ACTION

# Develop and implement a comprehensive, watershedbased approach to aquatic resource protection

Develop a watershed-based assessment, planning, management, and reporting process that improves protection for aquatic resources in the context of human population growth and climate change. Improve coordination of public policies and programs related to aquatic resource management including water supply security and usage, water quality, flood control, habitat conservation, and water-dependent recreation.

**TASK 1-1** Develop a written framework that explains the need for watershed-based aquatic resource protection; frames an approach to meet this need; and identifies and incorporates supporting technical tools and policies. The framework should also address relevant regulatory and governance issues.

BY 2017 Complete framework.

**TASK 1-2** Develop criteria to evaluate watersheds that could be used to pilot the Task 1-1 framework. Select a pilot watershed that drains into San Francisco Bay based on these criteria.

BY 2018 Complete criteria and select pilot Bay watershed.

**TASK 1-3** Plan and initiate the pilot project with a steering committee of local, regional, and federal agencies involved in aquatic resources management in the selected watershed. The project should build on related efforts to date, and use scientific understanding of historical (pre-settlement) and present-day conditions within the pilot watershed to identify ways to increase the protection of aquatic resources. Recommendations for more comprehensive, watershed-scale management of aquatic resources (with reference to their distribution, abundance, diversity, and condition) should be consistent with governing policies. The pilot project will also identify the best available regulatory mechanisms for achieving ideal future conditions.

BY 2021 Complete Bay watershed pilot project.

#### BACKGROUND

Public agencies that administer federal or state policies governing the relationship between people and the environment are facing severe challenges in the San Francisco Estuary region due to rapid population growth and accelerated climate change. In response, agencies need to increase the speed and effectiveness of environmental planning, regulation, and management. To succeed, agencies will need to engage in greater coordination and outreach such that fewer plans and permits can cover more resources with the same or greater level of protection. A flexible approach is needed to address local threats in a regional context, and to overcome the political, bureaucratic, and financial challenges of adapting to rapid change.

Watersheds provide natural geographic templates for effectively managing changing relationships between people and aquatic resources such as fish. This CCMP action supports development and implementation of a framework for setting common, watershed-based, scientifically sound, numerical targets for the distribution, abundance, diversity, and condition of aquatic resources. Targets need to be consistent with public policies. Agencies tasked with implementing these policies can benefit from this framework, and from a shared system for data development and delivery, as well as from regular reporting on progress relative to targets.

This CCMP action builds on current and planned efforts to coordinate aquatic resources protection on a watershed basis. Efforts include watershed or landscape approaches to compensatory mitigation planning, stormwater management, wastewater management, flood control, and fisheries protection and recovery.

While this CCMP action is focused on Bay watersheds, it will be closely coordinated with similar science-based, collaborative restoration efforts being undertaken in the Delta (specifically in the Cache Slough Complex and the NE Delta region). The Bay and Delta processes are on parallel tracks, and opportunities exist to share information and lessons learned.

## OWNERS

SF Estuary Institute (Tasks 1-1, 1-2, 1-3) SF Estuary Partnership (Tasks 1-2, 1-3)

### **COLLABORATING PARTNERS**

CA State Coastal Conservancy, CA Department of Fish and Wildlife, CA Department of Water Resources, CA State and Regional Water Boards, Delta Stewardship Council and Science Program, National Oceanic and Atmospheric Association, Sacramento-San Joaquin Delta Conservancy, SF Bay Conservation and Development Commission, SF Bay Joint Venture, US Army Corps of Engineers, US Environmental Protection Agency, US Fish and Wildlife Service, special districts, municipalities, NGOs, and other watershed interests.

#### **NEXUS**

Actions 2-8, 17, 18-20, 23-26, 28 Goals 1, 2, 3, 4 Objectives a, d, f, h, i, j, k, l

