

Sediment and Beneficial Reuse Commissioner Working Group Meeting

April 7, 2026



Agenda Item 2: SWAP Overview

Outline

- Sediment system
- Status of beneficial reuse in the Bay
- Project description

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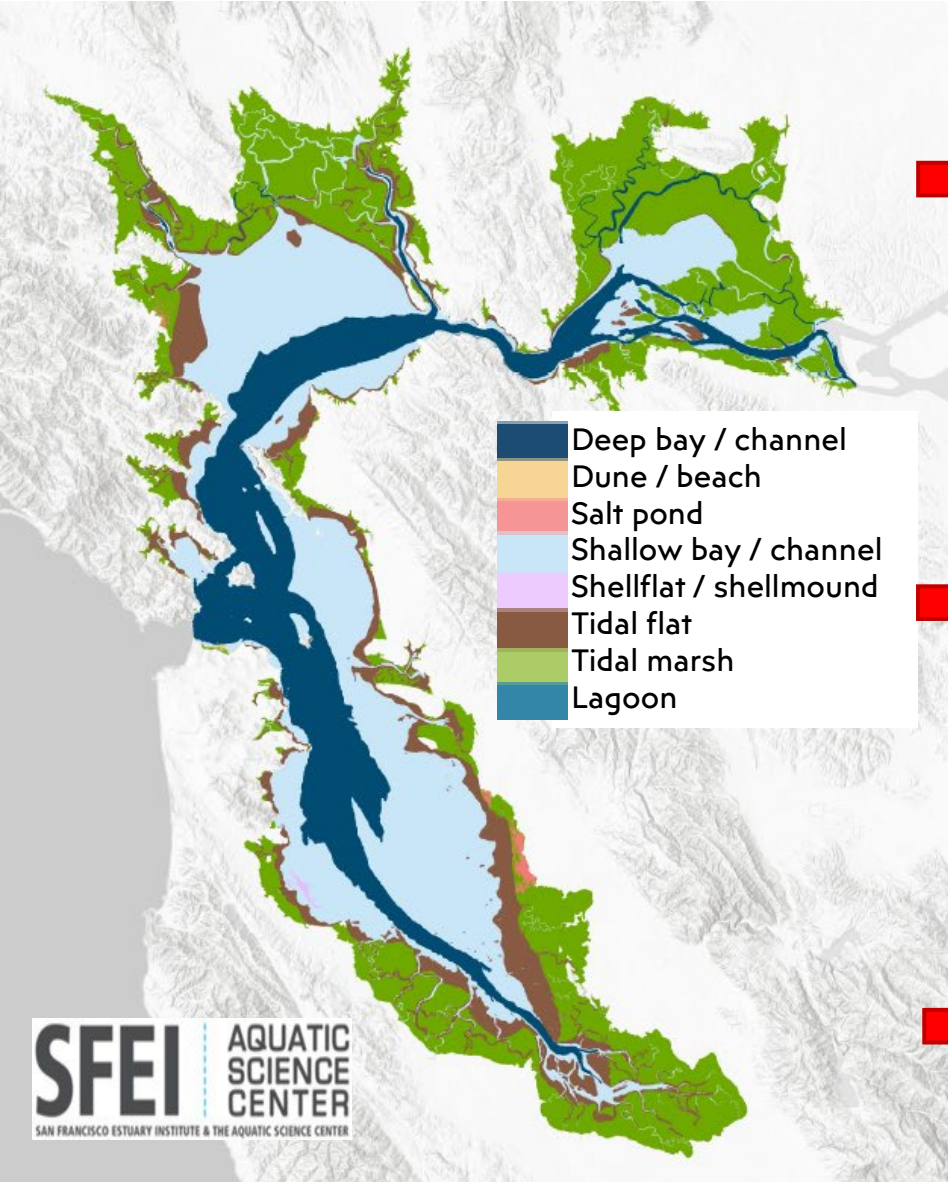
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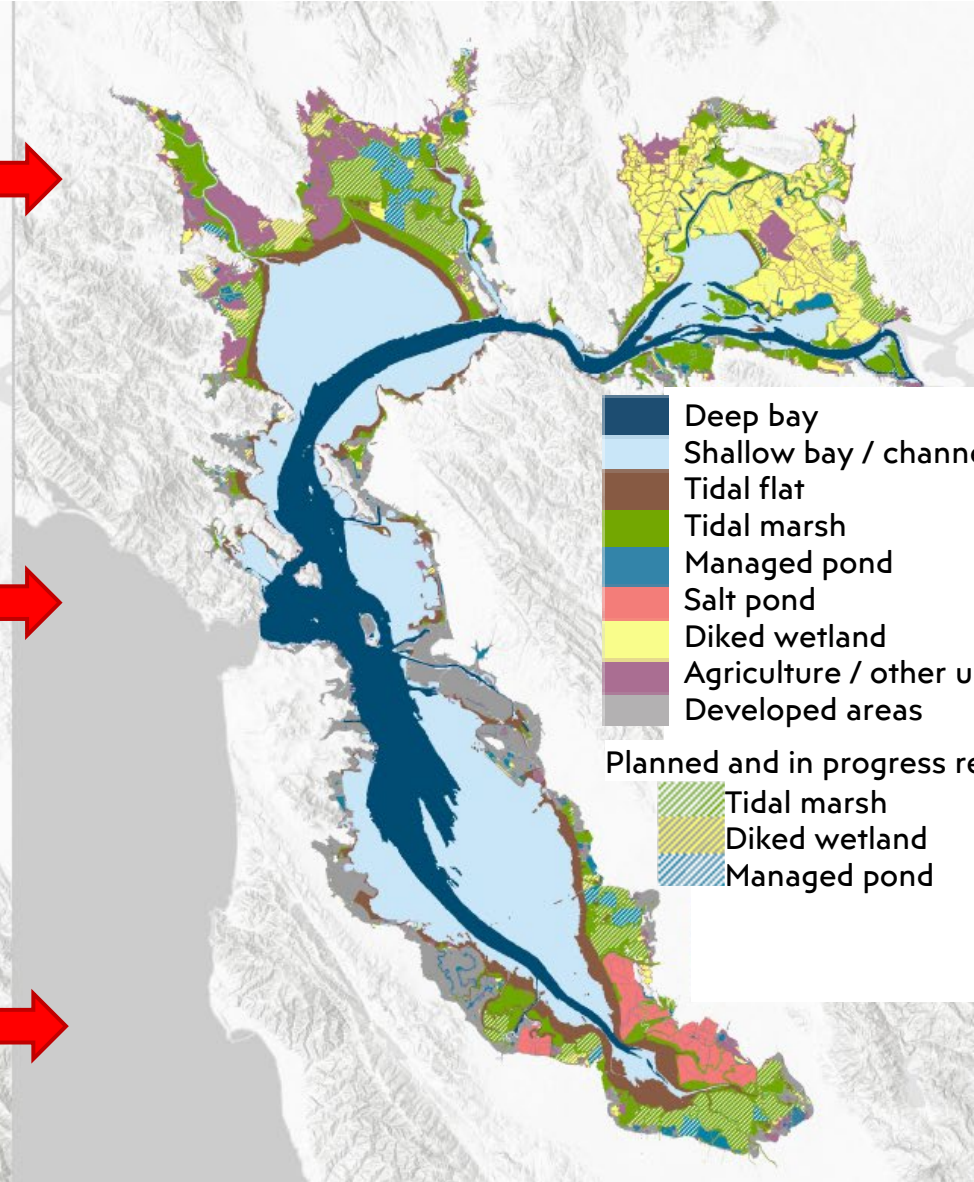
Historical Baylands Circa 1800

Modern Baylands Circa 2009

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



- Deep bay / channel
- Dune / beach
- Salt pond
- Shallow bay / channel
- Shellflat / shellmound
- Tidal flat
- Tidal marsh
- Lagoon



- Deep bay
 - Shallow bay / channel
 - Tidal flat
 - Tidal marsh
 - Managed pond
 - Salt pond
 - Diked wetland
 - Agriculture / other undeveloped areas
 - Developed areas
- Planned and in progress restoration (ca. 2015)
- Tidal marsh
 - Diked wetland
 - Managed pond



Sediment in service

- **Wetland Environmental Services**

- Carbon sequestration
- Nutrient and mineral source
- Water quality
- Storm buffer
- Biodiversity

- **Sediment supports Bay Ecosystems**

- Plants and microbes in soil are the building blocks of the food web
- Stabilization and growth
- Promotes ecosystem diversity



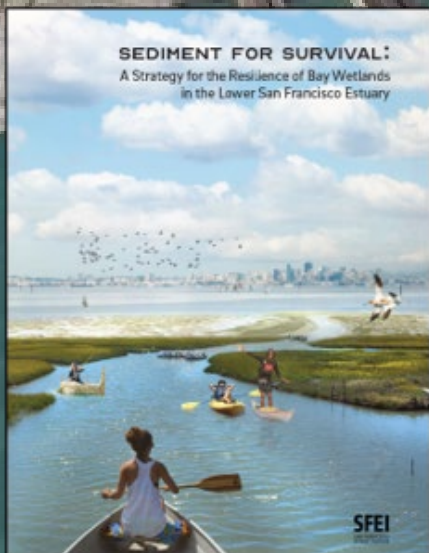
VOLUME OF SEDIMENT NEEDED FOR TIDAL WETLANDS AND MUDFLATS BY 2100

450–650 million metric tons

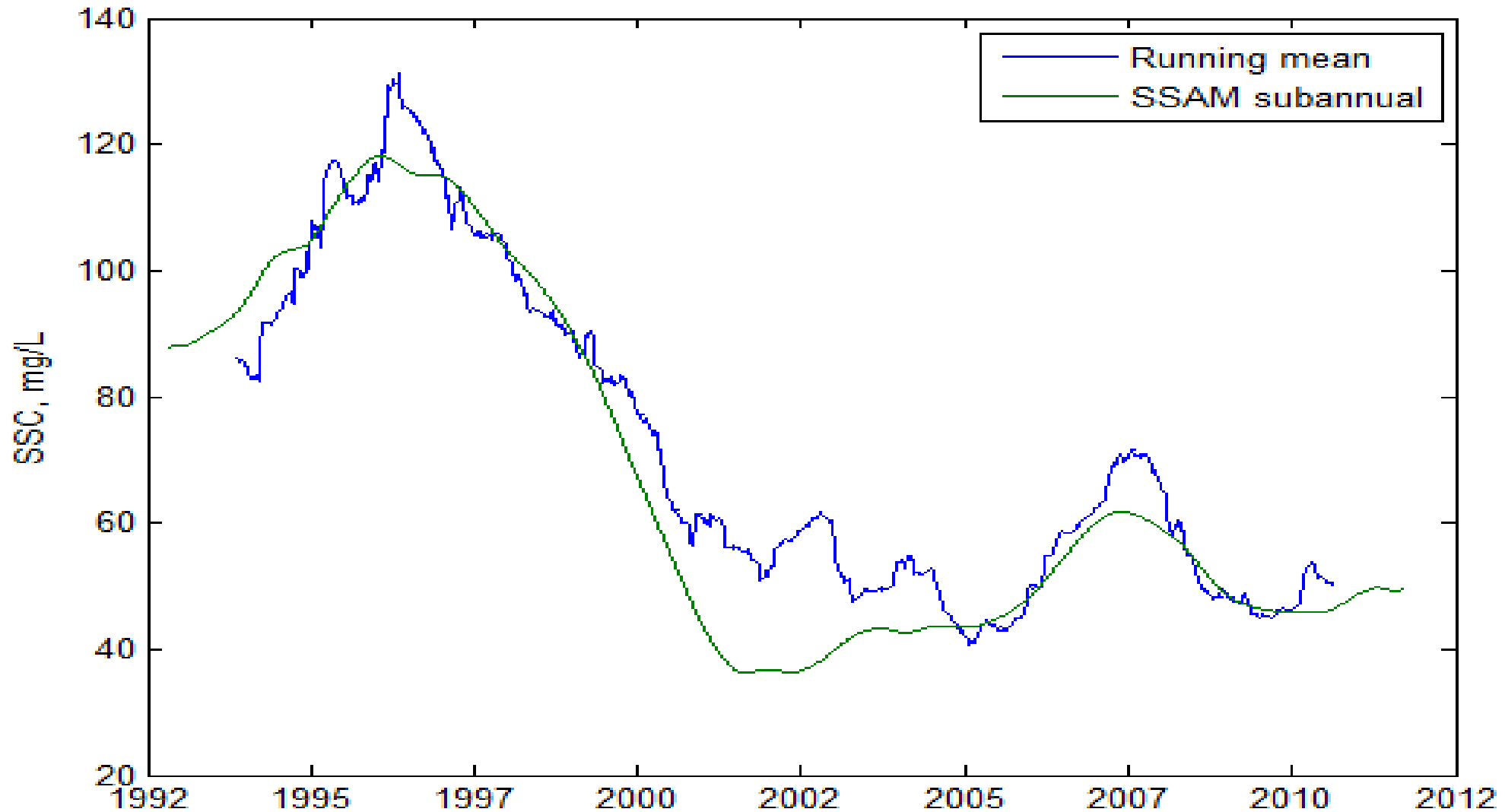
Amount of sediment that can be supplied by nature and current management approaches



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



DECLINE IN SUSPENDED SEDIMENT INPUT



Dumbarton Bridge, mid-depth, Dave Schoellhamer, USGS



Excess construction soil



Soil Reuse at South Bay Salt Ponds Restoration



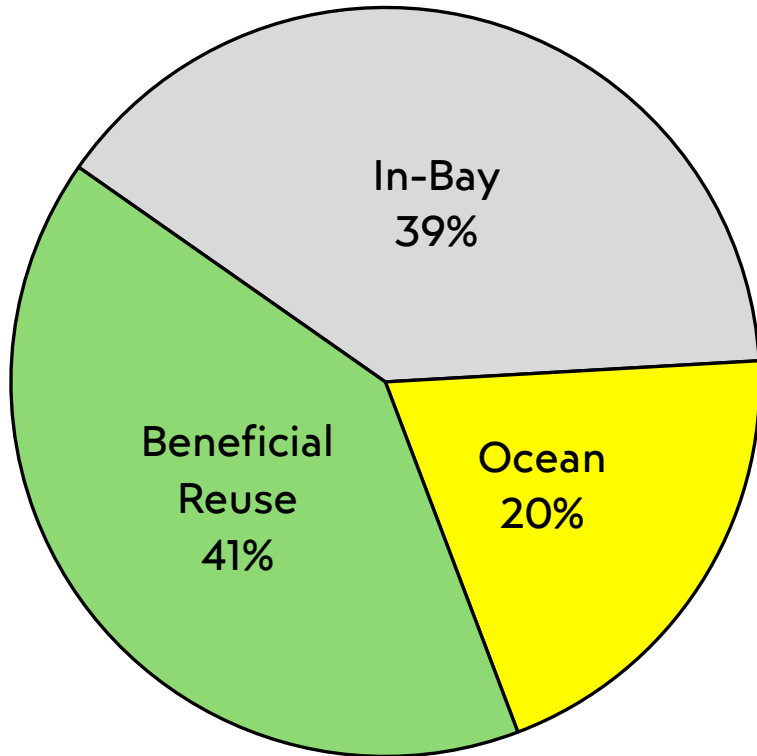
Sediment dredged from Bay, flood control channels



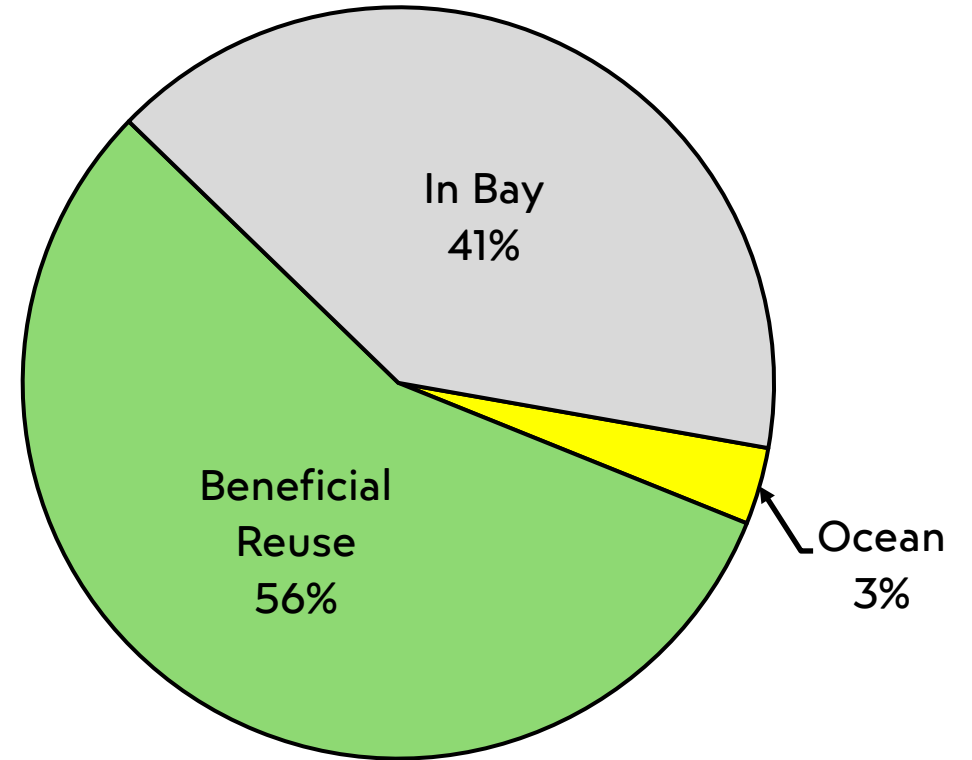
Sediment Reuse in Deer Creek, Novato

Placement and Disposal Status

2000-2024 Dredged Material Placement & Disposal (Average)



2024 Dredged Material Placement & Disposal



Beneficial reuse of dredged sediment happens when:

1. Sites are available
2. The dredging community balances its disposal and beneficial reuse proposals through integrated alternative disposal site analysis (meeting the LTMS goals)
3. Dredging occurs outside the environmental work windows (mitigation for impacts)
4. New work dredging projects (mitigation for impacts)
5. Funding is available specifically for beneficial reuse (incremental cost)

Sonoma Baylands: 1993



Sonoma Baylands: 2024

Sonoma Baylands Trail

Sears Point Rd

37

Image © 2025 Airbus
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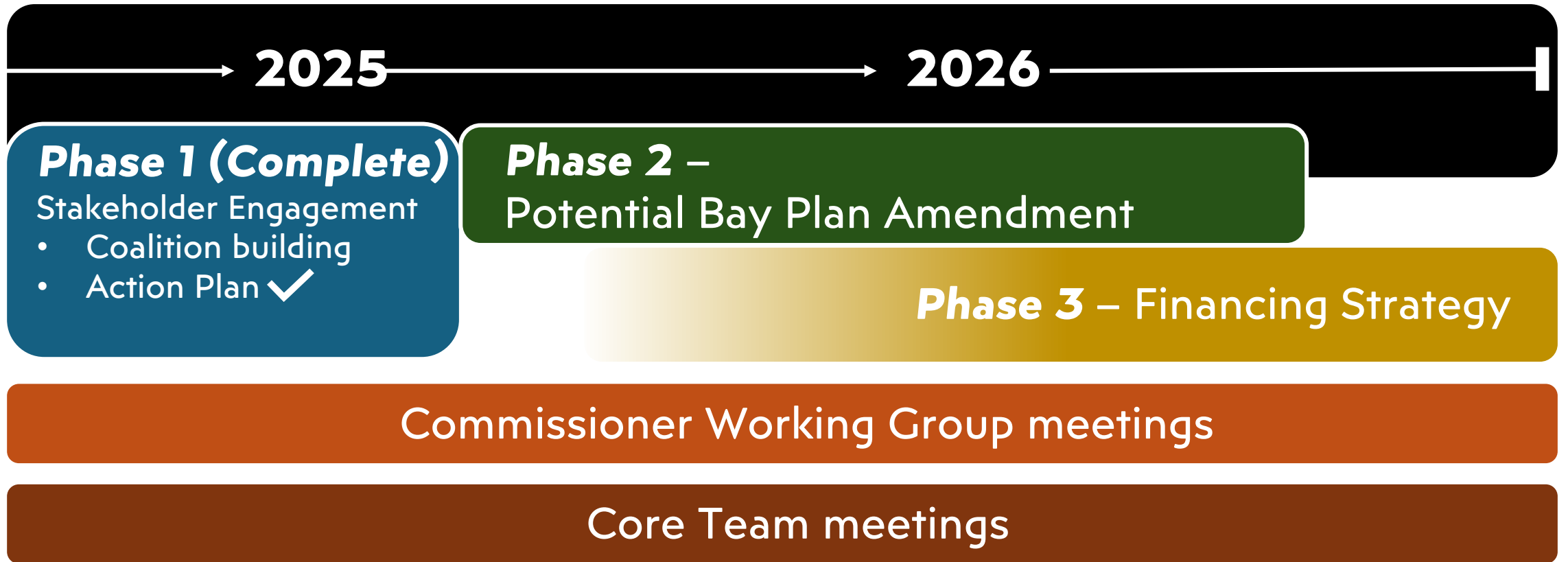
What is the SWAP?

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

- Objectives:**
- Increased collaboration ✓
 - Beneficial Reuse Action Plan ✓
 - Possible policy changes
 - Financing Strategy

Funders:  EPA +  CALIFORNIA OCEAN PROTECTION COUNCIL

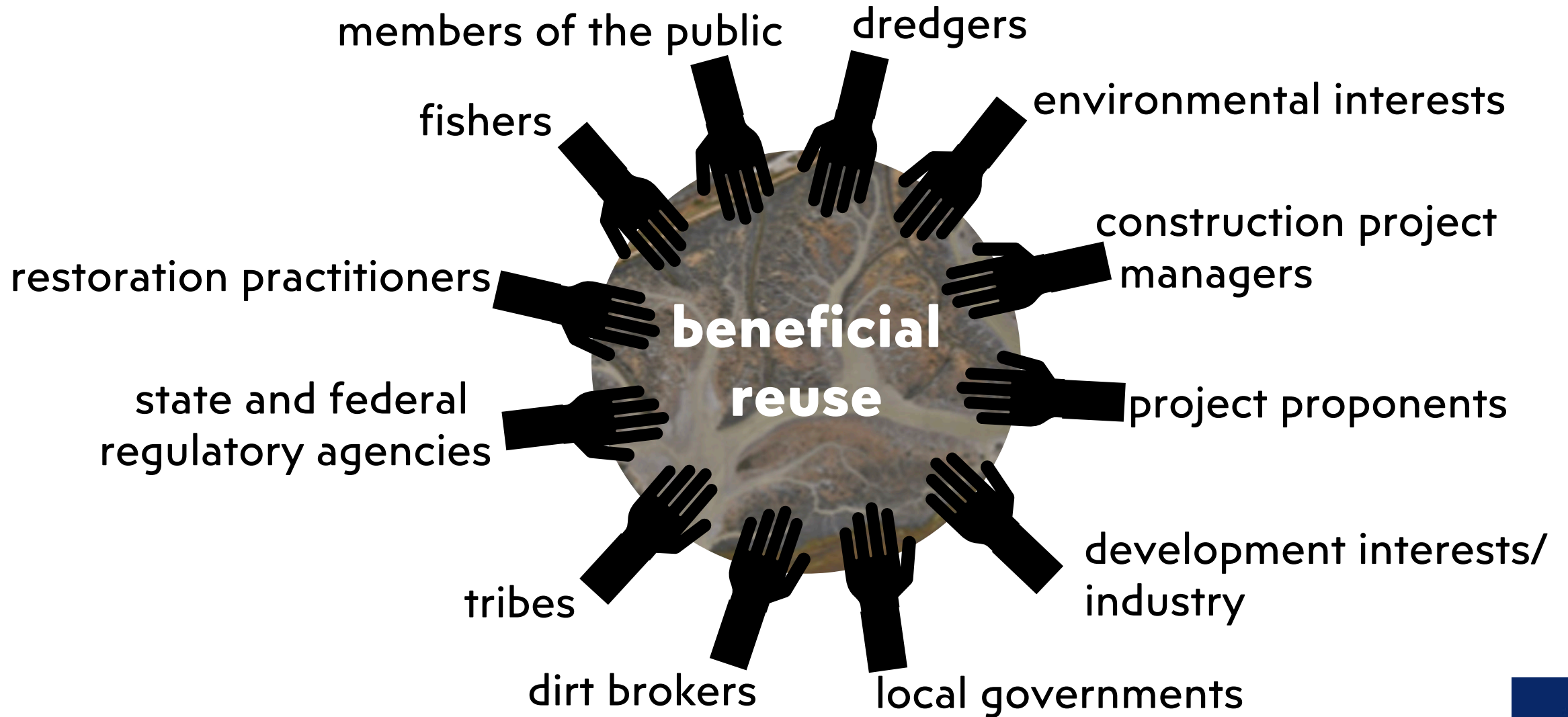
SWAP Timeline



Core Team:



Stakeholders



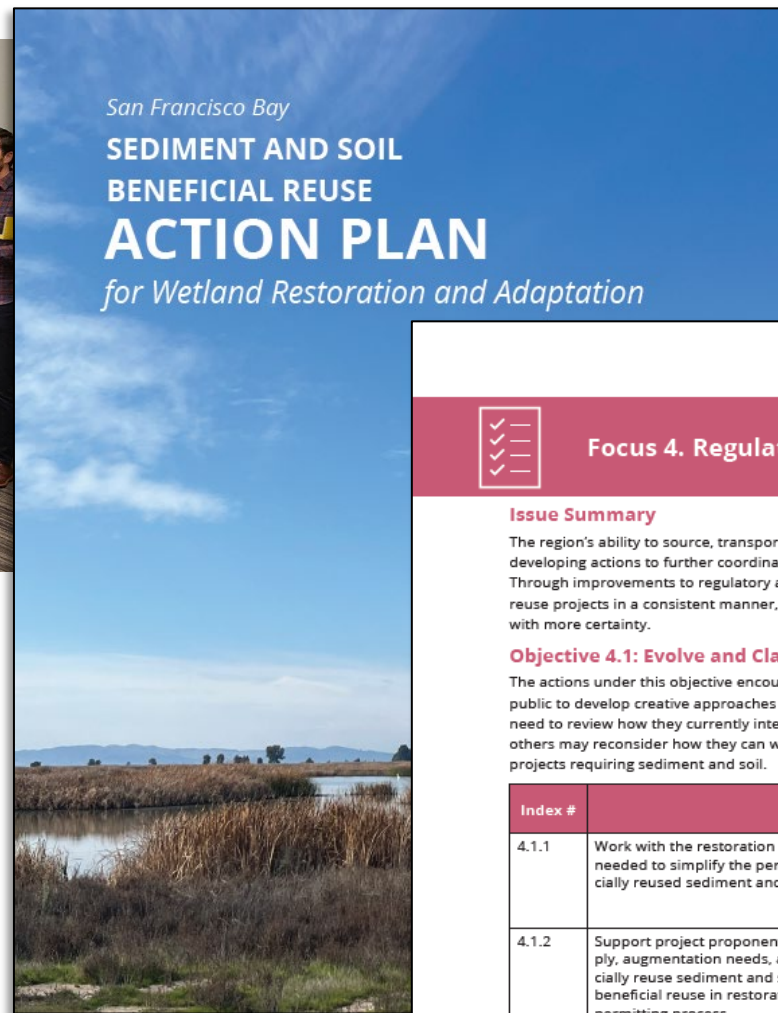


Stakeholder Workshops

- Early 2024

Regional Action Plan

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



San Francisco Bay
**SEDIMENT AND SOIL
 BENEFICIAL REUSE
 ACTION PLAN**
for Wetland Restoration and Adaptation

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 <i>BCDC, Water Board, SCC, USACE, U.S. EPA</i> |
| 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 <i>National Oceanic and Atmospheric Administration (NOAA), USACE, Water Board, BCDC, CDFW</i> |
| 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 Sediment and Soil Beneficial Reuse Action Plan

FOCUS AREAS

Questions/ Discussion/ Public Comment

