Assessments for each maintenance project. The Corps states that only short-term physical impacts result from maintenance dredging and disposal, and continues to seek new ways to further minimize those impacts. The Environmental Assessments and an updated Integrated Alternatives Analyses will be provided to the Commission annually. In addition, the Corps states that the channel that is dredged through the tidal mudflat at both "Petaluma River Across-the-Flats" and "San Rafael Creek Across-the-Flats" is the minimum necessary to ensure safe navigation. There is no feasible alternative to dredging navigational channels.

The Corps' consistency determination states that some of its projects "have nearby upland placement sites that may require transport of the material through the marsh habitat. This transport is typically accomplished through pipelines temporarily crossing the habitat to place the material. Through coordinated efforts, the Corps has avoided impacts to special status species in these habitats in the past. Past efforts have included surveying for the species of concern and then implementing the project in a manner that does not affect them. The Corps would continue to coordinate any work that may affect the tidal marsh habitat, or its species, with the appropriate resource agencies." In addition, the Corps has been reusing dredged sediment from the Port of Oakland's 50-Foot deepening project and some of its operations and maintenance dredging projects to construct the Hamilton Wetland Restoration Project. It is anticipated that this project will be complete within the next three years.

Therefore, the Commission determines that the project as conditioned is consistent to the maximum extent feasible with its policies on tidal marshes and mudflats.

6. **Subtidal Areas.** Bay Plan Subtidal Areas Policy No. 1 states that "[a]ny proposed filling or dredging project in a subtidal area should be thoroughly evaluated to determine the local and Bay-wide effects of the project on: (a) the possible introduction or spread of invasive species; (b) tidal hydrology and sediment movement; (c) fish, other aquatic organisms and wildlife; (d) aquatic plants; and (e) the Bay's bathymetry. Projects in subtidal areas should be designed to minimize and, if feasible, avoid any harmful effects."

The consistency determination states that the Corps thoroughly evaluates the dredging projects for the above listed potential impacts through its 1975 Environmental Impact Statement and the individual Environmental Assessments. The reports, studies and initiatives that the Corps has undertaken provide evidence of the Corps' commitment to thoroughly evaluating the local and Bay-wide effects of maintaining the depth and configuration of navigational channels. The consistency determination states, "The District believes that only short-term impacts result from our maintenance dredging and disposal actions." In addition, there is no feasible alternative to maintaining the federal channels through dredging and disposal. The maintenance of these channels is essential to providing safe navigation and access to the ports and recreational marinas in the Bay Area.

Consistent with Subtidal Areas Policy 1, the Corps has monitored the potential indirect impacts from dredging projects on eelgrass and will continue to work towards alleviating agency concerns. The consistency determination states, "While eelgrass does exist near the Richmond Inner Harbor Channel, there is no known eelgrass that occurs within any of the channel boundaries. If future sur-

veys indicate direct impacts to eelgrass from the dredging program, the Corps will consult with the appropriate resource agencies." This issue is being actively addressed through the Essential Fish Habitat programmatic consultation.

Bay Plan Subtidal Areas Policy No. 2 states that "[s]ubtidal areas that are scarce in the Bay or have an abundance and diversity of fish, other aquatic organisms and wildlife (e.g. eelgrass beds, sandy deep water or underwater pinnacles) should be conserved." Consistent with Subtidal Areas Policy 2, the Corps states that the federal channels are not considered a scarce or unique habitat in the Bay, although they do provide some deep-water habitat in an otherwise shallow Bay.

Further, as stated above, there is no feasible alternative for maintaining them and the federal channels provide substantial public benefit and are vital to the economic sustainability of the Bay Area ports and water-related industries.

Because these projects are in areas that are not considered a scarce or unique habitat, and there is no feasible alternative to dredging federal navigation channels, the Commission determines that the project is consistent with the Bay Plan policies on Subtidal Areas.

7. **Disposal of Dredged Material.** Bay Plan Dredging Policy No. 3 states, in part, that "[d]redged material should, if feasible be reused or disposed outside the Commission's Bay and certain waterways jurisdiction" and that "the disposal would be at a site designated by the Commission...."

During the period from 2010 to 2012, the Corps proposes to dispose of an estimated total of 1,800,000 cy of dredged sediment at three state- and federally-designated in-Bay disposal sites, an estimated total of 400,000 cy of material at the deep ocean disposal site, and an estimated total of 4,300,000 cy at beneficial reuse and upland sites. In the event that the Hamilton site is not available at any time during the period 2010 to 2012, an estimated 900,000 cy per year (for a total of 2.7 million cy) would be placed at the deep ocean disposal site. These in-Bay disposal volumes do not include the possible additional 90,000 cy of emergency dredging each year.

---

Table 2. Dredged Material Placement Scenarios, With and Without the Hamilton Site

Channel	Estimated Volume (cy)	Proposed Placement Site	Beneficial Use/ Upland	In-Bay Disposal	Ocean Disposal	Placement Site w/o Hamilton	Beneficial Use/ Upland	In-Bay Disposal	Ocean Disposal
<b>2010</b>									
Oakland Harbor	500,000	HWRP	500,000	0	0	SF-DODS	0	0	500,000
Richmond Inner Harbor	400,000	SF-DODS	0	0	400,000	SF-DODS	0	0	400,000
Richmond Outer Harbor	200,000	SF-11	0	200,000	0	SF-11	0	200,000	0
Suisun Bay and NY Slough	175,000	SF-16	0	175,000	0	SF-16	0	175,000	0
Pinole Shoal (San Pablo Bay)	175,000	SF-10	0	175,000	0	SF-10	0	175,000	0
San Rafael	150,000	SF-11	0	150,000	0	SF-11	0	150,000	0
<b>Total Dredging Volume</b>	<b>1,600,000</b>		<b>500,000</b>	<b>700,000</b>	<b>400,000</b>		<b>0</b>	<b>700,000</b>	<b>900,000</b>
<b>w/o SF Main Ship Channel</b>		<b>Percentages</b>	<b>31%</b>	<b>44%</b>	<b>25%</b>		<b>0%</b>	<b>44%</b>	<b>56%</b>
<b>2011</b>									
Oakland Harbor	500,000	HWRP	500,000	0	0	SF-DODS	0	0	500,000
Richmond Inner Harbor	400,000	HWRP	400,000	0	0	SF-DODS	0	0	400,000
Richmond Outer Harbor	200,000	SF-11	0	200,000	0	SF-11	0	200,000	0
Suisun Bay and NY Slough	175,000	SF-16	0	175,000	0	SF-16	0	175,000	0
Pinole Shoal (San Pablo Bay)	175,000	SF-10	0	175,000	0	SF-10	0	175,000	0
Redwood City	350,000	HWRP	350,000	0	0	SF-11	0	350,000	0
<b>Total Dredging Volume</b>	<b>1,800,000</b>		<b>1,250,000</b>	<b>550,000</b>	<b>0</b>		<b>0</b>	<b>900,000</b>	<b>900,000</b>
<b>w/o SF Main Ship Channel</b>		<b>Percentages</b>	<b>69%</b>	<b>31%</b>	<b>0%</b>		<b>0%</b>	<b>50%</b>	<b>50%</b>
<b>2012</b>									
Oakland Harbor	500,000	HWRP	500,000	0	0	SF-DODS	0	0	500,000
Richmond Inner Harbor	400,000	HWRP	400,000	0	0	SF-DODS	0	0	400,000
Richmond Outer Harbor	200,000	SF-11	0	200,000	0	SF-11	0	200,000	0
Suisun Bay and NY Slough	175,000	SF-16	0	175,000	0	SF-16	0	175,000	0
Pinole Shoal (San Pablo Bay)	175,000	SF-10	0	175,000	0	SF-10	0	175,000	0
<b>Total Dredging Volume</b>	<b>1,450,000</b>		<b>900,000</b>	<b>550,000</b>	<b>0</b>		<b>0</b>	<b>550,000</b>	<b>900,000</b>
<b>w/o SF Main Ship Channel</b>		<b>Percentages</b>	<b>62%</b>	<b>38%</b>	<b>0%</b>		<b>0%</b>	<b>38%</b>	<b>62%</b>
<b>2010 - 2012 Potential Projects</b>									
Brooklyn Basin South Channel	450,000	HWRP	450,000	0	0	SF-DODS	0	0	450,000
Petaluma ATF	500,000	HWRP	500,000	0	0	SF-10	0	500,000	0
Petaluma Upper	200,000	Upland	200,000	0	0	Upland	200,000	0	0
Napa River	500,000	Upland	500,000	0	0	Upland	500,000	0	0
<b>Total Dredging Volume</b>	<b>1,650,000</b>		<b>1,650,000</b>	<b>0</b>	<b>0</b>		<b>700,000</b>	<b>500,000</b>	<b>450,000</b>
<b>for Potential Projects</b>		<b>Percentages</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>		<b>42%</b>	<b>30%</b>	<b>27%</b>
<b>2010 - 2012 Summary</b>									
<b>Without Potential Projects</b>									
Total Dredging Volume	4,850,000		2,650,000	1,800,000	400,000		0	2,150,000	2,700,000
w/o SF Main Ship Channel		<b>Percentages</b>	<b>55%</b>	<b>37%</b>	<b>8%</b>		<b>0%</b>	<b>44%</b>	<b>56%</b>
<b>With Potential Projects</b>									
Total Dredging Volume	6,500,000		4,300,000	1,800,000	400,000		700,000	2,650,000	3,150,000
w/o SF Main Ship Channel		<b>Percentages</b>	<b>66%</b>	<b>28%</b>	<b>6%</b>		<b>11%</b>	<b>41%</b>	<b>48%</b>

HWRP – Hamilton Wetland Restoration Project  
MWP – Montezuma Wetland Restoration Project

If beneficial reuse, ocean or upland disposal facilities are not available or feasible to use during this period, some or all of the sediment proposed for beneficial reuse may be disposed of in-Bay. This could lead to a significant increase in in-Bay disposal, and potentially an exceedance of the in-Bay disposal target volumes. Special Condition II – E(3) requires the Corps to provide its alternative disposal site analysis to the Executive Director for review and approval. If the Executive Director determines that any upland site or ocean disposal is feasible, then the Corps would be required to utilize those sites, or the consistency determination would become invalid for that episode.

The Commission's regulations and the LTMS plan establish target disposal volumes limits for the in-Bay disposal sites. There are both annual target limits and monthly target limits. Special Condition II – E (3) requires that the Corps' projects must be consistent with in-Bay disposal target limits.

- **In-Bay Disposal.** Over the next three years, the Corps proposes to dispose of a total of 1,800,000 cy of dredged sediment at four state-and federally-designated, in-Bay disposal sites, located at Suisun Bay (SF-16), (San Pablo Bay (SF-10), and Alcatraz Island (SF-11). The Carquinez Strait (SF-9) site is an in-Bay alternative, in case capacity at the Suisun Bay disposal site is reached. In addition, if emergency dredging becomes necessary, the Corps proposes to dispose of up to 90,000 cy of material at various in-Bay disposal sites in not more than three 30,000 cy episodes each year, over the period from 2010 to 2012. The Corps states "[w]e will inform the appropriate agencies as soon as possible" should emergency dredging become necessary.

In 2010, the Corps proposes to place a total of 700,000 cy of sediment dredged from the following projects in the Bay: an estimated 200,000 cy from Richmond Outer Harbor placed at the Alcatraz disposal site; an estimated 175,000 cy from Suisun Bay Channel placed at the Suisun Bay disposal site; an estimated 175,000 cy from Pinole Shoal placed at the San Pablo Bay disposal site; and an estimated 150,000 cy from San Rafael Canal placed at the Alcatraz disposal site.

In 2011, the Corps proposes to place a total of 550,000 cy of sediment dredged from the following projects in the Bay: an estimated 200,000 cy from Richmond Outer Harbor placed at the Alcatraz disposal site; an estimated 175,000 cy from Suisun Bay Channel placed at the Suisun Bay disposal site; and an estimated 175,000 cy from Pinole Shoal Channel placed at the San Pablo Bay disposal site.

In 2012, the Corps proposes to place a total of 550,000 cy of sediment dredged from the following projects in the Bay: an estimated 200,000 cy from Richmond Outer Harbor placed at the Alcatraz disposal site; an estimated 175,000 cy from Suisun Bay Channel placed at the Suisun Bay disposal site; and an estimated 175,000 cy from Pinole Shoal Channel placed at the San Pablo Bay disposal site.

In addition, during the period from 2010 to 2012, an estimated 950,000 cy from the Brooklyn Basin South Channel and the Petaluma Across-the-Flats Channel may be placed in the Bay if upland and ocean disposal options are infeasible.

Prior to changing disposal sites from the preferred option to the alternate option, the Corps states that upon determining that the preferred disposal site is infeasible, the Corps would immediately: (1) notify and request approval for the change in disposal site prior to the commencement of the project from the Commission and appropriate agencies; (2) provide to the Commission information as to why the preferred disposal site is not feasible; and (3) if the alternate disposal site is an in-Bay site, provide to the Commission an update of

the monthly and annual capacity available for the proposed disposal site. This information will also be included in the Corps' Environmental Assessments, provided to the Commission at least 30 days prior to initiating the dredging project.

- **San Francisco Deep Ocean Disposal Site.** The deep ocean disposal site (SF-DODS), located approximately 50 miles west of the Golden Gate Bridge and outside the Commission's jurisdiction, was created to help reduce in-Bay disposal of dredged material. In some cases, material that is determined to be unsuitable for beneficial reuse or in-Bay disposal may be suitable for disposal at SF-DODS. Currently, 400,000 cy of sediment from Richmond Inner Harbor Channel is proposed to be disposed of at SF-DODS because the U.S. Fish and Wildlife Service has determined that it is not suitable for reuse at the Hamilton Wetland Restoration Site and the Corps has determined that placement at another upland site is infeasible.

If placement of material at the Hamilton site or other upland sites are infeasible, the Corps proposes to dispose of an estimated total of 2,700,000 cy of dredged sediment from the Oakland Inner and Outer Harbors, and the Richmond Inner Harbor at SF-DODS over the next three years.

In the event of an emergency situation and if it is not feasible to dispose of the sediment at SF-DODS, the Corps proposes to dispose of this material in-Bay at the Alcatraz disposal site. The San Pablo Bay disposal site is a second alternative, in the event that capacity at the Alcatraz disposal site is reached.

- **Beneficial Reuse and Upland Placement.** In accordance with Dredging Policy No. 5, the Corps is maximizing to the extent feasible, the use of dredged sediment as a resource. As mentioned above, the Corps has provided an integrated alternative disposal site analysis for the 2010 through 2012 maintenance dredging program that describes how it will achieve the goal of 60% of dredged sediments being beneficially reused or placed out of Bay. The Corps will provide an updated analysis if there is a significant change in the percentage of material to be placed in-Bay. By examining the funding, equipment, available disposal and reuse sites for the entire three-year program rather than for each project each year, the Corps is able to be more flexible in meeting the beneficial reuse goals of the LTMS Management Plan.

From 2010 to 2012, the Corps proposes to place an estimated 2,650,000 cy of sediment from regularly dredged projects at beneficial reuse or upland sites. If the four additional projects dependent on annual Congressional funding are included in the total, the Corps proposes to place an estimated 4,300,000 cy at beneficial reuse or upland sites. The sediment will be placed primarily at the Hamilton Wetland Restoration Project, but also at the Bair Island and potentially at the Montezuma Wetland Restoration Projects and sponsor-provided upland sites. As discussed previously, the Corps proposes to use SF-DODS or an in-Bay disposal site if the proposed beneficial use site is not available.

The Corps has designated the Ocean Beach nourishment site (SF-17) for sediment dredged from the Main Ship Channel to be placed just offshore of Ocean Beach to prevent further erosion and nourish the littoral cell that feeds Ocean Beach. Both the dredging and placement site are outside the Commission's jurisdiction.

During the period from 2010 to 2012, a total estimated volume of 700,000 cy is proposed to be placed at upland sites. An estimated 200,000 cy of material dredged from the Petaluma River Channel and an estimated 500,000 cy of material dredged from the Napa River would be placed at sponsor-provided upland sites.

- **Knockdown Events.** Knockdown events are assumed to have less environmental impacts than full dredging episodes and may be more economical when small shoals are present. The Commission has requested data on the suspended sediment from knockdown events, and the Corps has committed to providing a knockdown study when individual shoals are larger than 5,000 cy, unless or until information is provided that sufficiently defines the potential environmental impacts of large knockdown events.

The Corps is currently proposing to knock down each year a total of 15,000 cy or up to five percent of the total estimated dredging volume of any one deep draft channel (whichever is greater), if necessary. The largest estimated volume for a deep draft channel is 500,000 cy, therefore the largest knockdown would be 25,000 cy. In shallow draft channels, the total volume considered for a knockdown is 15,000 cy. It is anticipated that these knockdowns would be a series of much smaller volumes within a lengthy channel, and therefore, the Corps does not believe this activity would have a larger impact than dredging within the same area.

The Commission determines that based on the Integrated Alternatives Analysis, the condition requiring an alternatives analysis when a specific project is proposed to use the alternate in-Bay disposal option, and the Executive Director's ability to concur or object with the Corps determination of feasibility on that project, that operations and maintenance dredging program is consistent to the maximum extent feasible with the Commission's policies on dredged material disposal and reuse.

8. **Management of In-Bay Disposal Sites.** Bay Plan Dredging Policy No. 6 states, in part, that "[d]redged materials disposed in the Bay and certain waterways should be carefully managed...." The consistency determination states that all in-Bay disposal sites are carefully managed (by performing regular bathymetric surveys) to ensure that the amount and timing of disposal does not create navigational hazards, adversely affect Bay currents or natural resources of the Bay, or foreclose the use of the sites by projects critical to the economy of the Bay Area. In addition, the Corps states that it will provide to the Commission an update of the monthly and annual capacity available and provide quarterly reports of all in-Bay disposal volumes.

Prior to implementation of each dredging project, the Corps will provide project specifics, including a pre-dredge survey, proposed dredged volumes, and sediment test results, to the DMMO for review and a determination of the suitability of the sediment for disposal. This information will also be provided to the Commission staff. Special Condition II – J requires the Corps to continue managing and monitoring the in-Bay disposal sites as well providing written reports and analyses of the sites, particularly the Alcatraz disposal site, on a quarterly and annual basis.

The Commission determines that the project is consistent with the policies on in-Bay disposal site management.

9. **Navigational Safety.** The Bay Plan Navigational Safety policies Nos. 1 and 3 state respectively “[p]hysical obstructions to safe navigation...should be removed...” and that “[t]o ensure navigational safety and help prevent accidents that could spill hazardous materials, such as oil, the Commission should encourage major marine facility owners and operators, the U. S. Army Corps of Engineers and the National Oceanic and Atmospheric Administration to conduct frequent, up-to-date surveys of major shipping channels, turning basins and berths used by deep draft vessels and oil barges....”

The consistency determination states that the purpose of the Corps’ maintenance dredging program is to remove obstructions to safe navigation, thereby ensuring the safe movement of maritime vessels, the protection of the surrounding habitat, and the continuation of the economic well-being and national defense of the nation. In addition, as part of the operations and maintenance program, the Corps performs pre-dredging and post-dredging surveys of all maintenance dredging project areas. These surveys are made available on the District’s Hydrographic Survey Section webpage and are accessible at the District’s office.

The Corps also maintains management of the in-Bay disposal sites and completes bathymetric surveys of the Alcatraz disposal site on a monthly basis, and San Pablo, Suisun, and Carquinez disposal sites on a quarterly basis. This monitoring aids in maintaining safe navigation in the area of the disposal sites. Therefore the Commission determines that this project is consistent with its policies on navigational safety.

- C. **Coastal Zone Management Act.** The Commission, pursuant to the Coastal Zone Management Act of 1972, as amended (16 USC Section 1451), and the implementing Federal Regulations in Title 15 Code of Federal Regulations Part 930, is required to review Federal projects within San Francisco Bay and agree or disagree with the Federal agency’s determination that the project is consistent with the Commission’s amended coastal zone management program for San Francisco Bay. The Commission finds and certifies that the work proposed by the U.S. Army Corps of Engineers, San Francisco District, as described herein and in the information submitted, is either within the coastal zone or affects the coastal zone and is consistent with the Commission’s amended coastal zone management program for San Francisco Bay, as approved by the Department of Commerce, so long as the Corps complies with the conditions contained herein.
- D. **Environmental Impact.** In *The Final Composite Environmental Statement for Maintenance Dredging, Existing Navigation Projects, San Francisco Bay Region, California 1975*, evaluated each of the original projects covered under the subject consistency determination. According to the Corps, “[s]ince 1975, the Corps has conducted an environmental review of each recurring dredging episode and has prepared an environmental assessment (EA), as appropriate for each project. All such environmental documentation has been provided to the regulatory agencies.” This practice will continue to be followed. The consistency determination states, “The Corps continues to believe that only short-term impacts occur at the dredging and placement sites and that there are no significant impacts to the Bay’s environment and biological resources from the proposed dredging and disposal operations...”

In addition, the Corps is currently consulting with NOAA Fisheries regarding the listed green sturgeon and Essential Fish Habitat, and with DFG regarding longfin smelt. In addition, as described above, the Corps is currently developing a 20-year Dredged Material Management Plan for the San Francisco Region, which will be

consistent with the LTMS Management Plan and will involve preparation of an environmental impact statement (EIS) under the National Environmental Policy Act. Once this process is complete, it is expected that the Dredged Material Management Plan EIS will supersede the 1975 Final Composite Environmental Statement.

Therefore, the Commission finds that the project will not have a significant adverse impact on the Bay environment.

- E. **Conclusion.** For all the above reasons, the Commission finds that the project will sufficiently protect fish and wildlife resources, maintain water quality in the Bay, and assist in implementing beneficial reuse of dredged sediment and the LTMS Management Plan. Therefore, the project, as conditioned, is consistent to the maximum extent practicable with the Commission's amended coastal zone management program for San Francisco Bay.

#### Exhibits

- A. **Vicinity Map, Exhibit A**
- B. **Site and Project Plan(s), Exhibits B-K**
- C. **Dredged Material Disposal/Beneficial Reuse Sites, Exhibits L - R**