

San Francisco Bay Conservation and Development Commission

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TO: Commissioners and Alternates

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SUBJECT: **Staff Report and Recommendation for initiation of a proposed San Francisco Bay Plan (Bay Plan) Amendment No. 1-26, an amendment of various sections of the Bay Plan to address beneficial reuse of sediment and soil for wetland restoration and rising sea level adaptation.**
(For Commission consideration on May 7, 2026)

Staff Recommendation

The San Francisco Conservation and Development Commission (Commission) staff recommends that the Commission:

1. Adopt the attached “Descriptive Notice” to initiate the process to consider an amendment to the San Francisco Bay Plan to address beneficial reuse of dredged sediment and upland soil for wetland restoration and sea level rise adaptation; and
2. Schedule a public hearing to consider the proposed amendment.

Staff Report

I. Background

Wetlands are vital natural infrastructure; they provide habitat, support plants and animals, improve air and water quality, offer recreational opportunities, and protect shoreline communities by absorbing wave energy and floodwaters. Sediment underpins these functions by providing the base of the habitat, cycling nutrients, and sustaining the food web; without enough of it, wetlands cannot survive. Although more than 500,000 acres of tidal wetlands once rimmed the Bay, post-colonial human interventions – including mining, deforestation, diking, dams, levees, aqueducts, dredging, draining, filling, waterfowl hunting, and salt production – have destroyed or submerged an estimated 85-95 percent. This loss has increased the region’s vulnerability to flooding. As sea level rises at an accelerated rate, risks to public safety, infrastructure, wildlife, recreation, and the economy will increase. Current science indicates wetlands cannot persist under natural sediment supply and current management practices. Existing wetlands and those already planned to be restored will require more than 450 million



cubic yards of sediment by 2100.¹ To meet these needs, staff are recommending that the Commission vote to initiate the process of amending the San Francisco Bay Plan to increase beneficial reuse of sediment and soil for restoration and adaptation of the Bay's wetland habitats. Beneficial reuse is the treatment of sediment and soil as valuable resources that are necessary for habitat restoration and shoreline adaptation to sea level rise, instead of as waste products to be disposed of.

Beneficial Reuse in the Bay Area

Since the late 1980's, resource managers have been working to increase beneficial reuse of dredged sediment from navigation channels for habitat restoration, levee maintenance and other purposes. The Long-Term Management Strategy for the Placement of Dredged Material in the Bay Region (LTMS) was established in 2001 and set goals to reduce in-Bay disposal and maximize beneficial reuse of sediment. Under the LTMS, over 31 million cubic yards of sediment have been beneficially reused at five landscape-scale restoration projects, one large subtidal habitat restoration project, and other projects. From 2000 to 2024, about 40% of the dredged sediment was beneficially reused, about 40% was disposed of at four in-Bay disposal sites, and about 20% was sent to the deep-ocean disposal site 50 miles west of San Francisco. In years when funding is available, beneficial reuse rises well above 40%.

In addition to sediment from navigation dredging, dredged sediment from the maintenance of streambeds and flood protection channels can be beneficially reused to restore habitat. Additionally, surplus upland construction soil can be beneficially reused and totals roughly half the volume of dredged sediment in the Bay Area.² Several projects have successfully restored wetlands through beneficial reuse of soil. For example, a significant volume of upland soil has been used as general fill at Bair Island and to create ecotone and flood protection levees for the South Bay Salt Pond Restoration Project and South San Francisco Bay Shoreline Project. However, the Bay Plan currently does not have clearly articulated policies to support beneficial reuse of sediment and soil from sources other than navigation dredging.

Bay Plan Policies Regarding Beneficial Reuse

The Bay Plan includes several findings and policies that support wetland restoration and govern dredging and beneficial reuse. The Commission approved a Bay Plan amendment in 2000 that provided the policy basis to implement the San Francisco Bay Long Term Management Strategy for Dredging (LTMS) and directed the Commission regarding when and how dredging and disposal activities should be conducted in the Bay. Policies adopted in 2000 required dredging to be conducted in an environmentally sound manner, limited in-Bay disposal, and encouraged beneficial reuse. However, they were adopted 11 years before the Commission incorporated

¹ *Sediment for Survival: A Strategy for the Resilience of Bay Wetlands in the Lower San Francisco Estuary*. San Francisco Estuary Institute (2021).

² *Ibid.*

Climate Change amendments into the Bay Plan in 2011. As a result, current science regarding the urgency of restoring wetlands to adapt to rising sea level was not incorporated into the Dredging policies related to beneficial reuse. In 2016, the Commission led a series of workshops to identify future priority Bay Plan amendments to further address climate change.

Strengthening the beneficial reuse requirements in the existing Dredging policies of the Bay Plan was identified as a priority future Bay Plan amendment.

In 2019, the Commission approved the Fill for Habitat Bay Plan Amendment (BPA 1-17), revising policies throughout the Bay Plan to allow more fill for habitat restoration. However, the amendment did not focus on updating findings and policies related to dredging and beneficial reuse.

Sediment for Wetland Adaptation Project (SWAP)

Funded by the U.S. Environmental Protection Agency (EPA) and the California Ocean Protection Council, staff began the Sediment for Wetland Adaptation Project in 2022 to investigate the management, funding, and policy challenges of restoring Bay wetlands through reuse of sediment and soil. In the SWAP's first of three phases, staff led stakeholder outreach including a two-day in-person workshop to identify priority actions to help the region maximize beneficial reuse. Staff then synthesized the feedback into 70 actions released the *San Francisco Bay Sediment and Soil Beneficial Reuse Action Plan for Wetland Restoration and Adaptation*³ (the *Action Plan*) in March 2025. The *Action Plan* offers nonbinding recommendations; implementation depends on the voluntary efforts of the Commission's many regional partners to lead individual actions.

Some *Action Plan* actions are to be led specifically by the Commission, including Phase 2 of the SWAP: assessing the San Francisco Bay Plan findings and policies regarding sediment supply and beneficial reuse to identify necessary improvements and propose amendments (Action Plan, Action 2.4.2), the basis for this proposed Bay Plan amendment.

Phase 3 of the SWAP will include the development of a financing strategy that captures the costs of sediment and soil reuse and considers how the region can meet the often-higher upfront cost of beneficial reuse.

To help direct the SWAP, staff regularly consult with the Sediment and Beneficial Reuse Commissioner Working Group, as well as a Core Team of representatives from the California State Coastal Conservancy (SCC), San Francisco Bay Joint Venture, EPA, San Francisco Bay Regional Water Quality Control Board (Water Board), and San Francisco Estuary Institute (SFEI).

The SWAP aligns with the Commission's Strategic Plan for 2023-2025 and specifically Strategy 1.4, to "Improve regional sediment management and increase the beneficial reuse of sediment to enhance, restore, and adapt ecosystems, particularly in light of rising sea levels."

³ https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/03/finalADA_Action-Plan_March-2025.pdf

Scope of the Proposed Bay Plan Amendment

Staff recommend that the Commission initiate the process to consider an amendment to the San Francisco Bay Plan to further address beneficial reuse of sediment and soil for wetland restoration and adaptation to rising sea level. Specifically, staff are considering Bay Plan amendments that would include the following:

1. Amend findings and policies to make beneficial reuse the priority for sediment and soil.

Existing policies focus on disposal outside of the Bay, reducing in-Bay disposal, and encouraging beneficial reuse. However, they are not sufficient to support the Bay's wetlands in the face of rising sea level. This amendment may include findings and policies that prioritize beneficial reuse as the preferred alternative compared to in-Bay and ocean disposal.

2. Incorporate findings to acknowledge sediment as a critical bay resource and a public trust resource.

The Bay Plan details the many benefits of habitat, wildlife, water surface area, and other Bay resources, but does not describe the benefits of sediment. To provide a framework for requiring more beneficial reuse, this Bay Plan amendment may describe the numerous ecosystem services derived from beneficial reuse of sediment and soil to create, restore, and adapt wetlands. Science about wetlands, restoration, dredging, upland construction, beneficial reuse, and climate change has significantly advanced since the dredging findings and policies were last updated. Amended findings may describe the region's need for sediment and soil, shortage of natural sediment supply, history of wetlands loss, restoration goals, and the Commission's support for innovative restoration methods and reconnecting creeks to marshes. The amendment may also describe how human activities impact the sediment system. Finally, the amendment may acknowledge that sediment is a public trust resource.

3. Amend findings and policies to address other sources of sediment and soil.

The existing dredging policies in the Bay Plan focus only on navigation dredging. However, additional sediment is available for beneficial reuse from the maintenance dredging of flood protection channels, streambeds, and creeks. Upland soils, stockpiles, dams, and reservoirs are usually outside of the Commission's jurisdiction, but they are nonetheless important parts of wetland creation, restoration, and adaptation, and their management often impacts the Bay downstream. Amended findings and policies would clarify the Commission's consideration of the placement of sediment and soil from sources other than dredging.

As part of the proposed Bay Plan amendment, the Commission would evaluate updating several sections throughout the Bay Plan, including the *Summary* and findings and policies in *Fish, Other Aquatic Organisms, and Wildlife; Water Surface Area and Volume; Tidal Marshes and Tidal Flats; Fresh Water Inflow; Dredging; and Public Trust*.

Outreach and Engagement

Commissioner Working Group

Throughout the life of the SWAP, the Sediment and Beneficial Reuse Commissioner Working Group (Working Group) has met 12 times since 2023. Working Group meetings are open to the public and well attended by various stakeholders. At Working Group meetings in 2023 and 2024, subject matter experts presented to the Working Group on topics such as the Bay sediment transport system, wetland restoration, beneficial reuse, and channel maintenance and construction projects as sources of beneficial reuse material. Staff presented draft concepts for the potential Bay Plan amendment to the Working Group in November 2025 and presented policy development progress to the Working Group in April 2026. Presentation slides from these meetings are available on the Commission's website.⁴

Core Team

To help direct the SWAP, Commission staff have held 19 meetings with a Core Team of representatives from the SCC, San Francisco Bay Joint Venture, EPA, Water Board, and SFEI.

Commission

Staff have briefed the Commission at various stages throughout the SWAP on the project, 2024 stakeholder workshop, and Action Plan.

Tribal engagement

Early engagement letters have been sent to 53 Bay Area Tribes to introduce the project and welcome early collaboration. Representatives from five tribes have expressed interest in discussing the project with staff. Staff will mail formal consultation letters to all 53 tribes following the Commission's initiation of the Bay Plan amendment process.

Additional Bay Plan amendment engagement

To foster robust public and Commissioner engagement with draft policies, the Commission plans to hold a policy development workshop at the Commission's office building in downtown San Francisco tentatively scheduled at the regularly scheduled Commission meeting on June 4, 2026. This will help inform staff's preliminary recommendation.

Staff have continued to engage with stakeholders about this potential amendment and will continue to meet with them throughout the process. Staff have met with the United States Army Corps of Engineers, with more meetings planned, and plans to meet with SCC, the Water Board, the LTMS Program Managers, and more.

Interested Parties

Throughout the SWAP, over 400 parties have expressed interest in receiving project updates by email. These interested parties have received and will continue to receive invitations to relevant Working Group meetings, Commission meetings, and opportunities to participate in policy development.

⁴ <https://www.bcdc.ca.gov/programs/sediment-management/sediment-for-wetland-adaptation/>

II. Commission Procedure

The process of amending the Bay Plan is set forth in the Commission's regulations. If adopted by the Commission, staff will circulate the attached draft descriptive notice to the public as required by the McAteer-Petris Act⁵ and the Commission's regulations.⁶ Following Commission approval of the descriptive notice, the Commission will hold at least one public hearing to discuss the potential amendment not less than 30 days following the mailing of the descriptive notice as adopted by the Commission.⁷ Staff will distribute a report with a preliminary recommendation for specific changes to the Bay Plan to all Commissioners, Alternates, and interested parties at least 30 days prior to that initial public hearing (tentatively planned for August 20, 2026).⁸ After the public hearing, staff will make any necessary revisions to the proposed Bay Plan amendment based on public and Commissioner input, and then send the revisions along with a final recommendation and a response to public comments to all Commissioners, Alternates, and interested parties at least six days prior to the scheduled Commission vote on the proposed amendment.⁹ Finally, the Commission will vote on the proposed amendment (tentatively scheduled for September 17, 2026).

⁵ Gov. Code § 66652.

⁶ 14 C.C.R. § 11002(d).

⁷ *Id.* § 11004(a).

⁸ *Id.* § 11003(a).

⁹ *Id.* § 11005(b), (c).