July 14, 2023
Monthly Members Meeting
Minutes

Agencies and Members in Attendance:
Contra Costa County- Mark Boucher, Michelle Cordis, Tim Jensen
Sonoma Water - Carlos Diaz
Zone 7 - Carol Mahoney
Santa Cruz Zone 7 - Antonella Gentile
Valley Water - Brian Mendenhall
Pajaro Valley - Mark Strudley
SFJPA - Tess Byler
BCDC - Brenda Goeden, Maya McInerney, Erik Buehmann, Todd Hollenbeck
BAFPAA Staff - Jennifer Krebs

1. Admin Updates
    a. MOU - Santa Cruz approved the MOU. Still awaiting Marin and Alameda County.
    b. Central Coast CEQA Scoping Meeting - Santa Cruz and Valley Water will attend
    c. Grants - There are currently many grants available. A brief list includes
        i. **ICARP Regional Resilience Planning and Implementation Grant Program** What's eligible: Regional climate resilience efforts, including identifying climate resilience priorities, building capacity, and implementing projects, that respond to a region's greatest climate risks. Due date: August 29
        ii. **NOAA Climate Resilience Regional Challenge** What's eligible: There are two parallel but separate funding tracks. Track One: Regional Collaborative Building and Strategy Development Track Two: Implementation of Resilience and Adaptation Actions. Who's eligible: Coastal states, territories, counties, cities, tribes, and tribal organizations; public or private nonprofit organizations; and institutions of higher education. Due date: Letters of Intent due August 21
        iii. **San Francisco Bay Restoration Authority** What's eligible: The Authority can fund proposals that are: Habitat projects that aim to restore, protect, or enhance natural habitats on the shoreline in the San Francisco Bay Area; Flood management projects that are part of habitat projects; or Public access projects that will provide or improve access or recreational amenities that are part of habitat projects. Who's eligible: Federal, state, and local agencies; tribal governments; nonprofit organizations; and owners or operators of shoreline parcels in the San Francisco Bay Area, excluding the Delta primary zone. Due date: October 6
        iv. **Measure AA Community Grants** What's eligible: In addition to the types of projects funded by the Restoration Authority above, this grant funds projects that Support community visioning aimed at developing

conceptual plans for shoreline habitat projects; Implement small shoreline habitat projects with strong community benefits, e.g., community engagement, education, workforce development, career development, leadership development, and community celebrations. Other topics too. Who's eligible: Community-based organizations in Economically Disadvantaged Communities. Rolling Applications

v. **EPA Funding Opportunity Number: EPA-R9-SFBWQIF-23-02** The SFBWQIF FY 2023 "Base" RFA is funding from Congress to protect and restore San Francisco Bay watersheds and wetlands. Proposed projects must be within the nine Bay Area counties that drain to San Francisco Bay. Applications must be submitted through Grants.gov on or before the submission deadline of August 2nd, 2023 at 9:00pm Pacific Standard Time.

2. Maya McInerny and Team on BCDC - Sediment for Wetland Adaptation Project. Part of regional sediment management effort to preserve wetlands. BCDC wants feedback and to help with regional sediment management for multi-benefit projects/sustainable future. There is a project website with a factsheet. Roadmap should be ready by 2024.
    a. Q- how widespread is contamination in sediment? A- There are areas of known contamination. After dredging several times, levels tend to be lower. Montezuma wetlands can take a certain level of contaminated sediments. Salt Bay Salt Ponds are using soils with low levels of pesticides to build upland levees. Learn to study more about pollutants in creek sediments and what can be done with it.
    b. Discussion about the need for funding for projects to reuse contaminated soils.
    c. Discussion about naturally occurring contamination and trucking sediment is expensive. Sedimatch is trying to help with this.
    d. Q - Can BCDC help with permitting? BCDD is working with agencies to help them with rethinking ways of permitting to speed up the process. Wants to develop a paper on flood protection.
    e. Discussion - Contamination and financing are the biggest issues. Agencies looking for funding. Need to connect dots in space and time.
    f. Jennifer will send Brenda the email addresses for meeting participants
    g. Presentation below
3. Todd Hollenbeck and Team on BCDC Shoreline Adaptation Project Map. Project picks up from CHARG effort. Mapping green, grey, and hybrid projects. Uses EcoAtlas database structure. Coordinating with Plan Bay Area to include funding needs. The map can also help with regulatory evaluation.
    a. Discussion - VW and OPC have their own modules in SAP Map.
    b. Presentation below.
4. Committees
    a. EPC - August meeting to discuss homelessness and water quality
5. Other Groups
    a. SFEP IC - Carol stepping off. Tess Byler volunteered. Carlos will be backup. Carol will talk to Caitlin. Jen will email.

    b. The Restoration Authority meets again in October. 20, 2023 https://www.sfbayrestore.org/meetings
    c. FMA will be attended by Carlos and Brian in September.
    d. AQPI technical meeting last week. Scripps to eventually update user interface, taking feedback.
6. Project presentations - reach out to Carlos or Jen with ideas.
    a. CCC to do a Lower Walnut Creek in early 2024.
7. Treasurer's report - Mark will finalize the spreadsheet and send out invoices for 2023/2034.

San Francisco Bay
Sediment for Wetland Adaptation Project

Maya McInerney
Environmental Scientist, Project Manager
maya.mcinerney@bcdc.ca.gov

SF Bay Conservation and Development Commission
Regional Sediment Management Program

Presentation Overview

- What's the issue?
  - Protecting wetlands
  - Prioritizing sediment and soil reuse
  - Regional sediment management efforts
- Sediment for Wetlands Adaptation Project
  - Structure of project
  - Current activities
  - Stakeholder workshop

Project Objectives:

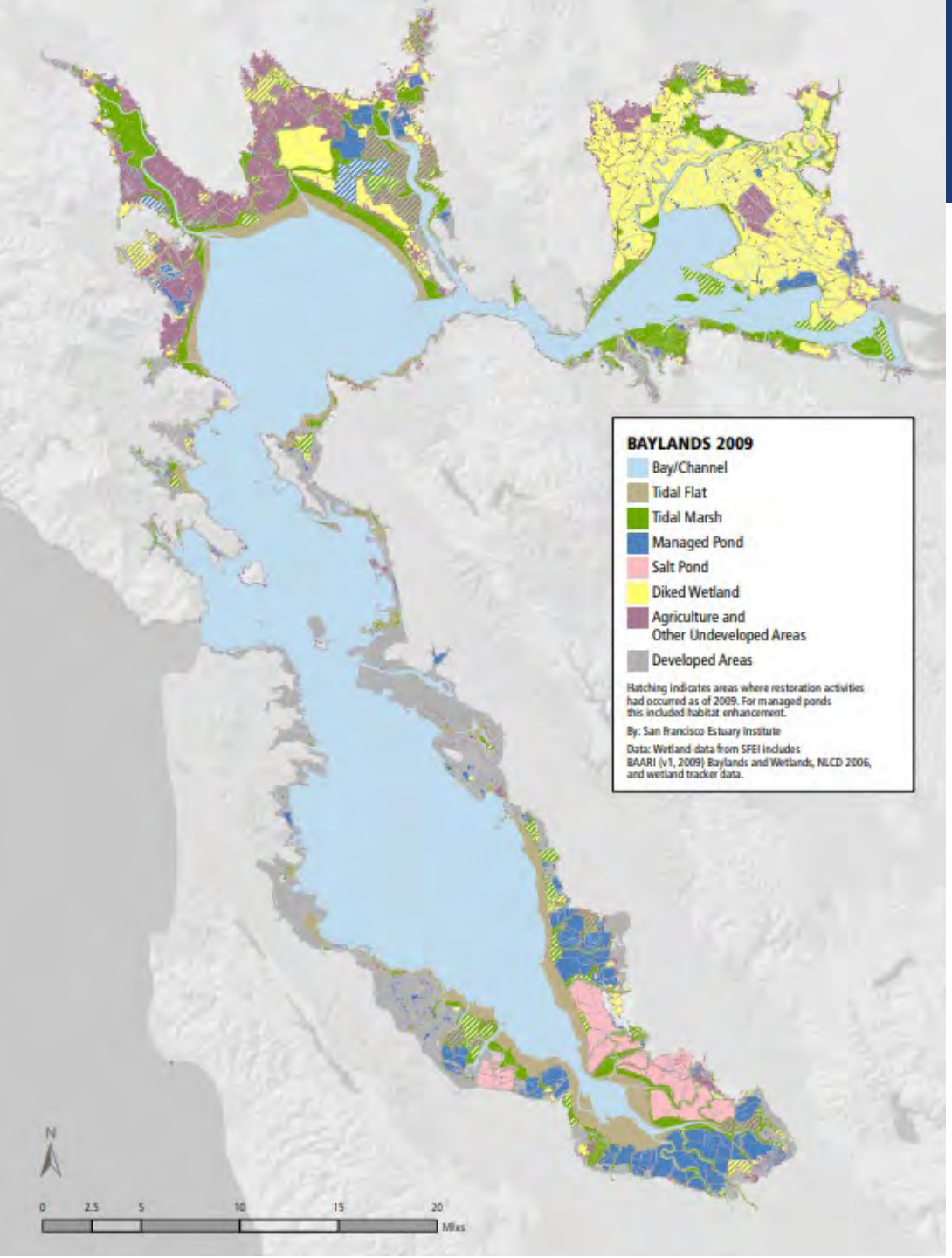
-Increased Collaboration

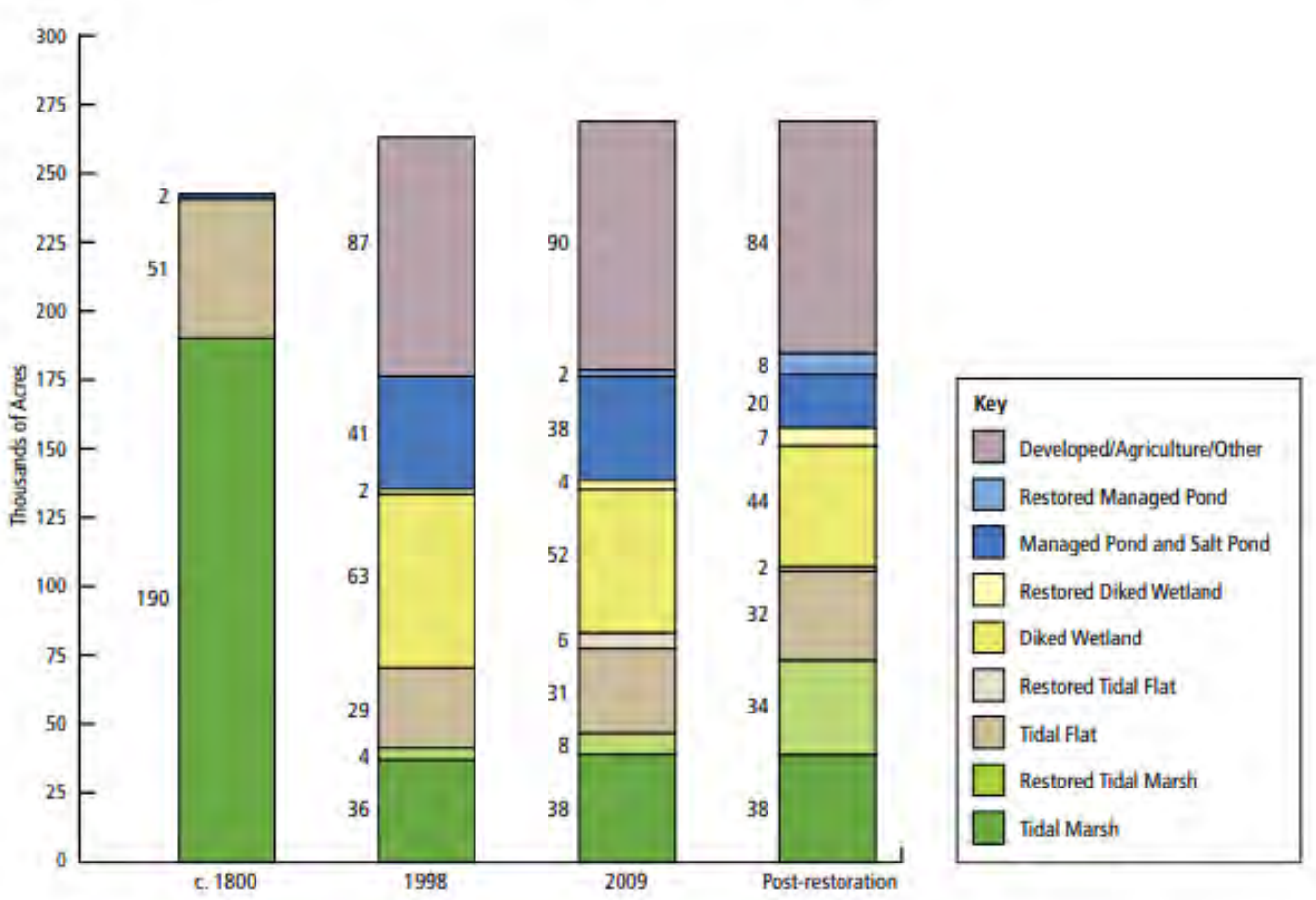
-Sediment to Wetlands Roadmap

-Possible Policy Changes

-Financing Strategy

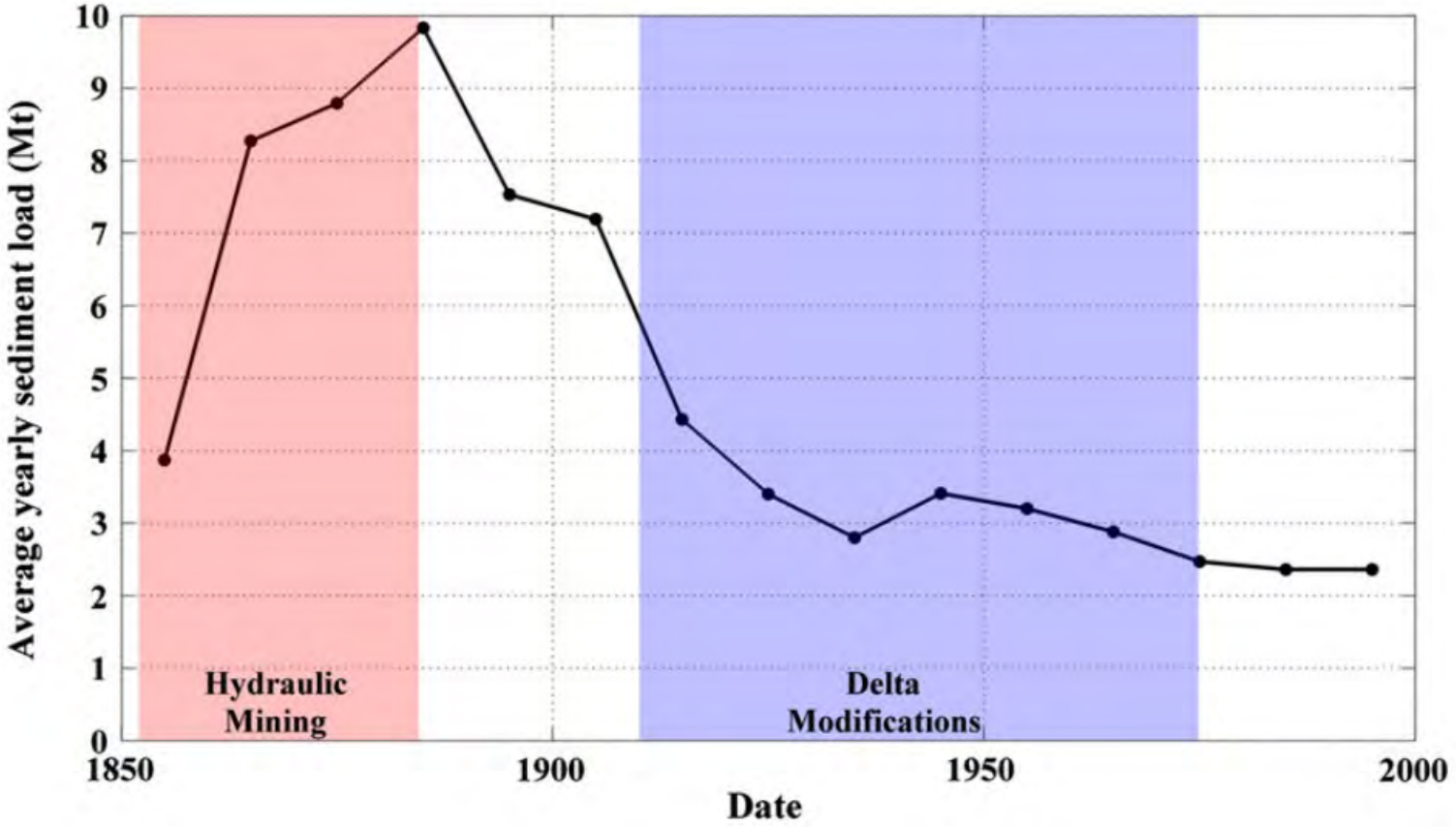
Wetlands of the Bay Area





Goals Project,, California State Coastal Conservancy, 2015

Sediment as a Critical Bay Area Resource



P.L. Barnard et al., Marine Geology 345, 2013

Natural Sediment Supply to SF Bay

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Sediment Needed by Baylands and Planned Wetland Restoration Projects

Sediment for Wetland Adaptation Project

Photo: Hamilton Wetlands

Goal:

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

Beneficial Reuse for Green Infrastructure

Beneficial Reuse = Turning would-be waste into a valuable commodity

Sediment & Soil

Dredging - navigation channels & flood protection channels

Upper watersheds - reservoirs, disconnected creeks

Excavated soils - construction

How is our region is addressing this issue?

Regional Sediment Management = Management of coastal, estuarine, and riverine sediment within a system through balanced and sustainable solutions to sediment related needs.

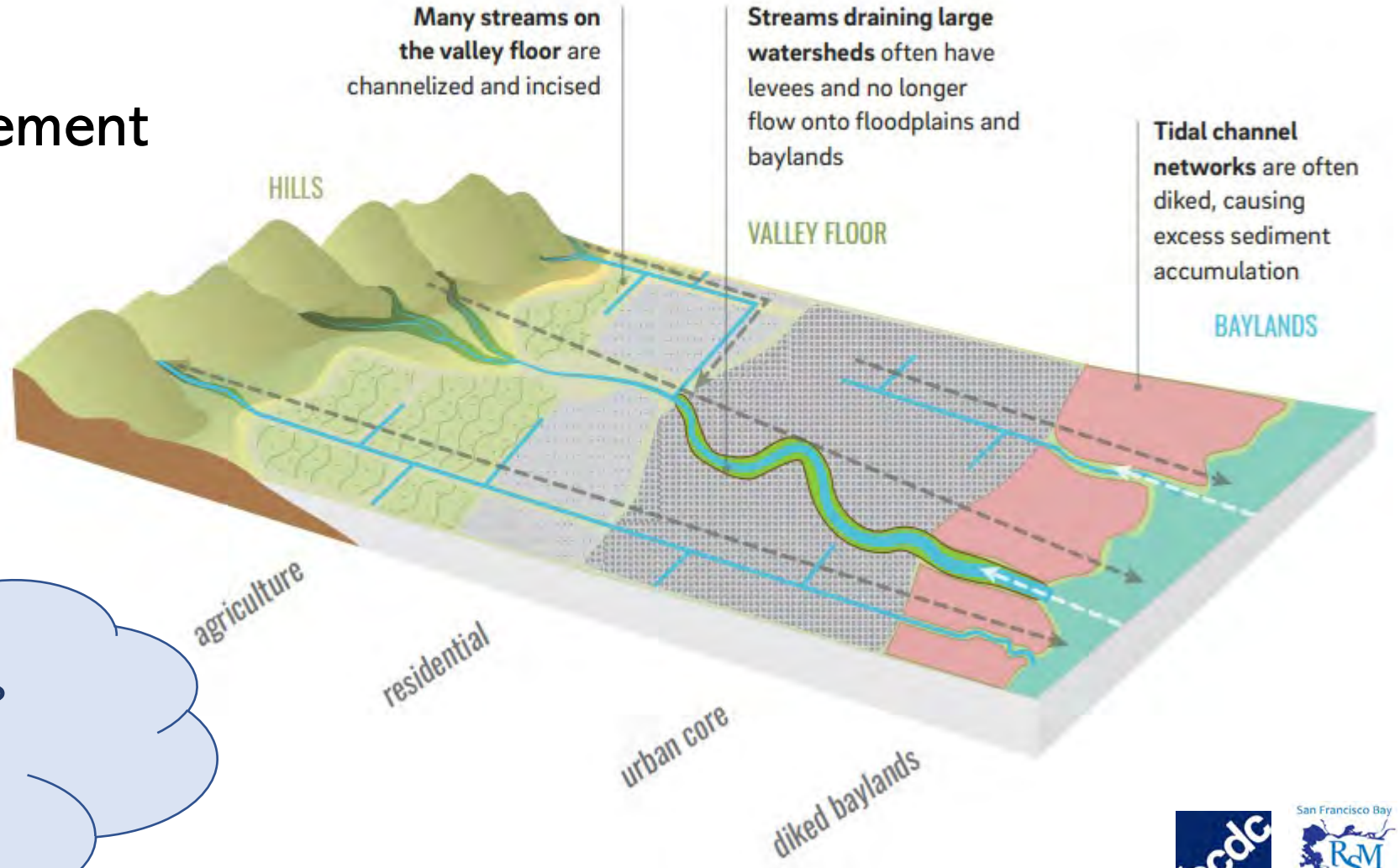
Incorporates **all** sediment related activities:

- Navigation dredging
- Aggregate mining
- Reservoir and dam management
- Climate adaptation projects
- Flood protection and watershed management

Sediment and Flood Control 2.0

Multi-benefit management opportunities:

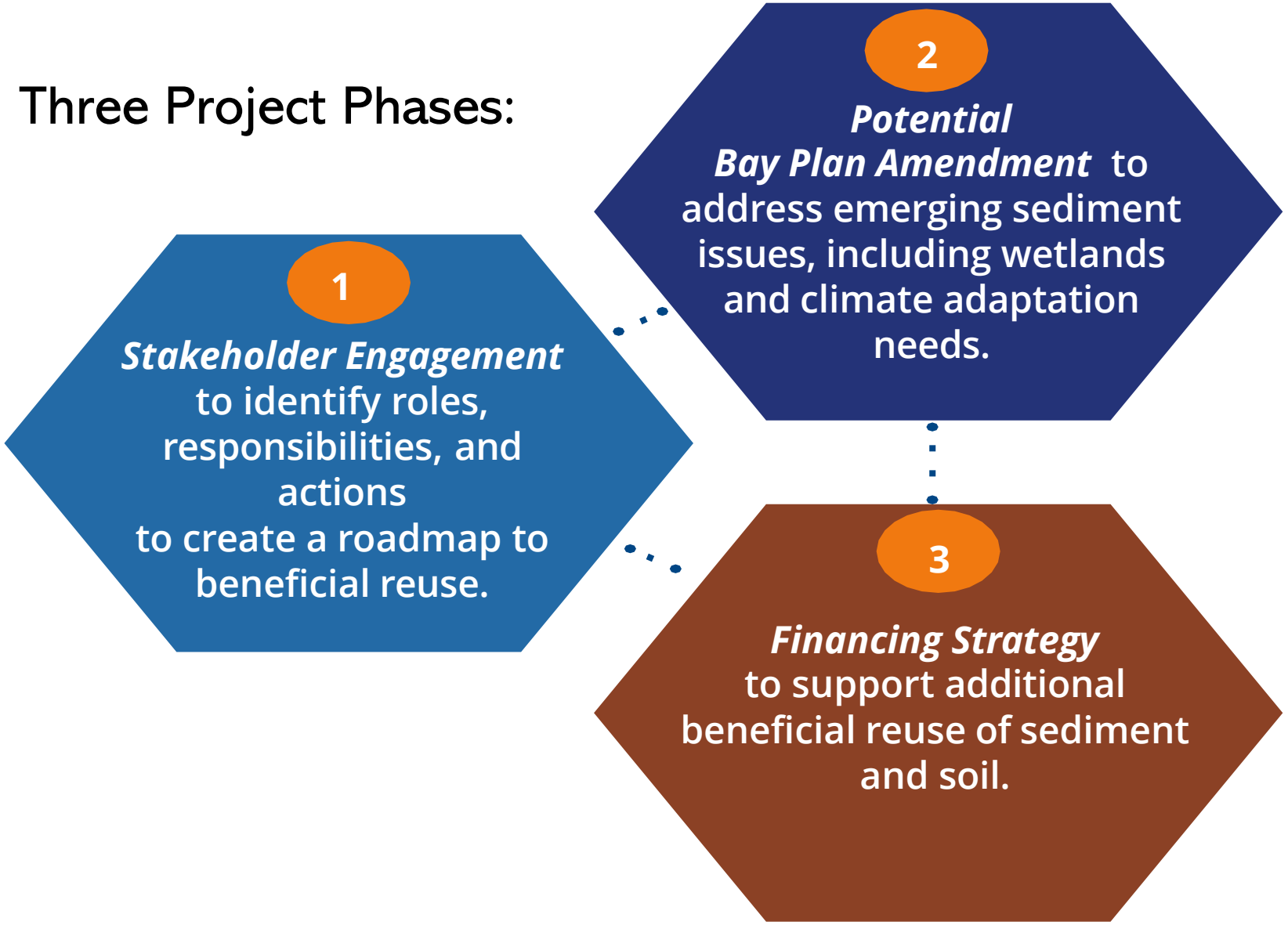
- Creek reconnection to baylands
- Local beneficial sediment reuse in baylands



What will work in your area?
What are the biggest challenges you face?

Sediment for Wetland Adaptation Project

Three Project Phases:



Current Project Activities

- Project webpage
  - Factsheet
  - Workplan with tasks
  - Grant details
  - Issue papers
- BCDC Commissioner Working Group
  - Upcoming public meetings:
    - July 21
    - September 15
    - November 17
- Inter-agency Core Team
- Workshop preparations

San Francisco Bay
SEDIMENT for WETLAND ADAPTATION PROJECT

Wetland restoration is needed to protect the San Francisco Bay ecological habitat and its vibrant shoreline communities from flooding due to sea level rise and storms. Funded by the U.S. Environmental Protection Agency and the Ocean Protection Council, the San Francisco Bay Area SEDIMENT FOR WETLAND ADAPTION PROJECT will investigate the management, funding, and policy challenges of restoring Bay wetlands through reuse of soil and sediment and propose new policies to ensure Bay wetlands and shorelines keep pace with sea level rise.

Project Background

Two hundred years ago, vast wetlands lined the shoreline of San Francisco Bay. Wetlands provide natural habitat for a diverse array of fish and wildlife between the Bay and uplands. They also absorb flood waters, improve water quality, and buffer waves along the shoreline. By the 1950s, however, 80% of these wetlands were destroyed due to diking and draining of the San Francisco Bay primarily for agricultural, industrial, and commercial purposes. Today, large areas of subsided lands ring the Bay where marshes used to exist.

To ensure that existing Bay wetlands and shorelines persist in light of sea level rise and decreased sediment supply, there must be enough sediment delivered and retained on tidal marshes and mudflats. Over time, if the natural sediment supply is not enhanced or supplemented, it is predicted that wetlands will not keep up. According to San Francisco Estuary Institute's 2021 Sediment for Survival Report, between 450 and 650 million cubic yards of sediment and soil would be needed to restore and sustain the Bay's wetlands in the face of sea level rise through 2100. Some prospective wetland restoration sites will require a large volume of sediment just to raise the site elevations to an appropriate level relative to the tides to promote marsh plant establishment and channel development. All restored and existing wetland habitats will likely need infusions of sediment to keep up with rapidly rising seas. Additional material will be needed to adapt the Bay shoreline to protect communities, infrastructure, parks, and natural areas from a rising bay.

"Between 450 and 650 million cubic yards of sediment and soil would be needed to restore and sustain the Bay's wetlands in the face of sea level rise through 2100." – San Francisco Estuary Institute, Sediment for Survival Report (2021)

Exploring Solutions

The Bay is regularly dredged to remove sediment and maintain the region's waterways for commercial, military, flood control, and recreational purposes. A portion of this dredged sediment is used to help restore wetlands, while the rest is treated as a waste product and disposed of in the Bay or deep ocean, but more of this dredged sediment could be used beneficially. Sediment dredged from Bay tributaries and flood protection channels can contribute to restoration of wetlands and be used for other sea level rise adaptation purposes, as can sediment trapped in upper watersheds, behind reservoirs and dams, and soil excavated during construction projects.

Facilitating the movement of the supplemental sediment supplies will require coordination, collaboration, and mobilization from a coalition of like-minded people working together to move the issue forward.

Our Process

The San Francisco Bay Conservation and Development Commission (BCDC) has received funding to improve coordination, funding, and policies around sediment and soil issues. The project includes three phases focused on increasing beneficial reuse of sediment and soil for wetland habitat restoration, resilience, and sea level rise adaptation in the Bay Area.

1 Stakeholder Engagement to identify roles, responsibilities, and actions to create a roadmap to beneficial reuse.

2 Potential Bay Plan Amendment to address emerging sediment issues, including wetlands and climate adaptation needs.

3 Financing Strategy to support additional beneficial reuse of sediment and soil.

Collaboration is Key

BCDC is partnering with the San Francisco Estuary Institute, San Francisco Bay Joint Venture, San Francisco Bay Regional Water Quality Board, State Coastal Conservancy and U.S. Environmental Protection Agency on this project. Together, along with scientists, environmentalists, dredgers, community and business leaders, and more, these agencies will create a shared vision on how to harness the power of sediment reuse in the Bay Area.

EPA SFEI AQUATIC SCIENCE CENTER Water Boards Coastal Conservancy

How to Get Involved

The benefits of this SEDIMENT FOR WETLAND ADAPTATION PROJECT will be seen by communities and the environment for generations to come. Your input and engagement will help ensure the project's success. BCDC hosts Commissioner Working Group meetings every other month, where you can listen, learn, and voice your opinions. There will also be public workshops.

To be added to the contact list, stay informed about progress, and learn about upcoming opportunities to get involved, please contact:

Maya McInerney, Project Manager
Email: maya.mcinerney@bcdc.ca.gov
Phone: 415-351-3600

Materials developed by the Regional Sediment Management program

SAN FRANCISCO BAY CONSERVATION & DEVELOPMENT COMMISSION

Project funding provided by U.S. EPA and Ocean Protection Council

EPA SFEI AQUATIC SCIENCE CENTER
SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER

CALIFORNIA Water Boards

SAN FRANCISCO BAY JOINT VENTURE

Coastal Conservancy

Project Webpage: https://www.bcdc.ca.gov/swap/Sediment-for-Wetland-Adaptation-Project.html

Stakeholder Workshop

- Details:
  - Date to be determined
  - Pre-workshop reading materials – issue papers on relevant topics
- Goals:
  - Build coalition of stakeholders
  - Identify roles, responsibilities, and actions
- Objectives: Create a **Sediment to Wetlands Roadmap**

Questions / Discussion

- What do you think will work in your area?
- What challenges do you face in increasing beneficial reuse of sediment?
- What issues do your own stakeholders have w beneficial reuse?

Maya McInerney
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Photo: Hamilton Wetlands

SHORELINE ADAPTATION PROJECT MAP

BAFPAA
July 2023

What is the challenge?

South Bay Shoreline Project (SFEI)

Shoreline adaptation projects are being planned and implemented along the Bay.

Currently, there is no **comprehensive** way to illustrate where adaptation is taking place and where there are gaps.

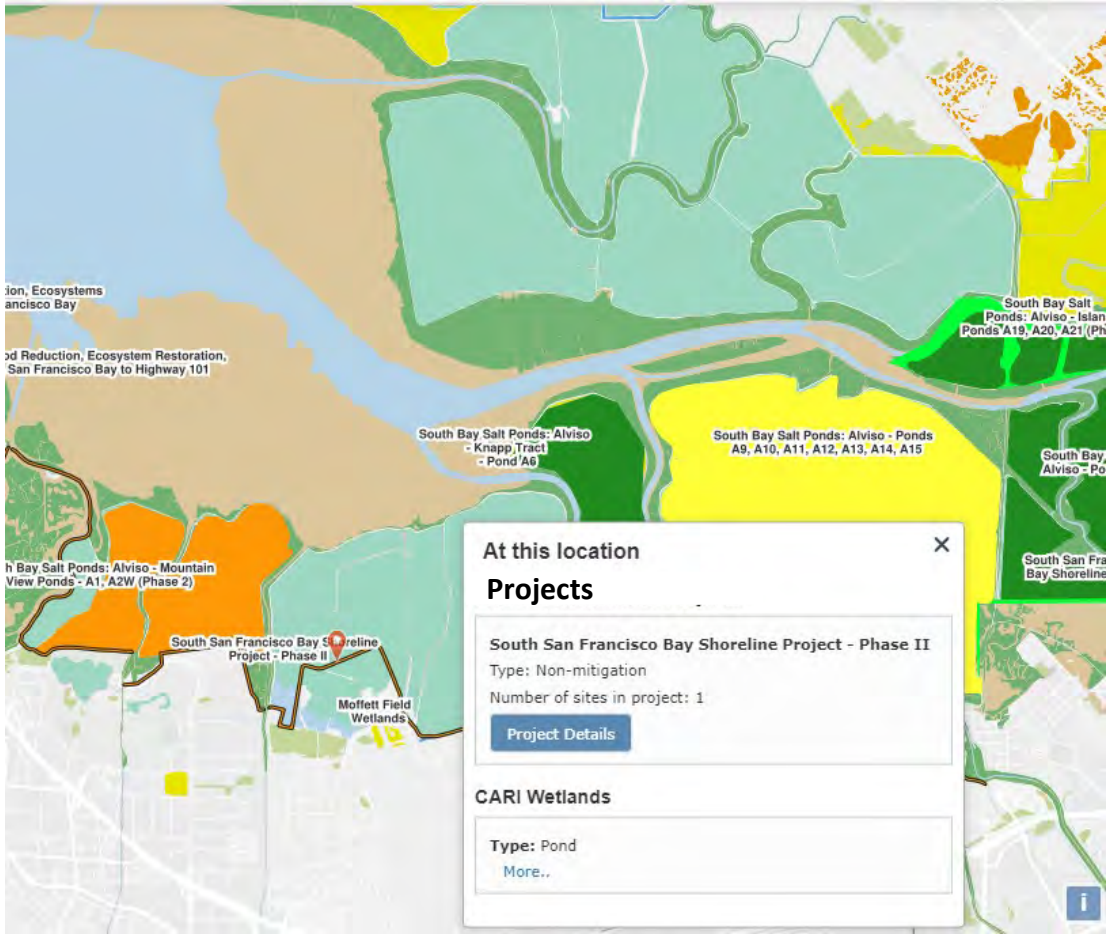
Planning coordination, public awareness, and evaluation of the resilience of the Bay shoreline is constrained without this information.

The **Shoreline Adaptation Project Map (SAPMap)** lays the framework for how the region can sustainably map and track adaptation projects to help address these needs.

Shoreline Adaptation Project Map

What are goals of SAPMap?

- COMMUNICATE
- CONNECT
- MEASURE
- EVALUATE



https://www.ecoatlas.org/

Shoreline Adaptation Project Map

What Are Adaptation Projects?

Green Adaptation Projects	Hybrid Adaptation Project	Grey Adaptation Project
		
The South Bay Salt Pond is a restoration project with flood risk management.	The SF Seawall will use a mix of green and grey infrastructure.	The Alameda Marina is an example of a grey adaptation project.

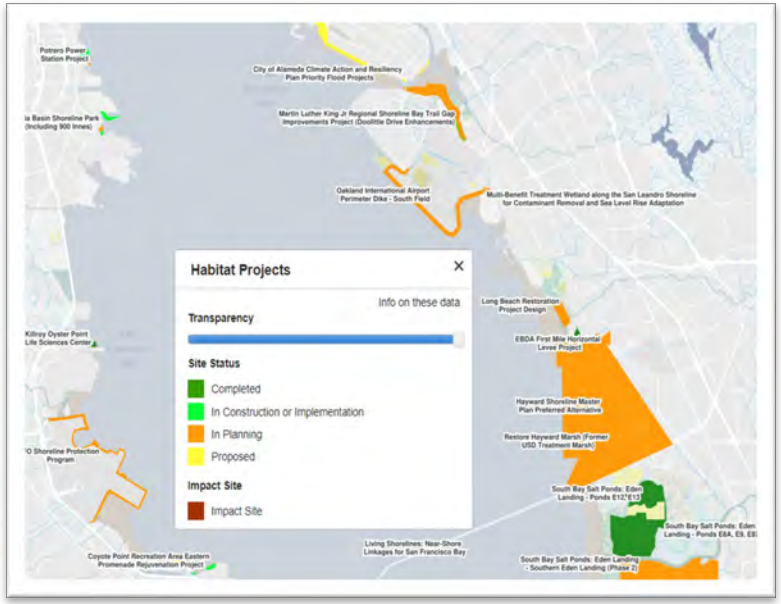
Shoreline Adaptation Project Map

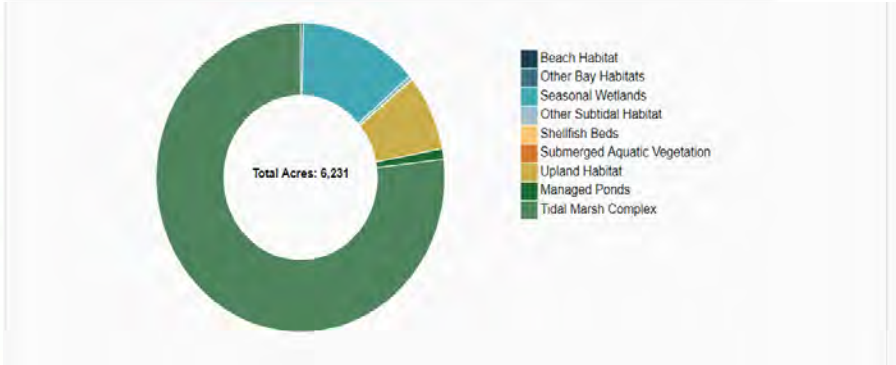
How to leverage existing efforts?

EcoAtlas™

- User Community
- Existing Data
- Technical Foundation

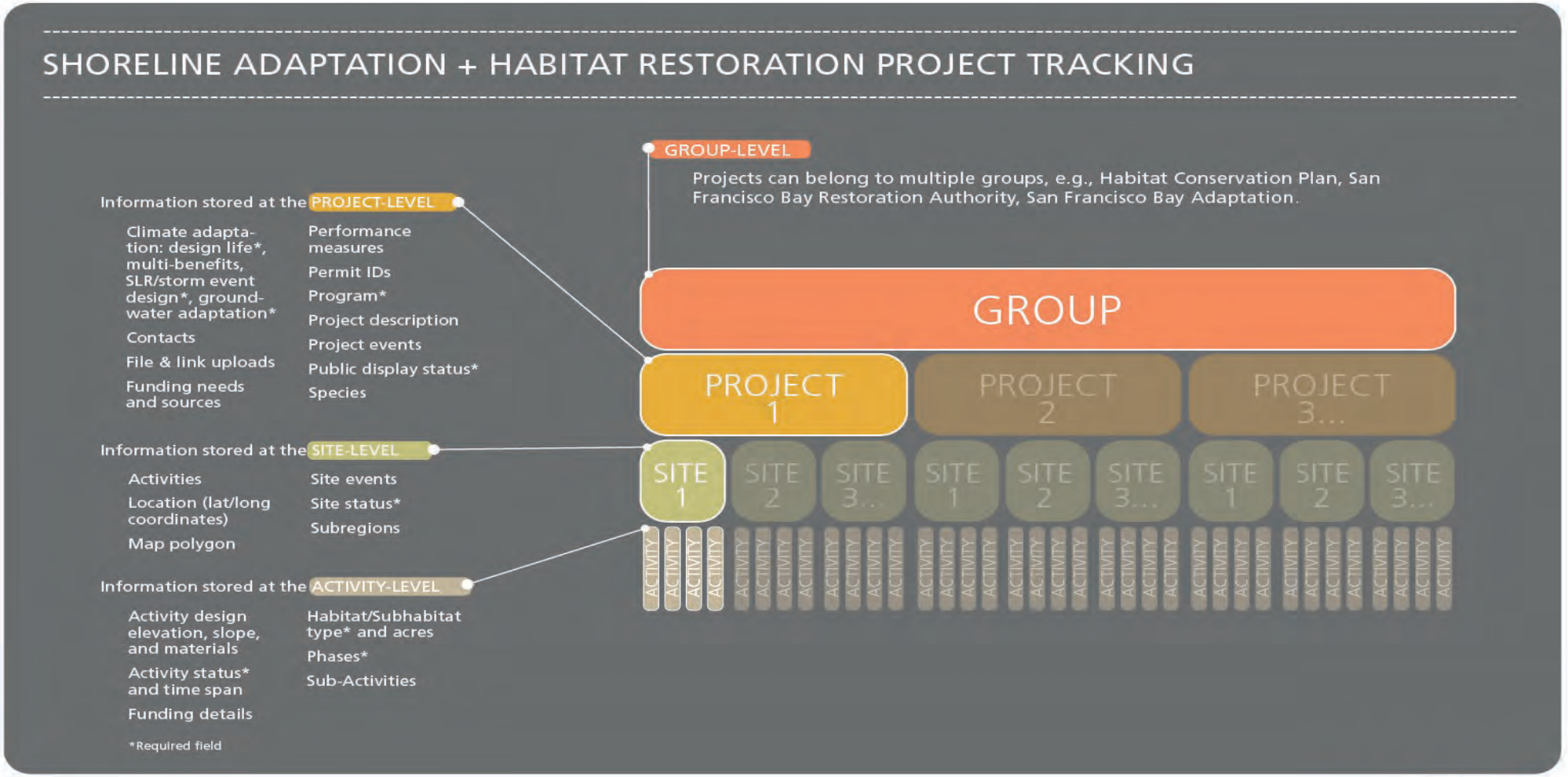
California Department of Fish and Wildlife
California Department of Transportation
California Department of Water Resources
California Environmental Data Exchange Network
California Natural Resources Agency
California State Coastal Conservancy
California Water Quality Monitoring Council
California Wetland Monitoring Workgroup
Central Coast Wetlands Group
Central Valley Joint Venture
Delta Stewardship Council
Klamath Watershed Partnership
Lahontan Regional Water Quality Control Board
Mosquito and Vector Control Association of California
NOAA - National Marine Fisheries Service
North Coast Regional Water Quality Control Board
Ocean Protection Council
Sacramento-San Joaquin Delta Conservancy
San Francisco Bay Conservation and Development Commission
San Francisco Bay Joint Venture





Shoreline Adaptation Project Map

How Does EcoAtlas Work?

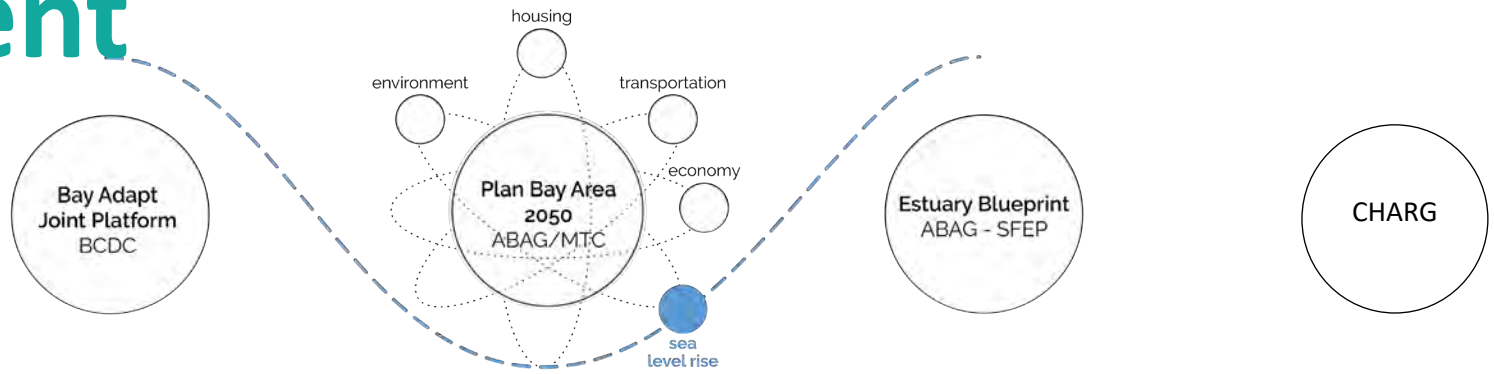


www.sfei.org
SFEI AQUATIC SCIENCE CENTER
ENVIRONMENTAL INFORMATICS

Shoreline Adaptation Project Map

What can the data support?

Regional Measurement



BAY ADAPT
REGIONAL STRATEGY FOR A RISING BAY

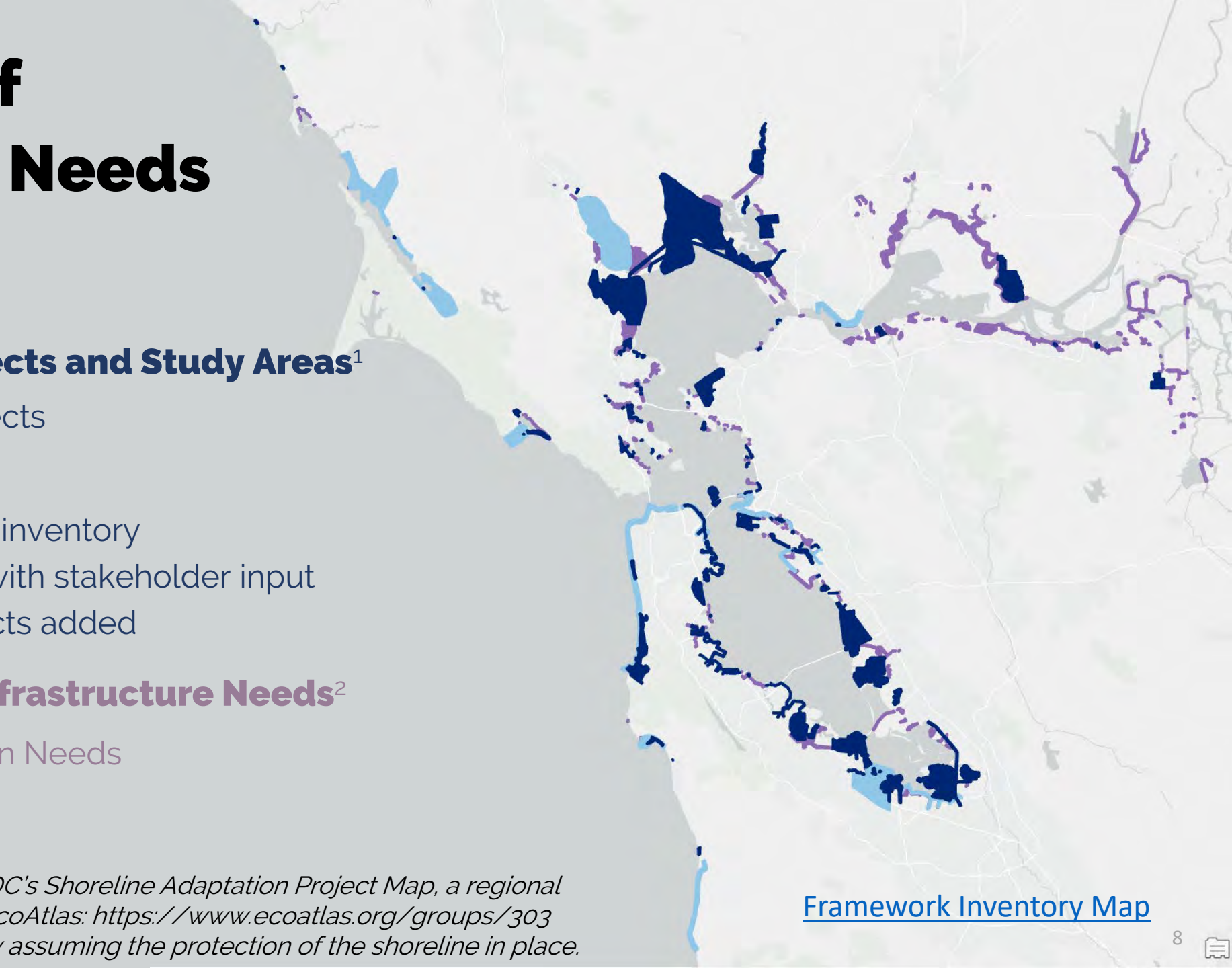
PLAN BAY AREA 2050

SAN FRANCISCO ESTUARY PARTNERSHIP

Bay Area FLOOD PROTECTION AGENCIES Association

EcoAtlas™

Inventory of Adaptation Needs



Local Adaptation Projects and Study Areas[1]

- Local Adaptation Projects
- Local Study Areas

192 projects in original inventory
132 projects updated with stakeholder input
Includes 47 new projects added

Potential Protective Infrastructure Needs[2]

- Placeholder Adaptation Needs

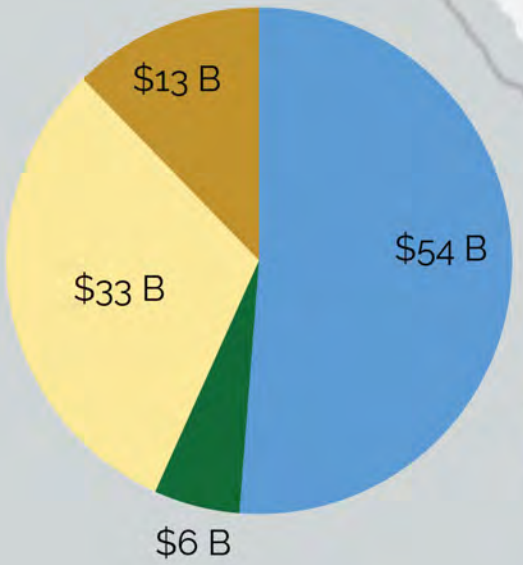
[Framework Inventory Map]

[1] Includes projects identified in BCDC's Shoreline Adaptation Project Map, a regional project inventory hosted through EcoAtlas: https://www.ecoatlas.org/groups/303
[2] Placeholder needs determined by assuming the protection of the shoreline in place.

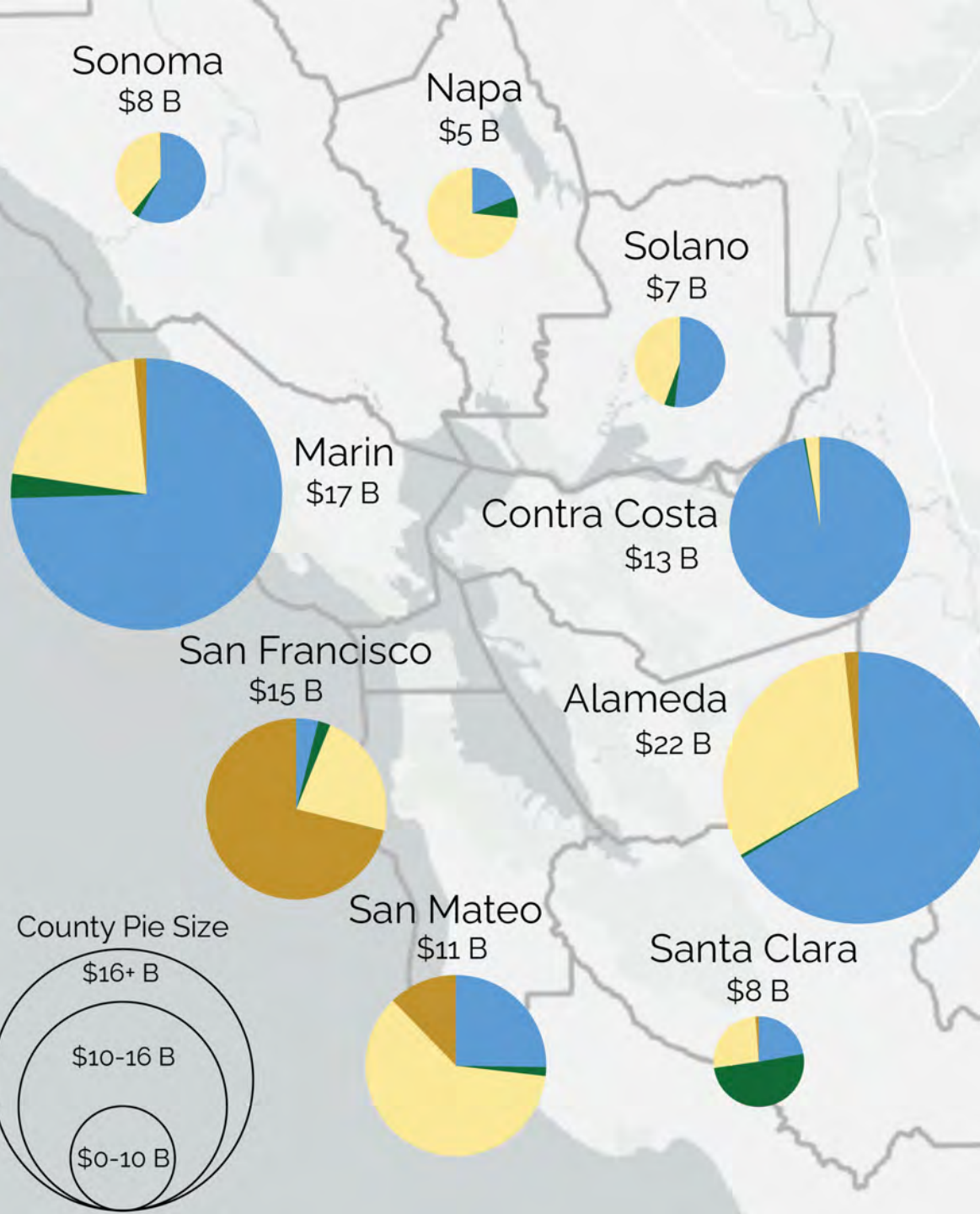
Inventory

SLR Funding and Investment Framework

- Most planned projects are hybrid, representing a focus on multiple benefits.
- Alameda and Marin are estimated to have the highest adaptation costs.
- Significant implementation gaps are present across the region; the largest gaps are in Alameda, Contra Costa, and Marin[2].



Escalated Regional Cost by Project Type[1]
$110 billion (B)

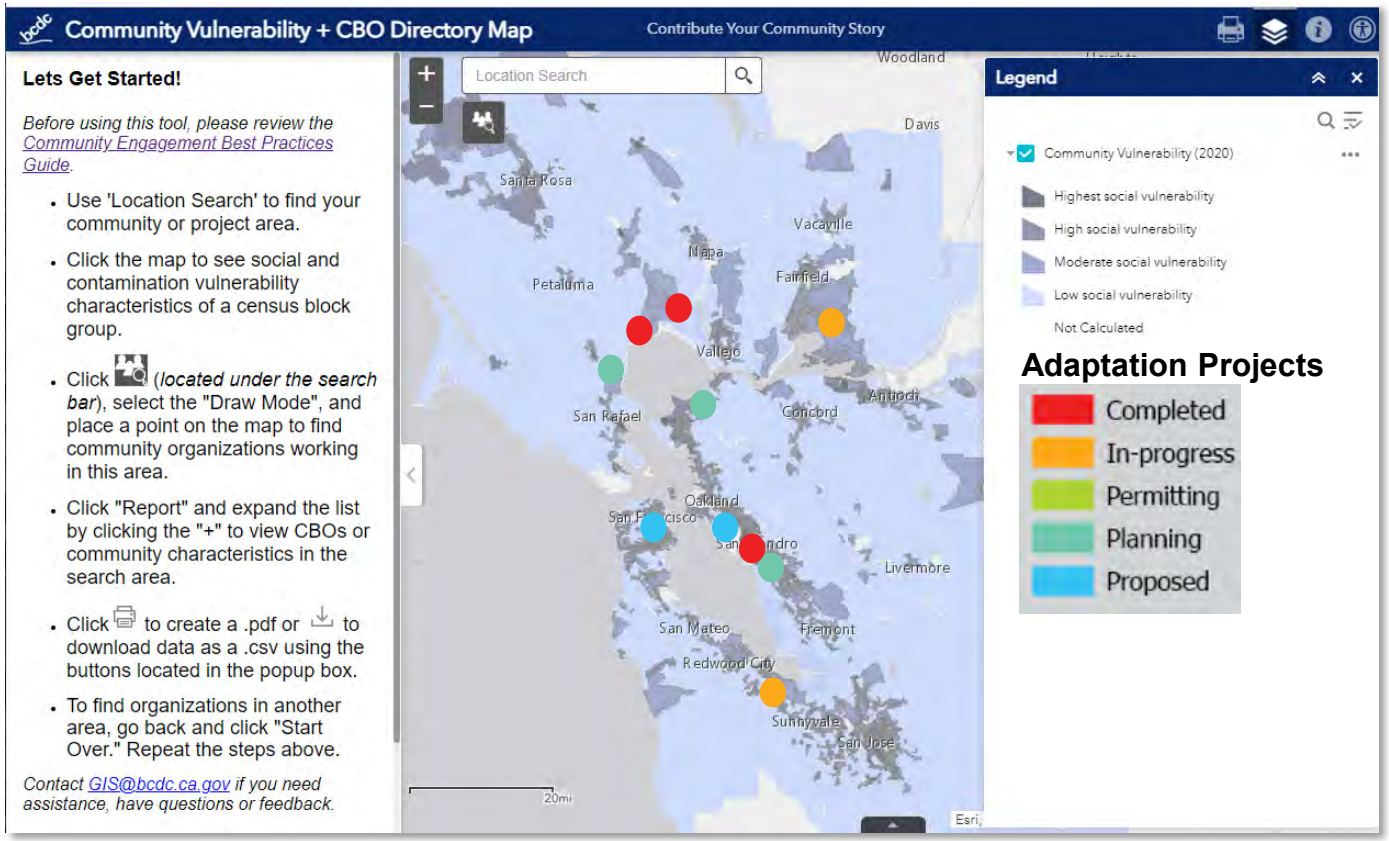


Project Type
- Grey
- Hybrid
- Green
- Placeholders

[1]Values represented in Year of Expenditure dollars; Regional cost includes $3B in additional sediment need.
[2]Locally identified projects do not account for studies or plans without defined interventions.

What can the data support?

Community Connections

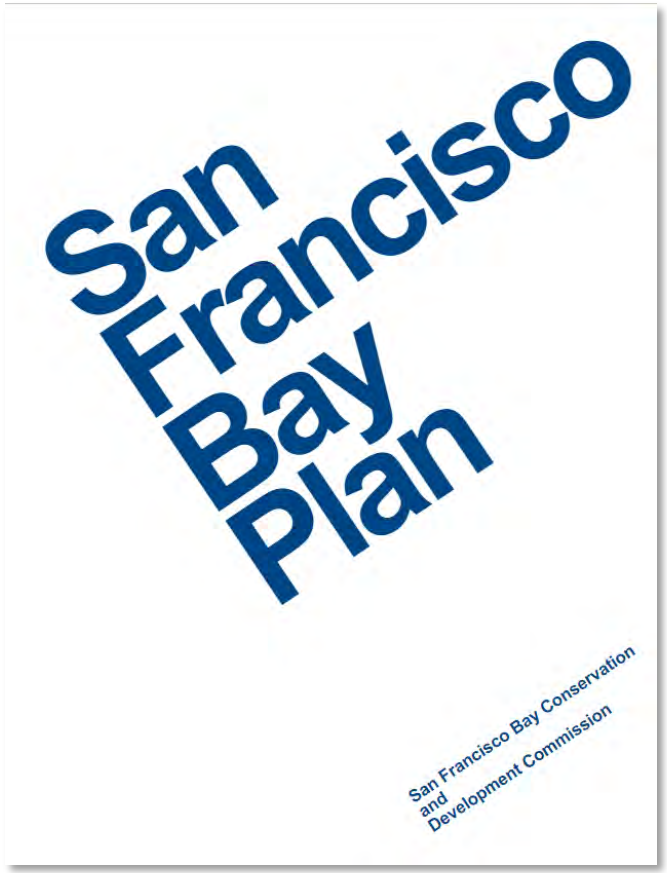


BCDC Community Vulnerability and CBO Directory Map

Shoreline Adaptation Project Map

What can the data support?

Regulatory Evaluation



Alameda Point

Shoreline Adaptation Project Map

Why collaborate on SAPMap?

- Ensure high quality of data
- Increased visibility of projects by communities
- Integrate projects in regional planning
- Jump start on regulatory requirements

What are the next steps?

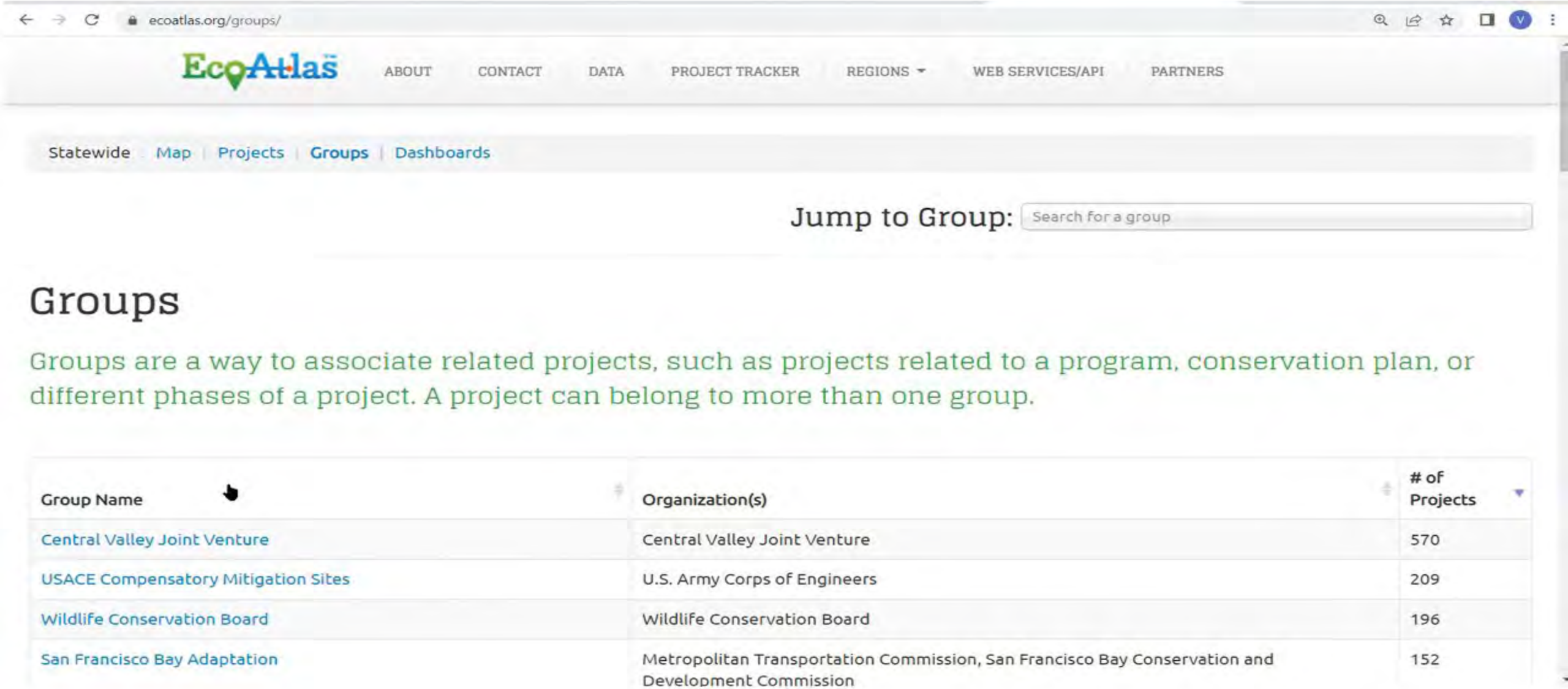
- Improve quality of SAPMap project data in Project Tracker
- Continue to convene EcoAtlas administrators' coordination group
- Identify improvements to Project Tracker to improve user experience + accessibility
- Integrate SAPMAP data/EcoAtlas into Regional Shoreline Adaptation Plan Mapping Platform

Thank you!

http://www.adaptingtorisingtides.org/project/shoreline-adaptation-project-mapping-program/

Todd Hallenbeck
GIS Specialist
Bay Conservation and Development Commission
Todd.Hallenbeck@bcdc.ca.gov

How Does EcoAtlas Work?



https://www.ecoatlas.org/groups/303

How Does EcoAtlas Work?

Project Climate Adaptation

A project's climate adaptation features describe the aspects of the project design related to how the project is anticipated to adapt to existing and future conditions of sea level rise and other flood hazards, as well as the additional shoreline resilience benefits and outcomes the project provides.

How long is the project designed to function? *
50

How much sea level rise will the project be adaptable to in feet? *
3.5

What storm event is the project designed to withstand? *
100-year extreme water level

What are the project benefits?
Flood Control × Habitat Restoration ×

What type of climate adaptation project is this? *
Hybrid

Does the project consider or address shallow groundwater flooding? *
Yes

Climate Adaptation Comments
Climate Adaptation Comments

Site Details

Phase *
Implementation

Activity Type *
Grey Infrastructure

Subactivity Type
Elevate land ×

Activity Comments
No new shoreline activities, but adaptation plan required if new flooding occurs.

Elevation - Upper Range
13.3

Elevation - Lower Range
Feet NAVD 88

Slope
Enter horizontal distance (H:1)

Ground Surface Characteristics
Select multip