



SAN FRANCISCO BAY

RESTORATION AUTHORITY

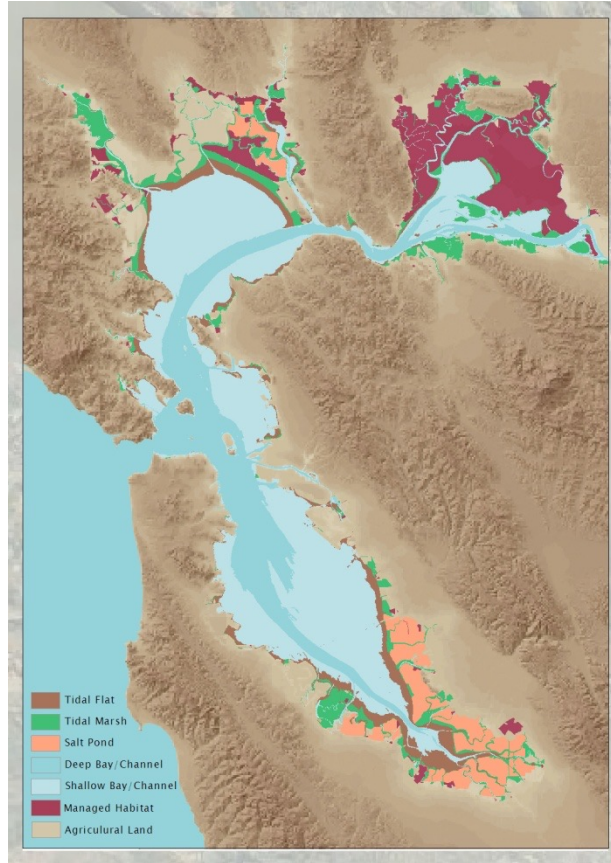
The Restoration Authority & Measure AA: Funding the Restoration of San Francisco Bay

Jessica Davenport, Deputy Program Manager
Presentation to Bay Area Regional Collaborative Governing Board
January 21, 2022

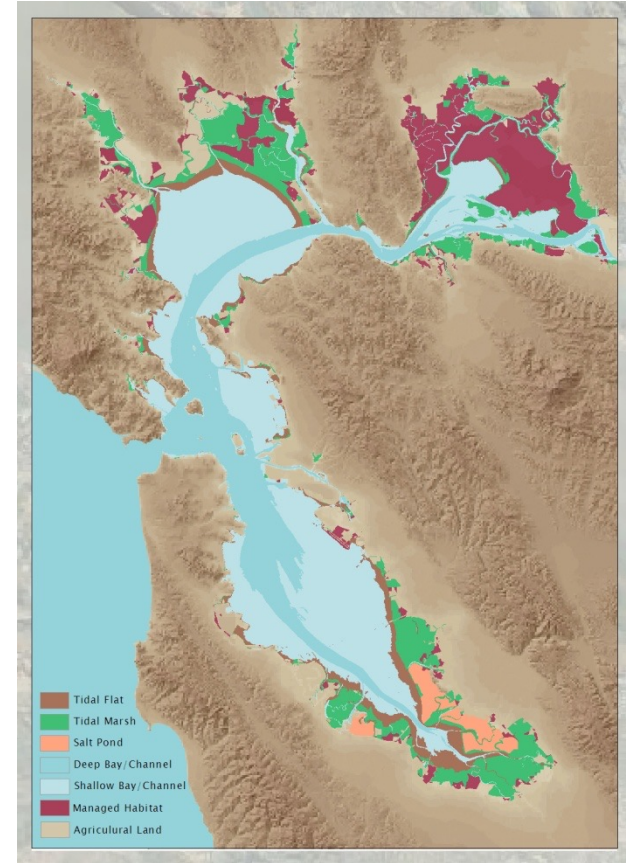
Wetland Loss and Restoration



~1850



~2000



~2030

Goal of 100,000 Acres of Healthy Tidal Marshes



22,000 acres

Additional acquisition/
restoration to reach goal

25,000 acres

Protected/planned for
marsh restoration

13,000 acres

Wetlands restored to
tides since 2000

40,000 acres

Healthy tidal marsh as
of 2000

Why Restore Bay Habitats?

- Home for hundreds of fish and wildlife species
- Filter for pollutants
- Outdoor recreational opportunities
- Flood protection by reducing wave energy



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Graphic: Save the Bay

Wetland Restoration Challenges

- Money
 - SFBRA funds matched by state and federal sources
- Permits
 - Bay Restoration Regulatory Integration Team is helping to speed up process
- Sediment
 - Most sites are subsided
 - Not enough sediment to meet the needs of planned restoration projects



**HEALTHY AND
RESILIENT BAYLANDS**

**DREDGED
SEDIMENT**

**MIGRATION
SPACE**

**WATERSHED
MANAGEMENT**

**Near
Term**

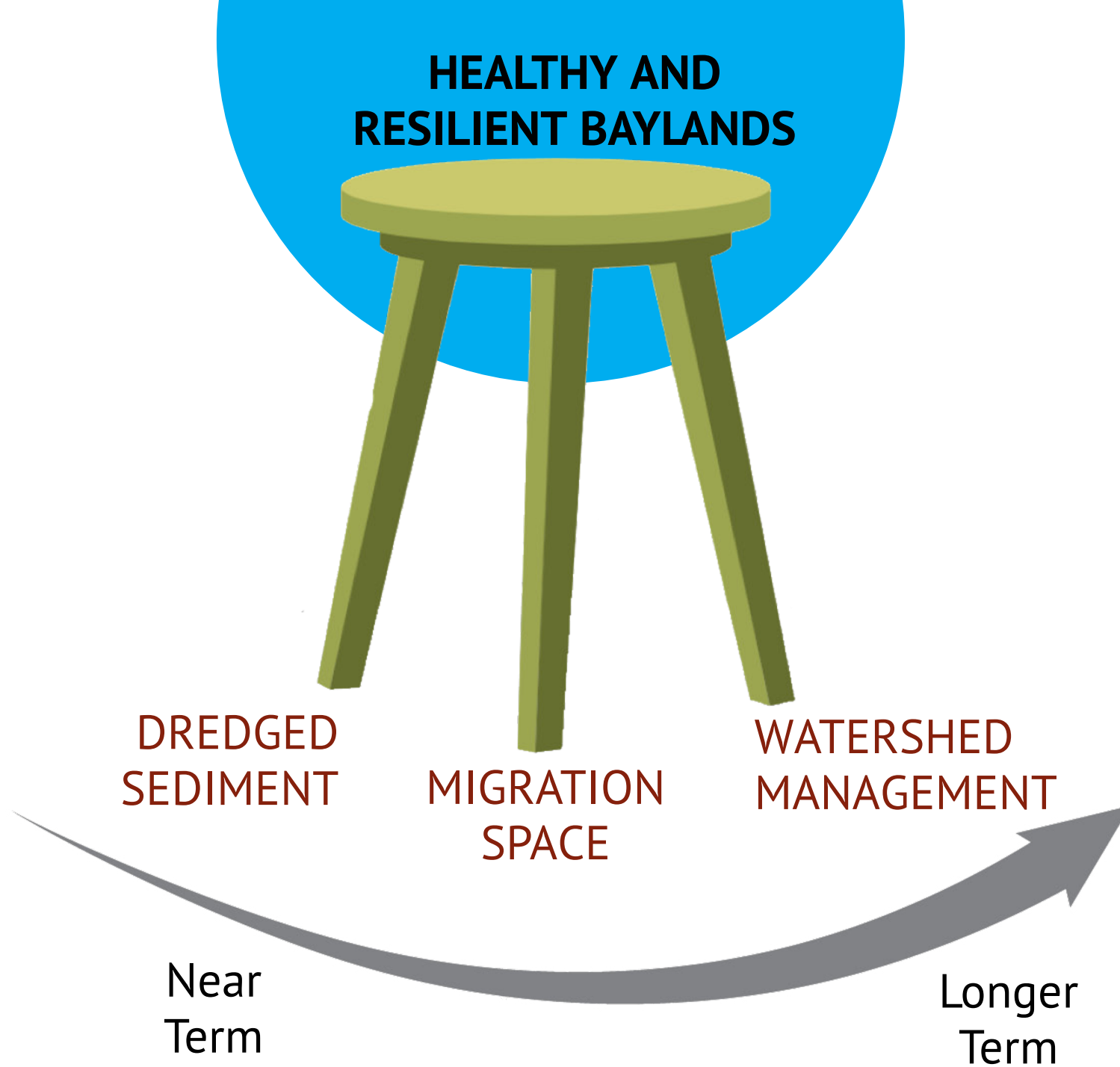
**Longer
Term**

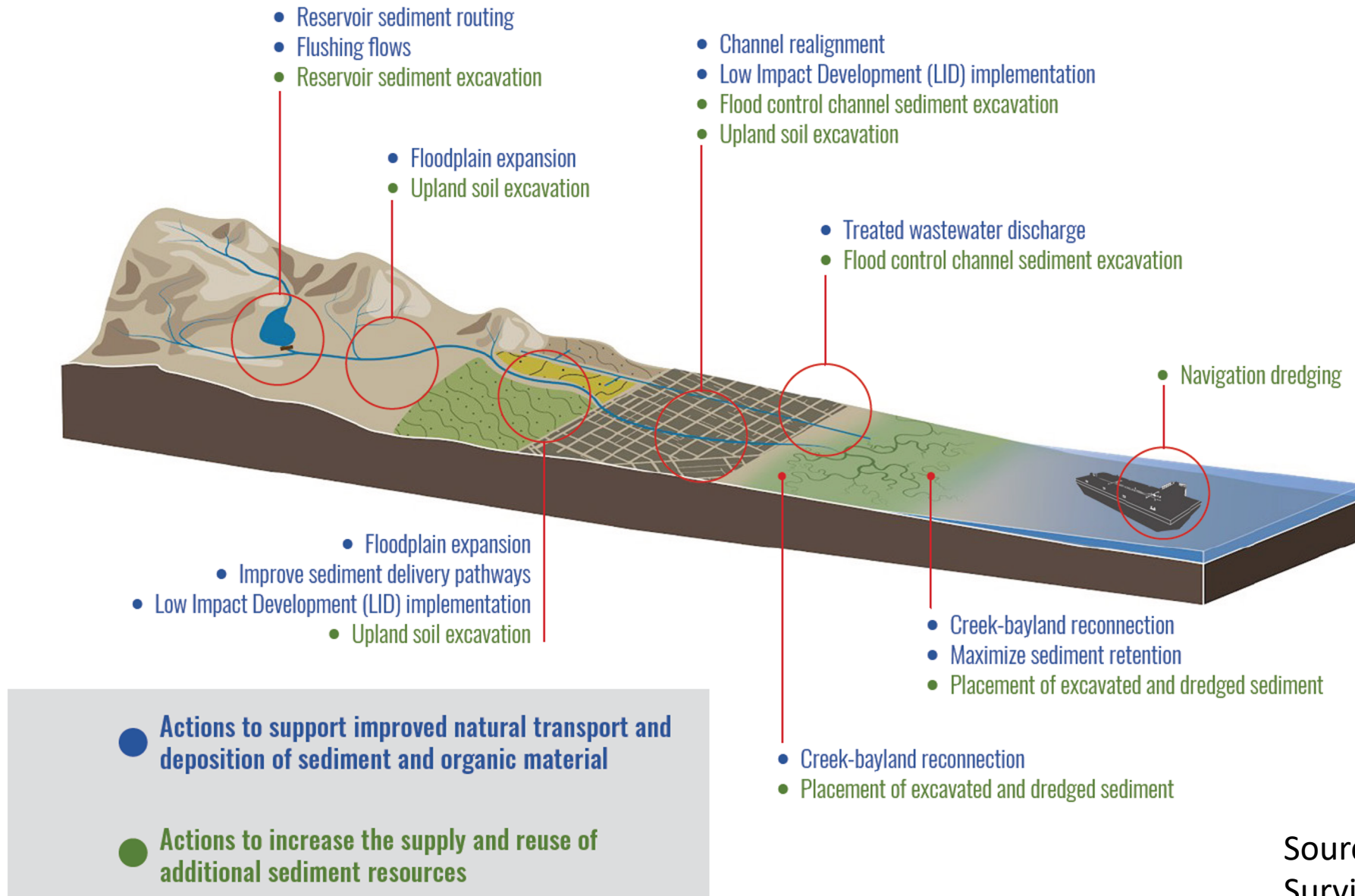
Source: Sediment for
Survival, San Francisco
Estuary Institute, 2021.

Result

*Sediment
Component*

Timing





Source: Sediment for Survival, San Francisco Estuary Institute, 2021

What is the SF Bay Restoration Authority?

- The San Francisco Bay Restoration Authority was created by the legislature in 2008 due to the urgent need to restore the Bay.
- It has a Governing Board made up of local elected officials across the region.
- A community-based Advisory Committee helps guide the Authority.
- Measure AA, which the Authority placed on the ballot in June 2016, generates funds to accomplish its mission.
- An Independent Oversight Committee provides an unbiased annual review of the Authority's work.



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Measure AA: San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Program

- \$12/year parcel tax generates \$500 million over 20 years for restoration around SF Bay.
- Passed with over 70% support in the 9-county Bay Area.
- Complete restoration is estimated to cost over \$2 billion. Measure AA funds will leverage state and federal funds.

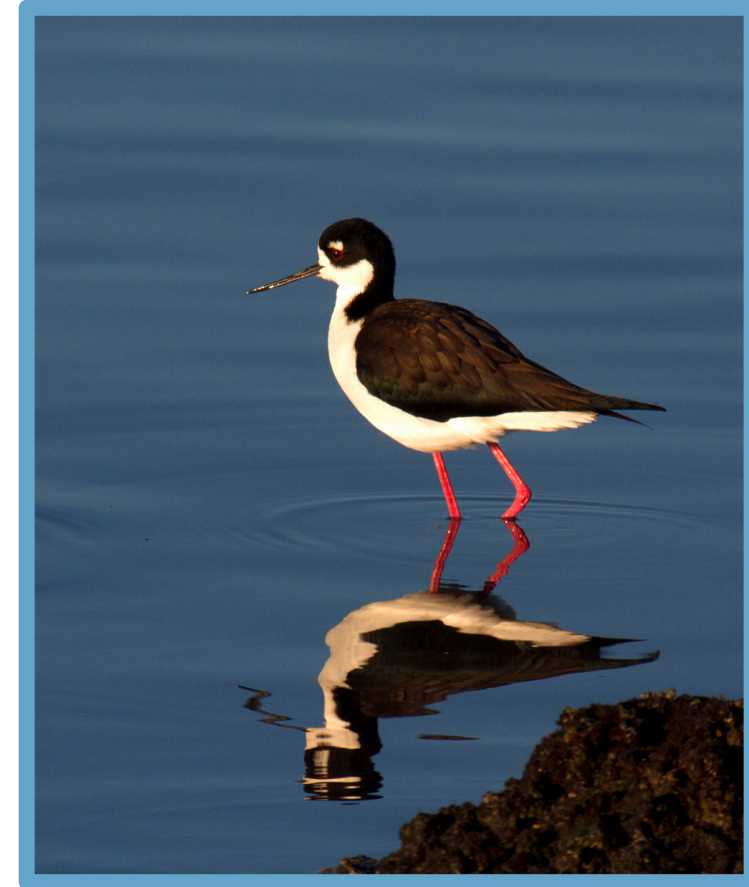


Photo: Rick Lewis

SF Bay Restoration Authority Act Eligibility

The Restoration Authority can fund:

1. **Habitat projects** that will restore, protect, or enhance tidal wetlands, managed ponds, or natural habitats along the shoreline.
2. **Flood management features** that are part of a habitat project.
3. **Public access or recreational amenities** that are part of a habitat project.

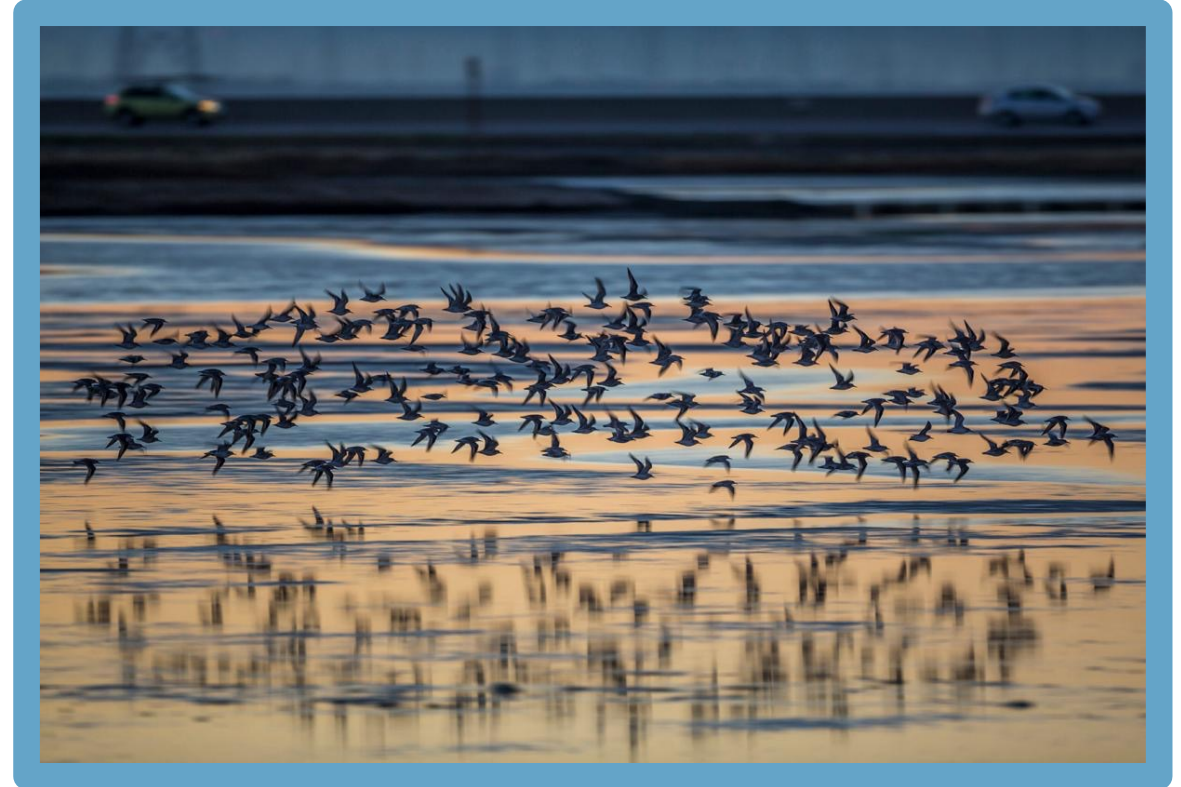


Photo: National Geographic

Where is “along the Shoreline”?

- **Subtidal Habitats:** Area lying below mean low tide, within a reasonable distance of the shoreline.
- **Baylands:** Areas that lie between the maximum and minimum elevations of the tides over multiyear cycles, including those areas that would be covered by the tides in the absence of levees or other unnatural structures, including the portion of creeks or rivers located below the head of tide.
- **Transitions Zones:** Uplands adjacent to potential or actual tidal wetlands that can provide transitional habitat and/or marsh migration space, as well as areas that are needed to enhance the project’s resilience to projected sea level rise.



Measure AA Eligibility:

1) Safe, Clean Water and Pollution Prevention



- Improve water quality by **reducing pollution** and **engaging in restoration activities**
- Reduce pollution levels through **shoreline cleanup** and **trash removal**
- **Restore wetlands** that provide natural filters and remove pollution
- **Restore creeks** where they flow into the Bay

Measure AA Eligibility:

2) Vital Fish, Bird and Wildlife Habitat

- Enhance the SF Bay National Wildlife Refuge, shoreline parks and open space preserves and other **public lands** for **expanded and improved habitat** for fish, birds, and mammals
- Protect and restore wetlands and other **Bay and shoreline habitats** to benefit wildlife including shorebirds, waterfowl, fish
- Provide for **stewardship, maintenance and monitoring** of habitat restoration projects to ensure ongoing benefits to wildlife and people



Measure AA Eligibility:

3) Integrated Flood Protection

- Provide nature-based flood protection through **wetland and habitat restoration**
- **Build and improve levees** that are a necessary part of wetland restoration activities to protect existing shoreline communities, agriculture and infrastructure



Measure AA Eligibility:

4) Shoreline Public Access

To provide safer and improved public access, as part of and compatible with wildlife habitat restoration projects in and around the Bay:

- Construct new, repair existing, and/or replace deteriorating public trails, signs and related facilities along the shoreline and manage these facilities
- Provide interpretive materials and special outreach events about pollution prevention, wildlife habitat, public access, and flood protection, to protect the Bay's health and encourage community engagement



Measure AA: Prioritization Criteria for Grant Decisions

- Greatest positive impact
- Greatest long-term impact
- Geographic distribution
- Leverage state and federal dollars
- Benefit economically disadvantaged communities
- Benefit region's economy
- Engage youth and young adults
- Incorporate monitoring, maintenance and stewardship
- Meet selection criteria of State Coastal Conservancy, SF Bay Conservation and Development Commission and SF Bay Joint Venture



Geographic Distribution of Funds

Region	Counties	Percentage
North Bay	Sonoma, Marin, Napa & Solano	9%
East Bay	Contra Costa & Alameda	18%
West Bay	San Francisco & San Mateo	11%
South Bay	Santa Clara	12%
Baywide	All 9 Counties	50%

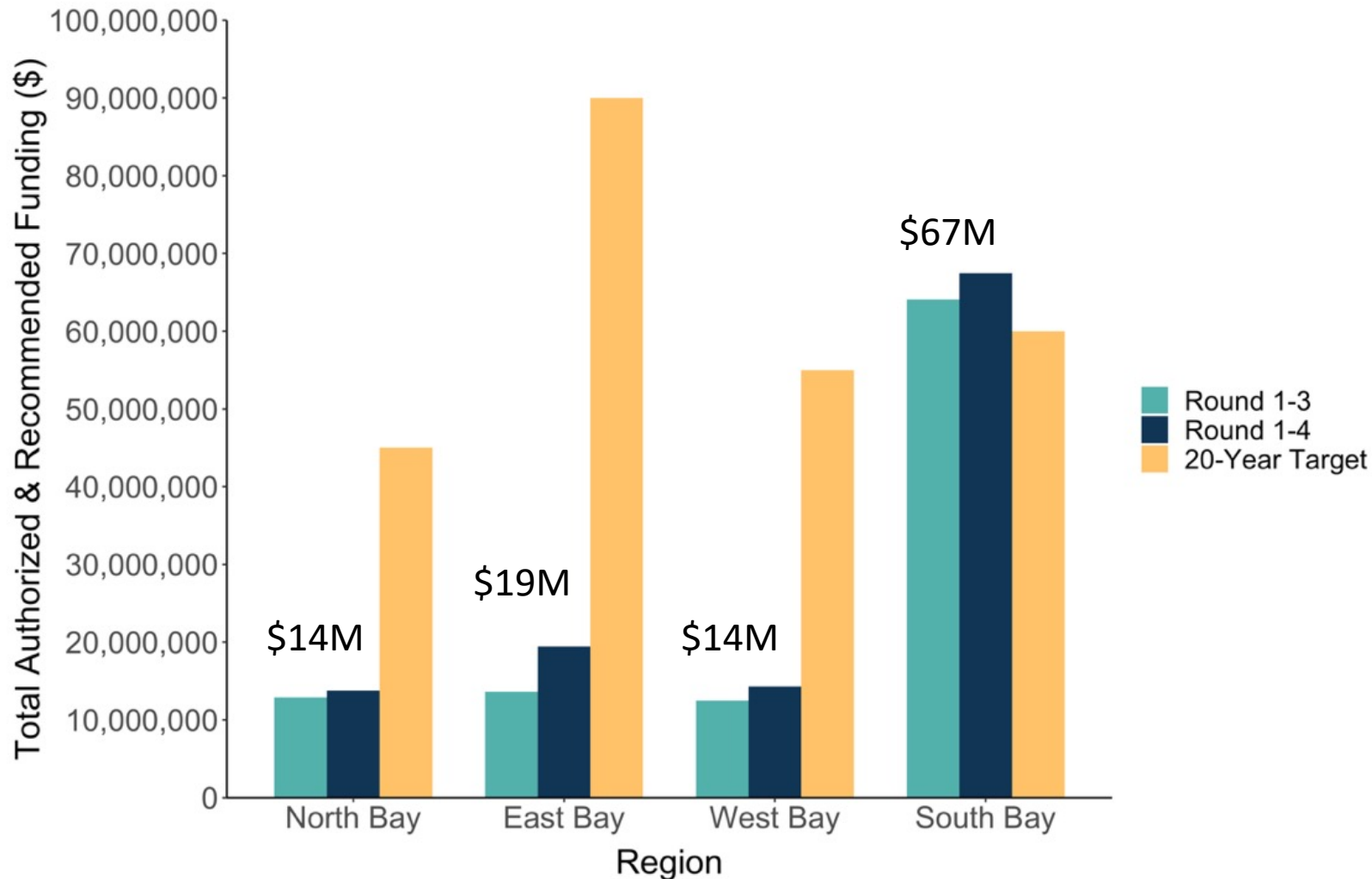


Projects Funded to Date

- 30 Projects Funded to Date
- Includes Two Community Grants
- Projects in Each Region
 - North: 11
 - East: 9
 - West: 5
 - South: 3
 - All Regions: 2 (Invasive Spartina Project and BRRIT)
- Total amount authorized through to date: \$117M



Progress Towards Geographic Distribution Targets



EXPECTED Percentage of 20-Year Target after 4 out 20 Years: 20%

ACTUAL Percentage of 20-Year Target after 4 out of 20 Years:

- North Bay – 31%
- East Bay – 22%
- West Bay – 26%
- South Bay – >100%

Regional Opportunities

- **South Bay:** Greatest acreage of tidal marsh restoration underway, i.e., South Bay Salt Ponds Restoration Project and Shoreline Project
- **North Bay:** Greatest potential for additional tidal marsh restoration acreage through acquisitions and restoration of protected land, e.g., San Pablo Baylands CPR Project
- **East Bay and West Bay:** Greatest opportunities for living shorelines and benefits to economically disadvantaged communities, e.g., parks, trails, jobs, internships



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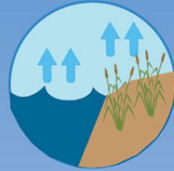


LIVING SHORELINES SUPPORT RESILIENT COMMUNITIES

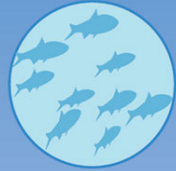
Living shorelines use plants or other natural elements—sometimes in combination with harder shoreline structures—to stabilize estuarine coasts, bays, and tributaries.



One square mile of salt marsh stores the carbon equivalent of **76,000 gal of gas** annually.



Marshes trap sediments from tidal waters, allowing them to **grow in elevation** as sea level rises.



Living shorelines improve **water quality**, provide fisheries **habitat**, increase **biodiversity**, and promote **recreation**.



Marshes and oyster reefs act as natural **barriers** to waves. **15 ft** of marsh can **absorb 50%** of incoming wave energy.



Living shorelines are **more resilient** against storms than bulkheads.



33% of shorelines in the U.S. will be **hardened** by **2100**, decreasing fisheries habitat and biodiversity.

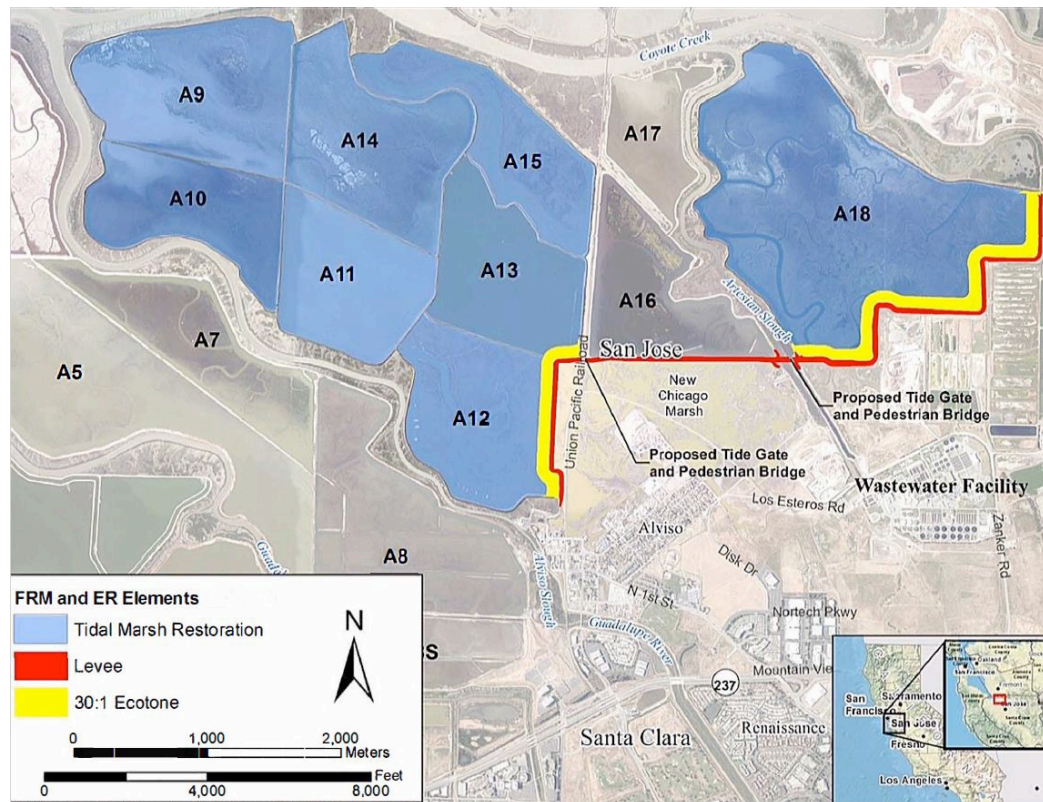


Hard shoreline structures like **bulkheads** prevent natural marsh migration and may create seaward **erosion**.



Combining Habitat Restoration, Flood Protection, and Public Access

South Bay Shoreline Project In City of San Jose \$61 million for construction



Tiscornia Marsh Restoration Project
In City of San Rafael
~ \$1 million grant for planning



Creating Living Shorelines and Restoring Floodplains

Terminal Four Wharf Removal
In City of Richmond
\$2.3 million for construction



Lower Walnut Creek Restoration
In Contra Costa County
\$7.9 million grant for construction



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Engaging Economically Disadvantaged Communities

Oakland Shoreline Leadership Academy
\$180K for planning



Candlestick Point Community Stewardship Project
\$100K for implementation



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Thank you!

www.sfbayrestore.org

Leveraging Federal Funds

Federal Priorities

- USACE
 - Bel Marin Keys
 - South SF Bay Shoreline Project
 - Beneficial Use Pilot Program (Section 1122)
 - CAP 204 Study for Cullinan
- US EPA Authorized SF Bay Program
- USFWS – SF Bay Refuge levee maintenance
- NOAA – Coastal Zone Management



Leveraging Federal Funds

Bipartisan Infrastructure Bill – highlights
US Army Corps of Engineers

- \$11.6b – construction
 - \$1.9b - aquatic ecosystem restoration
 - \$465m – continuing authorities program
 - \$2.5b – coastal storm risk management

USEPA - \$24m for SF Bay

NOAA

- \$207m – Coastal Zone Management
- \$492m – National Coastal Resilience Fund
- \$491m – Community-based Restoration



K. McDowell



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