

WRMP Steering Committee

Proposed Guiding and Management Questions

Background

The [Wetlands Regional Monitoring Program \(WRMP\)](#), as recently funded by an EPA R9 Wetland Program Development Grant, is engaging the regional community of tidal marsh scientists and managers to help plan a basic, foundational, tidal marsh monitoring program for the San Francisco Bay Area. This program plan will initiate implementation of Action 2 in the [Estuary Blueprint](#), to help local, regional, state, and federal agencies evaluate the effectiveness of their efforts to sustain healthy tidal marsh ecosystems. The WRMP project will run through the end of 2019.

The WRMP Steering Committee (SC) is made up of partners that represent land management, regulatory, science and community outreach institutions working on restoration and enhancement of tidal wetlands in the San Francisco Bay. A full list of SC members can be found on the project website. The primary goal of the Steering Committee is to develop a program plan for the San Francisco Bay Area Wetlands Regional Monitoring Program (WRMP). The Steering Committee will ensure that the WRMP Plan identifies the science and technology needs as well as funding, institutional and governance structure necessary to address key questions shared by the environmental regulatory and management community about tidal marsh protection and restoration.

The initial WRMP will be foundational and focus on management questions acceptable to the membership of the Steering Committee and regulatory agencies that will be key in WRMP plan implementation. The intent is to establish a program that can build upon existing efforts and grow and/or shift focus as needed. Once the Steering Committee has agreed upon the management questions, it will focus on advising and reviewing efforts by the Core Team and Science Advisory Team to develop monitoring questions, methods, and metrics for the initial WRMP plan. Additionally, the Steering Committee will identify potential institutional relations, a governance structure, and operating budget necessary to implement the WRMP program plan.

At the March 1, 2018 meeting, the SC provided direction that overarching or guiding questions were needed to inform management questions. The draft guiding questions described below are intended to form the core of a pilot Wetlands Regional Monitoring Program for the SF Bay. These questions have undergone extensive review by the WRMP Goals & Management Questions Subcommittee and the Core Team. They were approved as working final questions on May 22, 2018. These questions are being distributed to relevant Boards, Committees and work teams between now and the next Steering Committee meeting on July 24, 2018.

Subcommittee Members: (SC and Core Team) Josh Collins, SFEI; Mike Vasey, SF NERR; Julian Wood, Point Blue; Naomi Feger, SF RWQCB; Christina Toms, SF RWQCB; Gregg Erickson, CA DFW; Matt Gerhart, CA Coastal Conservancy; Beth Hunning, SF Bay JV; Renee Spent, Ducks Unlimited; Tom Kimball, USGS; Brenda Goeden, BCDC; Luisa Valiela, US EPA Region 9; Heidi Nutters, SFEP; Ian Kelmartin, SFEP

WRMP Proposed Development Process
Proposed Guiding Questions and Proposed Management Questions

The WRMP Guiding Questions are high-level questions that may be of interest to the public and policy makers, and contextualize the management questions. The WRMP management questions will give more specific guidance to the development of the monitoring questions, methods, and metrics that will be included in the WRMP and should reflect the programmatic needs of WRMP stakeholders. Management questions are currently in development. Please contact Heidi Nutters (heidi.nutters@sfestuary.org) for further questions.

Guiding Questions Approved by Steering Committee on May 22, 2018	Rationale
<p>Q1: Where are the region’s tidal wetlands and wetland projects and what net landscape changes in area and condition are occurring?</p>	<p>Public investment in the protection and restoration of tidal wetlands necessitates a detailed understanding of where and how those investments benefit the Bay’s natural and built communities. This requires an integrated, regional effort to connect information above and beyond individual projects' boundaries, and gain a system perspective</p> <p>This is the basic question about the regional status and trends in tidal wetlands, from which the other questions follow.</p>
<p>Q2: How are external drivers, such as accelerated sea level rise, development pressure and changes in runoff and sediment supply, impacting tidal wetlands?</p>	<p>The goals and strategies to protect and restore tidal wetlands will need to evolve as we gain understanding of the local and regional impacts of climate change, economic uncertainty, population growth, and other externalities on tidal wetlands. This requires a coordinated regional approach to produce effective and efficient answers.</p> <p>This question pertains to the aspects of tidal wetland status and trends that result from external factors or processes that are difficult to control directly.</p>
<p>Q3: How do policies, programs, and projects to protect and restore tidal wetland affect the distribution, abundance, and health of plants and animals?</p>	<p>Changes in the spatial and temporal distribution of plant and animal populations, such as increased wildlife diversity, distribution, and abundance, need to be better understood to develop and locate more effective tidal wetland projects now and in the future. Current project-specific data on plants and wildlife can be leveraged with a regional monitoring approach.</p> <p>This question pertains to the regional effects of tidal wetland management on wildlife.</p>

<p>Q4: What new information do we need to better understand regional lessons from tidal wetland projects and emerging/evolving science to improve projects in the future?</p>	<p>Regional and local goals and plans for tidal wetland protection and restoration do not reflect regional variations in tides, stream flow, sediment supply, and other factors that contribute to tidal wetland resilience.</p> <p>This question pertains to management actions that minimize the negative effects of external factors and processes that cannot be controlled.</p>
<p>Q5: How do policies, programs, and projects to protect and restore tidal wetlands benefit and/or impact public health, safety and recreation?</p>	<p>More information is needed at the regional scale to evaluate and optimize the multiple benefits of tidal wetland projects to people.</p> <p>This question pertains to the regional effects and benefits of tidal wetland management on people.</p> <p>Note: This question is seen as an emerging topic for the WRMP. Further development of methods, indicators and tools will focus on vector control, mosquito abatement and public health. More broadly, the WRMP development teams recognize the need to measure and understand other benefits to the public from wetland restoration, such as public access as well as social equity considerations.</p>