



Sediment for Wetland Adaptation Project

SF Estuary Partnership – Implementation Committee

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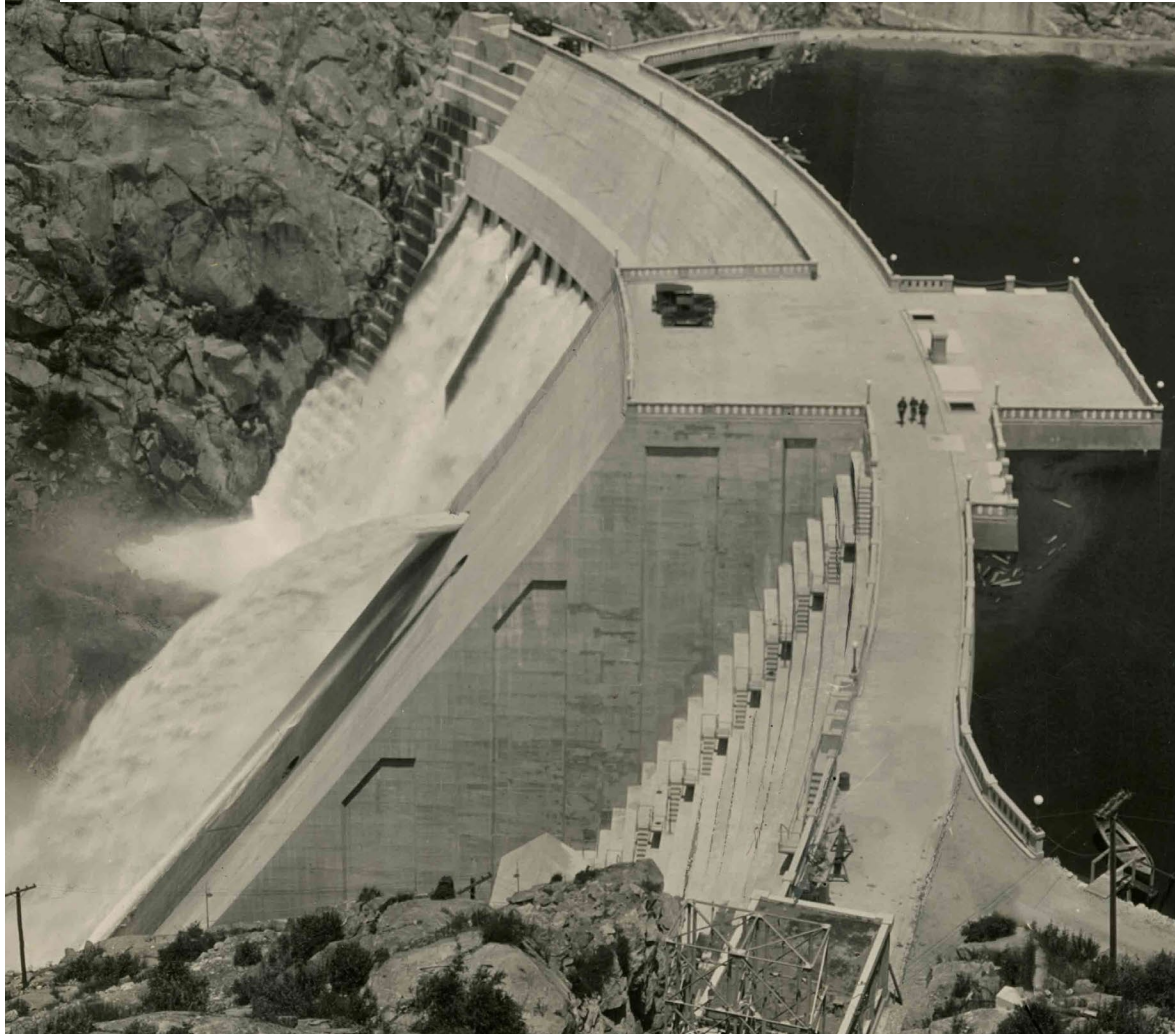
Outline

- Brief Bay history and BCDC overview
- SWAP overview
- Bay Plan Amendment



Photo: Eden Landing, Alameda County

Human influences on sediment system: Dams, levees, creeks and channels



O'Shaughnessy Dam, Tuolumne County



Pajaro River levee, Monterey County

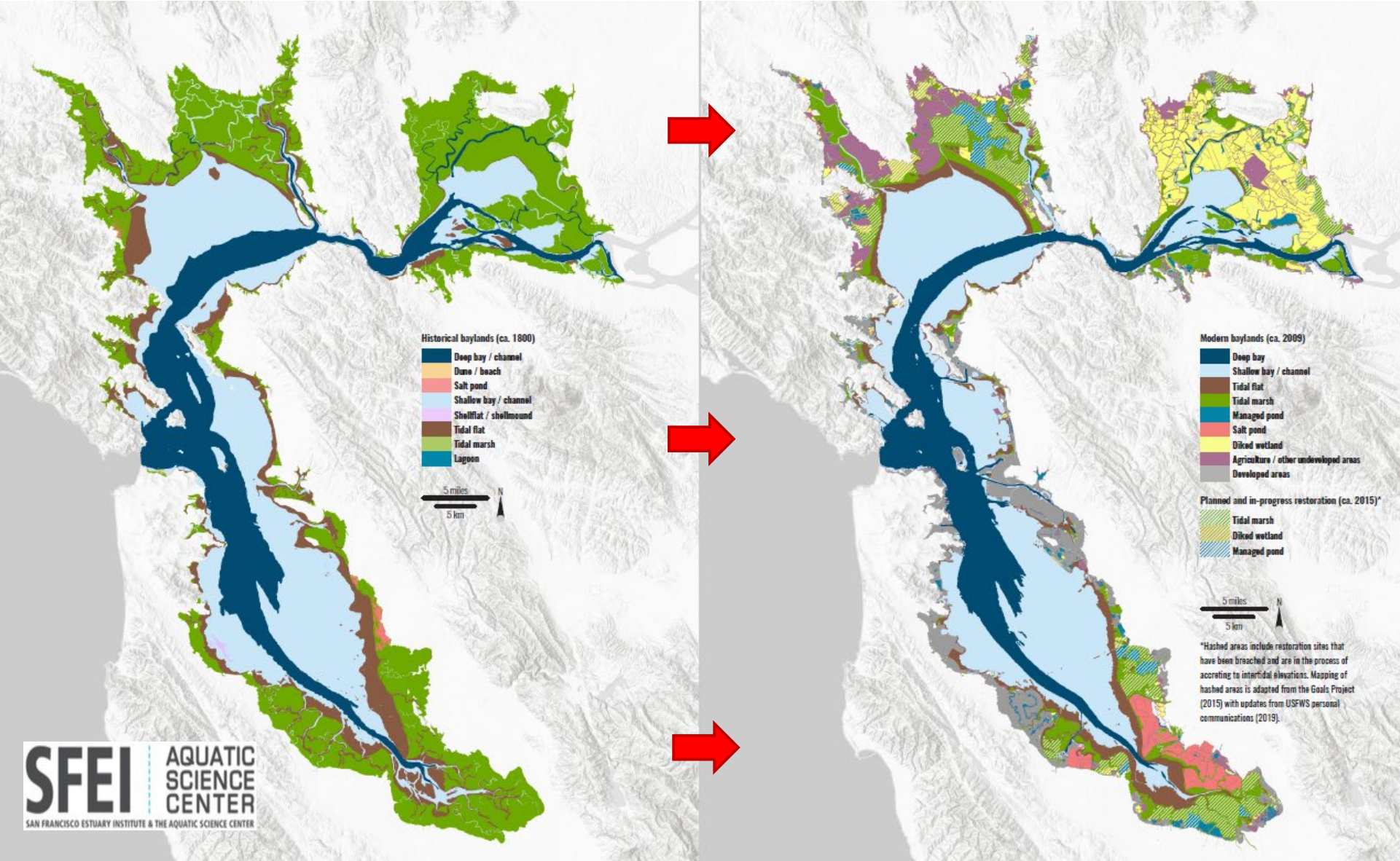


Historical Baylands Circa 1800

Modern Baylands Circa 2009

**Between 1880 – 1998,
~90% of wetlands
were lost due to
human activities:**

- Salt ponds
- Agricultural baylands
- Bay fill
- Diked wetlands
- Dams
- Flood control channels
- Storage or treatment ponds



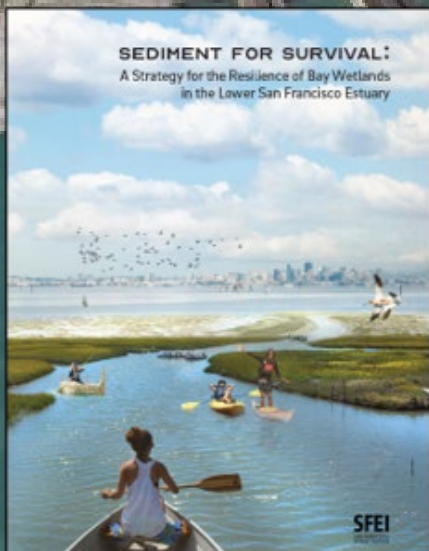
VOLUME OF SEDIMENT NEEDED FOR TIDAL WETLANDS AND MUDFLATS BY 2100

450–650 million metric tons

Amount of sediment that can be
supplied by nature and current
management approaches



The sediment need that could be met by
changing management practices to access
more in-bay and watershed sediment



Dredged sediment is available for reuse



Sediment dredged from Bay, streams, channels



Sediment Reuse in Deer Creek, Novato

Soil is available for reuse



Excess upland construction soil

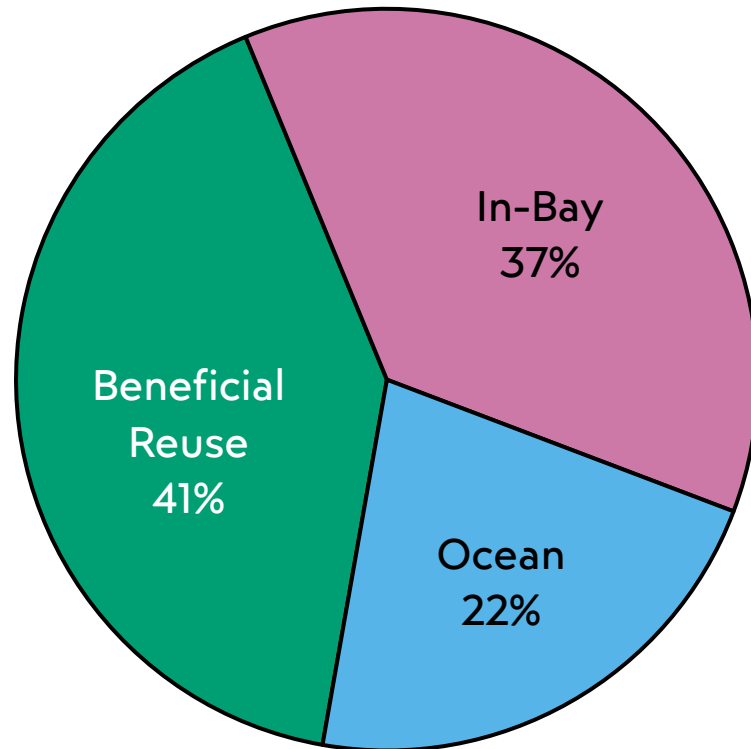


Soil reuse at South Bay Salt Ponds Restoration Project

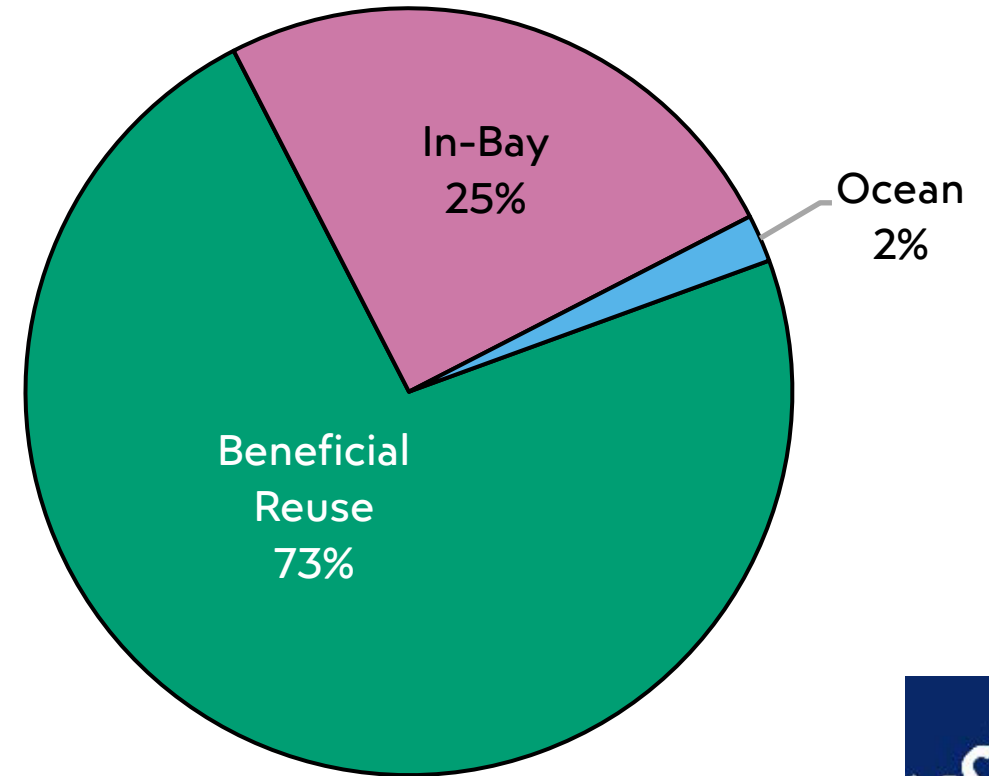


Placement and Disposal Status

Average Annual Dredged Material
Placement & Disposal 2013-2024



Dredged Material
Placement & Disposal 2023



Sonoma Baylands: 1993

Sonoma Baylands Trail



Image U.S. Geological Survey

Sonoma Baylands: 2003

Sonoma Baylands Trail

Sears Point Rd

37

Image U.S. Geological Survey
Image © 2025 Maxar Technologies

An aerial photograph showing a coastal area with a mix of green fields, brownish wetlands, and a large body of water on the right. A road labeled 'Sears Point Rd' runs diagonally from the bottom left towards the center. A highway shield with the number '37' is visible. A trail is marked with a green dot and labeled 'Sonoma Baylands Trail' in the top right. A large white box with black text is centered at the top.

Sonoma Baylands: 2024

Sears Point Rd

37

Sonoma Baylands Trail



The Sediment for Wetland Adaptation Project

Project Goal: Increase beneficial reuse of sediment and soil for wetland habitat restoration, resilience, and sea level rise adaptation in the San Francisco Bay Area.

Funders:  + 



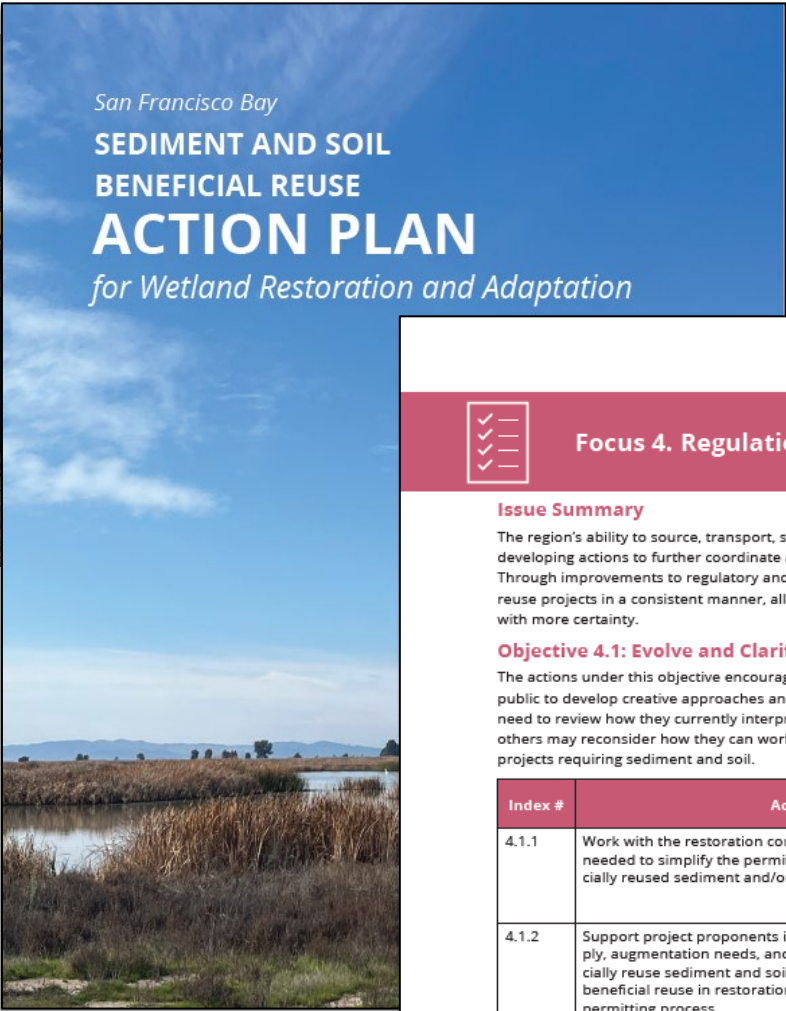


Stakeholder Workshops

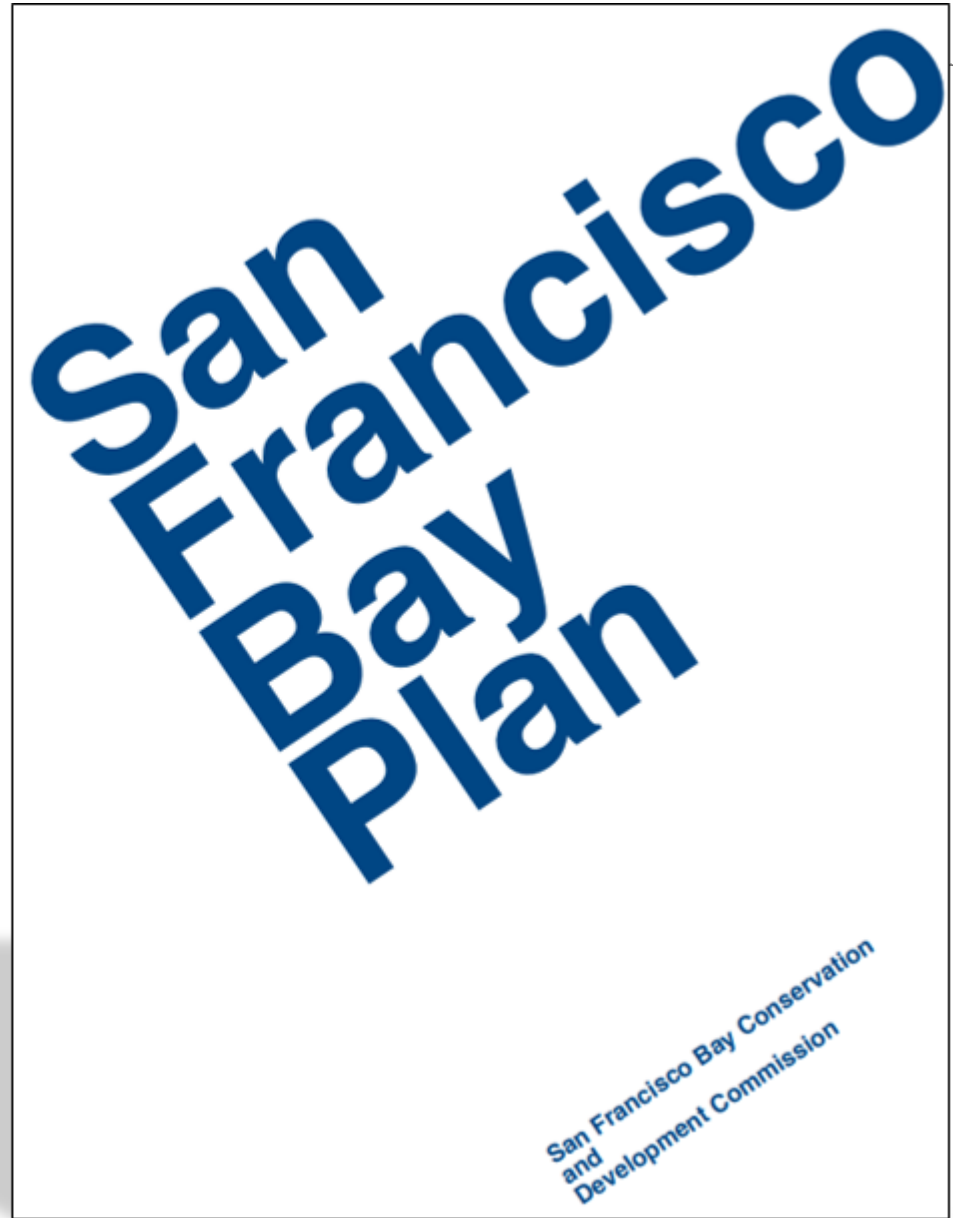
- Early 2024

Regional Action Plan

- Released March 2025
- Beneficial reuse challenges
- 70 actions organized into 8 focus areas
- Action prioritization



Focus 4. Regulations and Permitting		
Issue Summary The region's ability to source, transport, store, and place sediment and soil can be improved by developing actions to further coordinate and streamline regulatory and permitting processes. Through improvements to regulatory and permitting processes, agencies can address beneficial reuse projects in a consistent manner, allowing project proponents to plan their restoration with more certainty.		
Objective 4.1: Evolve and Clarify Permitting Regulations and Practices The actions under this objective encourage project proponents, permitting agencies, and the public to develop creative approaches and evolve processes and practices. Some entities may need to review how they currently interpret and apply their legal and regulatory authority; others may reconsider how they can work together to support successful wetland restoration projects requiring sediment and soil.		
Index #	Action	Status & Champion(s)
4.1.1	Work with the restoration community to understand what is needed to simplify the permitting process to receive beneficially reused sediment and/or soil.	In process BCDC, Water Board, SCC, USACE, U.S. EPA
4.1.2	Support project proponents in understanding sediment supply, augmentation needs, and how to design sites to beneficially reuse sediment and soil. Develop guidance to support beneficial reuse in restoration site development and the permitting process.	Not yet started
4.1.3	Consider whether beneficial reuse of sediment and/or soil at wetland restoration sites can mitigate for dredging or flood protection project impacts.	In progress National Oceanic and Atmospheric Administration (NOAA), USACE, Water Board, BCDC, CDFW
4.1.4	Discuss among regulatory agencies appropriate characterization and review of stream maintenance sediment (chemical/contaminant analyses, soil grain size and type, geotechnical properties, etc.).	Not yet started



San Francisco Bay Plan

- Guides the review of projects under the McAteer-Petris Act.
- Policies related to:
 - Protection of the Bay as a Resource
 - Development of the Bay and Shoreline
- Policies are updated periodically for regional needs.
- Permits issued if consistent with McAteer-Petris Act and San Francisco Bay Plan policies.



Bay Plan Amendment Goals

1. Acknowledge sediment as a critical Bay resource and a public trust resource.
2. Make beneficial reuse BCDC's priority for sediment and soil.
3. Address sources of sediment and soil other than navigation dredging.
4. Encourage local connections and innovation.





Policy topics

- Navigation dredging
- Channel & streambed maintenance
- Upland soil



Navigation Dredging

Beneficial reuse is the preferred alternative to aquatic disposal.

- A dredging project would be required to evaluate:
 - Suitability of dredged sediment for beneficial reuse;
 - Availability of beneficial reuse sites;
 - Alternatives to aquatic disposal, including a comparison of costs of beneficial reuse and aquatic disposal;
 - Type of dredging and availability of offloading equipment;
 - Cost and benefits of the dredging project.
- Based on this evaluation, beneficial reuse would be required if it is reasonably capable of being done.



Upland Soil

- Condition beneficial reuse of sediment dredged from channels and creeks to support habitat restoration.
- Evaluate reconnection and realignment of creeks and waterways to tidal and seasonal wetlands to supply fresh water and sediment to these areas, as well as increase flood absorption.

Channel & Streambed Maintenance

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Bay Plan Amendment Process

begin

Staff conduct research and outreach to subject matter experts and conduct meaningful community engagement.

Research & Outreach

Policy Development

Staff develop policy by analyzing and integrating results of research and outreach.

At a public hearing, Commissioners vote on whether to initiate the amendment. A majority of Commissioners present at the hearing must vote in favor to initiate the amendment.

Amendment Initiation

We're around here right now

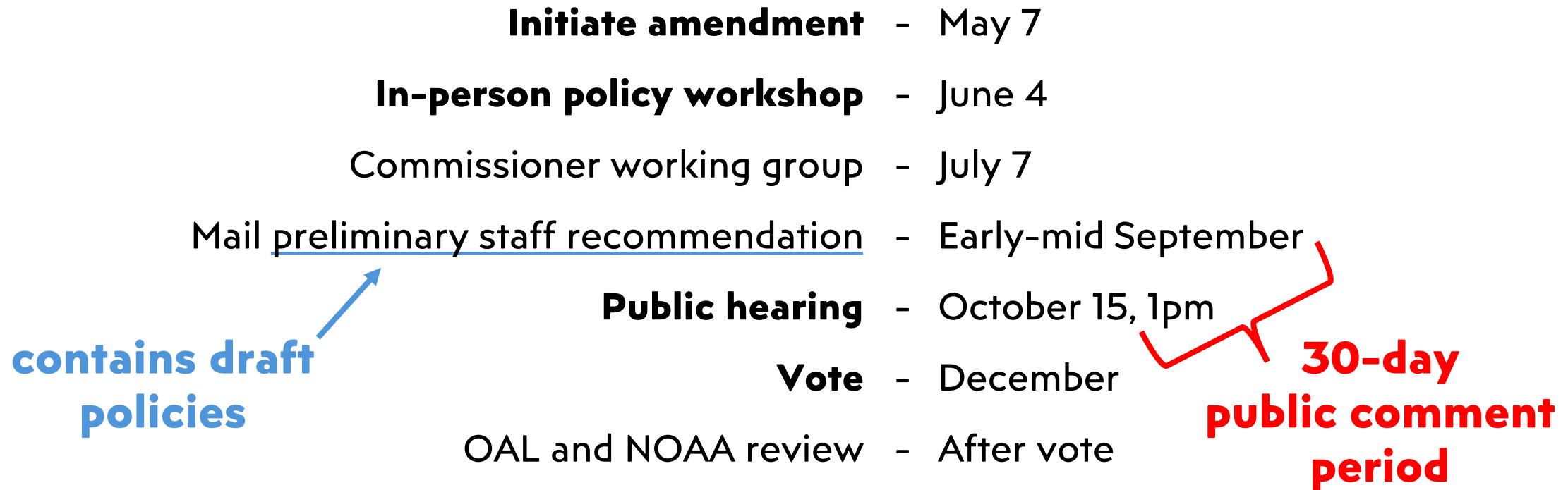
Public Review & Approval

At a public hearing, the Commission reviews Staff's preliminary recommendation and policy language, and the 30-day public comment period starts. At a later public meeting, the Commission votes on the amendment based on Staff's final recommendation.

end



Tentative BPA Timeline





Email **rachel.cohen@bcdc.ca.gov** to receive email updates on this project.

Thank you!