



Wetlands Regional Monitoring Program: Updates and Next Steps

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SFBRA Governing Board Meeting
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Photo: Shira Bezalel

Agenda

- Organizational alignment & progress to date
- Products & support for the SFBRA
- Next phase & funding request



WRMP: Update to SFBRA Governing Board



Complementary Missions

Restoration Authority:

- Protect and enhance wetlands and habitats
- Flood management
- Public access infrastructure

WRMP:

- Coordinate regional wetland monitoring
- Inform science-based decision making
- Increase monitoring cost-effectiveness



WRMP Progress Since Late 2021

- Implementation started 2022 (Thank you!)
 - Began formal co-administration with the Estuary Partnership
 - Exponentially increased funding
 - Collaborated with partners & agencies on indicators and methods
 - Added equity as a key component (P&W workgroup, coordination with CBOs and Tribes, 5-year Equity and Engagement Plan)
- Near-term monitoring priorities established
 - Completed the 2024 Monitoring Plan outlining initial efforts
 - New Baylands Habitat Map analyses
 - New SFBRA performance measures



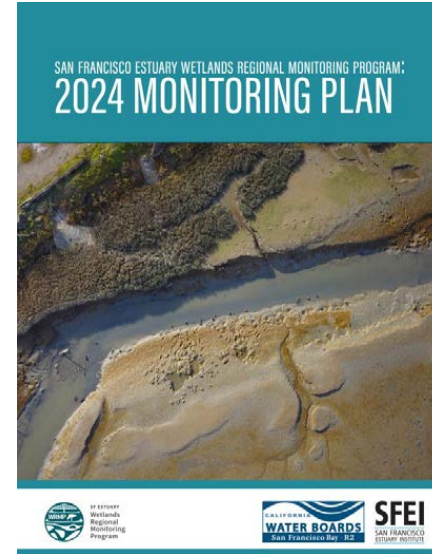
Support: Initial CRAM Monitoring



WRMP: Update to SFBRA Governing Board

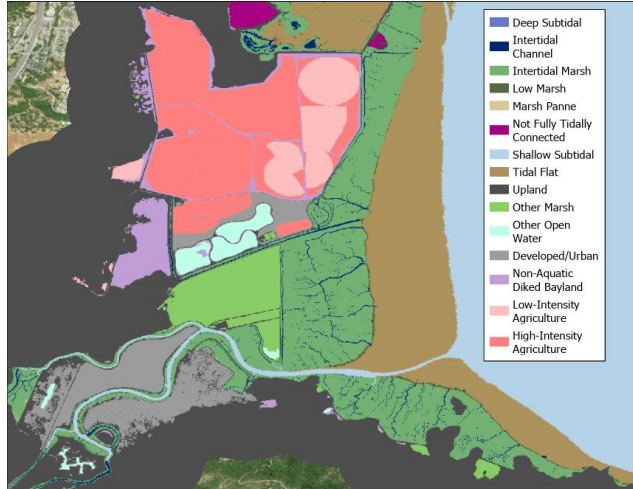
Products: 2024 Monitoring Plan

- Guides initial monitoring
- Contents
 - Introduction
 - Plan Development
 - 3 scales of monitoring
 - Regional
 - Subregional
 - Site
 - Conclusions and Next Steps



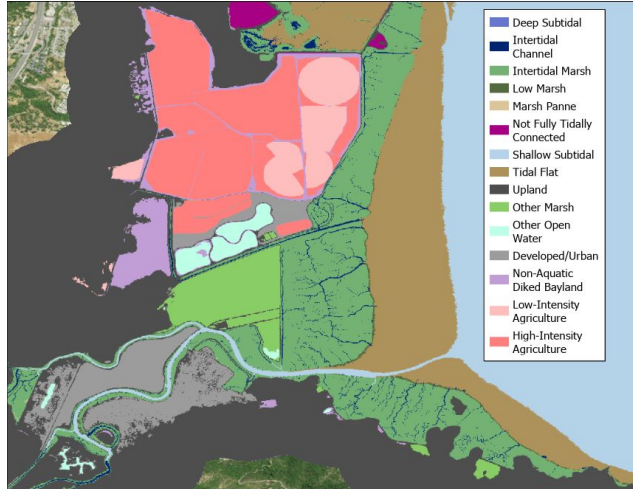
WRMP: Update to SFBRA Governing Board

Products: 2020 Baylands Habitat Map



- Long awaited and now automated!
 - **Detect change over time to track restoration progress**
 - More cost efficient, allowing more frequent mapping
- A key resource for the RA and the region to understand
 - Restoration effects
 - Habitat change

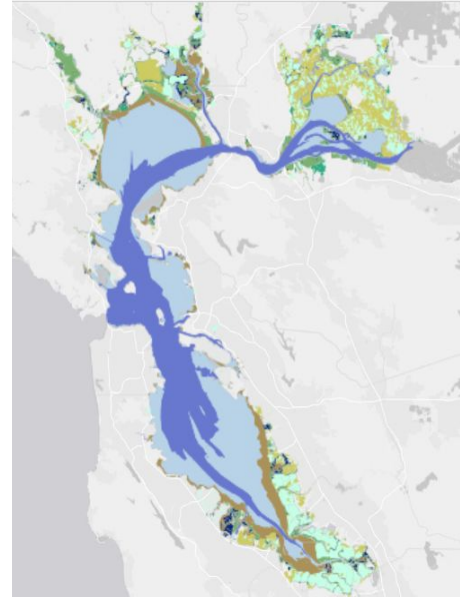
Products: 2020 Baylands Habitat Map



- Recent webinar, with more to come
- It's on [EcoAtlas!](#)
 - Set of data tools for CA wetlands
 - Restoration Authority dashboard and Project Tracker
- Future analyses
 - Understand marsh gain and loss
 - Develop metrics for RA projects and dashboard

Products: New Performance Measures

- **Baylands Habitat Map**, focused on quantity/location
 - Tidal marsh extent (including by habitat type)
 - Patch size
 - Patch shape
 - Patch connectivity
- These measures will be captured in SFBRA's FY2024 Annual Report



Products: New Performance Measures

SFBRA sites contribute to larger, denser, more connected habitat patches that increase support for wildlife



Ravenswood Restoration Project

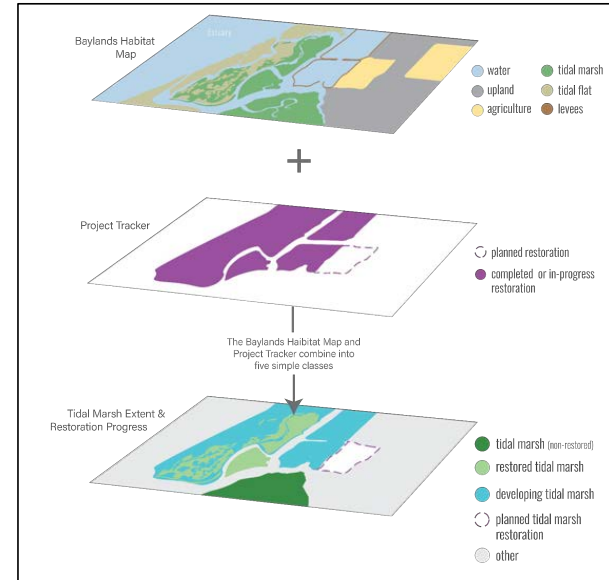


Tidal Marshes Connected to Ravenswood

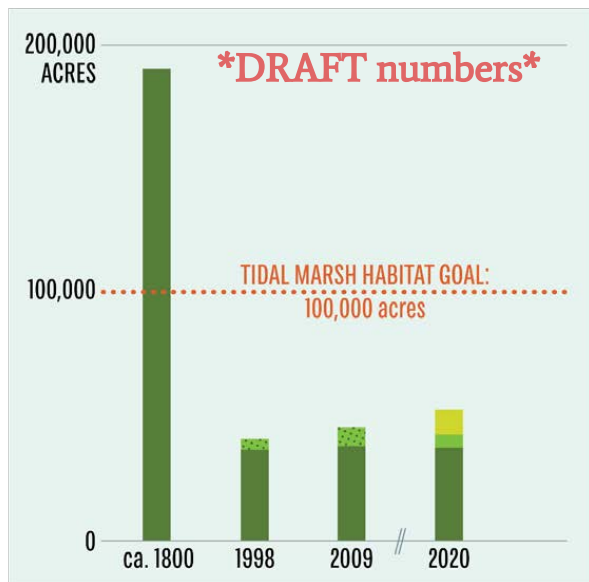


Products: Leveraging Data

- **Tracking marsh progress** by bringing together the Baylands Habitat Map and Project Tracker data
- **Developing new restoration data layers** from Project Tracker



Products: Acreage Analyses



Draft Bay-wide numbers for 2020:

- ~38,000 ac existing tidal marsh
- ~5,400 ac restored tidal marsh
- ~10,000 ac developing marsh

TIDAL MARSH LEGEND

Tidal marsh		<i>not including restoration</i>
Restored tidal marsh		<i>mapped using older approach</i>
		<i>mapped in 2020 as marsh</i>
Developing marsh		<i>evolving into marsh</i>



WRMP: Update to SFBRA Governing Board

Products: Acreage Analyses

Restored and Evolving Tidal Marsh as of 2020



~1,700 of the ~16,000 acres of restored and evolving marsh in the Bay is from SFBRA-funded projects



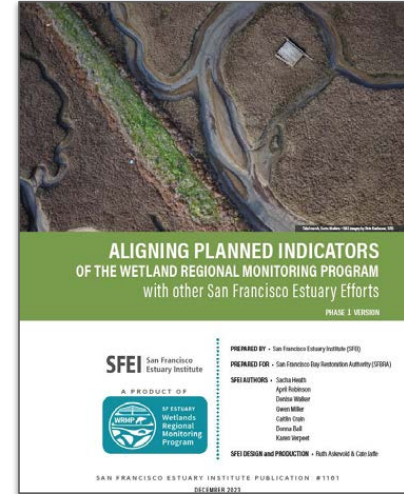
WRMP: Update to SFBRA Governing Board

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Products: Indicator Alignment Report

We have received much positive feedback:

- Summary of regional efforts (related to RA performance metrics and WRMP indicators)
- Integrating with and building on existing and future work with regional partners



WRMP: Update to SFBRA Governing Board

FY 2025: New Performance Measures

- Overall Habitat Quality (in progress)
via Baylands Habitat Map & onsite monitoring
 - Biological and physical structure
 - Hydrology
 - Stressors
- Social Equity Metrics (in progress)
 - Project benefits
 - Inclusive access
 - Representation in decision-making
 - Participation in stewardship/education events & programs



FY 2025: RA Dashboard updates

- Updating the RA dashboard to include new metrics
- Updates by category to target specific user interests
- Flexible design to accommodate new metrics



Organizational alignment & progress to date

Products & support for the SFBRA

Next phase & funding request

Breaking down the
detailed table that's
in your packets



Next Phase: RA Funding Request Preview

- Requesting an additional ~3MM, similar to the current SFEI grant
- Some highlights:
 - 2025 Baylands Habitat Map
 - CRAM
 - SFBRA EcoAtlas dashboard updates
 - Comms & WRMP website (design, production, and maintenance)
 - Engagement (regulators, data users, state/regional efforts)
 - Special studies (to provide critical data for management actions)



Next Phase: EPA Funding Preview

- 17MM total funding over 5 years, combined SFEI and SFEP
- Some highlights:
 - Establish the WRMP Monitoring Site Network
 - Collect, manage, analyze, and disseminate data
 - Implement social equity indicators (co-develop community-engaged monitoring, educational opportunities, and/or workforce development with community-based organizations and Tribes)
 - Coordinate with regulatory agencies
 - Communications and engagement



Wetlands Regional Monitoring Program Funding Summary 2024-2029

Category	Task	SFBRA proposed (2025-2028)	EPA first 10MM (2024-2026)	EPA next 7MM (2026-2029)	EPA WPDG 3 & WPDG 4	NEP (2024-2025)	SRF (2024 - 2025)	Match (not incl SFBRA)
Program Management and Governance	Program management, administration, and governance	\$200,000	\$1,875,000	\$1,312,500	\$86,000	\$150,000		\$20,000
Data Management	-Data management -Data portal	\$475,000	\$450,000	\$315,000	\$140,000			\$127,000
Science Indicator Implementation	-Data collection/analysis -Habitat metrics -Indicator Alignment	\$1,980,000	\$3,150,000	\$2,205,000	\$12,000			\$2,110,000
Social Equity Indicator Implementation	-People and Wetlands WG -Data collection/analysis -Advance WRMP Equity Plan		\$2,965,000	\$2,075,500	\$216,000		\$50,000	
Regulatory Alignment	Regulatory Alignment Recommendations	\$70,000	\$215,000	\$150,500	\$112,000			\$60,000
Communications and Engagement	Data visualizations, information products, and reports	\$265,000	\$1,345,000	\$941,500	\$52,000		\$50,000	\$250,000
TOTAL		\$2,990,000	\$10,000,000	\$7,000,000	\$618,000	\$150,000	\$100,000	\$2,567,000

Next Phase: RA Funding is Critical



Questions?

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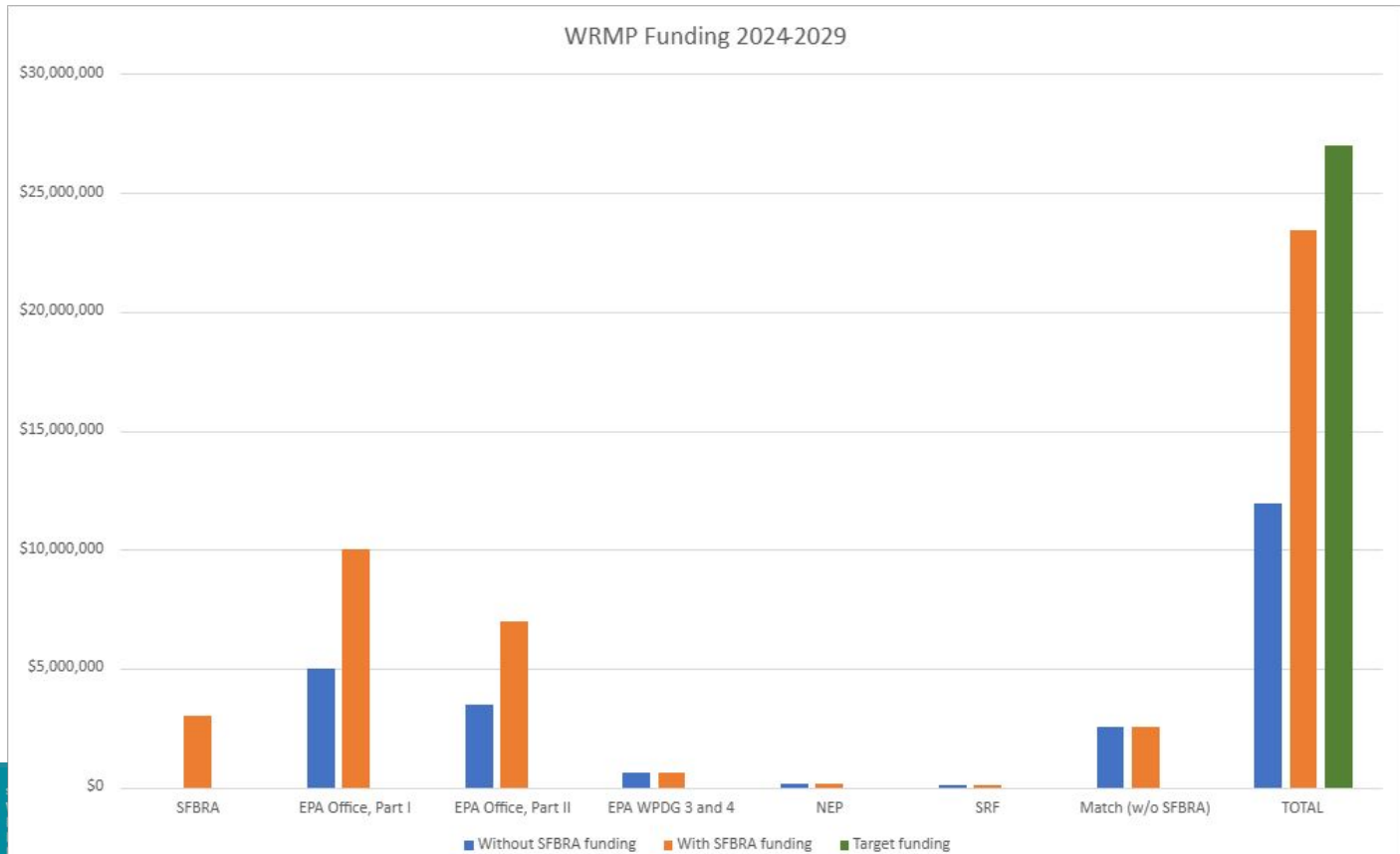
Appendix – Reference Slides



WRMP Data helps RA Goals

SFB Restoration Authority	WRMP
Long-term impact on the Bay for the benefit of future generations	Collaborates with local players to maximize impact (of restoration projects and wetland management)
Geographic distribution of projects in the nine counties in the San Francisco Bay Area	Covers the entire Lower Estuary and collaborations with the Delta
Economic benefits through local workforce development and employment opportunities	Building workforce development and training programs for wetland monitoring
Community engagement with local organizations and businesses to engage youth and young adults in natural resource protection	Co-developing opportunities for educational visits and community-engaged monitoring with CBOs and Tribes
Efficient strategies for monitoring, maintenance, and stewardship to develop effective restoration strategies	Creates efficiencies for restoration practitioners and regulatory agencies (thereby also reducing cost)





SFBRA Funding Item Description	Labor	Expenses
Program management (including program financial mgmt, fundraising strategy, coordination with SFEP)	\$200,000	minimal
Baylands Habitat Map – new basemap in 2025, following processes established in 2020 BHM	\$625,000	\$30,000
CRAM – fieldwork planning, data collection/analysis	\$525,000	
SFBRA dashboard updates • Metrics reporting for SFBRA sites • Metrics analyses of interest to SFBRA • Infrastructure updates (EcoAtlas updates, data updates)	\$500,000	
WRMP website initial design & production	\$225,000	\$50,000
WRMP website ongoing production & maintenance (update with key features, maintain it, and keep it current with latest data. This budget is based on the South Bay Salt Pond Restoration Project, which has similarly complex needs for program reporting, meeting management, data sharing, report sharing, etc.)	\$200,000	
Engagement and external coordination – with regulators, data users, participation in state/regional efforts	\$100,000	
Communications (newsletter, conferences, regional meetings)	\$200,000	\$35,000
Special studies, not yet identified (studies will provide critical information about how management actions are impacting restoration establishment/performance)	\$300,000	
		\$2,990,000



WRMP: Update to SFBRA Governing Board

EPA San Francisco Bay Program Office Funding Item Description (First \$10M of \$17M expected)	Labor	Expenses
Program management (including program financial mgmt, fundraising strategy, governance)	\$1,875,000	minimal
Data management and portal	\$450,000	
Data collection and analysis - vegetation, marsh surface elevation, water surface elevation, suspended sediment, photopoint	\$898,000	\$1,800,000
Biophysical workgroups and Standard Operating Procedures	\$123,000	\$79,000
Habitat indicator alignment	\$250,000	
People & Wetlands workgroup and community-engaged data collection	\$1,325,000	
WRMP Equity Plan	\$1,640,000	
Regulatory alignment	\$215,000	
Communications and engagement - data visualizations, information products, and reports	\$1,345,000	
	\$10,000,000	



Select quotes during Indicator Alignment report review sessions

"Really helpful for a non-WRMP effort/audience trying to figure out which efforts are doing what"

- Zooey Diggory, Valley Water

"We undervalue things like this, but I find it very helpful... the WRMP is leading by example in making some of these connections clear... Sets a great foundation for cross Estuary coordination"

- Dylan Chapple, DSC

"Extremely useful! Especially for people new to the system."

- Denise Colombano, DSC

"Thanks so much for developing this alignment memo! [We] have regularly talked about how this is a need, in particular visuals."

- Kelli McCune, SFBJV

"Tidal Marsh section was extremely useful and is highest priority; specifically the roadmap."

- Caitlin Sweeney, Estuary Partnership

Wetlands Regional Monitoring Program Funding Summary 2024-2029

Category	Task	SFBRA proposed (2025- 2028)	EPA SF Bay Office, first 10MM disbursement (2024-2026)	EPA SF Bay Office, next 7MM disbursement (2026-2029)	EPA WPDG 3 (2022 - 2025) and WPDG 4 (2024 - 2027)	National Estuary Partnership (2024-2025)	State Revolving Fund (2024 - 2025)	Local / State / in- kind match (not including SFBRA)
Program Management and Governance	Program management, administration, and governance	\$ 200,000	\$ 1,875,000	\$ 1,312,500	\$ 86,000	\$ 150,000		\$ 20,000
Data Management	WRMP data management and data portal	\$ 475,000	\$ 450,000	\$ 315,000	\$ 140,000			\$ 127,000
Science Indicator Implementation	Monitoring planning and data collection and analysis	\$ 825,000	\$ 2,900,000	\$ 2,030,000	\$ 12,000			\$ 2,035,000
Science Indicator Implementation	Habitat metrics	\$ 655,000						
Science Indicator Implementation	Habitat indicator alignment	\$ 500,000	\$ 250,000	\$ 175,000				\$ 75,000
Social Equity Indicator Implementation	People and Wetlands Workgroup and data collection and analysis		\$ 1,325,000	\$ 927,500	\$ 46,000		\$ 50,000	
Social Equity Indicator Implementation	Advancing WRMP Equity Plan, including community-engaged data collection for social equity indicators		\$ 1,640,000	\$ 1,148,000	\$ 170,000			
Regional Regulatory Alignment	Regulatory Alignment Recommendations	\$ 70,000	\$ 215,000	\$ 150,500	\$ 112,000			\$ 60,000
Communications and Engagement	Data visualizations, information products, and reports	\$ 265,000	\$ 1,345,000	\$ 941,500	\$ 52,000		\$ 50,000	\$ 250,000
TOTAL		\$ 2,990,000	\$ 10,000,000	\$ 7,000,000	\$ 618,000	\$ 150,000	\$ 100,000	\$ 2,567,000