

San Francisco Bay Conservation and Development Commission

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September 11, 2026

TO: Commissioners and Alternates

FROM: Larry Goldzband, Executive Director (larry.goldzband@bcdc.ca.gov)
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SUBJECT: **Staff Report and Preliminary Recommendation for Proposed Bay Plan Amendment No. 1-26 to Address Beneficial Reuse of Sediment and Soil for Wetland Restoration and Rising Sea Level Adaptation**
(For Commission consideration on October 15, 2026)

Preliminary Staff Recommendation

Staff preliminarily recommends that the Commission (as described in Appendix 1):

- In the San Francisco Bay Plan *Part I – Summary* section:
 - Amend *Major Conclusions and Policies* 4(g) and 8.
 - Amend *Major Plan Proposals* 1, 2, and 6.
- In the San Francisco Bay Plan *Part III – The Bay as a Resource* section:
 - Amend *Fish, Other Aquatic Organisms and Wildlife* Findings K and L.
 - Add *Fish, Other Aquatic Organisms and Wildlife* Finding M.
 - Add Water Surface Area and Volume Finding E.
 - Amend Tidal Marshes and Tidal Flats Finding P and Policy 6.
 - Rename *Fresh Water Inflow* section to *Fresh Water and Sediment Flow*.
 - Amend *Fresh Water and Sediment Flow* Findings A, B, D, E, F, and Policy 1.
 - Add *Fresh Water and Sediment Flow* Findings E, G, I, J, and Policy 4.
- In the San Francisco Bay Plan *Part IV – Development of the Bay and Shoreline* section:
 - Rename *Dredging* section title to *Sediment Management*.
 - Remove *Dredging* Findings A-W and Policies 1, 5, 6, 8, and 11.
 - Amend *Dredging* Policies 2-4, 7, 9-10, and 12
(now proposed *Sediment Management* Policies 2-3, 9-13, and 17).
 - Add *Sediment Management* Findings A-Y and Policies 1, 4-8, 14-16.
 - Amend *Public Trust* Findings C and F,
 - Add *Public Trust* Findings G-K and Policy 2.
- Make necessary findings that this amendment to the San Francisco Bay Plan conforms to all applicable findings and declarations of policies in the McAteer-Petris Act.
- Make necessary findings regarding environmental impacts outlined in the Environmental Assessment.

An affirmative vote of two-thirds of the Commission membership (18 members) is required to amend the San Francisco Bay Plan.



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Staff Report

I. Executive Summary

On May 7, 2026, the Commission voted to initiate San Francisco Bay Plan Amendment No. 1-26 (BPA 1-26) to address beneficial reuse of sediment and soil for wetland restoration and adaptation to rising sea level. This staff report provides the preliminary staff recommendation, as well as contextual information and analysis, to support the Commission's consideration of BPA 1-26.

Sediment is dredged from the San Francisco Bay to accommodate shipping lanes, boat traffic, stormwater management, and to support other critical drivers for the Bay Area economy. Historically, that sediment would be dumped in specific designated sites in the Bay, or more recently dumped in the Deep Ocean Disposal site 55 miles offshore from San Francisco. For over thirty years, there has been a movement by Bay Area resource managers to use dredged sediment to restore wetlands. These efforts have been successful, and today there is broad consensus among the dredging and resource communities that beneficial reuse is a regional priority.

However, more sediment is needed to continue wetland restoration efforts and adapt habitat to sea level rise. Current science indicates wetlands and mudflats cannot persist under natural sediment supply and current management practices. Existing wetlands, and those already planned for restoration, will require more than 450 million cubic yards of sediment and soil by 2100, or the volume of almost 700 Salesforce Towers (Dusterhoff et al., 2021). Beneficial reuse of sediment and soil can help meet this need by treating sediment and soil as valuable resources that are necessary for habitat restoration, rather than as waste products for disposal. Wetland restoration is an important adaptation measure to protect communities from rising sea levels and storms. Current findings and policies in the San Francisco Bay Plan (Bay Plan) do not sufficiently prioritize beneficial reuse of sediment in wetland restoration, do not provide clear enforceable standards to evaluate projects and potentially require beneficial reuse, and are not based on current best practices for sediment management.

The preliminary staff recommendation included in this Staff Report is the result of a three-year process funded by the United States Environmental Protection Agency and the California Ocean Protection Council called the Sediment for Wetland Adaptation Project (SWAP) and advances actions identified in the regional *Sediment and Soil Beneficial Reuse Action Plan for Wetland Restoration and Adaptation* (Action Plan) published by BCDC in 2025. Commission staff consulted extensively with interested parties, in particular the dredging community, partner agencies, and restoration practitioners, to develop recommendations for amended findings and policies in the Bay Plan that advance beneficial reuse. If adopted, BPA 1-26 would establish the following changes to the Bay Plan:

- Establish strong findings, based in current science, about the urgent need for beneficial reuse to support wetland resilience and adaptation to rising sea levels.
- Establish a clear priority for beneficial reuse over other types of aquatic disposal for soil and sediment. Create application requirements for dredging projects that are clear and based on objective, delineated criteria. Provide a framework for evaluating dredging projects to determine whether beneficial reuse is reasonably capable of being done based on those objective criteria. The amended policies are intended to be more enforceable and reduce ambiguity for applicants, BCDC permit analysts, and the Commission.
- Expand the Bay Plan's policies on sediment beyond navigation dredging to include policies for beneficial reuse of sediment from channels and streams and upland soil.
- Continue to encourage pilot projects and experimental applications of sediment for restoration projects and continue to support the Long-Term Management Strategy through any future updates, and encourage coordinated funding, planning and management for sediment management across the Bay.

These policy concepts have received widespread support from interested parties throughout BCDC's outreach process. In many ways, the proposed policies are designed to codify some existing practices in sediment management. However, as staff heard during outreach, changes to practices are necessary to spur more beneficial reuse for wetland restoration. BPA 1-26 will not require beneficial reuse for every project. Commission staff are proposing policies that are flexible, sensitive to the cost of dredging and beneficial reuse, and acknowledge the practical barriers to beneficial reuse. As a result, BPA 1-26 proposes new requirements that will be easier to use, make decision-making more transparent, and support incremental changes to sediment practices in the Bay Area.

BCDC cannot address every barrier to beneficial reuse across the region. As described in the Action Plan, responsibility to facilitate beneficial reuse is shared across different state, local, and federal agencies, as well as other resource managers and the dredging community. BPA 1-26 is one step in a larger, collaborative process to implement the Action Plan.

To aid the Commission's consideration of BPA 1-26, this Staff Report contains:

- A background and description and analysis of proposed revisions to the Bay Plan as part of BPA 1-26, including a summary of the planning process, community outreach, and engagement;
- The proposed changes to the San Francisco Bay Plan (Appendix 1), a memorandum regarding beneficial reuse considerations (Appendix 2) and a memorandum regarding the findings within the *Public Trust* section of the Bay Plan (Appendix 3);
- A statement describing the effect BPA 1-26 would have on the existing Bay Plan;
- A statement of consistency with the McAtter-Petris Act;
- An Environmental Assessment that concludes that BPA 1-26 will have no significant adverse impacts to the environment;
- An analysis of environmental impacts developed pursuant to the CEQA Checklist (Appendix 4); and
- A summary of and response to written public comments received following distribution of the descriptive notice up to the time this staff planning report was mailed.

II. Public Comment Period

BCDC invites the public to comment on the preliminary staff recommendation for BPA 1-26. The Public Comment Period is from September 11, 2026, to October 15, 2026. Written public comments can be submitted:

- Via email to publiccomment@bcdcc.ca.gov with the meeting agenda item number or “BPA 1-26” in the subject line.
- Via mail with the meeting agenda item number or “BPA 1-26” in the letter, mailed to San Francisco Bay Conservation and Development Commission, 375 Beale Street, Suite 510, San Francisco, CA 94105.

Written public comments received by October 14 at 10:00 AM will be distributed to Commissioners prior to the public hearing.

A public hearing will be held at the Commission meeting on October 15, 2026 at 1:00 PM, where members of the public may provide oral comments in person at the Metro Center (375 Beale Street, San Francisco) or virtually via the Zoom link found in the Public Hearing Notice, which will be emailed to interested parties and posted on the Commission’s website at the following link in early October: <https://www.bcdcc.ca.gov/event/october-15-2026-commission-meeting/>.

Following the October 15 public hearing, staff will make any necessary revisions to the proposed amendment based on public and Commissioner input, and then circulate a final recommendation including a final Environmental Assessment and a response to public comments to all interested parties. Thereafter, the Commission will vote on the proposed amendment, which has been tentatively scheduled for December 3, 2026. If adopted by the Commission, BPA 1-26 also will require approval from the State of California Office of Administrative Law and will also be submitted for approval to the National Oceanic and Atmospheric Administration (NOAA) as part of BCDC’s certified coastal management program under the Coastal Zone Management Act.

III. Background

A. Regional importance of wetlands and the status of beneficial reuse in the Bay Area

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 (Barbier et al., 2011; Barbier, 2013; Mitsch et al., 2015; Mitsch and Gosselink, 2015). Sediment underpins these functions by providing the base of the habitat, cycling nutrients, and sustaining the food web; without enough of it, wetlands cannot persist.

More than 500,000 acres of tidal wetlands once rimmed the San Francisco Bay. However, since the 1850s, diking and draining of the Bay's wetlands have contributed substantially to the loss of tidal wetlands throughout the Bay (Dingler, 1994; Goals Project, 1999; Callaway et al., 2011; Lowe et al., 2013; Parker and Boyer, 2019; Rowland et al., 2024). 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 of the Bay's wetland habitat (Callaway et al., 2011).

Human activities have also fundamentally altered the Bay's sediment system (Wright and Schoellhamer, 2004; Barnard et al., 2013). Following the discovery of gold in California in 1848, hydraulic mining and deforestation caused large quantities of sediment to flow from the Sierra Nevada through the Delta and into the Bay (Barnard et al., 2013, Milligan and Holmes, 2017). Hydraulic mining increased the sediment load entering the Bay ninefold during the 19th century (Schoellhamer et al., 2005). Hydraulic mining was outlawed in the 1880s but it took over 100 years for the Gold Rush sediment to move downstream and through the Bay. In the meantime, to reduce flooding and provide water to growing cities, dams, levees, aqueducts, and other infrastructure were built throughout the state and increasingly trapped sediment upstream, while other land use changes restricted sediment delivery to the Bay from local tributaries. As legacy sediment from hydraulic mining cleared out of the system, the Bay entered into a period of suspended sediment decline. In the late 1990s, researchers observed a 36 percent step decline in suspended sediment in the Bay (Schoellhamer, 2011). The Bay now receives less sediment, and the primary source of sediment supply to the Bay has shifted – most sediment flowing to the Bay used to come from the Delta, and now most comes from local tributaries (McKee et al., 2013; Schoellhamer et al., 2013; Fregoso et al., 2023; Holmes et al., 2023).

This sediment decline has important implications for the Bay's tidal wetlands. Wetlands depend on suspended sediment to naturally build elevation as sea level rises (Morris et al., 2002; Foster-Martinez et al., 2025). Wetlands that cannot accumulate sediment quickly enough to keep pace with sea level rise will flood increasingly and eventually disappear. The Bay has experienced approximately 8 inches of sea level rise over the past century (Parker & Boyer, 2019), and sea levels are projected to rise by multiple additional feet over the next century under most risk scenarios (California Sea Level Rise Guidance, 2024). If wetlands do not receive sufficient sediment to keep pace with sea level rise, flooding risks will increase to public safety, infrastructure, wildlife, recreation, and the regional economy.

Current science indicates wetlands and mudflats cannot persist under natural sediment supply and current management practices. Existing wetlands, along with those already planned for restoration will require more than 450 million cubic yards of sediment and soil by 2100, or the volume of almost 700 Salesforce Towers (Dusterhoff et al., 2021). Beneficial reuse of sediment and soil can help meet this need by treating sediment and soil as valuable resources that are necessary for habitat restoration and shoreline adaptation to sea level rise, rather than waste products for disposal.

Since the late 1980's, Bay Area resource managers have been working to increase beneficial reuse of dredged sediment from navigation channels for habitat restoration, levee maintenance and other purposes. Prior to the current programming, 80% of sediment dredged from the Bay was placed at in-Bay disposal sites, 10% was disposed of in the ocean, and 10% was placed upland or reused. So much dredged sediment was dumped at in-Bay disposal sites that by the 1980's an underwater mound, and navigation hazard, formed off of Alcatraz Island. Seeking a more sustainable alternative, the United States Environmental Protection Agency (USEPA), US Army Corps of Engineers (USACE), San Francisco Regional Water Quality Control Board (SFRWQCB), and BCDC established the Long-Term Management Strategy for the Placement of Dredged Material in the Bay Region (LTMS) in 2001. The LTMS set goals to reduce in-Bay disposal and maximize beneficial reuse. Under the LTMS, more than 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 2013 to 2024, approximately 41% of sediment dredged from the Bay was beneficially reused, while approximately about 37% was disposed of at four in-Bay disposal sites and 20% was sent to the deep-ocean disposal site 55 miles west of San Francisco (DMMO, 2024). In years when funding is available, beneficial reuse rises well above 40%. The best example is in 2023, when 73% of sediment dredged from the Bay was beneficially reused (DMMO, 2023). Although the region has successfully increased beneficial reuse, more sediment is needed at restoration sites for them to keep pace with rising sea levels and restoration goals.

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. The Bay's interconnected and interdependent sediment system includes its tributaries, or the creeks, streams, and channels that feed it. Tributaries bring freshwater and sediment to the Bay, directly supporting Bay habitats. However, in the last 200 years, the Bay Area has significantly altered its creeks and streams to develop urbanized areas and protect them from flooding, and diked them to support agriculture, salt production, and waterfowl hunting. The San Francisco Estuary Institute's research

found that of the region's 353 creeks that existed prior to diking and filling of the Bay, only 12% maintain their historical connection to the Bay, mainly those draining the Marin headlands (Dusterhoff et al., 2017). Most of the region's historic creeks flow into manmade channels, were routed underground, or were filled in and are no longer present (ibid.). They now no longer convey as much sediment to the Baylands, reducing sediment supply to tidal marshes, and they trap excess sediment which necessitates dredging to maintain their functionality.

Projects that reconnect channels to the Bay or realign channels to improve sediment transport capacity can decrease the need for dredging and route sediment to adjacent tidal habitats. These projects improve habitat quality, diversity, and connectivity, offer improved flood protection, and provide opportunities for sea level rise adaptation planning, public access, and education.

Less sediment is available from flood control channels than the amount that's dredged for navigation purposes. However, analysis from Dusterhoff et al. (2021) states, "The magnitude of sediment collectively removed from flood control channels across all nine Bay Area counties is likely very large and could expand the amount of sediment available for reuse in a significant way." The San Francisco Estuary Institute (SFEI) analyzed sediment removed from 30 flood control channels. Of the sediment removed from flood control channels between 2000 and 2013, more than two thirds came from downstream of the head of tide, meaning that a significant amount of this dredging occurred within the Commission's jurisdiction. Some of this dredged sediment is beneficially reused in Bayland restoration projects, but over 60% ends up disposed of as waste (Dusterhoff et al., 2017).

Additionally, surplus upland construction soil can be beneficially reused and estimates found that this surplus totals roughly half the volume of dredged sediment in the Bay Area (Dusterhoff et al., 2021). Several projects have successfully restored wetlands through beneficial reuse of soil. Significant volumes of upland soil have been used as general fill at Bair Island and to create ecotones and flood protection levees at the South Bay Salt Pond Restoration Project and South San Francisco Bay Shoreline Project.

Current sediment supplies and management practices are not sufficient to meet the sediment needs of Bay wetlands as sea level rises. Increasing beneficial reuse of sediment and soil from existing sources, including dredged sediment, stream and flood protection channels, and upland construction, can help the region meet its needs.

B. Sediment for Wetland Adaptation Project

In response to the scientific background described above, BCDC began the Sediment for Wetland Adaptation Project (SWAP) in 2022 to investigate the management, funding, and policy challenges of restoring Bay wetlands through reuse of sediment and soil. The SWAP is funded by grants from the USEPA and the California Ocean Protection Council.

In the SWAP's first phase, the Catalyst Consulting Group conducted interviews with interested parties to understand the issues and barriers to beneficial reuse, then, with Catalyst's assistance, staff held a two-day in-person workshop to collect feedback on actions the region needs to take to maximize beneficial reuse. Staff condensed feedback into the *San Francisco Bay Sediment and Soil Beneficial Reuse Action Plan for Wetland Restoration and Adaptation* (the *Action Plan*)¹, which was released in March 2025. Consisting of 70 actions that would bring the region closer to its beneficial reuse goals, the *Action Plan* is non-regulatory, and its implementation relies on the Commission's many regional partners leading individual actions. The actions are organized into seven focus areas, encouraging changes related to federal, state, and regional coordination, changes to regulations and permitting practices, encouraging pilot projects, updates to sediment testing, promoting new site availability, and addressing costs and funding. The *Action Plan* is a regional document, not simply a BCDC plan, and identifies potential leads across regional partners for each action, along with supporting partners. Partners have taken the lead on some actions that are already underway.

However, some *Action Plan* actions are designed to be led specifically by the Commission, including Action 2.4.2, "Assess San Francisco Bay Plan findings and policies regarding sediment supply and beneficial reuse to identify necessary improvements and propose amendments". This action has led to the development of BPA 1-26.

Commission staff are simultaneously working on the third and final phase of the SWAP, development of a financing strategy to support increased beneficial reuse in the region.

As part of the SWAP, Commission 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 (SFBJV), USEPA, SFRWQCB, and SFEI.

¹ https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2025/03/finalADA_Action-Plan_March-2025.pdf

IV. Revisions to Bay Plan Findings and Policies

As described above, restoring the Bay's wetlands and mudflats will require more than 450 million cubic yards of sediment between now and 2100, or the volume of almost 700 Salesforce Towers. To help meet this need, the Commission's staff assessed the findings and policies in the Bay Plan and identified several potential amendments that recognize sediment and soil as critical natural resources and increase support for the use of these materials in wetland restoration.

Current policies and findings in the Bay Plan do not sufficiently prioritize beneficial reuse of sediment in wetland restoration and do not provide clear enforceable standards to evaluate projects and potentially require beneficial reuse. In order to maximize the region's sediment supply and support vital wetland restoration efforts, the Commission has engaged in an extensive stakeholder process to develop proposed new policies in the Bay Plan that address these issues. Meeting the Bay's significant sediment needs depends on the region's many partners. The findings and policies proposed in BPA 1-26 represent actions the Commission can take to help bridge this gap.

The existing Bay Plan's findings and policies do not reflect the current scientific understanding of the Bay's sediment system and needs. As a result, BPA 1-26 proposes updates to findings in the Sediment Management, Fresh Water and Sediment Flow, Public Trust, and other sections of the Bay Plan that incorporate updated science about the Bay's sediment supply dynamics and sediment needs, and integrate current sediment management practices. Proposed findings throughout the amendment recognize dredged sediment and upland soil as critical natural resources and building blocks for Bay habitats, and explain how human activities have disrupted the Bay's natural water flow and sediment. Other proposed findings recognize the Bay, Delta, and ocean as part of an interconnected estuary system, with the Delta and tributaries supplying fresh water and sediment to the Bay, and sea level rise introducing saltwater intrusion into the Delta and tributaries.

Existing Dredging policies encourage beneficial reuse but do not provide clear requirements. BPA 1-26 would overhaul the application requirements and standards for beneficial reuse, specifically in new Sediment Management Policies 6 and 7. These policies would change the permit application requirements for dredging projects that are not proposing beneficial reuse of sediment. The policies require submittal of certain objective information in the application process to aid Commission decision-making. In permit applications, project proponents would be required to include assessments of sediment suitability, availability of a beneficial reuse site, a comparison of costs of disposal alternatives, costs and economic benefits of dredging and associated capital improvements, and any agreements between or among co-applicants for the project. The Commission would use this information to determine whether beneficial reuse is reasonably capable of being done and therefore required, or if beneficial reuse is not reasonably capable of being done and the sediment can be dumped at an aquatic disposal site. Dredging projects proposing to beneficially reuse

the sediment would not be subject to these specific permit application requirements. However, all dredging projects and beneficial reuse projects would still be subject to other Bay Plan policies, such as those requiring testing for sediment suitability and minimizing impacts of dredging and placement. These amended policies are intended to be more enforceable and reduce ambiguity for applicants and BCDC permit analysts.

To maximize beneficial reuse of sediment dredged from the Commission's jurisdiction, proposed new requirements would apply to navigation dredging projects as well as projects dredging creeks and streams within the Commission's jurisdiction, such as flood protection and streambed maintenance projects.

Other policies proposed in BPA 1-26 would not directly require beneficial reuse but would support wetlands by considering the Bay's interconnected and interdependent sediment system. Proposed policies would recognize the interchange of sediment between the Bay and its tributaries by stating that diversions of fresh water divert sediment and nutrient supply to the Bay, and should not damage the Bay's freshwater exchange, sediment supply, or ability to support habitat and wildlife. In addition, proposed policies would require flood protection and streambed maintenance projects to consider and, where possible, reconnect or realign tidal creeks to wetlands to create more sustainable and functional habitat and flood systems.

Proposed changes in the Public Trust section establish sediment dredged from the Bay as a public trust resource, and dredging and beneficial reuse as activities that are necessary to meet public trust needs. Proposed policies in this section state that beneficial reuse of dredged sediment is the preferred alternative to dumping of dredged sediment as a waste at aquatic disposal sites in the Bay or ocean, and dumping of dredged sediment at aquatic disposal sites in the Bay or ocean constitutes an unreasonable use of a public trust resource and should be minimized.

BPA 1-26 contains proposed policies that would encourage the use of upland soil and stockpiles in local restoration projects to contribute to the region's material needs. Some policies are advisory in nature because upland soil is generated outside of the Commission's jurisdiction. The proposed amendment would encourage the development of a land-based regional stockpile system to make more material available when sites are ready to receive it, and ensure meaningful community engagement guides projects proposing to truck material to restoration sites.

Finally, the proposed amendment would include policies to encourage pilot projects and experimental applications of sediment for restoration projects. BCDC will continue to support and partner as a member of the Long-Term Management Strategy, and a proposed policy would encourage BCDC to collaborate on updates in the future.

The below sections contain descriptions of the proposed Bay Plan changes with sections following the order of sections in the Bay Plan. A full copy of the proposed Bay Plan revisions is available in Appendix 1, which shows the proposal both in tracked changes and as a clean

copy. Appendix 1 is presented in the format of a basic document for purposes of the public review period. If BPA 1-26 is approved by the Commission, Commission staff will update the Bay Plan to incorporate the approved changes.

A. Revisions to the Bay Plan *Summary* section

The *Summary* section of the Bay Plan provides an overview of the Bay Plan and a framework for the findings and policies in subsequent sections. The *Summary* describes the Commission's oversight of various activities, including dredging to maintain major shipping navigation channels, and placement of fill to adapt habitats to rising sea level. The Commission regulates many activities that can produce or receive dredged sediment and excess soil for beneficial reuse, but the policies do not describe these activities as potential sources or recipients of beneficial reuse material. BPA 1-26 includes several proposed changes to this section to introduce sediment and beneficial reuse, including in *Major Conclusions and Policies* and *Major Plan Proposals*.

Existing *Major Plan Proposal* Policy 2 states that major shipping channels should be deepened if such channels limit marine terminal activity. This policy does not recognize the value of the material that is removed, and it does not state the Commission's priority for reusing that valuable material. The proposed amendment to this policy would state that the sediment dredged for channel deepening should be beneficially reused.

Another *Summary* Policy proposed for amendment is *Major Conclusions and Policies* Policy 4(g), which states that restoring, enhancing, and creating ecosystems are justifiable reasons to place Bay fill. This policy does not include a statement of the Commission's support for reusing sediment and soil for these purposes. The proposed amendment to this policy would support the beneficial reuse of sediment and soil for ecosystems, stating that beneficial reuse is a major policy priority for the Commission. Similarly, the proposed amendment to *Major Plan Proposals* Policy 6 supports the beneficial reuse of sediment and soil to restore and maintain wildlife refuges in diked historic Baylands to support fish and wildlife, and sea level rise adaptation.

Other proposed changes to the *Summary* update scientific understanding of Bay mud (*Major Conclusions and Policies* Policy 8) and update outdated language such as removing Selby from the list of Bay Area ports (*Major Plan Proposals* Policy 1).

B. Revisions to Fish, Other Aquatic Organisms, and Wildlife

Minor revisions are proposed to *Fish, Other Aquatic Organisms, and Wildlife* (F&W) Finding K and L to reflect updated science about the present need for sediment and soil to adapt marshes and mudflats to sea level rise. In 2019, BCDC amended the Bay Plan to address fill for habitat (BPA 1-17) and approved several changes to the F&W section

including Finding K and L. Finding K and L address that sea level rise and insufficient sediment supply are likely to cause loss of tidal marshes, tidal flats, and shallow subtidal areas, but lack certainty and describe beneficial reuse as a future rather than a present need. Furthermore, new Finding M is included to explain the importance of Bay tributaries to wildlife and the benefits from restoration and reconnection of these freshwater sources.

Finding K supports *F&W Policy 7*, which prioritizes sediment placement for habitat adaptation in subsided diked areas over other areas. The proposed revisions to Finding K are intended to update science and include soil, and do not impact *F&W Policy 7*.

C. Revisions to Water Surface Area and Volume

BPA 1-26 includes one proposed new finding in the *Water Surface Area and Volume* section. This section of the Bay Plan emphasizes the need to keep the Bay's surface area and water volume as large as possible to support water circulation and dissolved oxygen content, which support marine life and break down pollutants. Policies in this section of the Bay Plan limit activities that would reduce surface area and water volume, require that projects do not harm circulation, and outline planning requirements before any future barrier is adopted.

In the past, findings and policies in the *Water Surface Area and Volume* section of the Bay Plan have been misunderstood by dredging project applicants as providing policy support for dredging activities. However, a key purpose of the section is to support marine life, which is adversely impacted by dredging activities. While dredging does increase Bay volume and surface area, proposed *Water Surface Area and Volume* Finding E clarifies that dredging also has adverse impacts on subtidal and intertidal habitat to prevent future misinterpretation of the policies in this section.

The proposed new finding does not impact the Bay Plan's support for dredging to maintain safe navigable waterways for commercial and recreational purposes.

D. Revisions to Tidal Marshes and Tidal Flats

In 2019, BCDC amended the Bay Plan to address fill for habitat (BPA 1-17), and in the process revised and improved a number of policies related to restoration projects including *Tidal Marshes and Tidal Flats Policy 6*. Policy 6 provides criteria for the design and planning of restoration projects, including a requirement to analyze whether a restoration project would be sustained by natural processes. BPA 1-26 proposes to amend Policy 6(k) to add clarification that the evaluation of whether the project would be sustained by natural processes shall also include whether additional placement of sediment or soil should be considered as part of the restoration or adaptation strategy

where natural sediment supplies are not sufficient. This policy will promote better planning for the sediment needs of a restoration project over time. More beneficial reuse sites may become available where restoration projects determine that more sediment might be necessary to meet restoration goals and address rising sea levels.

BPA 1-26 also includes a minor proposed revision to Finding P to clarify that upland soil can enhance restoration of tidal marsh and tidal flat habitats.

E. Revisions to Fresh Water Inflow (Proposed Fresh Water and Sediment Flow section)

The existing *Fresh Water Inflow* section of the Bay Plan contains six findings and three policies focused on the importance of fresh water flowing from the Delta in supporting the Bay's and Suisun Marsh's aquatic life and wildlife. The findings and policies proposed address a few different gaps that were identified through staff review and engagement with interested parties. While this section of the Bay Plan details the importance of fresh water flowing from the Delta to the Bay for supporting Bay health, the Bay Plan does not recognize the importance of the sediment that fresh water carries with it to the Bay. BPA 1-26 proposes to update the *Fresh Water Inflow* section title to *Fresh Water and Sediment Flow*, amend six existing findings and one existing policy, and add four new findings and one new policy.

1. Findings

Proposed *Fresh Water and Sediment Flow* findings work together to describe the Bay, Delta, and ocean as part of an interconnected estuary system. Proposed Finding A discusses the importance of gradual salinity changes between the Ocean, the Bay, and the Delta and local tributaries. Proposed Finding E recognizes sediment as a critical building block of Bay habitats and acknowledges the Delta and tributaries as critical sources of fine and coarse grain sediment to the Bay. Proposed Finding F discusses structures that block sediment from flowing to the Bay, including dams, flood protection channels, tide gates, and streambed maintenance projects. Proposed Findings F and I recognize that fresh water diversions would restrict nutrient and sediment flow to the Bay. Proposed Finding G acknowledges the recent significant decline in sediment supply to the Bay from the Delta since 1998 (Schoellhamer, 2011) and the change in historic primary sediment supply from the Delta to the Bay's local tributaries (Krone 1979; McKee et al., 2013; Schoellhammer et al., 2013; Holmes et al., 2023; McKnight et al., 2023).

Proposed Finding J reflects feedback from the SWAP Core Team², who indicated that clarifying the Commission's head of tide jurisdiction in the Bay Plan would be helpful for the purposes of interagency coordination, guidance, and transparency. The McAteer Petris Act Section 66610 defines the Commission's jurisdiction as inclusive of "all areas that are subject to tidal action" in the Bay and certain waterways, and in marshlands up to five feet above mean sea level. Describing the Commission's jurisdiction in the Bay Plan findings does not expand the Commission's jurisdiction, but rather reflects a clarification requested by several of the Commission's partners. Proposed Finding I also reflects current climate change science by describing how sea level rise will cause saltwater intrusion into the Delta and tributaries.

2. Policies

Existing *Fresh Water Inflow* Policy 1 states that diversions of fresh water should not reduce flow to the bay to the point of damaging oxygen content. The proposed amendment to this policy recognizes that diversions of fresh water also divert sediment supply to the Bay and shall not do so to the point of damaging the Bay's freshwater exchange, sediment supply, or ability to support habitat and wildlife.

New proposed *Fresh Water and Sediment Flow* Policy 4 requires flood protection and streambed maintenance projects to consider and, where possible, reconnect or realign tidal creeks to wetlands. The policy recognizes that these types of projects may cause short term adverse effects to habitat and flood protection, but over time would create more sustainable and functional habitat and flood systems by providing more expansive flood water absorption for both creek and coastal flooding.

F. Revisions to *Dredging* (Proposed *Sediment Management* section)

The proposed changes to the Bay Plan's existing *Dredging* section are the most substantive part of BPA 1-26. The existing *Dredging* section of the Bay Plan focuses primarily on navigation dredging. Due to the need to prioritize beneficial reuse of sediment and soil from other sources, this section has been substantially revised and reorganized. As such, one of the proposed changes is to rename the *Dredging* section to the *Sediment Management* section.

² BCDC has met with the SWAP Core team several times over the life of the SWAP to consult on the project and help guide it. The Core Team is made up of individual representatives from the SFRWQCB, the USEPA, SFEI, SCC, and SFBJV.

The proposed new *Sediment Management* section considers the Bay's interconnected sediment system. It contains findings and policies concerning sediment and soil as a natural resource, beneficial reuse of sediment dredged from navigation dredging and maintenance dredging of creeks and streams, and support for use of upland soil in appropriate restoration projects. The proposal also contains edits to existing *Dredging* findings and policies, reorganizes the section, and incorporates new findings and policies. The following subsections describe the key conceptual changes proposed with some examples included.

First, the existing *Dredging* policies do not incorporate the current best available science, do not consider the impacts and need of sediment to address climate change and sea level rise, and do not consider the public trust value of sediment. As a result, the proposed *Sediment Management* section of the Bay Plan includes entirely new findings to provide stronger support for the existing and amended policies, based on current science and the urgent need for beneficial reuse to support wetland resilience and adaptation to rising sea levels.

Second, the existing findings and policies do not articulate a clear priority for the Commission for beneficial reuse, instead encouraging beneficial reuse in a voluntary manner, and retain an outdated priority for ocean disposal over in-bay disposal. The existing *Dredging* policies do not have a strong framework for determining whether and how beneficial reuse of sediment should be required for a project. The proposed amendment would create application requirements for dredging projects that are clear and based on objective, delineated criteria. It would also establish a new framework for evaluating dredging projects to determine whether beneficial reuse is reasonably capable of being done based on those objective criteria. As a result, the amended policies are intended to be more enforceable and reduce ambiguity for applicants and BCDC.

Third, there are no policies concerning beneficial reuse of sediment dredged from channels and streams, or regarding the use of upland soil and stockpiles in local restoration projects. As a result, the proposed amendments would expand the Bay Plan's policies on sediment beyond just navigation dredging.

Finally, the proposed amendment includes policies to continue to encourage pilot projects and experimental applications of sediment for restoration projects. BCDC will continue to support and partner as a member of the LTMS, and a proposed policy would encourage BCDC to collaborate on updates in the future.

1. The value of sediment and soil as resources, updating sediment need and science

The existing Bay Plan findings on *Dredging* describe the many benefits of habitat, wildlife, water surface area, and other Bay resources, but exclude descriptions of the valuable roles of sediment and beneficial reuse. The amended and reorganized *Sediment Management* section corrects this exclusion and describes the crucial role that sediment plays in supporting wetland and other habitat. Proposed Finding C discusses the many essential functions of sediment, including the nutrients and minerals in sediment that support biodiversity on wetlands, and its ability to absorb water and buffers storms. Adding findings to define and explain sediment as a natural resource provides the scientific basis for policies that require beneficial reuse.

The existing *Dredging* section of the Bay Plan focuses almost exclusively on sediment from navigation dredging. This narrow scope excludes other sources of sediment and soil that can be beneficially reused. Proposed *Sediment Management* Finding R includes information about sediment and soil that can come from flood protection and streambed maintenance and excess upland soil that can come from construction projects. Proposed Finding N explains how these sources factor into the sediment supply and system. Proposed Finding S describes how sediment and soil from these sources can be reused in wetland restoration projects.

The proposed changes also incorporate updated science that reflects new understandings of sediment supply dynamics. Proposed Findings D and E explain the ways in which human activity, such as the construction of dams and flood control projects, has disrupted the Bay's natural water flow and sediment. This has resulted in a decreased sediment supply and contributed to the loss of approximately 90% of wetlands in the Bay.

New findings are proposed to explain these sediment supply dynamics. Data and information from recent studies including work by Schoellhamer, D., Barnard, P., Jaffee, B., and McKee, L., among others, and SFEI's Changing Channels (2017) and Sediment for Survival (2021) reports, have provided the region with a better understanding of the value of sediment. This information has been incorporated into the new *Sediment Management* Findings N, O, and P to outline the decline in sediment supply and explain the critical need to reuse sediment. For example, proposed *Sediment Management* Finding O states that:

"The decline in sediment supply and the continued removal of sediment from the Bay system has led to a current period of sediment decline. Without a robust sediment supply, sea level rise threatens to flood tidal

marshes and wetlands over time. To maintain elevation, large volumes of sediment will be needed. The region's suspended sediment supply is not sufficient to restore subsided areas to the necessary elevation or to keep pace with sea level rise. According to the San Francisco Estuary Institute's Sediment for Survival report (2021), the Bay will need between 450 to 650 metric tons of sediment and soil to preserve, restore, and maintain wetland habitat, and adapt to rising sea levels through 2100."

These proposed findings explaining the current sediment supply are necessary to understanding beneficial reuse as a critical need for the region.

2. New prioritization and requirements for dredging and beneficial reuse

Existing *Dredging* policies encourage beneficial reuse but do not provide clear requirements. Existing policies do not provide a means of evaluating beneficial reuse in comparison to aquatic disposal at in-Bay disposal sites or the deep ocean disposal site and contain no policy guidance to identify the relevant factors for when beneficial reuse may be required. Furthermore, the existing *Dredging* policies do not reflect current regional sediment needs, management practices, and priorities.

Commission staff therefore recommend removing existing *Dredging* Policies 1 and 5, which incorporate outdated or duplicative requirements, and amending existing *Dredging* Policy 3 (proposed *Sediment Management* Policy 9) to remove support for disposing dredged sediment at the deep ocean. Proposed *Sediment Management* Policy 9 also retains disposal requirements from existing *Dredging* Policy 6, which staff recommend removing.

In the late 1980's, sediment disposal at the Alcatraz in-Bay disposal site led to a large mound that posed a significant navigation hazard. Due to physical capacity limits at in-Bay disposal sites, navigation problems caused by mounding, increasing scientific and public concern about estuary health, and the effects of dredging and disposal within the estuary, people realized that in-Bay disposal volume limitations were necessary. The Commission updated the Bay Plan policies regarding dredging in 2000 to reflect the LTMS's goal of limiting in-Bay disposal. Existing *Dredging* Policy 3 reflects the understanding at the time that disposing sediment in the ocean, at the Deep Ocean Disposal Site 55 miles offshore from San Francisco, would benefit the Bay's sediment system by limiting in-Bay disposal. Now, current science informs the understanding that reusing or disposing dredged sediment outside the Bay represents a loss to the Bay's sediment system because that sediment is disposed off the continental shelf and does not return to the Bay system.

BPA 1-26 contains an amendment to existing *Dredging* Policy 3 to remove language such as “dredged materials should, if feasible, be reused or disposed outside the Bay and certain waterways.” The amended policy, proposed *Sediment Management* Policy 9, specifies that dredged sediment disposal in the Bay or the ocean should only be authorized when beneficial reuse is not reasonably capable of being done, and the disposal meets certain requirements regarding location, volume, suitability, and timing.

Proposed *Sediment Management* Policy 1 anchors the *Sediment Management* policies to the public trust principles and calls for the Commission to ensure that sediment is conserved to support subtidal and intertidal habitats. Existing *Dredging* Policy 2 has been revised into *Sediment Management* Policy 2, which provides the standards for when dredging should be authorized by the Commission. The new *Sediment Management* Policy 2 now incorporates flood protection and streambed maintenance to expand beyond dredging and updates the policy to more clearly reflect how BCDC works together with other agencies to condition projects today.

New *Sediment Management* Policy 4, among other things, establishes that beneficial reuse is a priority for the Commission over in-Bay or ocean disposal, consistent with public trust needs. This new policy does not prohibit in-Bay disposal at designated sites or dumping at the deep ocean in every instance, but rather expresses a new paradigm where beneficial reuse is the preferred alternative for the Commission.

Applicants who do not propose beneficial reuse will need to provide certain information in an application and demonstrate that beneficial reuse is not reasonably capable of being done. *Sediment Management* Policies 6 and 7 provide the standards for evaluating whether beneficial reuse should be required. Policy 6 lays out the evaluation criteria for projects that do not propose beneficial reuse. Specifically, a project will require an evaluation of “(1) the availability of beneficial reuse sites for placement of the project’s dredged sediment; (2) an alternatives analysis that compares the cost to transport and offload the project’s dredged sediment at an available beneficial reuse site with the cost to dump the dredged sediment at an aquatic disposal site in the Bay or ocean; and (3) an estimate of the economic benefit and a description of any other benefits of the dredging project.” This information by an applicant proposing a dredging project will allow for a more objective analysis of the project based on consistent information across different types of projects. It is not required for a project that proposed beneficial reuse.

Proposed *Sediment Management* Policy 7 provides that dredged sediment shall be beneficially reused, and shall not be dumped at an aquatic disposal site, if beneficial reuse is reasonably capable of being done after taking into consideration the available information on seven identified factors:

- (1) whether the sediment is suitable for beneficial reuse;
- (2) whether there is an available beneficial reuse site;
- (3) the cost to transport and offload the dredged sediment at a beneficial reuse site in comparison to the cost to dispose of the dredged sediment at an aquatic disposal site;
- (4) the proposed dredging equipment (clamshell, excavator, or hydraulic) and offloading or disposal equipment;
- (5) the cost of the dredging project and any associated capital improvements;
- (6) the economic benefit and any other benefits of the dredging project and any associated capital improvements; and
- (7) any agreements between or among co-applicants for the dredging project and any associated capital improvements.

The considerations to be evaluated under the proposed policy in determining whether beneficial reuse is reasonably capable of being done were developed based on the factors applied under the analogous but distinct requirements in regulations promulgated by the U.S. Environmental Protection Agency under Section 404 of the Clean Water Act known as the Section 404(b)(1) Guidelines (“Section 404 Guidelines”) to determine whether there is a “practicable alternative” to the discharge of dredged or fill material into waters of the United States and in the California Environmental Quality Act (“CEQA”) to determine whether there is a “feasible alternative” to a proposed project.

Those factors under the Section 404 Guidelines and CEQA that are relevant to an analysis of whether beneficial reuse is reasonably capable of being done were adapted for use in the proposed policy. In contrast to the broadly worded factors considered under Section 404 Guidelines or CEQA, the considerations stated in the proposed policy contain greater detail and specified criteria to reflect the unique nature of an alternatives analysis for determining the appropriate disposition of dredged sediment.

a. Cost or economic considerations

The Section 404 Guidelines provide for consideration of “cost” and CEQA provides for consideration of “economic” factors in evaluating alternatives.

Consistent with the evaluation of “cost” or “economic” considerations in comparing potential alternatives under the Section 404 Guidelines or CEQA, the proposed policy includes the following three criteria for evaluating the cost or economic aspects of alternatives for the disposition of dredged sediment:

- The cost to transport and offload the dredged sediment at a beneficial reuse site in comparison to the cost to dispose of the dredged sediment at an aquatic disposal site.
- The cost of the dredging project and any associated capital improvements.
- The economic benefit and any other benefits of the dredging project and any associated capital improvements.

These criteria are intended to provide the Commission with objective information about the comparative costs of potential alternatives for the disposition of a dredging project’s sediment in relation to the total costs of the dredging project. These criteria will also provide objective information about the nature, overall scope, and anticipated benefits of the dredging project, including any associated capital improvements.

b. Technology or logistics considerations

In evaluating alternatives, the Section 404 Guidelines provide for consideration of “existing technology” and “logistics,” and CEQA provides for consideration of “technological” factors.

Consistent with the consideration of technological and logistical factors in comparing potential alternatives under the Section 404 Guidelines or CEQA, the proposed policy includes the following two criteria for evaluating the technological or logistical aspects of alternatives for the disposition of dredged sediment:

- Whether there is an available beneficial reuse site.
- The proposed dredging equipment (clamshell, excavator, or hydraulic) and offloading or disposal equipment.

These criteria are intended to provide the Commission with objective information about the availability of beneficial reuse sites and any technological or logistical constraints to beneficial reuse that might be associated with the proposed dredging equipment or offloading or disposal equipment.

c. Environmental considerations

The Section 404 Guidelines do not expressly provide for the evaluation of environmental considerations in determining whether an alternative is

practicable. In contrast, the determination of whether an alternative is feasible under CEQA may include “environmental” considerations.

The proposed policy includes the following criteria:

- Whether the dredged sediment from a dredging project is suitable for beneficial reuse.

This factor will ensure that beneficial reuse of dredged sediment will not result in adverse environmental impacts, including potential impacts fish, wildlife, or aquatic vegetation.

d. Social Considerations

The Section 404 Guidelines do not provide for the evaluation of “social” considerations. In contrast, the determination of whether an alternative is feasible under CEQA may include “social” considerations.

Consistent with the consideration of “social” factors in comparing alternatives under CEQA, the proposed policy includes the following two criteria:

- The economic benefit and any other benefits of the dredging project and any associated capital improvements.
- Any agreements between or among co-applicants for the dredging project and any associated capital improvements.

These criteria are intended to provide the Commission with objective information about the economic benefits and any other benefits of the dredging project, including any associated capital improvements, not only to the project proponent but also to local community or region. These criteria will also provide objective information regarding the local community’s or region’s support for the dredging project, including any associated capital improvements, as reflected by agreements between or among co-applicants to jointly support or implement the project.

Appendix 2 is a legal memorandum analyzing the factors to be considered in determining whether an alternative is “practicable” under the Section 404 Guidelines or “feasible” under CEQA, and how those factors were adapted to develop the considerations stated in *Sediment Management* Policy 7 for determining whether beneficial reuse is reasonably capable of being done.

Proposed *Sediment Management* Policy 9 also states that dredging projects that plan to dredge outside of the environmental work window should take sediment dredged outside of the work window to a beneficial reuse site or the same volume of

sediment dredged outside of the work window to a beneficial reuse site within the next dredging season. This requirement is consistent with current practice under the US Fish and Wildlife Service and NOAA's programmatic biological opinions for the LTMS. The Commission regularly requires beneficial reuse of sediment dredged outside of the work window to comply with these biological opinions.

A proposed amendment to existing *Dredging* Policy 10 (proposed *Sediment Management* Policy 11) encourages interested agencies and parties to find funding solutions for any additional costs incurred by transporting sediment to and offloading sediment at beneficial reuse sites, rather than for transporting dredged material to ocean disposal.

3. Beneficial reuse of dredged sediment from creeks and streams; reconnecting creeks and channels to the Bay

BPA 1-26 includes findings and policies reflecting the importance of sediment dredged from the Bay's tributaries for beneficial reuse. Proposed *Sediment Management* Policy 7 would require all dredging projects, including dredging of flood protection channels, streams, and creeks within the Commission's jurisdiction, that are not proposing to beneficially reuse of sediment, to evaluate factors that would allow the Commission to determine whether beneficial reuse is reasonably capable of being done. Proposed *Sediment Management* Policy 2 also amends existing *Dredging* Policy 2 to clarify different types of dredging overseen by the Commission, including dredging for streambed maintenance and flood protection.

BPA 1-26 also includes findings and policies reflecting the importance of creek to Bay connections. BPA 1-26 includes proposed revisions to existing *Dredging* Policy 7 (proposed *Sediment Management* Policy 3) which requires dredging project design to avoid destabilizing adjacent features like dikes and habitat. Proposed *Sediment Management* Policy 3 requires flood protection and streambed maintenance dredging projects to evaluate opportunities to improve water and sediment flow into adjacent wetlands to improve habitat features and support connectivity.

4. Policies that encourage use of upland soil in restoration

Estimates show that in the Bay Area, excess upland soils are available for beneficial reuse at about half the volume of dredged sediment, making them a valuable addition to help meet the region's sediment deficit (Dusterhoff et al., 2021). Soil's geotechnical qualities make it uniquely useful in adding stability to wetland restoration projects with features such as levees, berms, and ecotones. BPA 1-26

includes findings and policies, such as proposed *Sediment Management* Policy 14, encouraging its use in wetland restoration, so long as it has been determined to be of suitable quality.

a. Stockpiles

Restoration sites and upland excavation projects operate under discrete timelines and are influenced by planning processes, construction schedules, environmental work windows, soil quality, and permitting. When timing conflicts make soil transport directly from its source to a restoration site impossible, upland excavation projects truck excess soil to landfills where project proponents pay a fee to a landfill to dispose of it or use it for landfill cover. Restoration projects have been opportunistically taking advantage of free upland soil, which also provides a cost savings to construction projects. However, when free upland soil is not available, the restoration project is delayed, desired features are not built, or restoration projects may need to purchase soil from quarries or other sources. Stockpiling excess upland soil on land prevents the loss of valuable wetland restoration material and ensures that soil is available when restoration sites are ready to receive it. Excavation project managers can also benefit from stockpiling soil for wetland restoration by avoiding costly landfill disposal fees. Proposed *Sediment Management* Policy 15 encourages the development of a land-based regional stockpile system and prioritizes stockpile qualities such as accepting material from multiple sources and being located centrally to restoration sites.

b. Trucking impacts

Restoration sites that are too shallow to receive sediment by barge, or are located far from dredging projects, can transport sediment or soil by truck. Because trucks can emit greenhouse gas emissions along the haul route, proposed *Sediment Management* Finding W and Policy 16 encourage restoration projects to collaborate with local governments and potentially impacted communities to assess potential impacts of trucking on socially vulnerable communities when applicable. Policy 16 also encourages restoration projects to develop haul routes and minimization measures that would reduce potential disproportionate impacts based on engagement with communities.

Thus, BPA 1-26 aims to clarify that meaningful community engagement, which permittees are required to conduct as part of applications for major and appropriate minor permits, per *Environmental Justice* Policy 3, should include an assessment of potential trucking impacts on socially vulnerable communities.

5. Removal of outdated and duplicative restoration policies

Existing *Dredging* Policy 11 is proposed to be removed by BPA 1-26 because the policy is redundant and outdated. In 2000, existing *Dredging* Policy 11 was created to provide standards for how beneficial reuse would be used to restore subtidal habitats. However, in 2019, BCDC amended the Bay Plan to address fill for habitat (BPA 1-17), and in the process revised and improved a number of policies related to restoration projects in the *Fish, Wildlife and Other Aquatic Organisms*, *Tidal Marsh and Tidal Flats*, and *Subtidal Areas* policies to address potential need for fill to address rising seas. The policies amended by BPA 1-17 provide more enforceable and clear standards for beneficial reuse in subtidal restoration projects than those previously adopted in *Dredging* Policy 11. As a result, and as described below, the three subsections of *Dredging* Policy 11 are outdated and removing Policy 11 will reduce complexity for permitting restoration projects.

Dredging Policy 11(a) is duplicative of the other policies related to restoration in the Bay Plan. *Dredging* Policy 11.a.1 and 11.a.2 provide standards for information required to analyze a beneficial reuse restoration project and include monitoring requirements. These standards are duplicative of *Tidal Marsh and Tidal Flats* Policy 6 and *Subtidal Areas* Policy 3, relating to the restoration of tidal marsh and subtidal habitat respectively. *Dredging* Policy 11(a) is also duplicative of requirements in Section 66605 of the McAteer-Petris Act, without adding any substance to the analysis. *Dredging* Policy 11.a includes an additional list of standards primarily concerned with the net benefits and resource impacts of a beneficial reuse project. These standards draw upon the requirements already provided in Section 66605(a) through 66605(c), requiring, among other things, that the project would provide, in relationship to the project size, substantial net improvement in habitat for Bay species and that no feasible alternatives to the fill exist to achieve the project purpose with fewer adverse impacts to Bay resources. The other policies in *Dredging* Policy 11.a are addressed by other policies in the new *Sediment Management* section and other policies in the Bay Plan, and there will be no adverse effect to BCDC's review of restoration projects with its removal.

Dredging Policy 11b states,

“To ensure protection of Bay habitats, the Commission should not authorize placement of more than a minor amount of dredged sediment for projects that are similar to the Oakland Middle Harbor Enhancement Area project in characteristics including, but not limited to, scale, bathymetric modification,

and type of habitat creation, until The Oakland Middle Harbor Enhancement Area project is completed successfully.”

An earlier version of this policy was adopted in 2000 to address the uncertainties of the Middle Harbor Enhancement Area (MHEA) Project, a shallow subtidal habitat from deep water berths that had been dredged to minus 42 feet Mean Lower Low Water (MLLW) by the Navy and later abandoned when it left the region. As part of the Oakland Harbor 50-Foot Deepening Project, MHEA included placement of approximately 4 million cubic yards of dredged sediment in the deep berthing area to create shallow subtidal habitat, and provided cost saving measures for the Port of Oakland (Port) and the USACE such that additional sediment could be taken to Montezuma Wetlands and Hamilton Fields Wetland Restoration projects. MHEA has not been completed as described by the USACE and Port proposed project.

The most novel and controversial aspect of the project was the placement of the large volume of dredged sediment from the channel deepening into the deep-water basin to create shallow water habitat. When the MHEA was proposed, there was concern that in-Bay disposal of large volumes of dredged sediment purportedly for restoration would become a common occurrence.

The existing policy was put in place in BPA 1-17, which amended the earlier policy that made placement of fill for subtidal restoration contingent on the “success” of the MHEA. This was done in negotiation with the environmental community who recognized that a single project should not prevent pilot projects or other adaptation projects from moving forward. This is the only Bay Plan policy that prohibits the Commission from approving a project based on the success or failure of a completely unrelated project. The policy does not directly contribute to encouraging the Port and USACE to complete the Middle Harbor Enhancement Area Project. The circumstances that led to the development of the MHEA are unique, and Commission staff do not believe there are any potentially similar projects in the Bay Area that would be prevented because of this policy because there are no designated sites similar to MHEA. In the unlikely event that a similar project was proposed, BCDC has ample policy basis to evaluate its impacts. In 2002, the Commission added *Subtidal Areas* policies to the Bay Plan and improved the *Fish & Wildlife* and *Tidal Marshes and Tidal Flats* policies which provide necessary policy basis to address a similar future project. As a result, the policy only serves to complicate the analysis for projects that seek to restore subtidal habitat. A subtidal habitat project seeking a permit from BCDC must show that it is not “similar to” the MHEA project, an ambiguous and undefined criteria, which complicates an already

burdensome permitting process for restoration projects. Commission staff recommend removing this anomalous policy to reduce unnecessary policies and support experimental and pilot projects.

Similarly, BPA 1-17 incorporated new requirements for pilot projects in *Dredging* Policy 11c. These policies are duplicative of other requirements in *Tidal Marshes and Tidal Flats* Policy 11 and *Subtidal Areas* Policy 9, which encourage experimental and pilot projects and were also incorporated into the Bay Plan in BPA 1-17. These policies are more flexible than *Dredging* Policy 11c. While existing policies in the Bay Plan already encourage pilot projects and experimental approaches to using sediment in restoration, many interested parties expressed that the Commission should continue to support these pilot approaches. As a result, new *Sediment Management* Policy 8 has been included to further reinforce that “[p]ilot projects to test innovative techniques for beneficial reuse such as nearshore placement and water column seeding may be authorized if the project is found to be consistent with applicable policies in the Bay Plan.” Removing the duplicative policy in *Dredging* Policy 11c will reduce regulatory burdens for restoration projects and reduce possible conflicts and confusion between the policies throughout the Bay Plan.

6. **Support partnership with LTMS**

During outreach to inform the SWAP and BPA 1-26, interested parties expressed an interest in assessing the LTMS Management Plan to determine whether additional updates are necessary. For example, interested parties discussed the idea of strategically creating or relocating in-Bay disposal sites to areas of the Bay that could better support sediment supply to marshes. Assessing and amending the LTMS Management Plan relies on collaboration between the regulatory agencies that partner to administer it – the USACE, the SFRWQCB, the USEPA, BCDC, and the resources agencies.

In conversations about early policy concepts for BPA 1-26, the SWAP Core Team and Commission staff agreed that assessing the LTMS for potential amendments was outside of the scope of BPA 1-26. In response, BPA 1-26 includes proposed *Sediment Management* Policy 12 (an amendment to existing *Dredging* Policy 12) supporting the Commission’s work with the LTMS Agencies on the LTMS Program’s periodic review and update. Proposed *Sediment Management* Policy 12 retains, from existing *Dredging* Policy 4, support for the Commission conferring with the LTMS agencies to decide whether to authorize in-Bay disposal. The policy includes additional language calling for BCDC to participate in future updates to the LTMS. Proposed *Sediment Management* Policy 12 retains, from existing *Dredging* Policy 1 which is proposed for

removal, and from existing *Dredging* Policy 4 (proposed *Sediment Management* Policy 10), support for collaboration with the LTMS agencies. Proposed *Sediment Management* Findings J, K, and L describe and support the LTMS program, its goals, and the Dredged Material Management Office (DMMO). It is important to note that the Commission's regulations include specific features of the LTMS Management Plan and programming that may need updating in the future along with any proposed changes to the Management Plan.

7. Planning, funding, and managing beneficial reuse connections

Effective sea level rise adaptation planning occurs on different scales – by and across jurisdictional boundaries, by Operational Landscape Units (OLUs)³, and by assessing regional impacts. The potential for long-term Bayland resilience varies between different OLU. For example, scientists predict that the Central Bay could have the sediment supply needed to support its existing and planned restoration sites through 2100. On the other hand, the Suisun Bay-San Pablo Bay could lack the needed sediment supply, and the South Bay-Lower South Bay could have a major sediment deficit (Dusterhoff et al., 2021). Proposed *Sediment Management* Policy 17 encourages soil reuse on a landscape scale.

Upland excavation projects typically yield excess soil on a one-time basis, so its potential to be reused relies on connections and opportunism between upland excavation projects and restoration projects. Upland excavation projects prioritize the least expensive option when deciding what to do with excess material. Because shorter hauls cost less, material is more likely to be reused at a nearby site rather than a distant restoration site. Proposed *Sediment Management* Policy 8 encourages Bay sediment and excess excavated soil to be managed locally to prioritize and support habitat restoration and sea level rise adaptation projects.

Under the Commission's Regional Shoreline Adaptation Plan (RSAP), local jurisdictions around the Bay Area are creating subregional plans to adapt their shorelines to rising seas. In alignment with this local planning, BPA 1-26 encourages local management of dredged sediment and upland soil for restoration. Proposed *Sediment Management* Policy 8 encourages local jurisdictions preparing subregional

³ OLU are connected geographic areas that would benefit from being managed as a unit to provide particular desired ecosystem functions and services (Dusterhoff et al., 2021).

shoreline adaptation plans pursuant to the RSAP to identify opportunities for beneficial reuse of sediment and excess upland soil in nature-based sea level rise adaptation projects.

To support this work, proposed *Sediment Management* Policy 8 would direct the Commission to maintain a list of available beneficial reuse sites, their permitting status, and estimated capacity to accept sediment and/or upland soil. The Commission would post the list of available sites on its website in an effort to facilitate increased connection between the sites and potential sources of sediment and soil. The Commission staff are aware of and work closely with the SediMatch Program of SFEI and the San Francisco Bay Joint Venture, and will continue to work with this program and any improvements that are undertaken.

In addition, a proposed amendment to existing *Dredging* Policy 10 (proposed *Sediment Management* Policy 11) encourages interested agencies and parties to find funding solutions for any additional costs incurred by transporting sediment to and offloading sediment at beneficial reuse sites, rather than for transporting dredged material to ocean disposal. Commission staff are currently working on a Beneficial Reuse Financing Strategy to help support shifting programming to increased beneficial reuse.

8. Standardized testing program

BPA 1-26 contains proposed *Sediment Management* Finding H, which describes contamination in some Bay sediment, Finding X, which explains the need for a collaborative testing protocol, and proposed *Sediment Management* Policy 5, which requires testing for disposal, whether for beneficial reuse, aquatic disposal, or some other use. This requirement is not new – existing *Dredging* Policies 2 and 4 outline testing requirements for dredging and disposal. Sediment testing is currently required to ensure that clean sediment and soil are used in wetland restoration projects so that wildlife, water quality, and humans are not impacted. Some sediment with elevated levels of contaminants can be used as bulk fill for deep sites or in ecotone and levee construction, but must be isolated from the surface with clean sediment or soil. Upland soils are similarly tested, but use tests more appropriate for soil than for sediment, and test results are reviewed by the Water Board and BCDC. Throughout the outreach conducted for the SWAP and BPA 1-26, interested parties indicated a need for a standardized testing program and a process for regulatory agencies to determine the suitability of creek and stream dredged sediment and upland soil for placement in the Bay. Proposed *Sediment Management* Policy 5 supports continued collaboration and coordination between SFBRWQCB,

BCDC, USEPA, USACE, and other experts as appropriate to create a standardized testing protocol and ensure it is available and used to make suitability determinations.

9. **Connection to *Public Trust* section**

BPA 1-26 contains complimentary policies in the *Sediment Management* and *Public Trust* sections of the Bay Plan. Each section contains statements that Bay sediment is subject to the public trust, that beneficial reuse of dredged sediment protects public trust uses and meets public trust needs, and that dumping of dredged sediment at aquatic disposal sites in the Bay or ocean should be reduced to minimize the waste and unreasonable use of dredged sediment. Such language is proposed in *Sediment Management* Policies 1 and 4, and proposed *Public Trust* Policy 2. By repeating these statements in each section, BPA 1-26 aims to ground Bay sediment as a public trust resource and beneficial reuse as protective of public trust uses and needs in the *Public Trust* section; and crosswalk with the *Sediment Management* section for ease of access by Commission staff, who use the *Sediment Management* section when reviewing applications for dredging permits.

G. **Revisions to *Public Trust***

Under the common law public trust doctrine, navigable waterways and associated tidelands and submerged lands are held in trust by the State for the benefit of the people of California. Historically, the public trust has referred to the right of the public to use its waterways to engage in commerce, navigation, and fisheries. However, the doctrine has been broadened by various landmark court decisions to reflect changing public perceptions of the values of lands subject to the public trust and evolving public needs. The permissible range of public trust uses include recreation and the preservation of tidelands in their natural state as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of an area.

The Bay Plan contains a section entitled *Public Trust* with six findings and one policy. Among other things, the existing findings establish those areas within the Commission's jurisdiction that are subject to the public trust, the purpose of the public trust, and the role of the McAteer-Petris Act and the Bay Plan in meeting public trust needs. The existing *Public Trust* policy generally provides that when the Commission takes any action affecting lands subject to the public trust, it should ensure that the action is consistent with the public trust needs for the area.

BPA 1-26 proposes five new findings, amendments to two existing findings, and one new policy to the *Public Trust* section. Among other things, the proposed new findings would establish that dredging of sediment from public trust lands is necessary to meet public trust needs, sediment dredged from public trust lands in the Bay and its tributaries is a public trust resource, beneficial reuse of dredged sediment protects public trust uses and meets public trust needs, and dumping of dredged sediment at aquatic disposal sites in the Bay or ocean constitutes waste and an unreasonable use of a public trust resource.

Proposed *Public Trust* Policy 2 states that beneficial reuse of dredged sediment protects public trust uses, meets public trust needs, is the preferred alternative to dumping of dredged sediment as a waste at aquatic disposal sites in the Bay or ocean, and requires that dredged sediment be beneficially reused if beneficial reuse is reasonably capable of being done in accordance with proposed *Sediment Management* Policy 7. Proposed *Public Trust* Policy 2 also states that dumping of dredged sediment at aquatic disposal sites in the Bay or ocean should be reduced to minimize the waste and unreasonable use of dredged sediment.

The common law public trust doctrine, the McAteer-Petris Act, and the Bay Plan as an exercise of the Legislature's authority over public trust lands provide the authority for the Commission to: (1) establish a policy preference for beneficial reuse as the preferred alternative to the dumping of dredged sediment at aquatic disposal sites; and (2) determine whether beneficial reuse is reasonably capable of being done when taking any action on a proposed dredging project.

See Appendix 3 for further discussion regarding the legal context and support for both the existing and proposed new *Public Trust* findings.

H. Other

1. Aquifers

BPA 1-26 contains a proposal to amend existing *Dredging* Policy 9 as proposed *Sediment Management* Policy 13. Proposed *Sediment Management* Policy 13 specifies the analysis to be provided by dredging project applicants to ensure their project does not damage underground aquifers. The amended policy also clarifies that such projects are subject to the Commission's consultation with the San Francisco Bay Regional Water Quality Control Board and the State Department of Water Resources.

In the San Francisco Bay, a layer of old Bay mud restricts saltwater intrusion into deeper freshwater aquifers that support local habitats, replenish surface waters, and

provide water for drinking and irrigation. Existing *Dredging* Policy 9 aims to protect underground freshwater aquifers by requiring dredging project applicants to provide data on groundwater conditions in the project area. However, it does not provide adequate detail on the data that should be provided for the Commission to determine whether a proposed project would protect these aquifers.

2. Removal of outdated policy on soil erosion

Commission staff recommend removing the outdated existing *Dredging* Policy 8, which directs the Commission to encourage soil conservation districts and public works agencies in the Bay Area to reduce soil erosion. This policy was included in the original 1968 Bay Plan in response to concerns over sedimentation in the Bay, and has been minorly re-worded since then. As described in Section III.A of this Staff Report, the Bay now receives significantly less sediment from the Delta and tributaries. Not only is sedimentation from upland erosion no longer a relevant issue, but it is also unclear whether the Commission ever acted, pursuant to this policy, to encourage soil conservation districts and public works agencies in the Bay Area to reduce soil erosion. Because the Bay's needs have changed significantly since the original Bay Plan was adopted, BPA 1-26 includes *Sediment Management* Policies 14-17 encouraging the use of upland soil in restoration.

3. Minor language updates

BPA 1-26 contains minor revisions to language such as correcting agency, location, and species names, many of which were original to the 1968 Bay Plan:

- Proposed *Major Plan Proposals* Policy 1 removes Selby from the list of ports, consistent with BCDC's *Bay Area Seaport Plan*, as amended in 2024.
- Proposed *Fresh Water and Sediment Flow* Finding B removes "king salmon" and adds "Chinook and Coho salmon" to the list of anadromous fish that rely on the gradual change in salt content of the Bay.
- Proposed *Sediment Management* Policies 2 and 9 remove the misnomer "California Department of Fish and Game", whose name changed in 2013.
- Several proposed policy amendments remove "dredged material" and instead say "dredged sediment" to describe the material more accurately.

V. Public Engagement and Outreach

Staff have pursued extensive outreach and engagement for the Sediment for Wetland Adaptation Project and BPA 1-26 in an effort to present recommendations that reflect input from the communities that are interested in and could be affected by the proposed policy changes.

A. Action Plan development

Many of the findings and policies recommended in BPA 1-26 evolved from outreach staff conducted during the development of the *San Francisco Bay Sediment and Soil Beneficial Reuse Action Plan for Wetland Restoration and Adaptation* (the Action Plan), which was released in March 2025. To inform the Action Plan, the Catalyst Consulting Group conducted interviews with interested parties to understand the issues and barriers to beneficial reuse. Then, with Catalyst's assistance, staff held a two-day in-person workshop to collect feedback on actions the region needs to take to maximize beneficial reuse. During development of the Action Plan, interested parties agreed that the Commission should assess the Bay Plan findings and policies regarding sediment supply and beneficial reuse to identify necessary improvements and propose amendments (Action 2.4.2).

B. Commissioner Working Group

The Sediment and Beneficial Reuse Commissioner Working Group (Working Group), a subset of the Commission with particular interest in the issue, has met 14 times since 2023. Working Group meetings are open to the public and well attended by various interested parties. 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

Commission staff thanks members of the Working Group for their guidance on the SWAP and BPA 1-26:

- Dr. Andrew Gunther, Chair (Regional Water Quality Control Board)
- Patricia Showalter, Vice-Chair (City of Mountain View)
- Dr. Tessa Beach (United States Army Corps of Engineers)

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

- Ellen Blake (U.S. Environmental Protection Agency)
- Pat Eklund (City of Novato)
- Yoriko Kishimoto (Midpeninsula Regional Open Space District)
- John Vasquez (Solano County) (*former Working Group member*)

C. Core Team

To help direct the SWAP, Commission staff have held 19 meetings with a Core Team made up of individual representatives from the San Francisco Bay Regional Water Quality Control Board, the U.S. Environmental Protection Agency, the San Francisco Estuary Institute, the State Coastal Conservancy, and the San Francisco Bay Joint Venture. Support from the Core Team has helped guide BPA 1-26 from its inception. Staff presented early policy concepts for the amendment to the Core Team in a series of 4 meetings between September 2025 and February 2026. In these meetings, staff and the Core Team overviewed existing Bay Plan findings and policies supportive of wetland restoration and beneficial reuse, and dove into policy topics including sediment as a resource, upland soils, flood protection, dredging and beneficial reuse, in-Bay disposal, and restoration.

The Core Team provided feedback and questions that were formative in guiding the direction for BPA 1-26. Some feedback the Core Team provided to guide the BPA included expressing agreement that any new requirements placed on restoration projects, for example to use dredging sediment and upland soil to elevate a site, would disincentivize restoration. Additionally, conversations about in-Bay disposal led directly to amendments in proposed *Sediment Management* Policy 12 that support the Commission's work with the LTMS agencies on periodic review and update of the LTMS.

Commission staff are grateful to the Core Team members for their many contributions to the SWAP and BPA 1-26:

- Jessica Davenport, State Coastal Conservancy
- Kelli McCune, San Francisco Bay Joint Venture
- Sahrye Cohen and Luisa Valiela, United States Environmental Protection Agency
- Scott Dusterhoff, San Francisco Estuary Institute
- Xavier Fernandez, San Francisco Bay Regional Water Quality Control Board
- Evyan Sloane, State Coastal Conservancy (*former core team member*)
- Jenn Siu, United States Environmental Protection Agency (*former core team member*)

D. Commission

Since 2023, staff have briefed the Commission on the SWAP. Commissioners also participated in a workshop with interested parties and other members of the public in 2024 to provide input on the Action Plan. On May 7, 2026, staff briefed the Commission on the need for BPA 1-26 and the project progress and goals, and the Commission voted to initiate BPA 1-26. On May 8, 2026, a Descriptive Notice about the proposed amendment with the date of the public hearing was circulated with interested parties and posted on BCDC's website; a revised Descriptive notice with a new hearing date was circulated on August 7, 2026.

1. June 4, 2026 policy development workshop

At the Commission meeting on June 4, 2026, staff held a policy development workshop for Commissioners, interested parties, and other members of the public. The goals of the workshop were for participants to:

- Learn about the Bay's sediment problem, BCDC's role, and the Sediment for Wetland Adaptation Project;
- Help shape Bay Plan policies that would increase beneficial reuse of sediment and soil for wetland restoration as part of BPA 1-26; and
- Build on previous work that resulted in the Action Plan.

After a presentation from staff, participants spent time in a poster breakout session where they could explore beneficial reuse policy topics, ask questions, participate in discussion, and give feedback. Three posters focused on BPA 1-26 policy concepts including navigation dredging, channel and streambed maintenance, and upland soil. Three posters were intended to build on previous collaborative work with interested parties and focused on restoration incentives, funding beneficial reuse, and implementing the Action Plan. Copies of all six posters are available on the Commission's website.⁵

The workshop was well attended and provided staff with helpful feedback to guide policy development. There were 18 Commissioners and Alternates present for the staff presentation, and 11 present for the poster activity. Approximately 30 members of the public attended the workshop in person, representing state and federal regulatory agencies, local organizations, environmental interests, construction project managers, project applicants, restoration practitioners, and industry. Dredgers, soil providers, tribes, environmental justice communities, and fishers did

⁵ <https://www.bcdc.ca.gov/programs/sediment-management/sediment-for-wetland-adaptation/>

not attend the workshop, so staff subsequently reached out to these groups to ensure they were made aware of and invited to engage with BPA 1-26.

For purposes of this Staff Report and preliminary staff recommendation, included below are summaries of the feedback received on the three policy concept posters that were implemented into the proposed policies for BPA 1-26. For a more thorough summary of feedback captured at the June 4 workshop, a recording of the July 7 Commissioner Working Group is available on the Commission's website.⁶

a. **Feedback regarding navigation dredging**

- **Sediment as a resource.** Workshop attendees widely supported updates to the Bay Plan that would emphasize sediment's valuable role in flood protection, shoreline resilience, and restoration, and acknowledgement of sediment dredged from the Bay as a public trust resource. The support for these concepts influenced proposed findings and policies in the *Sediment Management* and *Public Trust* sections of the Bay Plan.
- **Beneficial reuse standards.** A previous iteration of *Sediment Management* Policy 7, which was presented at the workshop, considered requiring beneficial reuse if it was found to be "practicable" after taking into consideration the available information on identified factors included in the current proposed version (suitability, site availability, alternatives, etc.). Interested parties expressed that use of the word "practicable" could cause confusion with use of the same term under the USEPA's 404(b)(1) Guidelines. In response to this feedback, proposed *Sediment Management* Policy 7 now avoids using a single word, such as practicable or feasible. Proposed *Sediment Management* Policy 7 now provides that dredged sediment shall be beneficially reused and shall not be dumped at an aquatic disposal site if beneficial reuse is reasonably capable of being done after taking into consideration the available information on seven identified factors.
- **Strategic sediment management.** Several workshop participants emphasized the need to place sediment in ways that support the broader Bay system, including managing sediment at the landscape scale and prioritizing keeping sediment within the system. As discussed in section IV.E.4. of this Staff Report, proposed *Sediment Management* Policy 17 encourages soil reuse on a landscape scale, and proposed *Sediment Management* Policy 8 encourages

⁶ <https://www.bcdc.ca.gov/event/july-7-2026-sediment-and-beneficial-reuse-commissioner-working-group/>

Bay sediment and excess excavated soil to be managed locally to prioritize and support habitat restoration and sea level rise adaptation projects.

b. Feedback regarding channel and streambed maintenance

- **Testing.** Workshop participants, especially restoration practitioners who are project applicants and flood control district and state agency representatives, expressed frustrations with discrepancies in testing processes for reuse of sediment and soil from creeks and streams for restoration. Participants expressed the need for a single, consistent sediment and soil quality testing framework with sufficient guidance. Commission staff note that navigation dredging has a unified testing program, and have been collaborating with the San Francisco Bay Regional Water Quality Control Board in their efforts to improve the existing program for other types of reuse. BPA 1-26 contains proposed *Sediment Management* Finding H, which describes contamination in some Bay sediment, Finding X, which explains the need for a collaborative testing protocol, and proposed *Sediment Management* Policy 5, which support continued collaboration and coordination between the SFBRWQCB, BCDC, the USEPA, and other experts as appropriate to create a standardized testing protocol for all reuse types and ensure it is available and used to make suitability determinations.
- **Tributary sediment questions.** Workshop participants had questions about reuse of sediment from creeks, flood control channels, and streambed maintenance. Participants sought clarity on how much sediment is available from these sources, how it can be used, how many relevant creeks and channels exist, and their connection to the Bay. Section IV.E.3 of this Staff Report speaks to these questions – in summary, research suggests that sediment from flood control channels is a significant source and its beneficial reuse would meaningfully contribute to restoration and sea level rise adaptation, yet the majority of it is disposed of as waste. Thus, *Sediment Management* Findings E, F, I, O, S, and Policies 6 and 7 work together to acknowledge the importance of sediment dredged from the Bay’s tributaries, require beneficial reuse of sediment dredged from tributaries if it is determined to be reasonably capable of being done, and require these projects to evaluate opportunities to improve water and sediment flow into adjacent wetlands to improve habitat features and support connectivity.

c. **Feedback regarding upland soil**

- **Effective stockpiling.** Workshop participants generally expressed support for stockpiling sediment and soil as a potential solution to the frequent issue of mismatched material availability and site readiness to receive it. Participants provided helpful guidance on aspects of a successful stockpiling system, and their guidance is included directly in proposed *Sediment Management* Policy 15. For example, participants encouraged and the policy prioritizes stockpiles that accept material from multiple sources, are centrally located to restoration sites, charge competitive costs compared to landfill disposal, have a security system in place that prevents unauthorized dumping, streamline testing, minimize habitat impacts, and that store dredged sediment and/or upland soil directly at active and planned restoration sites.
- **Describing soil accurately.** At and prior to the workshop, staff described soil available for wetland restoration as originating from construction projects around the Bay, focusing on excavation for below ground spaces and general grading. One participant expressed that the definition of upland material should include not only material from construction sites, but also from nontidal creek soil from creeks and streams outside of the Commission’s jurisdiction. This feedback was implemented throughout the findings and policies proposed for BPA 1-26. Where draft findings and policies previously used language like “construction soils”, the current proposals use “excess upland soil” and define “excavation” as removing soil from any upland area.
- **Clear language distinguishing requirements.** Some workshop participants expressed confusion regarding whether BPA 1-26 proposed to require reuse of upland soil in restoration projects or require beneficial reuse in areas beyond the Commission’s jurisdiction. The policies proposed in BPA 1-26 **do not** require reuse of upland soil in restoration projects or beneficial reuse in areas beyond the Commission’s jurisdiction. To prevent confusion, participants suggested that policies should clearly indicate whether they are regulatory or advisory in nature. The findings and policies were written with this in mind, with regulatory policies pointedly directing entities to act in certain instances, and advisory policies *encouraging* action.

E. Tribal Consultation

In an effort to uphold principles of early, often, and meaningful outreach to tribes, Commission staff sent two separate consultation invitations to 53 different Bay Area Native American tribes⁷, the first during the conceptual policy development phase and the second following the Commission's May 7, 2026 vote to initiate BPA 1-26.

On March 12, 2026, Commission staff sent approximately 100 consultation invitations by electronic mail and 100 by regular mail to 53 different tribes, informing tribes of BPA 1-26 and inviting early input on BPA 1-26.

On May 21, 2026, Commission staff again sent approximately 100 consultation invitations along with project summaries to 53 different tribes by electronic mail and 100 by regular mail, inviting tribes to meet with Commission staff to discuss BPA 1-26 and share any information regarding possible impacts to tribal cultural resources due to BPA 1-26.

Seven tribes responded to Commission staff. Two tribes expressed no desire to consult, and five tribes expressed a desire to consult on BPA 1-26. As of September 11, 2026, Commission staff held individual consultation meetings with four of the interested tribes, and two consultation meetings with the other interested tribe, for a total of six consultation meetings.

In consultation meetings with those five tribes which expressed interest in consulting with BCDC, tribes generally expressed support for BPA 1-26 and the focus on wetland restoration.

One tribe expressed interest in learning more about how to obtain dredged sediment for shoreline restoration projects of interest to that tribe. Although Commission staff explained to the tribe that this request was outside of the scope of BPA 1-26, Commission staff connected the representatives of this tribe with the appropriate Commission staff and local City staff responsible for developing a subregional shoreline adaptation plan pursuant to Senate Bill (SB) 272 (Laird 2023) and the RSAP. Commission staff also shared information about potential funding sources for such project(s).

One tribe expressed interest in working with Commission staff to create and potentially include signage materials at BCDC-permitted public access locations regarding certain

⁷ Commission staff contacted the Native American Heritage Commission (NAHC) for assistance with identifying tribes with historical and traditional ties to the San Francisco Bay and shoreline, and added to NAHC's contact list by conducting additional research to ensure adequate outreach. Commission staff then contacted those tribes identified by NAHC and staff's research.

tribes' histories of living in the Bay Area since time immemorial. The tribe provided Commission staff with reports substantiating such tribes' use of the Bay since time immemorial, and the existence of tribal cultural resources potentially within or close to BCDC's jurisdiction. Although Commission staff explained to this tribe that this proposal was outside of the scope of BPA 1-26, Commission staff offered to connect the representatives of this tribe with BCDC's Public Access team to further discuss the tribe's ideas regarding signage.

With respect to future dredging projects, two tribes expressed interest in working with Commission staff to create educational outreach materials or trainings regarding the potential existence of tribal cultural resources in Bay sediment through the subregional shoreline adaptation planning process at the local government level. Commission staff explained that monitoring for impacts to tribal cultural resources as a result of a dredging project occurs on a project-by-project basis and that mitigation for impacts to tribal cultural resources would be addressed during the environmental review process for a specific dredging project.

No tribe identified any significant adverse impacts to tribal cultural resources as a result of BPA 1-26, but two tribes expressed interest in the possibility of including a finding in BPA 1-26 to acknowledge tribes' histories of living in the Bay Area since time immemorial and the potential existence of tribal cultural resources in Bay sediment. To this effect, BPA 1-26 contains proposed *Sediment Management* Finding B and upon mailing the Staff Report and preliminary staff recommendation, staff will reach out to the tribes consulted with to make them aware of and invite their feedback and collaboration on BPA 1-26.

F. Environmental Justice and Equity Outreach

Bay Plan *Environmental Justice* Policy 1 states that the Commission's guiding principles on environmental justice (EJ) and social equity should shape all of its actions and activities. Staff presented the SWAP to the Commission's Environmental Justice Advisors (EJ Advisors) early in the project at a meeting in August 2023, and sought advice on appropriate community engagement for the project. EJ Advisors provided direction including that project presentations should contain accessible content and use visual aids. Staff have worked over the course of the SWAP to include more visual aids and plain language in presentations. An EJ Advisor also suggested working with the San Francisco Bay Joint Venture (SFBJV) and BCDC's Bay Adapt teams to tap into existing networks. In response, staff have met with Bay Adapt staff and included SFBJV on the SWAP Core Team to share the project with these networks. Lastly, an EJ Advisor advised

including potential adverse community impacts from trucking soil in the project. Staff followed this advice by including proposed *Sediment Management* Finding W and Policy 16 in BPA 1-26, which are discussed in section IV.F.4.b of this Staff Report.

Staff conducted outreach to EJ communities to make them aware of BPA 1-26 and invite them to participate in policy development and the public hearing process. Staff invited over 100 contacts representing Bay Area EJ community interests to a public EJ Advisors meeting held virtually on August 13, 2026. Meeting invitations included instructions on how those interested could join the mailing list for BPA 1-26.

Contacts invited came from three different sources:

1. Staff used the Commission's Community Based Organization (CBO) map to compile a list of CBOs whose work focuses on restoration, sea level rise adaptation, environmental interests, EJ, and public policy.
2. Staff individually reached out to project contacts for restoration projects permitted by the Commission that used Measure AA funds to ask for contacts for CBOs that participated in public processes for these restoration projects.
3. Commission staff, EJ Advisors, and Core Team members recommended additional contacts.

Staff emailed invitations with a project factsheet and posted the invitation on social media, followed by subsequent email reminders. Seven invitees representing different CBOs registered for the meeting, and all seven registrants and five EJ Advisors are included on the project mailing list and will receive a copy of this Staff Report. Five EJ Advisors and three invitees representing different CBOs joined the meeting. At the meeting, staff presented about the Bay's sediment needs, the SWAP, BPA 1-26 policy direction and timeline, and details on the public comment process. Attendees did not provide feedback on the policy direction. EJ Advisors asked questions about how BCDC's Sediment Management Program ensures that material is suitable for reuse and that dredging protects aquatic ecosystems, what successful restoration looks like, including Traditional Ecological Knowledge in restoration projects, and what robust EJ engagement can look like for future Bay Plan amendments.

G. Additional outreach and engagement

Staff have continued to engage with interested parties about BPA 1-26. BCDC has held meetings with the United States Army Corps of Engineers twice, SCC, the Water Board, the Bay Planning Coalition's Dredging and Beneficial Reuse Committee, the LTMS Program Managers, and LTMS Management Committee. Staff also presented

information about the amendment to the San Francisco Estuary Partnership's Implementation Committee and Bay Area Flood Protection Agency Association in August 2026.

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, including receiving this Staff Report.

H. No written comments received following descriptive notice distribution

Section 11003(b)7 of the Commission's Regulations requires this Staff Report to contain "a summary of and responses to written comments received following distribution of the descriptive notice up to the time the staff planning report is mailed." No written comments were received by the Commission following distribution of the descriptive notice on May 8, 2026, nor after distribution of the revised date of public hearing on August 7, 2026, outside of the written feedback received during the June 4, 2026 Commission workshop which is summarized above.

VI. Consistency with the McAteer-Petris Act

BCDC's regulations (14 CCR § 11003(b)(4)) requires the Bay Plan Amendment Staff Report to include "a statement describing the consistency of the proposed change with the findings and declarations of policy in the McAteer-Petris Act (California Government Code Sections 66600 through 66694) if an amendment to the San Francisco Bay Plan is proposed." Section 66652 of the McAteer-Petris Act also states:

The commission at any time may amend, or repeal and adopt a new form of, all or any part of the San Francisco Bay Plan but such changes shall be consistent with the findings and declarations of policy contained in this title.

The McAteer-Petris Act provides the Commission with authority to regulate dredging of sediment in the Bay and its tributaries and the placement or disposal of sediment and soil in the Commission's jurisdiction. Specifically, Section 66632(a) requires a BCDC permit for placement of fill and extraction of materials in the Commission's jurisdiction. Dredging requires a permit because it is the extraction of material and generally occurs in the Commission's jurisdiction. The disposal or placement of sediment or excavated upland material also requires a BCDC permit if such disposal or placement occurs in the Commission's jurisdiction, whether at Commission-designated in-bay disposal locations or as part of a restoration project. Section 66632(f) further specifies that "the Commission may grant a permit subject to reasonable terms and conditions including the uses of land or structures, intensity of uses, construction methods and methods for *dredging or placing of*

fill. The policies proposed by this Bay Plan Amendment are consistent with these requirements, and effectuate Section 66651, which requires the Bay Plan to establish findings and policies for dredging, among other things.

The McAteer-Petris Act also directs the Commission to participate and coordinate with the Long-Term Management Strategy and other planning efforts related to dredging, restoration, and sediment, as described in Sections 66663-66666. BPA 1-26, as proposed, is consistent with these provisions.

VII. Effects on Other Bay Plan Policies

In addition, California Code of Regulations Section 11003(b)(3) requires the Staff Report for a Bay Plan Amendment to include a statement describing the effect the proposed change would have on any existing finding, policy, or map designation contained in the San Francisco Bay Plan, a Commission special area plan, the San Francisco Bay Area Seaport Plan, the Suisun Marsh Protection Plan, or any other plan administered by the Commission. BPA 1-26 would make direct changes to several Bay Plan findings and policies as described in this Staff Report; however, these changes would not create an internal inconsistency within the Bay Plan and there would be no effect on other policies in the Bay Plan or any other plan administered by BCDC.

VIII. Environmental Assessment

BCDC's regulations (14 CCR sections 11003(b)(6), 11005(b)(2)) require that this Staff Report contain an Environmental Assessment either stating that BPA 1-26 will have no significant adverse environmental impacts or describing any possible significant adverse effects that BPA 1-26 would have on the environment among other things. 14 CCR sections 11003(b)(6) and 11521 are part of the regulations that BCDC has promulgated to implement its certified regulatory program under the California Environmental Quality Act ("CEQA"). These regulations specify the required contents of environmental assessments generally when BCDC acts as CEQA lead agency – as it always does in the Bay Plan amendment context.⁸

⁸ The significance of BCDC's certified regulatory program is that environmental assessments prepared under BCDC's own regulations are used instead of the documents that would normally be required by CEQA (e.g., environmental impact reports; mitigated negative declarations; negative declarations). (Public Resources Code § 21080.5(a); 14 CCR § 15250.) Certification of BCDC's regulatory program amounts to a determination that BCDC's program includes procedures for environmental review and public comment that are "functionally equivalent" to CEQA compliance.

A. Project Description

BPA 1-26 concerns the proposed adoption of new and revised findings and policies in the Bay Plan regarding sediment management and beneficial reuse of dredged sediment and excess upland soils for wetland restoration. BPA 1-26 will not authorize any site-specific development or restoration project. Rather, future projects will still need to be reviewed and permitted by cities, counties, or other governmental agencies (acting as CEQA lead agency), and subsequently by BCDC (acting as CEQA responsible agency), and must be consistent with BPA 1-26, if approved.

B. No Direct Physical Changes in the Environment

The Commission's adoption of BPA 1-26 will not cause a direct physical change in the environment because BPA 1-26 does not approve any specific development project but would result only in changes to a planning document. Updating the Bay Plan would only alter certain permitting requirements – permit applicants would still submit all future project proposals that fall under BCDC jurisdiction for review and approval for consistency with relevant BCDC laws, regulations, and policies. Therefore, the Commission's adoption of BPA 1-26 does not have the potential to cause a direct physical change in the environment because BPA 1-26 consists only of changes to a planning document, not approval of any development projects in BCDC's jurisdiction.

Adopting the proposed changes to the Bay Plan that promote and, in some circumstances, may require beneficial reuse within the specific context of wetland restoration projects will not result in any project-level, "on-the-ground" impacts, since approval of BPA 1-26 would only directly result in the inclusion of beneficial reuse policies in the Bay Plan which ensures that any proposed projects are consistent with the *Sediment Management* policies related to beneficial reuse. Therefore, the only possible direct consequence of the Commission's adoption of BPA 1-26 is that the Commission must in the future apply the *Sediment Management* policies promoting beneficial reuse to future permit applications (as appropriate) to assess consistency of such permit application with the Bay Plan. Assuming that the Commission approves BPA 1-26, no direct physical changes in the environment would thus result from the adoption of beneficial reuse policies to the Bay Plan.

C. Reasonably Foreseeable Indirect Physical Changes in the Environment

Staff are unable to describe or analyze the exact indirect physical environmental impacts which could result from BPA 1-26 as BPA 1-26 would merely result in changes to the policies of the Bay Plan. All future site-specific restoration projects would require additional, project-specific environmental review in compliance with CEQA, as well as review and approval by the Commission for consistency with the McAteer-Petris Act, the

Bay Plan, and other relevant BCDC law and policies. However, this section describes the different types of possible indirect environmental impacts that BPA 1-26 may result from adoption of BPA 1-26 based on the topics set forth in Appendix G of the CEQA Guidelines, which is a checklist commonly used as a starting point for lead agencies to evaluate potential project impacts in determining whether an EIR is required. (14 CCR Div. 6 Ch. 3 App. G.)

BPA 1-26 is intended to promote wetlands and habitat restoration and mitigate the threat of inundation and loss posed to tidal marshes, tidal flats, and shallow subtidal areas by sea level rise and insufficient sediment supply, and therefore the future impacts from BPA 1-26 should be beneficial.

As part of the environmental review process for BPA 1-26, the CEQA Checklist set forth under the CEQA Guidelines was assessed (14 CCR Div. 6 Ch. 3 App. G; See Appendix 4 to this Staff Report). Upon review of the CEQA Checklist, BPA 1-26 was determined not to result in any direct significant adverse environmental impacts. Some environmental categories within the CEQA Checklist, however, may foreseeably be impacted as an indirect result of the adoption of BPA 1-26, including aesthetics, air quality, biological resources, geology and soils, greenhouse gas emissions, hydrology and water quality, noise, recreation, and transportation. However, BCDC does not have information about the location of future projects that may be proposed in local jurisdictions, and which will need to be consistent with the new and revised Bay Plan policies and, therefore, cannot describe the specific potential environmental impacts at particular locations.

All such future projects will need to undergo their environmental review in compliance with CEQA and comply with any potential mitigation requirements.

Each of these types of potentially foreseeable indirect impacts is discussed below.

1. Aesthetics

BPA 1-26 may result in an incremental increase in the placement of dredged sediment and excess upland soils in former and existing natural wetlands in comparison to current practice, as well as increased stockpiling of dredged sediment and soils on or near the Bay shoreline. This may result in limited temporary visual impacts, especially during dredging/construction season. Overall, BPA 1-26 is likely to lead to positive visual impacts and improved shoreline appearance because BPA 1-26 is intended to replace former or degraded wetlands and salt ponds with restored, better functioning, vegetated wetlands.

2. Air Quality

BPA 1-26 may result in a potential increase in air pollution emissions if ship and truck transportation of dredged sediment and excess upland soils around the Bay shoreline to beneficial reuse sites increases. Additionally, it is possible that BPA 1-26 may result in increased emissions from the use of construction equipment at beneficial reuse sites. Finally, BPA 1-26 may result in increased truck transportation and emissions if excess upland soils are stockpiled.

3. Biological Resources

It is possible that BPA 1-26 may result in temporary disturbances to wildlife and habitat during the processing of dredged sediment and when such dredged sediment is placed at a beneficial reuse site. However, BPA 1-26 is likely to result in long-term benefits to wildlife and habitat as BPA 1-26 is intended to create, preserve, and enhance wetland habitats through beneficial reuse of dredged sediment and soils.

4. Geology and Soils

BPA 1-26 may result in temporary subsidence in former tidal wetlands historically diked off from the Bay should large quantities of dredged sediment and soil be deposited in such areas. On the other hand, BPA 1-26 would increase the beneficial reuse of dredged sediment and the use of excess upland soils to preserve, restore, and enhance bay and shoreline habitats and is expected to restore appropriate elevations to subsided diked Baylands in order to establish tidal marsh and adapt to rising seas.

5. Greenhouse Gas Emissions

BPA 1-26 may result in increased greenhouse gas (GHG) emissions due to the transportation of dredged sediment and soils to beneficial reuse sites around the Bay shoreline, in comparison to the GHG emissions currently resulting from in-Bay or ocean disposal of dredged sediment. BPA 1-26 may also lead to increased GHG emissions due to emissions of hydrocarbons and nitrous oxides from construction equipment used to place dredged sediment and soils at a beneficial reuse site. However, BPA 1-26 is likely to offer important long-term environmental benefits, including sequestering atmospheric carbon which is stored in plants (terrestrial and aquatic), organic rich soils, peat, and sediments. The sequestration of carbon in the restored wetlands at beneficial reuse sites will likely offset any increases in GHG emissions from the increased transportation and placement of dredged sediment and soil at beneficial reuse sites. Ultimately, it would be speculative to attempt to analyze specific increases in GHG emissions, or the potential carbon sequestration benefits, that may result from BPA 1-26 because BPA

1-26 will not directly or indirectly approve any specific beneficial reuse or habitat restoration projects.

6. Hydrology and Water Quality

BPA 1-26 is intended to elevate restoration sites through the placement of dredged sediment and soil, allowing for improved habitat development and altered drainage of restoration sites through development of primary and secondary channels and is expected to improve and positively impact the functioning of the Bay's tributaries, wetlands, and shoreline. Thus, BPA 1-26 is likely to result in positive improvements to wastewater discharge, existing drainage patterns, flows of streams or creeks, and flood flows. BPA 1-26 may also indirectly result in the re-alignment of streams, creeks, and flood protection channels that have been artificially altered over time to more natural systems that better support water and sediment flow into wetlands, while improving flood water capacity via absorption in these newly connected wetlands, thus reducing flooding to adjacent developed areas. All dredged sediment and soils eligible for wetlands restoration must be tested to ensure such materials are suitable for placement as provided in proposed Sediment Management Policies 5, 6, and 7. Only sediment and soils which are deemed suitable for beneficial reuse may be transported to, and placed on, a restoration site.

7. Noise

It is possible that the work associated with the placement of dredged sediment and soils for wetlands restoration could result in some temporary increase in ambient noise levels in the surrounding areas. BPA 1-26 may result in increased transportation via water and land of dredged sediment and soils, which may subject surrounding areas to some increase in noise levels.

8. Recreation

BPA 1-26 is likely to result in benefits for recreational resources due to improved wildlife habitat, open space, water quality, flood protection, and other environmental benefits due to wetlands protection and restoration. By encouraging restoration of Bay habitats through greater beneficial reuse of dredged sediment and soils, BPA 1-26 may indirectly result in an increase in public access and other recreational opportunities along the Bay shoreline.

9. Transportation

BPA 1-26 may result in increased water-based transportation of dredged sediment and increased land-based transportation of excess upland soils to beneficial reuse

sites. It is possible that BPA 1-26 could result in increased roadway traffic from trucks transporting dredged sediment from flood control projects or excess upland soils to beneficial reuse sites.

D. Alternatives

1. Option 1

No Project Alternative. Under the No Project Alternative, no changes would be made to existing Bay Plan policies. This means the Commission would continue to apply current Bay Plan policies to dredging projects within BCDC's jurisdiction. However, the San Francisco Bay shoreline faces rising sea levels, the rate of which will accelerate in the coming century. Sea level rise threatens public safety and recreation, regional economic productivity, and wildlife that live in and adjacent to the Bay. Restoring and enhancing the Bay's wetlands will help the region adapt to sea level rise, increase flood water absorption, protect critical infrastructure, and create habitat for wildlife. Without a consistent and robust sediment supply, rising sea levels will drown wetlands over time, threatening their health and the wildlife that they support. Indeed, the Bay will need an estimated 450 to 650 million metric tons of sediment and soil to preserve, restore, and sustain wetland habitat, and adapt to rising sea levels through 2100.

While no direct environmental effect would occur as a result of the No Project Alternative, the failure to update Bay Plan policies to encourage more beneficial reuse will likely lead to a lack of necessary sediment to restore and preserve wetlands and combat sea level rise.

Thus, the No Project Alternative would fail to meet BCDC's basic statutory objectives to improve, develop, and preserve the San Francisco Bay shoreline. (Cal. Gov't Code § 66605.1.) For these reasons, the No Project Alternative is likely to result in adverse environmental impacts due to the impending threat of sea level rise and insufficient sediment supply to respond to this threat.

2. Option 2

Another alternative, referred to as Option 2, is that the Commission would adopt some or most of the proposed findings and policies within BPA 1-26, but decline to adopt all of the proposed findings and policies. This alternative could involve a number of sub-alternatives that would each be limited in scope and relate only to a particular section or subsection of the Bay Plan for which the Commission would decline to adopt BPA 1-26.

3. Option 3

A third alternative, referred to as Option 3, is that the Commission would adopt most of BPA 1-26, but as to certain findings and policies within BPA 1-26, the Commission would adopt revised or alternative amendments. This alternative, like Option 2, could involve a number of sub-alternatives that would each be limited in scope and relate only to a particular section or subsection of the Bay Plan for which the Commission would decline to adopt revised or alternative amendments.

E. Conclusion

Staff conclude that BPA 1-26 will not result in any significant adverse environmental impacts. The preferred alternative and most environmentally feasible option is adoption of BPA 1-26. BPA 1-26 is both necessary and environmentally beneficial.

The Bay Plan must better address the threat of inundation and loss posed to tidal marshes, tidal flats, and shallow subtidal areas by sea level rise and insufficient sediment supply. Restoring and adapting the wetlands that fringe San Francisco Bay is critical to protecting the region from increased shoreline flooding. BPA 1-26 will promote beneficial reuse of dredged sediment for wetlands and habitat restoration projects, increase sediment and soil supply to re-establish wetlands across the San Francisco Bay region, and assist in shoreline adaptation to rising sea levels. Thus, BPA 1-26 is intended to mitigate the adverse impacts of rising sea level to the San Francisco Bay shoreline and the future impacts from BPA 1-26 are likely to be beneficial. As a result, BPA 1-26 is the best alternative that best achieves project objectives; and will not result in any significant adverse environmental impacts.

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X. List of Appendices

Appendix 1: Proposed Bay Plan changes

Appendix 2: Memorandum regarding Beneficial Reuse Considerations

Appendix 3: Memorandum regarding *Public Trust* Findings

Appendix 4: Analysis of Environmental Impacts pursuant to CEQA Checklist (14 CCR Div. 6 Ch. 3 App. G)