

“People & Wetlands” Workgroup Description

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SF ESTUARY
Wetlands
Regional
Monitoring
Program

Background on the WRMP

The SF Estuary Wetlands Regional Monitoring Program (WRMP) is an emerging program that seeks to inform decision-making on wetlands in the SF Bay through collaborative research and monitoring. The WRMP will provide a regional platform for assessing how existing wetlands and restoration projects respond to external stressors such as climate change and sea level rise, measure the impact of wetland restoration efforts, and advance protection and restoration of wetlands to increase resilience of the San Francisco Estuary and its surrounding human communities. Development of the Program is currently focused on the nine-county San Francisco Bay Area, with an interest in possible future expansion to the Sacramento-San Joaquin Delta.

During earlier phases of program development, WRMP partners identified a list of indicators representing the minimum elements of wetlands that the WRMP should monitor to answer overarching Guiding Questions, under which more specific Management and Monitoring Questions are organized.

For more background on the WRMP, see this [summary handout](#).

Motivation for this Workgroup

In addition to monitoring the geophysical and biological indicators of wetland health, such as wetland elevation, vegetated area, and habitat provision for wildlife, the WRMP is interested in measuring the interactions between people and wetlands. One of the Program’s five Guiding Questions is: “How do projects to protect and restore tidal marshes affect public health, safety and recreation?” Management Questions under this Guiding Question were initially developed to focus on mosquito and disease vector control to address the public health aspect (see Additional Information from the WRMP Plan at the end of this document).

Further developing the questions and indicators under Guiding Question #5 can help the WRMP connect to communities and understand the broader ways of assessing wetland health, processes, and functions. Adding indicators to measure wetland benefits that communities value can enable the WRMP to evaluate whether these benefits are being provided equitably. Furthermore, community and Tribal knowledge will help us better understand the Estuary’s wetlands. Thus, we believe that equity and a focus on human connections should also be an important focus of this Guiding Question. An increasing focus on equity and human connections to wetlands aligns with the more holistic ways that other regional entities and programs are beginning to view restoration and management, such as the inclusion of benefits to economically disadvantaged communities and involvement by youth and volunteers in the San Francisco Bay Restoration Authority’s Performance Measures for restoration projects.

The WRMP recently received new funding from a US Environmental Protection Agency Region 9 Wetland Program Development Grant to enhance the benefits the Program provides to frontline community and Tribal groups (identifying wetland information that different groups value, identifying opportunities for wetland monitoring to align with community and Tribal values). This grant includes funding to develop indicators that measure the benefits and impacts of wetland restoration and management on people.

The WRMP plans to fund community and Tribal participation in development of these indicators, as well as a Chair(s) to lead the Workgroup.

Workgroup Goals

WRMP staff envision this to be a long-term Workgroup of the WRMP with a focus on the following broad goals:

- Identify the ways social science, human dimensions, and traditional ecological knowledge can be incorporated to expand the ways the WRMP understands wetland health
- Elevate what frontline communities & Tribes see as important human connections to wetlands & wetland restoration to evaluate how well protection/restoration efforts are supporting these connections and encourage inclusion of these values/priorities in future projects
- Understand and identify ways to meet the information needs that regulators, funders, and other audiences have about human connections to wetlands
- Foster shared understanding of wetland knowledge and information needs for frontline communities and Tribes
- Enable evaluation of equity questions about wetlands and wetland restoration

Approach

- Initial literature review and indicator development approach
 - Conduct a review of literature and other materials (e.g., other estuarine monitoring programs) to develop an initial list of possible wetland human dimensions topics and indicators. The review will be led by WRMP staff and will cover:
 - What ecosystem services/benefits of tidal wetlands have been evaluated in SF Bay? What social indicators are monitored in other estuaries and could be translated to the WRMP context?
 - What additional sources/forms of knowledge can help the WRMP more holistically assess the health of Bay Area wetlands and inform decision-making (TEK, community participatory research, oral histories, etc.)?
 - What can we learn from other monitoring programs that have incorporated diverse forms of knowledge and human dimensions of wetlands?
 - Refine the approach to developing indicators. An initial approach will be proposed based on the literature review and preliminary conversations with experts, and refined by the workgroup
- Development of People & Wetlands indicators
 - Re-evaluate the Guiding and Management Questions associated with human/wetland interactions. Suggest revisions and additions as needed to reflect interactions with people. Consider the driving forces of WRMP monitoring, such as connections to SFBRA Performance Measures and information needs of decision-makers, Tribes, frontline communities, and other stakeholders.
 - Consider possible indicators and metrics to represent wetland values/priorities of frontline communities and Tribes based on literature review, Workgroup member input, and external input.
 - Advise on what additional information or input is needed to ensure that questions, indicators, and metrics reflect community and Tribal values. A consultant will be leading

external focus groups to hear directly from communities and Tribes, and Workgroup members may suggest ways for these focus groups to inform indicator development.

- o Present revised questions and indicators for approval to the WRMP Technical Advisory Committee and Steering Committee
- Development of monitoring protocols/standards
 - o Develop monitoring protocols/standards for approved indicators, including discussion of ways to incorporate different sources and forms of knowledge
 - o Develop data management protocols suitable to the collection of data identified in the course of the monitoring protocol refinement

Workgroup Composition

The Workgroup will include participation from the WRMP Steering Committee, Technical Advisory Committee, external advisors, and WRMP staff. Workgroup members will be expected to attend meetings, contribute to discussions, and provide input on materials; coordination and content generation will primarily be done by WRMP staff. A diverse range of knowledge and disciplinary foundations are sought for the Workgroup including:

- Human dimensions (geography, anthropology, sociology, economics, sustainability science, human ecology, psychology, landscape architecture, and urban design)
- Traditional ecological knowledge, ethnobotany, and Tribal engagement
- Equity & environmental justice
- Community-based participatory research
- Adaptive management of wetlands

Compensation is available for Workgroup participants who don't otherwise have funding from their organizations to participate.

Timeline

The Workgroup will begin meeting in October 2022. Meetings will be approximately bimonthly for a year to address revisions to WRMP Guiding and Management Questions and identification of possible indicators for monitoring the connections between people and wetlands, including informing an approach for gathering frontline community and Tribal input through external focus groups/other forums. Intermittent meetings may continue in late 2023 and beyond to develop strategies/protocols for incorporating priority indicators into WRMP monitoring and address further questions about people and wetlands. We expect that workgroup composition/participation may shift according to the goals being addressed at a given time. This overall timeline is subject to change based on coordination with related efforts.

Contact

For questions about this workgroup, please contact Alex Thomsen (alexandra.thomsen@sfestuary.org).

Additional Information from the WRMP Plan (2020)

The language below provides a starting point for the workgroup to develop indicators, with opportunity for suggested revisions.

WRMP GUIDING QUESTION 5: How do policies, programs, and projects to protect and restore tidal wetlands benefit and/or impact public health, safety, and recreation?

Public support and investment in tidal marsh restoration require that projects benefit both the Bay's natural and built communities. This question pertains mainly to the regional effects and benefits of tidal wetland restoration and management on flood control, shoreline stability, water quality, public health (including mosquito abatement), public access and recreation, and aesthetics. One or more of these benefits are often cited as part of the justification for tidal marsh restoration. At this time, the WRMP's efforts related to public health and safety and recreation will focus on data and collaborations among agencies that are needed to efficiently control mosquitoes and other disease vectors that are associated with tidal marsh. In the future, the WRMP intends to assess other aspects of the relationship between tidal marsh restoration and human health and safety and recreation, including appropriate access to open space and flood management benefits and risks, with special regard for environmental justice and social equity considerations.

PRIORITY RECOMMENDED ACTION: The broad range of interactions between people and wetlands should be monitored for the safety of people and health of the marshes. This process should better integrate flood control and mosquito and disease vector control into project planning and assessment and similarly integrate wetland restoration into flood control planning. Continue to grow the WRMP to assess the effects of climate adaptation on relationships between people and nature in the watershed or landscape context.

MANAGEMENT QUESTION 5A. What mosquito and vector control strategies need to be considered in restoration design and management to understand the effects that restoration can have on mosquito and vector populations?

MANAGEMENT QUESTION 5B. What monitoring data are needed to optimize the relationship between tidal marsh restoration, fish and wildlife support, and mosquito and vector control?