San Francisco Bay Conservation and Development Commission
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Agenda Item #8

December 30, 2025

Consistency Determination Summary

Operations and Maintenance Dredging of San Francisco Bay Federal Navigation Channels

(For Commission consideration on January 15, 2026)

Consistency Determination No. **C2025.005.00**

Federal Agency: US Army Corps of Engineers (USACE)

Project Description: Maintenance dredge between 7.46 million cubic yards, and potentially a maximum of 17.6 million cubic yards of sediment over 4 years, as follows: an average of 1.755 million cubic yards, and potentially a maximum of 4.22 million cy of sediment annually from six deep draft channels annually to depths ranging from minus 30 feet Mean Lower Low Water (MLLW) to minus 50 feet; one time dredging of 30,000 cy of sediment from one deep draft channel; and between of 450,000 cy, and a potential maximum of 725,000 cy of sediment from three shallow draft channels and one associated "across the flats" channel, with depths ranging from minus six feet MLLW to minus nine feet MLLW. Conduct two "sea trials" to calibrate recently repaired hopper dredges with dredging of up to 12,000 cy of sediment.

Dispose of between 7.46 million cy and 17.6 million cy of sediment at in-Bay disposal sites over four years, and/or beneficially reuse between 560,000 cy and 4.64 million cy over four years. Up to 1.23 million cy would be disposed of at the San Francisco Deep Ocean Disposal Site.

Location:	In the Bay and Certain Waterways, at Oakland Harbor, Richmond Inner Harbor, Richmond Outer Harbor, Redwood City Harbor, Pinole Shoal, Suisun Channel, and San Bruno Shoal federal deep water navigation channels; at San Rafael Creek, Petaluma River, Petaluma River Across the Flats, and Upper and Lower Napa River shallow draft federal navigation channels in Alameda, Contra Costa, San Mateo, Marin, Sonoma, Napa, and Solano counties. In the Bay, at the state and federally authorized Alcatraz, San Pablo, Carquinez Strait, and Suisun in-Bay disposal sites, in San Francisco, Marin, Napa, and Solano counties.
Application Filed Complete:	October 10, 2025
Deadline for Commission Action:	December 24, 2025, extension granted through January 16, 2026.
Staff Contact:	Brenda Goeden (415-352-3623; brenda.goeden@bcdc.ca.gov)

Project Overview

Background

As part of its Operations and Maintenance Program, the US Army Corps of Engineers (USACE) dredges federally authorized channels (federal channels) to ensure the Nation's harbors and waterways remain safe, reliable, and efficient for the transport of commercial, military, and recreation ships and boats. Annual dredging of the 7 deep water channels within the Bay provides safe navigation into the Ports of Richmond, Oakland, and Redwood City. Dredging of Suisun and Pinole Shoal channels provide safe passage for ships transporting crude and refined fuels to and from refineries, as well as cargo heading to the Ports of Sacramento and Stockton. The less frequently dredged shallow draft channels of San Rafael, Petaluma, Petaluma Across the Flats, and Napa waterways, similarly provide safe navigation for local, smaller scale commerce, and also provide access to recreational marinas and homeowner docks.

Regional Dredged Material Management Plan

In 2025, the USACE completed its 20-year Regional Dredged Material Management Plan (RDMMP) planning process in compliance with its engineering regulations. The RDMMP examines dredging fourteen federal navigation projects in San Francisco Bay (Bay) and the regional capacity for disposal and beneficial reuse of the sediment. As part of this process, the USACE and the San Francisco Bay Regional Water Quality Control Board (Water Board) completed a joint National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) review for the first ten years of the RDMMP implementation through an integrated Environmental Assessment

(EA) and Environmental Impact Report (EIR). The RDMMP includes a detailed assessment of dredging and dredged-material placement of five alternatives for federally authorized navigation channels within San Francisco Bay and the adjacent outer coast. As part of this process, the RDMMP established the "Federal Standard" for the program, a policy that identifies the least costly dredged material placement or disposal alternative or alternatives consistent with sound engineering practices that meets the environmental standards established by the Clean Water Act, Section 404(b)(1) evaluation process or ocean dumping criteria (33 CFR §335.7).

The five alternatives considered included:

1. No Action Alternative.
2. Diversion of sediment from the San Francisco Deep Ocean Disposal Site (SFDODS), increased in-Bay disposal, and beneficial reuse.
3. Regional optimization plan, increased hydraulic hopper dredging, increased in-Bay disposal, and increased beneficial reuse.
4. Cost-sharing opportunity, in which a local project sponsor provides a portion of the additional cost of beneficial reuse.
5. Maximization of beneficial reuse.

In addition to considering the Federal Standard, the USACE considered the direction of Congress in passing the Water Resources and Development Act of 2024, Section 1130, which set a national goal to ensure, to the greatest extent practicable, that not less than 70 percent by volume of dredged sediment be used beneficially. Through the RDMMP and environmental review, the USACE identified its preferred alternative to be the "regional optimization plan" alternative, but noted that the no action, diversion of sediment from SFDODS, and the regional optimization plan alternatives all met the Federal Standard. This is because the increased cost of alternatives two and three (regional optimization) were marginally more expensive than the no action alternative, they met the Federal Standard requirements, and therefore are included in its 2026-2029 dredging program. The USACE did not select alternatives four and five because they relied on funds from other sources and were more expensive than the no action alternative. It also noted that any of alternatives, one, two or three could be implemented, but proposed a phased approach including all three alternatives would begin in 2026, with alternative two, the ocean diversion alternative that increases in-Bay disposal. The proposed project includes the first four years of the RDMMP implementation.

Project Description

The USACE proposes to maintenance dredge up to 17.6 million cubic yards (cy) of sediment over 4 years, and potentially up to 4.99 million cy of sediment in any one year, from 6 deep draft channels, 4 shallow draft channels, and in two sea trials, as described in Table 1 below. The consistency determination concurrence request also described activities within the California Coastal Commission's jurisdiction, i.e., areas outside of the San Francisco Bay Conservation and Development Commission's (Commission/BCDC) jurisdiction, which staff did not include in this Staff Summary, however, they are shown in Figure 1.

The USACE also requested up to three emergency dredge episodes of less than 30,000 cy. However, the Commission's regulations define an emergency, as used in the McAteer-Petris Act, as "a sudden, expected situation that poses an immediate danger to life, health, property, or essential public services and demands action by the Commission more quickly than the Commission's normal permit procedures would allow." Because emergency situations cannot be predetermined, emergency dredge episodes are not included in this project description. Further, BCDC addressed all emergency dredging requests within the normal permitting and episode approval process in 2025. Additionally, the requests for emergency dredging activities this year were significantly more than 30,000 cy.

Table 1 describes the proposed USACE Operations and Maintenance Dredging Program for 2026-2029. The USACE has provided both an average and a maximum dredge volume for each channel based on a review of 20 years of historic dredging activities. Because the four-year dredging program implementation would be phased, it includes a range of equipment types, including clamshell, hydraulic hopper dredge, and pipeline dredge. It also includes multiple disposal or beneficial reuse sites that may be used, based on funding, availability, equipment availability, and impacts to listed species. The concept presented is that by increasing in-Bay disposal and increasing hydraulic dredging the program could sufficiently reduce costs such that some beneficial reuse could be included in the program at the Federal Standard, or as the least cost alternative for the full program, , for the first time in the history of USACE's Operations and Maintenance Dredging Program. It also would potentially reduce disposal of sediment at the deep ocean disposal site. The program as proposed does not include any additional funds that maybe available to the USACE through other sources or partnerships (see Staff Notes for further information). As currently proposed, the USACE would dispose of between 1.09 million cy and 4.99 million cy of sediment at in-Bay disposal sites annually. It would beneficially reuse between 140,000 cy and 1.16 million cy.

Figure 1. *Location of federal navigation channels, in-Bay disposal sites, and beneficial reuse sites within the USACE San Francisco District. Note that dredging and disposal outside of San Francisco Bay is outside of the Commission's jurisdiction and not considered.*

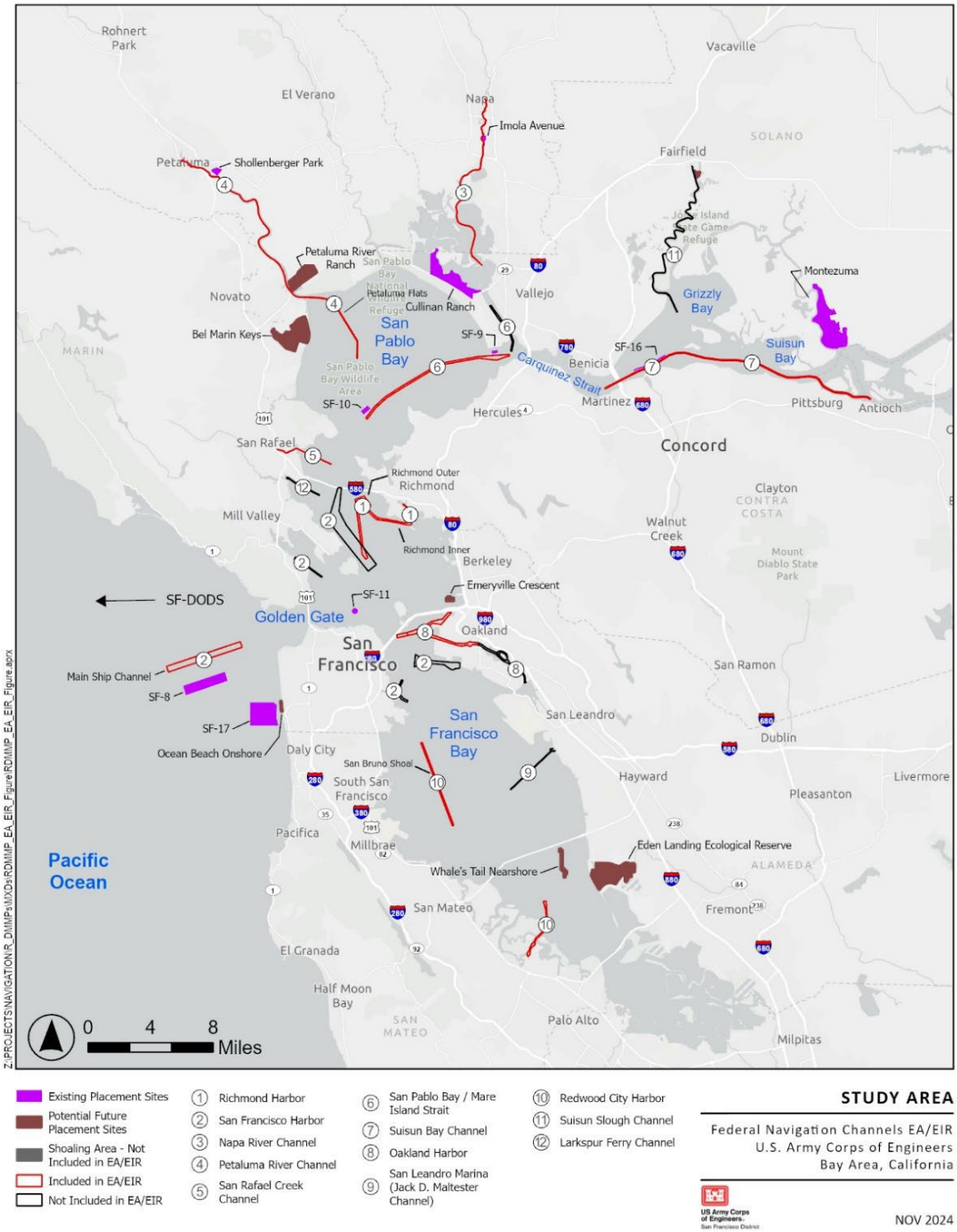

***Table 1**. Proposed federal navigation channel dredging, depths, disposal/beneficial reuse and equipment type proposed between 2026 and 2029. The Deep draft channels would be dredged annually, the shallow draft and miscellaneous channels would be dredged once in any year. The USACE does not intend to dredge all shallow draft channels or miscellaneous channels in the same year, but without further definition of when these would be dredged the total dredge volume provided is for any one year summing all channels.*

Project	Depth MLLW	Over Dredge	Average Volume cy	Maximum Volume cy	Equipment 2026/ 2027- 2029	Disposal or Reuse 2026	Disposal or Reuse 2027-29
Deep Draft Channels – Annual Dredging							
Oakland Harbor	-50 feet	2 feet	750,000	1,225,000	Clamshell/ Hydraulic	SFDODS	BRU & SF-11
Richmond Outer Harbor	-45 feet	2 feet	210,000	730,000	Hydraulic/ Clamshell	SF-10/SF-11	SF-10/SF-11
Richmond Inner Harbor	-38 feet	2 feet	300,000	630,000	Clamshell/ Hydraulic	SF-11 & BRU	SF-11
Pinole Shoal	-35 feet	2 feet	150,000	560,000	Hydraulic/ Clamshell	SF-9/SF-10	SF-9/SF-10
Suisun Channel	-35 feet	2 feet	165,000	425,000	Clamshell/ Clamshell	SF-16/SF-9	SF-16 & BRU
Redwood City Harbor	-30 feet	2 feet	180,000	650,000	Clamshell/ Clamshell	SF-11	SF-11
Shallow Draft Channels – 1 per four-year authorization period							
San Rafael Creek	-6 feet	2 feet	110,000	280,000	Clamshell/ Clamshell	SF-10/SF-11	SF-10/SF-11
Petaluma River	-8 feet	2 feet	150,000	210,000	Hydraulic/ Clamshell	Upland/BRU	Upland/BRU
Petaluma Across the Flats	-8 feet	2 feet	70,000	70,000	Clamshell/ Clamshell	SF-10	SF-10
Upper and Lower Napa River	-9 feet	1 foot	110,000	165,000	Hydraulic/ Hydraulic	Upland/BRU	Upland/BRU
Miscellaneous							
Sea Trial 2 times			12,000	12,000	Hydraulic	SF-10/SF-11	SF-10/SF-11
San Bruno Shoal (as needed)	-30 feet	2 feet	30,000	30,000	Hydraulic/ Clamshell	SF-11	SF-11
Total			**2.237 M**	**4.987 M**			

SF-9 = Carquinez Strait in-Bay disposal site
SF-10 = San Pablo Bay in-Bay disposal site
SF-11 = Alcatraz in-Bay disposal site
SF-16 = Suisun Channel in-Bay disposal Site
SFDODS = San Francisco Deep Ocean disposal site
BRU = likely wetland restoration site
Upland = local project sponsor provided upland disposal site (not BRU)

***Table 2**. Proposed volumes of sediment for disposal or beneficial reuse of **deep draft channels** between 2026 and 2029.*

Site	2026 Average Volume cy (percentage)	2026 Maximum Volume cy (percentage)	2027 - 2029 Average Volume cy (percentage)	2027 - 2029 Maximum Volume cy (percentage)
In-Bay Disposal	865,000 (49%)	2,698,900 (64%)	1,114,500 (64%)	3,065,000 (73%)
Deep Ocean Disposal	750,000 (43%)	1,225,000 (29%)	0 (0%)	0 (0%)
Upland Disposal	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Beneficial Reuse	140,000 (8%)	296,100 (7%)	640,500 (36%)	1,155,000 (27%)
Total	**1,755,000**	**4,220,000**	**1,755,000**	**4,220,000**

***Table 3**. Proposed volumes of sediment for disposal or beneficial reuse from **shallow draft** channels between 2026 and 2029. As noted, these channels would only be dredged once over four years.*

Site	2026 Average Volume cy (percentage)	2026 Maximum Volume cy (percentage)	2027 - 2029 Average Volume cy (percentage)	2027 - 2029 Maximum Volume cy (percentage)
In-Bay Disposal	180,000 (41%)	350,000 (48%)	180,000 (41%)	350,000 (48%)
Deep Ocean Disposal	0 (0%)	0 (%)	0 (0%)	0 (0%)
Upland Disposal	260,000 (59%)	375,000 (52%)	260,000 (59%)	375,000 (52%)
Beneficial Reuse	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	**440,000**	**725,000**	**440,000**	**725,000**

1 – San Rafael Creek, 2 – Napa River, 3 – Petaluma River, 4 – Petaluma Across the Flats

***Table 4**. Proposed volumes of sediment for disposal or beneficial reuse from all channels (including San Bruno and the sea trials) between 2026 and 2029, noting all shallow draft channels would not be dredged in one year.*

Site	2026 Average Volume cy (percentage)	2026 Maximum Volume cy (percentage)	2027 - 2029 Average Volume cy (percentage)	2027 - 2029 Maximum Volume cy (percentage)
In-Bay Disposal	1,087,00 (49%)	3,090,900 (62%)	1,336,500 (60%)	3,457,000 (69%)
Deep Ocean Disposal	750,000 (34%)	1,225,000 (25%)	0 (0%)	0 (0%)
Upland Disposal	260,000 (12%)	375,000 (8%)	260,000 (12%)	375,000 (8%)
Beneficial Reuse	140,000 (6%)	296,100 (6%)	640,500 (29%)	1,155,000 (23%)
Total	**2,237,000**	**4,987,000**	**2,237,000**	**4,987,000**

Bay Fill

Sediment is a natural part of the Bay system, moving throughout the Bay and settling into different parts of the Bay as it travels with water. It is also a key feature of intertidal and subtidal habitats as it serves as both shelter and forage areas for fish and wildlife. When a project dredges sediment from within a channel, it extracts the sediment and moves it to a new location. It is also more erosive and more likely to move than sediment in its natural state. When disposed of in the Bay, the McAteer Petris Act and Bay Plan policies dredged sediment as fill.

The proposed project would potentially result in between 1.09 million cy to 3.46 million cubic yards of net Bay fill annually, or a total of between 7.46 million cy and 17.61 million cy over four years. The project would distribute fill at four state- and federally-authorized multi-user in-Bay disposal sites, including within Suisun Channel, at Carquinez Strait, in San Pablo Bay, and adjacent to Alcatraz Island in varying amounts annually for four years.

Natural Resources

Dredging and dredged sediment disposal directly affects the natural resources of the Bay through water quality impacts (increased turbidity, water chemistry), sediment removal (loss of habitat), wildlife impacts (removal through incidental capture and entrainment, burial, noise, loss of prey, respiration, etc.,). As described, the proposed dredging program would impact native and listed species, particularly fish and invertebrates, that other species rely on, as well as their associated habitat.

Clamshell dredging, involves lowering an open clamshell dredge head from a crane through the water rapidly until it hits the bottom, sinks into dredged sediment, and is closed (see Figure 2). The full or partially full clamshell is then raised through the water, and sediment is placed in a disposal scow, where it is then transported to an aquatic disposal site, or beneficially reused. It is generally understood that while traveling through the water, a pressure wave is formed which displaces some water and fish. Fish and invertebrates that live on the bottom may hunker down, while others may swim away when the dredge head descends. Fish and invertebrates that remain, or are living within the sediment are likely removed and loaded into the scow with the sediment.

Hydraulic hopper dredges use a suction head attached to a drag arm mounted on the side of the vessel (See Figure 3). A large pump pulls in water from the Bay and creates suction which pulls sediment and water into the head. The sediment and water are transported through the pipe into the ship's hold until it is filled. Once filled, the ship stops dredging and travels to an aquatic disposal site where the hull opens and disposes of the sediment. Some hopper dredges are equipped with offloading equipment that can be used to place dredged sediment at a beneficial reuse site, but neither of the USACE dredges have this offloading equipment. Entrainment of fish and invertebrates is generally considered greater when using a hydraulic dredge than a clamshell due to the suction forces of the dredge head and water intake pipes.

The USACE sometimes uses cutterhead hydraulic dredges in smaller channels of the Bay, and differ in the dredge head. Cutterheads have a rotating dredge head that is inserted into the sediment and pump water and sediment while dredging (See Figure 4). These dredges have been used primarily in smaller river channels, but larger cutterhead dredges could be used in deepwater channels. In most cases, water and sediment are pumped through a pipeline to an upland disposal or beneficial reuse site. Due to the use of a pipeline, the disposal or placement site needs to be nearby and have the ability to manage the large quantity of water entrained with this type of dredge. Like hydraulic hopper dredges, cutterhead dredges entrain fish and invertebrates through the water intake pipe and the dredge head.

***Figure 2**. Typical clamshell dredge*

***Figure 3**. Typical hydraulic dredge head*

***Figure 4**. Small cutterhead, pipeline dredge*

For the 2026-2029 Dredging Program, the USACE proposes to increase hydraulic hopper dredging from 1 federal channel per year to potentially 7 channels, though the actual number of channels that would use a hydraulic dredge is dependent on equipment availability, contracting, and schedule. The potential increase in hydraulic dredging would result in increased entrainment of native and listed species of all life stages.

As explained in the USACE/Water Board Environmental Assessment/Environmental Impact Report,

> "Fish are believed to be more susceptible to entrainment from hydraulic (i.e., hopper and cutterhead-pipeline) dredging than mechanical (i.e., clamshell) dredging (USACE and USEPA 2024). Under mechanical dredging, pressure waves caused as the dredge is dropped and lifted help push the fish away from the dredge, whereas hydraulic dredges pull the fish towards the dredge. Additionally, less water is removed during mechanical dredging. Demersal fish and crustaceans that live on the bottom are at higher risk of entrainment from both methods. Entrained fish likely would suffer direct injuries that may result in mortality. Green and white sturgeon are also at risk of entrainment, though research into how sturgeon are affected by dredging operations is limited (Balazik and Clarke 2024). Entrained crustaceans that may survive would be transported and released with dredged material, which could be in upland locations, or habitats that are less suitable to support the species."

As described, hydraulic dredges have a greater potential to entrain fish and invertebrates in adult form, and from the water column at earlier life stages including eggs, larval, juveniles due to the intake of large volumes of water along with the dredged sediment. The USACE has conducted limited monitoring of its use of the *Essayons*, its federal dredge, but has not monitored the entrainment of early life stage of fish and invertebrates. The USACE monitoring document the entrainment of listed salmonids, longfin and Delta smelt, managed fisheries species including anchovies, halibut, sturgeon, rockfish, a variety of flatfish, small sharks (spiny dogfish), commercially important herring and Dungeness crab, and other native fish and invertebrate species not noted in the review due to lack of status in federal programming. In addition to direct effect on Bay species through entrainment, removal, burial, etc., indirect effects include impacts to respiration, loss of prey resources, and potential increased predation, etc.

In-Bay disposal impacts fish and invertebrates living on or near the bottom of the disposal site through burial, temporary increases in suspended sediment, and temporary decreases in dissolved oxygen. The water quality impacts, although temporary, affect breathing, foraging, and predation, and can cause fish and other wildlife to leave the area.

Upland or beneficial use site placement has minimal impacts to aquatic species as these sites are designed to receive sediment and are being restored to habitat over time. However, decant water is sometimes discharged from these sites to the Bay, but impacts to water quality are usually further reduced when the activity occurs in accordance with water quality requirements. Ocean disposal has similar effects to in-Bay disposal, but disposal occurs at a much deeper and larger site. Monitoring of the deep ocean disposal site has shown that although there may be temporary turbidity and burial impacts, recolonization of the site by invertebrates does occur and no significant reduction of habitat or species richness and diversity has been identified through regular monitoring.

Mitigation for Impacts

The USACE provided minimization measures and mitigation for impacts to listed species, particularly Delta and longfin smelt, as part of the proposed project. The USACE commits to working within the environmental work windows implemented through the LTMS Program (see Staff Notes for description of program). In the event that it is not feasible to dredge during the environmental work windows, the USACE would take the sediment dredged outside of the work windows to a beneficial reuse project that would provide fish habitat per NOAA's National Marine Fisheries Service (NMFS) LTMS Amended Programmatic Biological Opinion (2015). In the event that a project that is unplanned extends beyond the work windows, the USACE would take an equivalent volume of sediment to a beneficial reuse site the following year. It is important to note that while the USACE has regularly committed to dredging within the environmental work windows in its consistency determinations, dredging outside the work window has been a regular occurrence in recent years and the USACE has mitigated for this work at a 1:1 ratio of cubic yards of dredged sediment to beneficial reuse.

Regarding impacts specific to hydraulic dredging the USACE has committed to using a formula developed with the Water Board to determine a volume of sediment that would be beneficially reused at a wetland restoration project from another project that same year to provide fish habitat benefits to offset the entrainment of listed species. The volume calculation provides fairly limited sediment for beneficial reuse and is reliant on other projects to complete habitat restoration. The USACE also included the potential option to purchase mitigation credit should a suitable mitigation bank become available. The USACE included other minimization measures in its proposed program related to when it starts pumps, how it clears clogs, and timing of hydraulic dredging.

While the USACE's consistency determination commits to complying with the LTMS Programmatic Biological Opinions, these opinions were completed prior to the completion of the USACE's Regional Dredged Material Management Plan, and its selection of phasing in of the regional optimization program that meets the Federal Standard. Because of the no action alternative and past dredging practices, i.e., use of a hydraulic dredge in only one federal channel, the LTMS Programmatic Biological Opinions may not fully address the change to more in-Bay disposal than the LTMS Management Plan provides and more hydraulic dredging that the USACE proposes. To address this issue, the USACE has committed to initiating consultation with US Fish and Wildlife Service (USFWS) and NMFS specific to the RDMMP. Those opinions are not

available for this consistency determination, but the USACE would abide by the terms and conditions of the individual biological opinions when they are complete.

The USACE has committed to continued testing of project sediment for dredging episodes so that it and the LTMS agencies can assess potential water quality or toxicity issues associated with the projects prior to dredging. It has also committed to continuing the entrainment monitoring during hydraulic dredging activities and providing those reports annually. Lastly, where dredging may occur near eelgrass beds, it has committed to continuing light monitoring and reporting on the findings of the monitoring for Commission review.

Environmental Justice and Social Equity

1. NEPA/CEQA Process

   The USACE and the Water Board conducted a joint NEPA/CEQA review, and through that process notified intersted parties of the notice of preparation, to solicit comments on the draft Environmental Assessment/Environmental Impact Report (DEA/EIR). Through this process, the USACE and Water Board noticed twelve federal agencies and organizations, thirty state and local governments. Fifteen representatives of agencies and organizations attended the public meeting and 11 public comment letters/emails were received on the draft document.

2. Tribal Consultation

   In accordance with Federal and State policies on Tribal Engagement, the USACE and the Water Board intitiated a tribal consultation and met with representatives from the Federated Indians of Graton Rancheria, focusing on identification and ways to address potential inadvertant impacts on Tribal Cultural Resources. The Confederated Villages of Lisjan and the Amah Mutsun Tribal Band also provided comments. The Tribal consultation process is still active, because there was a a finding of potential effect to cultural resources during environmental review. In March 2024, the USACE and the Water Board conducted a search of Sacred Land files, and found that there is the potential presence of cultural resources; therefore the contacted 60 additional Tribes. Outreach and consultation with these Tribes continues.

3. Social and Environmental Justice Community Outreach

   The USACE evaluation of potential impacts to socially or environmentally vulnerable communities, churches, and faith-based groups from its maintenance dredging program used the Commission's Community Vulnerability Tool with a 1.5 mile buffer surrounding the proposed channel dredging projects. This analysis identified approximatly 743 Census block groups that are considered moderate to the highest social vulnerability scores within the 1.5 mile buffer. West Oakland, southeast Richmond, Pittsburg, and Antioch were identifed as the most socially vulernable. According to the USACE, the preliminary concerns include air and water quality impacts, water contact recreation, and fishing.

According to the NEPA and CEQA analysis, the impacts on air quality and greenhouse gases are not significant. Similarly, the potential impacts to water quality from increased suspended sediment are considered temporary, and contaminated sediment would be strictly regulated through testing. The remaining concern is the potential impacts on Bay fish resources, particularly via the increased use of hydraulic dredges. The NEPA document states that this impact would be less than significant after minimization measures, such as work windows that protect listed species, would be incorporated.

The environmental justice analysis did not include a discussion of beneficial reuse of the dredged sediment at wetland restoration projects, particularly any that border environmental justice communities. As discussed above, wetland restoration projects using dredged sediment could provide flood water absorption, storm surge reduction, water quality improvements, wildlife habitat, and opportunities for nature study and recreation. The two wetland restoration projects identified as potential beneficial reuse sites, Montezuma Wetlands and Cullinan Ranch, have nearby communities that fish in the Bay's waters or recreate along the shoreline, but no housing is immediately adjacent to these sites.

In conducting its environmental and social justice outreach, the USACE describes in its NEPA document inviting approximately 110 community and faith based organizations to a virtual public meeting on October 15, 2024 to provide information about the maintenance dredging program and the upcoming NEPA/CEQA process. Thirteen entities registered for the meeting, but only San Francisco Baykeeper, Acterra, San Francisco Bay Conservation and Development Commission, and Contra Costa Resource Conservation District representatives attended. USACE conducted several one-on-one meetings with community groups.

Schedule and Cost

Dredging would begin as early as June 1, 2026 and would continue through the dredging season each year (June 1 to November 30, unless time extensions were issued) and would occur similarly each year through November 30, 2029. Disposal and beneficial reuse of the dredged sediment would occur concurrently.

The estimated total project cost is approximately $288 million.

Issues Raised

In accordance with the Coastal Zone Management Act and its implementing regulations, the USACE has requested that the Commission concur with the USACE's determination that its proposed 2026 – 2029 maintenance dredging program is consistent to the maximum extent practicable with the Commission's federally approved Coastal Zone Management Program for San Francisco Bay. In its proposal, the USACE includes in-Bay disposal volumes that may require the Commission to consider allocations. It also proposes to increase hydraulic dredging to

7 channels which would entrain native and listed species, impacting Bay Resources. The staff believes the primary issues raised by the USACE's proposed program are:

1. Whether the USACE's proposed program is consistent with the Commission's San Francisco Bay Plan Natural Resources policies including, Fish, Other Aquatic Organisms, Wildlife, Water Quality, and Subtidal Areas Policies; and
2. Whether the USACE's proposed program is consistent with the Commission's Bay Plan Dredging, and Mitigation, and otherwise with the Commission's Environmental Justice and Social Equity Policies.

Staff Notes

The staff notes the following considerations for the Commission:

LTMS Program

The Commission is an implementing partner of the *Long Term Management Strategy for Placement of Dredged Material in the Bay Area* (LTMS) Management Plan, which seeks to maximize beneficial reuse of dredged sediment and minimize in-Bay disposal. The LTMS program has been responsible for over 31 million cubic yards of sediment being reused at multiple wetland restoration projects in the region. It has also led to the protection of listed species through environmental work window, and improved permitting for dredging projects.

The LTMS Management Plan established an in-Bay disposal target volume of 1.25 million cubic yards per year for all dredging projects combined and averaged every three years. 250,000 cy of this volume is reserved for the small dredging community. Large and medium size dredging projects, including the USACE's project, share the remaining 1 million cy target of in-Bay disposal capacity. This target volume is incorporated into the *San Francisco Bay Plan*, Dredging Policy 1, which briefly describes the program, states that dredgers should reduce disposal to achieve the LTMS goal of limiting in-Bay disposal volumes to a maximum of one million cubic yards per year, and notes when the LTMS agencies should consider allocations of in-Bay disposal volumes.

Together, the LTMS agencies managed the dredging, disposal, and beneficial reuse of dredging activities across approximately 120 dredging projects, with between 30 – 45 projects dredging each year, most of which also use the in-Bay disposal sites. The overarching in-Bay disposal target volume is managed by the LTMS Program Managers who review and approve alternative disposal site analyses submitted by project proponents, tally the annual volumes, and average the volumes within each three-year period. They also determine when it is appropriate to implement an additional 250,000 cy contingency volume for unusual dredge years. In instances when it has appeared the averaged overarching in-Bay disposal target volume may be exceeded, the LTMS Program Managers work together with the community to redirect some in-Bay disposal to beneficial reuse or other disposal options.

In addition to the overarching in-Bay disposal target volume, the four in-Bay disposal sites have monthly or annual limits, that are managed by the Dredged Material Management Office (DMMO) to ensure that the individual disposal site limits are complied with. By carefully managing in-Bay sediment disposal, there has not been significant mounding at the in-Bay disposal sites, nor have concerns been raised regarding impacts to fisheries or water quality since the implementation of the LTMS Management Plan.

As described by the USACE, its proposed program exceeds the in-Bay disposal target volume of 1 million cubic yards each year. However, because the USACE has provided average and maximum volumes for each channel and potential disposal or beneficial reuse sites, and the amount of sedimentation that will occur is unknown, the in-Bay disposal target volume limit may not be exceeded. Further, through the LTMS Management Plan, the LTMS agencies average the in-Bay disposal volumes every three years to determine if target limit has been exceeded. Similarly, the amount of funding that would be available each year for beneficial reuse is unknown at this time.

The proposed project provides maximum flexibility for the USACE to implement its program within its Federal Standard, including implementation of the No Action Alternative and phasing in of the Regional Optimization Plan. As described, the USACE would work to reduce deep ocean disposal, increase beneficial reuse, increase in-Bay disposal to balance costs consistent with the Federal Standard. The USACE through its regional optimization plan would also increase hydraulic dredging to as many as 7 channels, increase beneficial reuse, and in-Bay disposal, also to be consistent with the Federal Standard. If the program is executed as proposed, the in-Bay disposal volumes would be significant, and possibly create the need for the Commission to consider initiating a process to develop disposal allocations on a project-by-project basis as described in the Commission's regulations. In its request, the USACE has committed to continue to work with the LTMS program and its partner agencies to maximize beneficial reuse and balance the need for in-Bay disposal by others but has acknowledged that fully executing its proposed plan may require consideration of allocations.

In its proposal, the USACE does not include potential partners or additional funding that may be available and provided to support additional beneficial reuse and further reduce in-Bay disposal. USACE has committed to using these funds to increase beneficial use whenever it is available, however since they rely on external funding USACE cannot guarantee their availability.

BCDC v. USACE Litigation Concerning Prior USACE Dredging Program Consistency Determination Lawsuit

In 2016, the Commission filed a lawsuit against the USACE in federal court to challenge the USACE's refusal to comply with certain conditions imposed by the Commission in its conditional concurrence with the USACE's consistency determination for its 2015-2019 operation and maintenance dredging program. The contested conditions required the USACE, commencing in 2017, to: (1) beneficially reuse a minimum of 40% of dredged sediment and dispose of a maximum of 20% of dredged sediment in the Bay (the beneficial reuse condition); and (2)

reduce the use of hydraulic dredging equipment to only one north-Bay channel – either Richmond Outer Harbor or Pinole Shoal - per year to minimize the killing of delta smelt and longfin smelt (the reduced hydraulic dredging condition).

In brief, the district court concluded that the Bay Plan's dredging policies relied on by the Commission do not embody a percentage requirement for beneficial reuse that may be enforced against the USACE under BCDC's CZMA authority and, therefore, the USACE was not obligated to demonstrate consistency with the beneficial reuse condition. With respect to the reduced hydraulic dredging condition, the district court found that a decision made by the USACE in 2017 - after the litigation was filed - to reduce hydraulic dredging by dredging only one of the Richmond or Pinole channels each year in alternating fashion, rather than dredging both channels each year, met the letter of that condition. Based on its resolution of these and other issues, the district court entered judgment for the USACE. The Ninth Circuit affirmed the district court's decision.

Water Resources Development Act (WRDA) and Funding

The work conducted by the USACE is guided by federal law and policy. The WRDA is of particular importance as it is regularly updated with new directives based on Congressional authorization. Once a policy is authorized in WRDA, the USACE headquarters often drafts guidance documents to further refine the new policy and distribute it to its Divisions and Districts for implementation. For projects or programs that require funding, Congress must follow the authorization of WRDA with appropriations prior to implementation of new authorities or programs.

WRDAs 2016, 2020, and 2024 are of special interest for this project. WRDA 2016 authorized 10 pilot projects in the nation to demonstrate ways to increase beneficial reuse of sediment from federal navigation channels. The USACE SF District, through efforts of the State Coastal Conservancy (SCC) and the Commission, was selected as one of those ten pilot projects. The pilot project included beneficially reusing sediment from four federal navigation projects for wetland restoration projects in the Bay, along with a near shore sediment placement pilot project. Eventually, the USACE was awarded $28 million of the $51 million requested. This funding allowed the nearshore placement project to be implemented, in 2023 and over 4.5 million cubic yards to be beneficially reused to date. While those funds have been largely expended, $23 million remains authorized but not yet appropriated for beneficial reuse.

WRDA 2020, Section 125 included new pathways for beneficial reuse. Section 125 (a) and (d) established a national policy to maximize beneficial reuse of sediment obtained from USACE projects, required calculation of both economic and environmental benefits of beneficial reuse when developing the Federal Standard emphasized greater coordination across dredging contracts, and made clear that additional costs above the Federal Standard be funded through available construction or operations maintenance funds. Section 125(b) increased the number of national pilot projects from 10 to 35. Section 125(c) required the development of 20-year RDMMP and that they be updated every five years. The guidance documents for Section 125(c) also provided for cost share opportunities with partnerships at a reduced ratio of 65% federal

to 35% non-federal partnership rather than the partner paying 100% of the incremental cost of beneficial reuse.

WRDA 2024, Section 1130 changed WRDA 2016, Section 1122 to remove the pilot project status of beneficial reuse and create a national policy. It further amended WRDA 2020 Section 125(a) stating that it is the policy and national goal to ensure that not less than 70% suitable sediment dredged from construction or operations and maintenance projects be beneficially used. Guidance for the revised national policy has not yet been published.

Together these amendments to USACE national policy on beneficial reuse provide strong impetus for the USACE San Francisco District to continue to maximize beneficial reuse through its program, so long as projects are consistent with the Federal Standard, have federal funding, or partnerships that can provide additional funding.

State Coastal Conservancy Funding

In 2025, the US Environmental Protection Agency (EPA) approved a San Francisco Bay Program Grant to the State Coastal Conservancy (SCC) to support beneficial reuse of dredged sediment from the federal navigation channels. Under this grant, the EPA requires a 25% match from the state. $12 million of federal funds were provided, and the SCC would provide a $4 million match using Proposition 4 funding. Once the Water Board certifies the Environmental Impact Report for the RDMMP, the SCC would bring the grant before its board for approval, and if approved, the funds should be available in 2026. The USACE and the SCC would enter into a memorandum of understanding to contribute and receive funds, at which point the funds would be available to support the additional cost of beneficial reuse of sediment from the federal channels.

Review Boards

The proposed project was not reviewed by the Design Review Board or the Engineering Criteria Review Board, as the project does not raise significant public access design issues or involve significant safety of fills concerns.

Applicable Laws and Policies

The following laws and policies are applicable in the Commission's review of the proposed project:

- Coastal Zone Management Act Section 307(c)
- Code of Federal Regulations Sections: 16 USC Section 307(c), 15 CFR 930.32(a), 15 CFR 930.34(b), 15 CFR 930.39(a), 33 CFR 304(1)
- McAteer-Petris Act Sections: 66604, 66605, 66632, 66663, and 66664
- *San Francisco Bay Plan* policies on: Fish, Other Aquatic Organisms and Wildlife, Water Quality, Tidal Marshes and Tidal Flats, Subtidal Areas, Dredging, Mitigation, Public Trust, and Navigational Safety and Oil Spill Prevention

- Suisun Marsh Preservation Act Sections: 29002, 29003, Section 29008, 29114, 29500
- *Suisun Marsh Protection Plan* policies on: the Environment, Water Supply and Quality, and Utilities, Facilities, and Transportation