



Birds Workgroup Description

Last updated: September 11, 2024

The San Francisco Estuary Wetlands Regional Monitoring Program's (WRMP) mission is to deliver coordinated regional monitoring of the San Francisco Estuary's ("the Estuary" or SFE) 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.

Through standardized monitoring and regional data analysis, the WRMP is providing a platform to assess 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 improve the health, diversity, and resilience of the SFE and its surrounding human communities. WRMP development and implementation is currently focused on tidal baylands (wetlands, mudflats, channels, and associated habitats) within the SFE downstream of the Sacramento-San Joaquin Delta with a goal of aligning with monitoring in the Delta when possible.

For more background on the WRMP, see www.wrmp.org.

Motivation for this Workgroup

The SFE is home to diverse wildlife, including birds, fish, herps, and mammals, many of which are regulated and/or culturally important species. Many of these animals depend on the unique and varied habitats present throughout the estuarine system, including wetlands. Tidal baylands provide critical habitat for resident and migratory birds, and it is imperative to learn how wetland restoration projects affect bird populations. Synthesized and standardized bird data will allow the WRMP to answer the following Guiding and Management Questions:

- WRMP Guiding Question 4: How do policies, programs, and projects to protect and restore tidal marshes affect the distribution, abundance, and health of plants and animals?
 - WRMP Management Question 4A: How are habitats for assemblages of resident species of fish and wildlife in tidal marsh ecosystems changing over time?
 - WRMP Management Question 4B: How are the distribution and abundance of key resident species of fish and wildlife of tidal marsh ecosystems changing over time?

Workgroup Charge for October 2024 – October 2025 (Year 1)

- 1) Clarify the WRMP Guiding and Management Questions related to birds and their habitats with input from the Steering Committee.
- 2) Identify the existing sources of tidal marsh and mudflat bird data in the San Francisco Bay that can help answer the WRMP's Guiding and Management Questions.
- 3) Refine and augment existing Monitoring Questions for any new data collection required for assessing bird populations in the SFE. The Monitoring Questions must be aligned with the Guiding and Management Questions defined by the WRMP.
- 4) Identify data gaps within the geographic and technical scope of the WRMP that significantly affect the Program's ability to answer the Management and Guiding Questions.
 - a. Data gaps should be well-defined and presented in a list for consideration by both the Technical Advisory Committee and the Steering Committee for future data collection by the WRMP.
 - b. Based on the state of existing data, determine the most pressing data and knowledge gaps that the WRMP can fill to answer the Guiding and Management Questions, whether through analyses of existing data and / or collection of new data. The workgroup will consider the cost of data collection, with the goal of identifying the most cost-effective methods to fulfill the data needs.
- 5) Recommend indicators and metrics for the WRMP's monitoring and analyses of birds.
 - a. Present indicators for approval to the WRMP Technical Advisory Committee and Steering Committee.
 - b. Incorporate needs of the San Francisco Bay Joint Venture and State of the Birds to ensure indicator alignment with the WRMP as appropriate, with the intent to maximize efficiency and consistency in data collection and reporting.
- 6) Ensure that the recommended indicators and analyses related to birds to address the Guiding, Management, and Monitoring Questions help advance the WRMP's mission 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.
- 7) Start to identify monitoring methods, including community-engaged monitoring, for collecting bird data.
- 8) Begin to consider analyses of WRMP indicators that can help answer the Guiding and Management questions related to birds.
- 9) Refine the future charge of the Workgroup and identify any additional types of expertise needed on the Birds Workgroup for future work.

Future Charges of the Workgroup (Year 2 onward) May Include:

- Identify and develop monitoring methods (Standard Operating Procedures, "SOPs") for long-term monitoring of the approved indicators related to tidal marsh and mudflat bird populations that the Workgroup developed in Year 1.
 - Methods should prioritize the efficient use of available resources (i.e., funding, staff capacity) and leverage existing methods to the extent possible-

- The SOPs should include descriptions of suggested monitoring frequency, locations, methods, gear, and related factors. They should also include recommended data types and data management procedures.
- The SOPs should consider ways to incorporate different sources and forms of knowledge, including traditional ecological knowledge and oral histories from local community members.
- Develop data management protocols or standards suitable for the data collected.
- Consider the use of community-engaged bird monitoring protocols, and if feasible, develop bird monitoring protocols that could be shared with non-technical community-based partners and regulators to potentially replace or supplement project-based monitoring required under permits. Work with WRMP staff to develop a prioritized list of funding needs to evaluate options and develop partnerships for feasible community-engaged bird monitoring.
- Recommend additional regional analyses of bird (and other) data to answer the WRMP's Management Questions that incorporate existing datasets and / or newly collected data.
- Identify and provide recommendations for how WRMP bird data and analyses can inform decision-making about wetland restoration and management as well as increase the cost-effectiveness of regulatory bird monitoring.

Workgroup Composition

The Birds Workgroup will be composed of experts in regional tidal marsh and mudflat bird ecology, avian monitoring techniques, regulatory bird monitoring requirements, and community-engaged monitoring. The WRMP Steering Committee, Technical Advisory Committee and WRMP staff will also be involved in the review and approval of the Workgroup's technical documents. As with all WRMP Workgroups, members are expected to attend meetings, contribute to discussions, and provide input on all technical materials. The estimated workload for Birds Workgroup members is 4 hours per month. WRMP staff will coordinate closely with staff from the San Francisco Bay Joint Venture and the State of Birds on coordination, organization, and facilitation of Workgroup meetings that are specifically designed to meet goals of those organizations.

Timeline

The workgroup will address its initial charge in the first year, approximately October 2024 – October 2025. Further work developing Standard Operating Procedures will occur from approximately October 2025 - October 2026. The workgroup may address additional WRMP needs related to bird monitoring beyond October 2026, such as advising on data analysis.

Contact

For questions about this workgroup, please contact WRMP Birds Workgroup Leads: Aviva Rossi (avivar@sfei.org) and Donna Ball (donnab@sfei.org).