

Bay Restoration Regulatory Integration Team (BRRIT)

Facilitating multi-benefit restoration projects in the
San Francisco Bay through enhanced collaboration

Case Study for Managing By Network, May 2021

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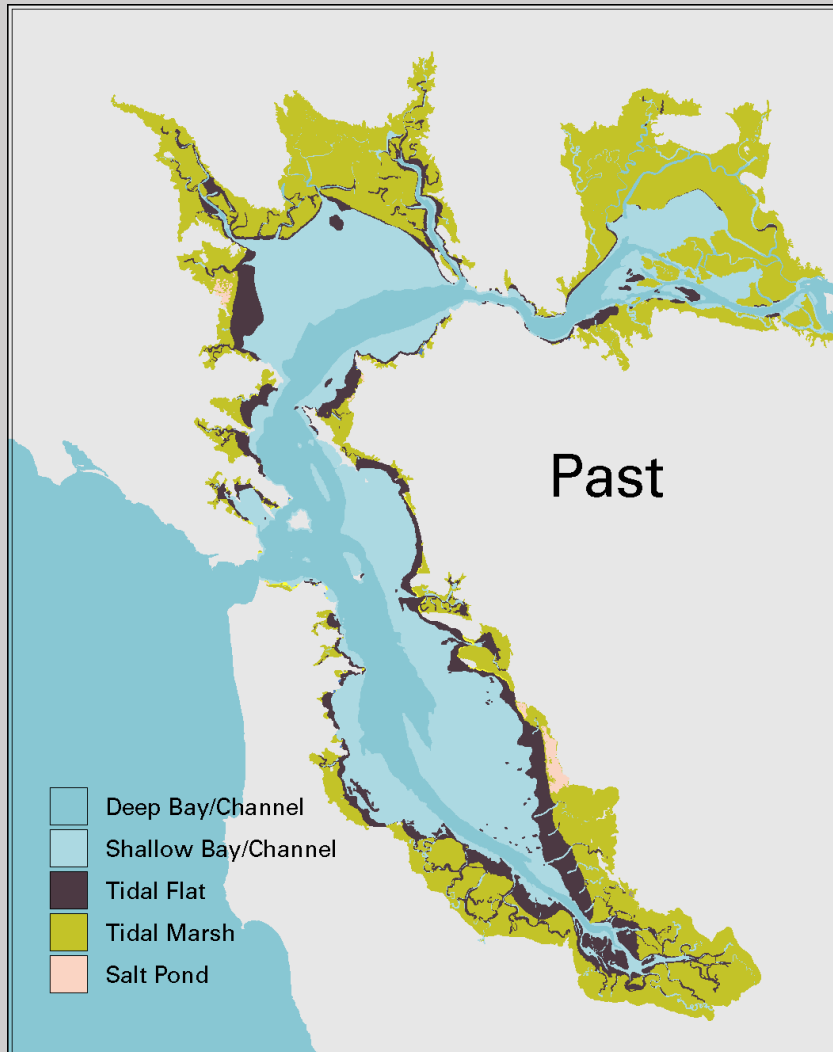


BRRIT and Mission

- WHO: 3 state, 3 federal agencies who provide permits for restoration projects, and one ad-hoc agency (US EPA)
- PURPOSE: To improve the permitting process for multi-benefit wetland restoration projects and associated flood management and public access infrastructure along shoreline of the 9 Bay Area counties
- BRRIT funded by San Francisco Bay Restoration Authority, State Coastal Conservancy, Santa Clara Valley Water District, East Bay Regional Park District and the SF Bay Toll Authority



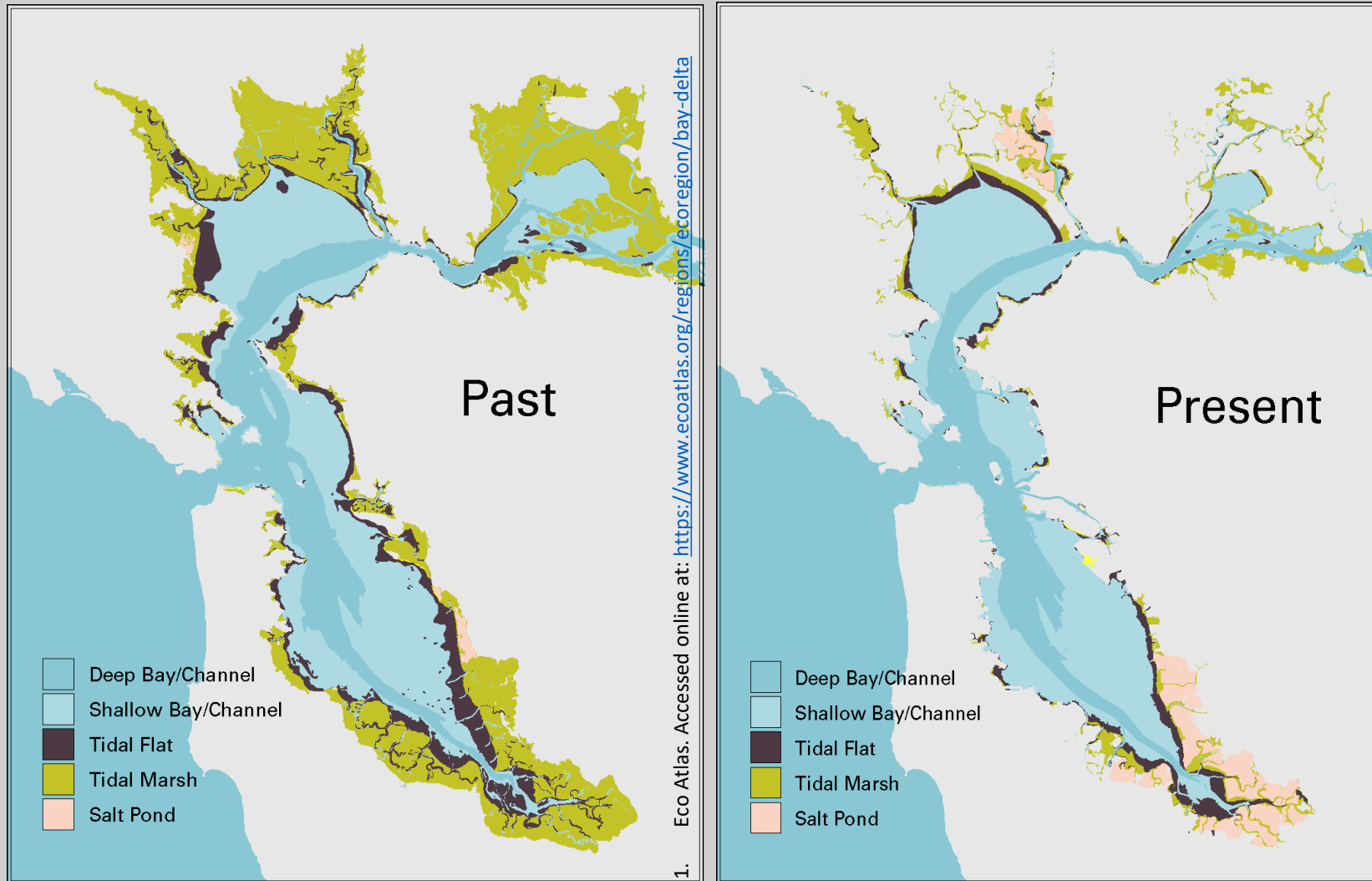
SF Bay Tidal Marsh 101: Historic Loss



What percent loss of historic tidal marsh you think the SF Bay Estuary has experienced since the mid 1800's?

Kindly place your estimate in the chat box

SF Bay Tidal Marsh 101: Historic Loss



Estimate:

80-90% loss of
historic tidal marsh
habitat

- Conversion to agriculture and significant urban development

SF Tidal marsh 101: Ecological Services

- Water purification/ groundwater recharge
- Recreational opportunities
- Natural shoreline protection from rising seas and storm surges/erosion
- Nutrient cycling
- Carbon sequestration
- Sediment capture for building marshes
- Native species habitat



Species Needs

- Connectivity of habitats
- Wide and deep marshes, with highly complex channel networks
- Cover: high tide refugia within the marsh plain or at the upland ecotone
- Foraging lands with proper hydrology
- Undisturbed nesting areas
- Free of unnatural predation levels
- Mosaic of microhabitats along the tidal spectrum, from upland ecotone to subtidal zone
- Free of contaminants



Restoration Goals

- Several regional planning documents that guide restoration (target: 100K acres of tidal marsh)
- Federal Recovery Plans: Tidal Marsh RP, fish RPs

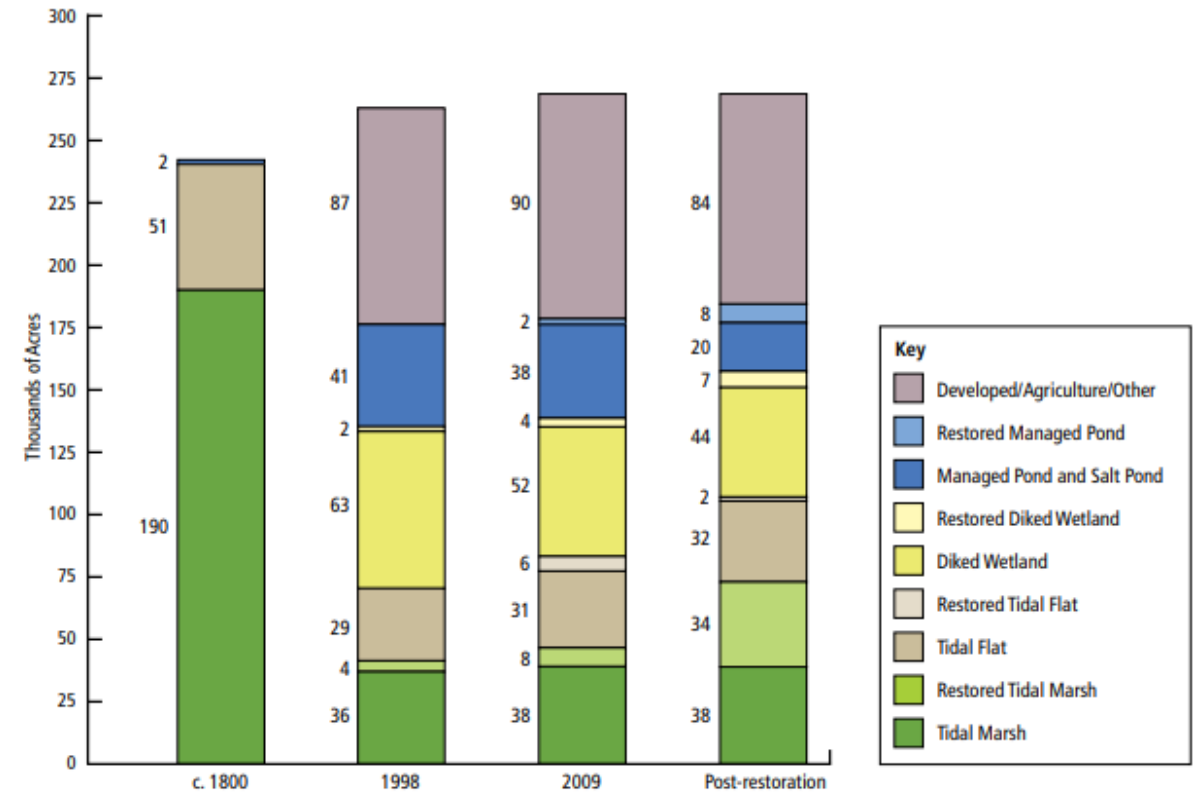


Figure 1 Change in the extent of baylands habitats over time. Numbers on bars represent thousands of acres. Acres of restored habitat in each time period are cumulative for each habitat type (e.g., restored tidal marsh in 2009 reflects all marsh restored before 2009, including marsh restored prior to 1998). To standardize the habitat types among different mapping efforts, some calculations are slightly different here from those in the 1999 Goals Project (see box 2 for more details).

https://behgu.aviandesign.net/wp-content/uploads/2015/10/Baylands_Complete_Report.pdf

Climate Change

“As the climate continues to change, San Francisco Bay shoreline communities will need to adapt in order to build social and ecological resilience to rising sea levels.”

- San Francisco Bay Shoreline Adaptation Atlas, SFEI and SPUR, 2019

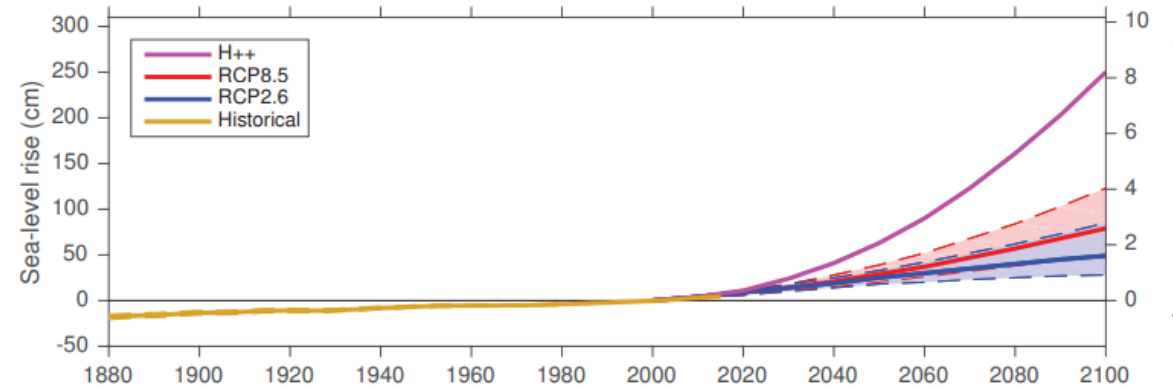
“Tidal marshes that are established by 2030 are more likely to provide ongoing benefits when sea level rise accelerates at mid-century. To achieve this goal, the planning, permitting, and construction of restoration projects must be accelerated.”

- Baylands Ecosystem Habitat Goals Science Update, 2015

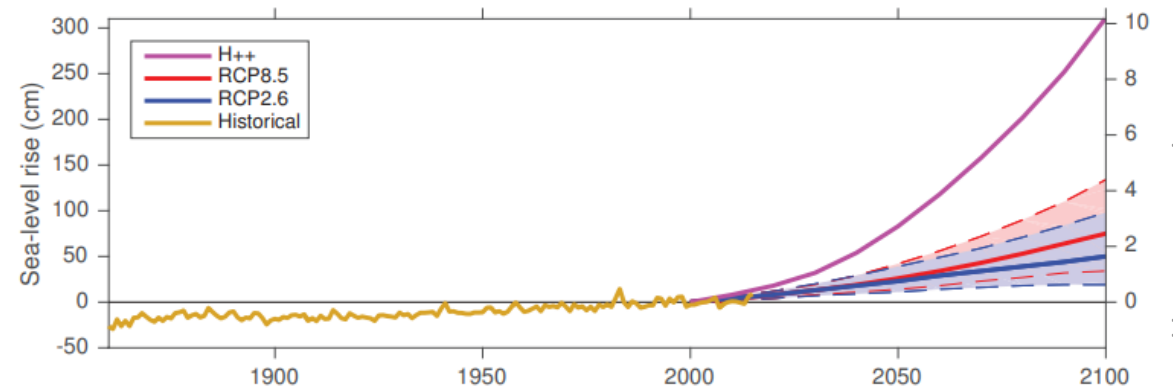
Figure 3: Projections of: (a) Global mean sea level, and; (b) Relative sea level in San Francisco, California.

Sea-level rise projections for RCP 8.5 and RCP 2.6 are calculated using the methodology of Kopp et al., 2014. The shaded areas bounded by the dashed lines denote the 5th and 95th percentiles. The H++ scenario corresponds to the Extreme scenario of Sweet et al. (2017) and represents a world consistent with rapid Antarctic ice sheet mass loss. Note that the behavior of the Antarctic ice sheet early in this century is governed by different processes than those which would drive rapid mass loss; although the world is not presently following the H++ scenario, this does not exclude the possibility of getting onto this path later in the century. The historical global mean sea level curve in (a) is from Hay et al. (2015).

(a) Global mean sea level



(b) Relative sea level in San Francisco, California



It takes a village to restore an estuary



San Francisco Bay Restoration Authority

- Regional agency established in 2008 to deliver essential local funding to restoration projects
- Comprised of:
 - Governing Board
 - Citizens Advisory Committee
 - Oversight Committee
 - State and regional agency staff
- Administers Measure AA funds, gathered funding for BRRIT establishment
- Vets projects for BRRIT docket



Policy and Management Committee (PMC)

- Provides oversight to BRRIT operations
- Developed MOU, the BRRIT's guiding document
- Tackles high level policy challenges/issues
- Provides support for issues that need to be elevated by BRRIT



BRRIT:

Because permitting is complex

- Laws not developed with restoration in mind
- Multi-benefit projects may not qualify for “restoration”
- Uncertainty can increase cost
- Potentially conflicting agency mandates
- SLR and Infrastructure Constraints



BRRIT:

Fostering Collaboration and Improving Process

- Formed to improve the permitting process for multi-benefit restoration projects
- **Key:** Pre-Application Communication!
The BRRIT strives to help project proponents during the pre-application phase to identify and resolve issues early in project planning




BRRIT Partnerships are many!

- BRRIT – interagency team
- BRRIT + other agency experts
- BRRIT + PMC
- BRRIT + PMC + SFBRA
- BRRIT + restoration community
 - Project proponents (local municipalities, state, federal landowners, flood districts, ports....)
 - Consultants (engineering and biological firms)
 - Mosquito Abatement Districts



BRRIT Partnerships in relation to the IAP2 Spectrum

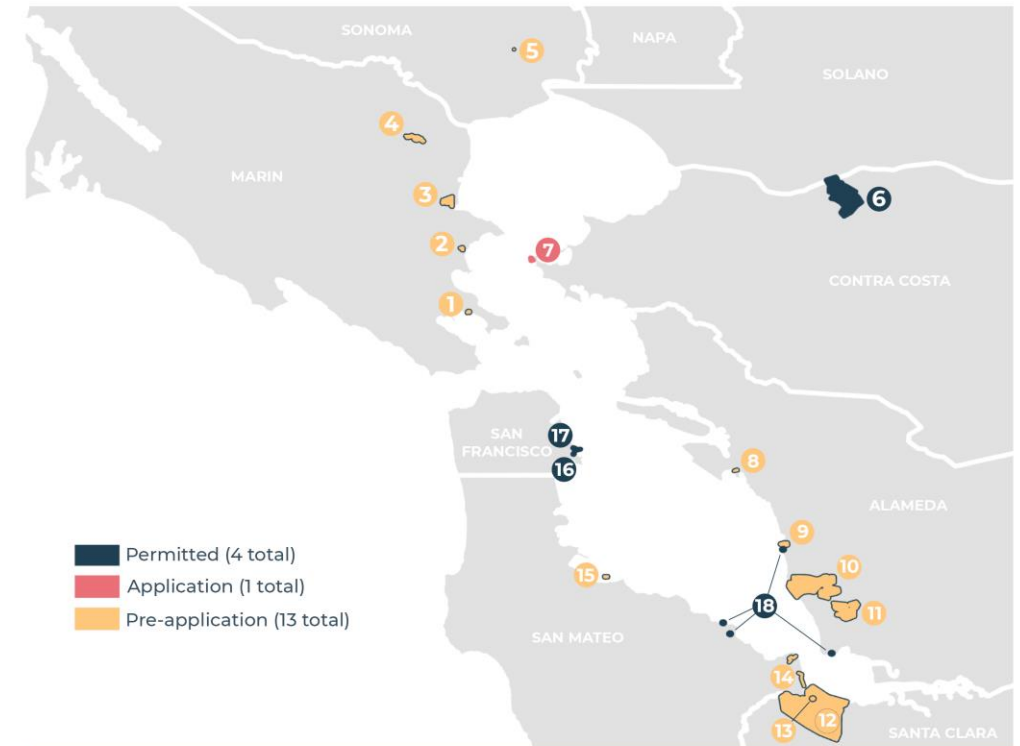
INCREASING IMPACT ON THE DECISION 					
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

<https://www.iap2.org/>

2021 Update

Projects Funded

- Total Measure AA funding 2017-2021: \$106M
- Additional matching funds: \$143M
- 18 Projects
 - All 18 include habitat for wildlife and fish
 - ~4,000 acres of tidal marsh habitat
 - 12 include flood protection elements
 - 15 include public access elements
 - 8 include water quality and pollution prevention elements



HABITAT RESTORATION, PROTECTION, OR ENHANCEMENT PROGRAMS AND PRIORITIES

Project	Safe, Clean Water and Pollution Prevention	Vital Fish, Bird, and Wildlife Habitat	Integrated Flood Protection	Shoreline Public Access
1 Greenwood Gravel Beach Design Project				
2 Tiscornia Marsh Restoration and Sea Level Rise Adaptation Project*				
3 McInnis Marsh Habitat Restoration				
4 Novato Deer Island Tidal Wetlands Restoration*				
5 Sonoma Creek Baylands Strategy*				
6 Lower Walnut Creek Restoration Project*				
7 Terminal 4 Wharf, Warehouse, and Pilings Removal Project				
8 San Leandro Treatment Wetland Project*				
9 Restore Hayward Marsh Project*				
10 South Bay Salt Pond Phase 2 at Eden Landing*				
11 Coyote Hills Regional Park - Restoration and Public Access Project*				
12 South San Francisco Bay Shoreline Project: Phase II				
13 Palo Alto Horizontal Levee Pilot Project				
14 SAFER (Strategy to Advance Flood Protection, Ecosystems and Recreation)				
15 Shoreline Park - Burlingame				
16 900 Innes Remediation Project*				
17 Heron's Head Park Shoreline Resilience Project*				
18 Invasive Spartina Project - High Tide Refuge Islands*				

*Measure AA funded project - programs and priorities data derived from SFBRA Staff Recommendations. All other project programs and priorities are based upon information submitted to the BRRIT at the time of this report, but may change based upon SFBRA Staff review.

BRRIT

Accomplishments since August 2019

- Operations
- Permitting Project Proponents
- **Focusing on growing partnerships to improve the permitting process**

18 Projects

12 Projects in Pre-Application

34 Pre Application Meetings

26 Post Application Meetings

18 Interagency
Coordination Meetings

7 Site Visits

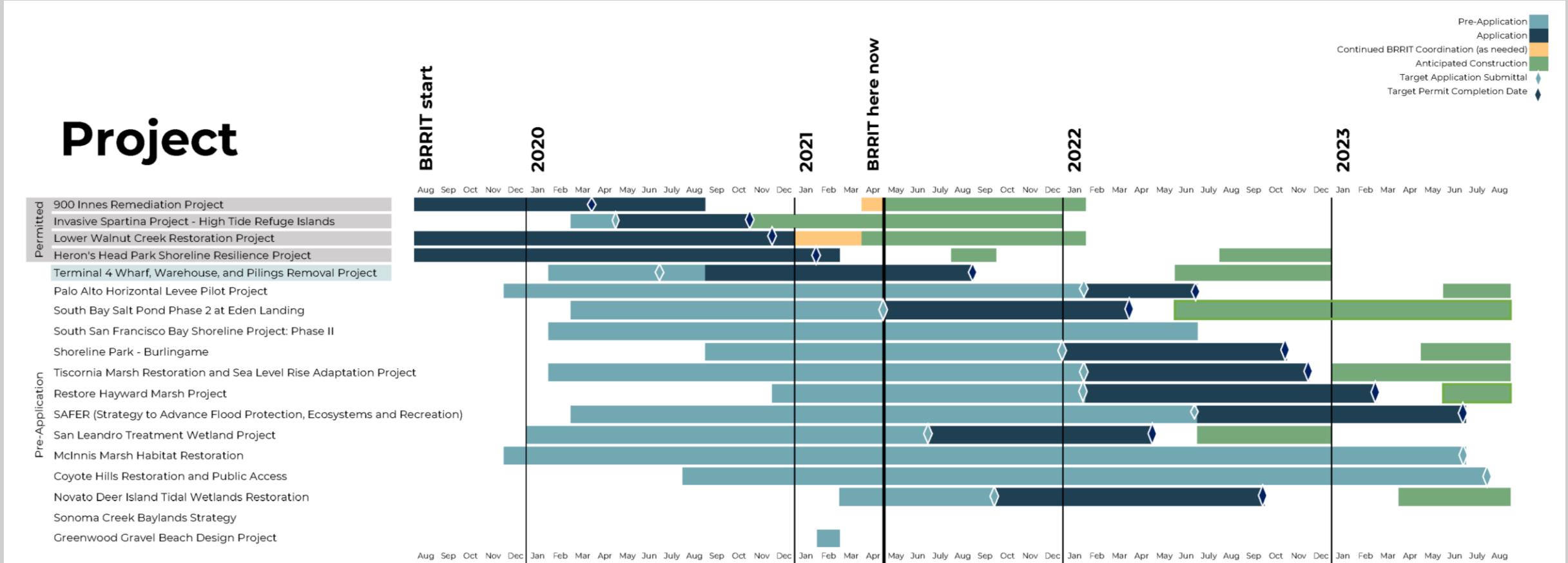
5 Outreach Meetings

4 Projects Permitted

BRRIT

Accomplishments: SFBRA Partnership

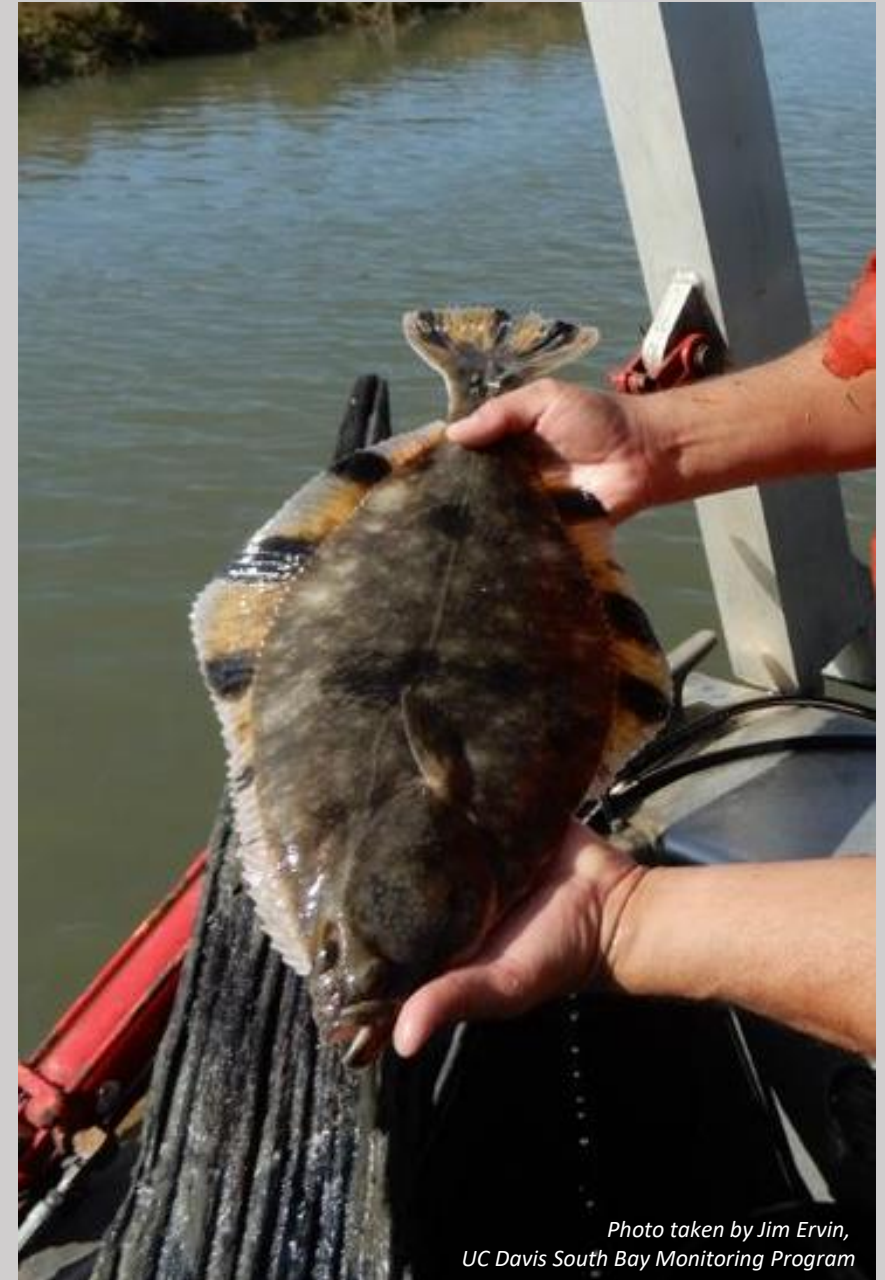
- Tracking performance and progress towards regional goals
- Presenting results (annual reports) to the governing board



BRRIT

Accomplishments: Other Agency Partnerships

- Piloting wetland conversion framework
- Developing standard procedures for working with the dredging community
- Joined multi-agency team to improve monitoring



*Photo taken by Jim Ervin,
UC Davis South Bay Monitoring Program*



BRRIT

Accomplishments: PMC Partnership



POLICY ISSUES	INITIATIVES
1. Issues to be addressed in 2021	
a. Fill for Habitat Habitat transition zones (e.g., ecotone slope levees, high tide <u>refugia</u>) and other habitat features, (e.g., nesting bird islands) are important features that provide sea level rise resilience. Creating these features requires fill in wetlands or open water, an activity that is limited by some agencies and that often triggers mitigation. Filling areas of existing habitat is linked to habitat conversion issue described above as it converts habitat from one type to another.	<p>The PMC will consider multiple efforts that address this policy issue. Currently, the initiatives described here are under way and the PMC should coordinate with the agencies leading those efforts.</p> <p>The Water Board recently completed grant-funded work to look at policies that may lead to Basin Plan amendments. Those efforts will extend beyond 2019. In the meantime, the Water Board is evaluating its ability to address the issue using existing policies.</p> <p>The Commission's Bay Fill Policies Working Group, a committee of 5 Commissioners, including Water Board, EPA, and USACE representatives, continues to meet and discuss future BCDC policy updates. Additionally, the Commission initiated the rulemaking process on December 17, 2020 to consider amending the Commission's Regulations to incorporate a number of changes, including adding an administrative regulation for fill for habitat restoration.</p> <p>Water Board, EPA, and USACE representative participation is intended to facilitate crosswalk policy discussions between BCDC and these agencies, specifically Clean Water Act Section 401 and 404 permitting. Coordination with the PMC would assist in creating permit consistency. The Bay Plan amendment process was completed on October 3, 2019.</p>
b. Develop guidance for project applicants	Restoration projects often have similar issues and, while knowledge may reside in particular project proponents or consultants, there is an opportunity to facilitate project development and permitting by completing FAQs and providing other guidance, such

- Permit and Policy Improvement List
- Collaborated on Outreach to the Restoration Community
- Met with restoration partners to discuss challenges and develop solutions
- Issue Resolution/Elevation Process

BRRIT

Accomplishments: Restoration Community Partnership

- Striving to improve the pre-application process to enhance coordination with restoration partners
- Employing multiple communication strategies
- Website tools (<https://www.sfbayrestore.org/san-francisco-bay-restoration-regulatory-integration-team-brrit-0>)
- Integrating feedback (surveys and meetings)



Challenges and Lessons Learned



Challenge: Antiquated policies

PMC Response: Innovating solutions

- Permit and Policy Improvement List
- Multiple on-going efforts
- Sediment fill limits were one of the first issues addressed
- BCDC Amended policy that incorporated existing science and current needs

Challenges and Lessons Learned



Challenge: Antiquated policies

PMC Response: Innovating solutions

Are you or your partners having to innovate new solutions to regulatory challenges that might impede progress toward climate change adaptation?
(Please share your experience in the chat box.)

Challenges and Lessons Learned



Challenge: Community Perceptions of the BRRIT

BRRIT Response:

Early education with restoration partners, to help them understand how the BRRIT works, benefits, and constraints

- Changing pre-application meeting structure and outreach meetings in advance of meetings to communicate the benefits of the BRRIT process as envisioned
- Communicating with applicants on the constraints of laws and policies
- Continuing the conversations on ways the BRRIT can respond to applicants needs from within the regulatory framework

Thank you!

Questions?

