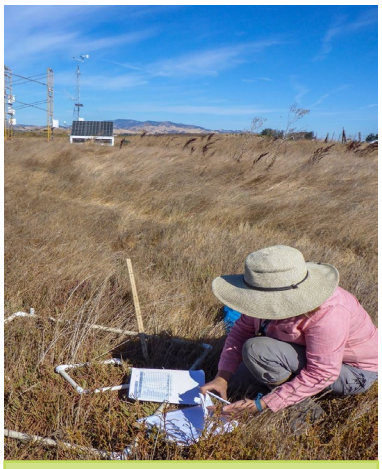
China Camp Marsh. Photo - Michael Vasey

Wetlands Regional Monitoring Program (WRMP) 2023 Update



Vegetation monitoring at Rush Ranch Flux Tower. Photo - Anna Deck

What is the WRMP?

The San Francisco Estuary restoration community is working rapidly to protect and restore wetlands that can provide flood protection, recreation, water quality improvement, habitat, and other benefits for surrounding communities. The Wetlands Regional Monitoring Program (WRMP) delivers coordinated regional monitoring of the San Francisco Estuary's wetlands to (1) inform science-based decision-making for wetland restoration and adaptive management and (2) increase the cost-effectiveness of permit-driven monitoring associated with wetland restoration projects.

The WRMP is a robust, science-driven, and collaborative regional monitoring program that includes:

- Monitoring site network
- Open data sharing platform
- Comprehensive science framework to guide monitoring.

The WRMP supports the health, diversity, and resilience of tidal wetlands in the San Francisco Estuary by informing science-based management actions that enable wetlands to adapt and evolve into the future while providing essential ecosystem services and equitable benefits to communities.

The WRMP is led by a diverse Steering Committee and supported by a Technical Advisory Committee. The WRMP Plan and Program Charter provide the foundation for this program. The WRMP is staffed through a co-management partnership between the SF Estuary Institute and SF Estuary Partnership.

Why do we need it?

Tidal wetlands in the San Francisco Estuary are threatened by climate change, continued development pressure, and other drivers of change. Accelerating sea level rise and decreased sediment supplies threaten to drown and erode existing tidal wetlands and undo restoration progress that has been made to date. Currently, there is a lack of standardized, coordinated, and shared monitoring for tidal wetlands. Coordinated monitoring can inform the science needed for effective decisions about wetland restoration and stewardship, and provide information to efficiently guide wetland projects to protect shoreline communities from disasters such as sea level rise. Having a cohesive regional monitoring system can aid in reducing this flooding risk, provide habitat for wildlife, and create access to recreation. The WRMP's coordinated, regional monitoring data will inform decision-making about effectively responding and adapting to these challenges and help support a more resilient Estuary.

What can I expect from the WRMP this year?

- Developing a baseline habitat map of conditions of tidal wetlands throughout the region
- Developing a monitoring plan
- Continuing workgroup activities and developing Standard Operating Procedures (SOPs) focused on hydrogeomorphology, vegetation, indicators of how wetlands benefit humans, and birds; the SOPs provide detailed instructions for standardized data collection
- Aligning WRMP's work with that of the San Francisco Bay Restoration Authority, State of the Estuary Report, and other related efforts
- Assessing how the WRMP can best meet regulatory needs and effectively communicate results for decision makers
- Developing strategies for equitable community and tribal engagement

What else does the WRMP have planned in coming years?

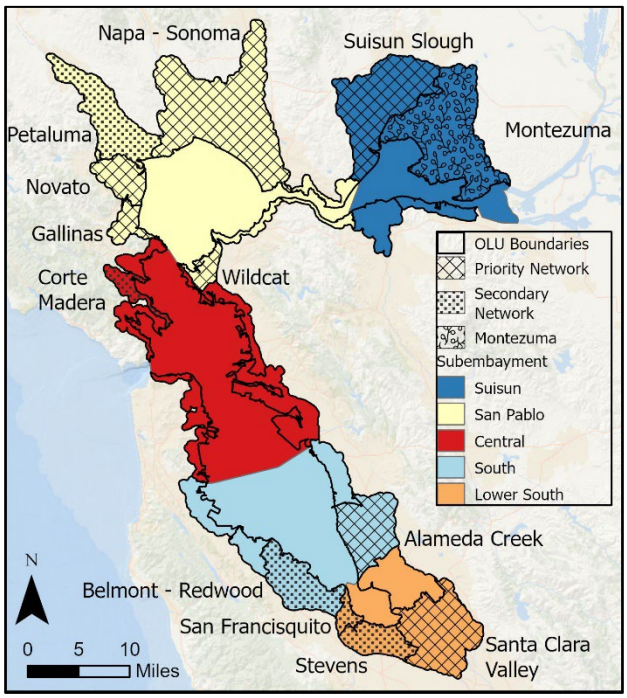
- Conducting surveys of conditions of tidal wetlands throughout the region
- Conducting repeated surveys of living organisms and their habitats across various wetlands and project types
- Analyzing data to understand wetland resilience to climate change
- Assessing the broad range of interactions between people and wetlands that could be monitored, such as flood control, mosquito and disease vector control, cultural resources, public access, and community benefits of restoration.
- Developing a comprehensive data-sharing and data-visualization platform

WRMP Science Framework

The WRMP is intended to grow over time. Accomplishments to date include:

- Establishing the WRMP Regional Monitoring Site Network. The Network includes:
  - **Project Sites –** Restoration projects implemented over roughly the past 20 years that improve understanding of restoration designs and management.
  - **Reference Sites –** Marshes at mid- to late stages of evolution that help forecast the rate of project development as habitat.
  - **Benchmark Sites –** Mature marshes that indicate the likely long-term conditions of existing and restored marshes.
- Development of Guiding Questions, Management Questions, and Monitoring Questions to structure data collection
- Development of scientific indicators to guide monitoring
- Development of SOPs to coordinate data collection
- Organization of existing data sets related to the region's wetlands in a Geospatial Data Catalog

Regional Monitoring Site Network



Additional Resources

Do you have more questions about the latest work of the WRMP? Please consult the program's website to discover:

- Frequently Asked Questions (FAQ): https://www.wrmp.org/faqs/
- Committees and Workgroups: https://www.wrmp.org/about/committees-and-workgroups/
- Meetings: https://www.wrmp.org/meetings/
- Engagement Opportunities: https://www.wrmp.org/engage/
- Other Resources: https://www.wrmp.org/resources/

How do I get involved?
To get involved, check out the project website (wrmp.org) and sign up for the Newsletter. Contact us at info@wrmp.org with additional questions. Thank you to our funders, US Environmental Protection Agency Region 9 and the SF Bay Restoration Authority.

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