

Conserve and enhance riparian and in-stream habitats throughout the Estuary's watersheds

Conserve habitats by identifying priority streams and stream reaches, defining impairments and threats, filling data gaps, developing science based tools, and designing, advancing, and collaborating on projects.

TASK 7-1 Merge the San Francisco Bay Joint Venture's project tracking database with California's EcoAtlas. Identify potential additional functions to facilitate riparian and stream projects.

BY 2016 Complete merge of project tracking database with EcoAtlas.

TASK 7-2 Provide technical and policy guidance to the watershed restoration community and decision-makers. Guide the development of needed stream and watershed data sets, the use of appropriate assessment methodologies, and conservation policy. Critical information includes characterization of key habitat areas, fish monitoring and limiting factors analyses, instream flow needs, and process-based assessment of channel and riparian condition for reaches that support salmonids and other native fish assemblages. Policy guidance likely will address issues such as development setback recommendations, conservation easements, and land acquisition.

BY 2021 Make new policy and technical guidance documents available online.

TASK 7-3 Develop projects and programs to conserve and enhance regional priority stream habitats that support the life history requirements of salmonids and other native fish populations. Emphasize protecting and enhancing the sources of flow and structural elements that maintain dry season aquatic habitats, particularly coldwater refugia, and rehabilitating critical channel and riparian reaches. Guidance will be based on information compiled in Tasks 7-1 and 7-2.

BY 2021 Establish specific flow enhancement goals and identify riparian zone improvements and channel rehabilitation projects for prioritized streams and stream reaches.

TASK 7-4 Implement riparian corridor and in-stream habitat restoration and conservation projects throughout the region (primarily informed by Tasks 7-1, 7-2, 7-3), including at least one pilot effort to protect and enhance the sources of flows that maintain aquatic habitats, particularly coldwater refugia and migratory habitat critical to salmonids.

BY 2021 Conserve 10,000 acres of riparian corridor and restore five miles of creek channel and in-stream habitat.

BACKGROUND

This CCMP action protects and rehabilitates riparian habitat, stream channels, and instream flows throughout the region. With iconic fish species — particularly steelhead trout — struggling to maintain populations in Estuary watersheds, managers need to locate and map the Bay Area's most important habitat resources, and identify other impacted areas critical to the needs of native fish species (and other stream dependent species such as frogs, turtles, and shrimp).

Work in support of the flow component of this action will account for three factors in priority aquatic habitats: stream flow sources, instream flow needs (IFN), and impairment (i.e., direct diversion and groundwater withdrawals that affect stream flow). To help managers and water users conserve and enhance stream flow, this action supports outreach, hydrology and IFN studies, and water needs evaluation leading to specific project and basin program design.

This action will use ongoing research to refine previously identified key habitat resources, including building off partner efforts. For example, data from salmonid and habitat monitoring and assessment reveal areas of highest potential productivity where conservation and enhancement will achieve greatest advancement toward stated management goals. Once established, these areas should be the primary focus of a regional program that protects and restores their ecological function, particularly in relation to stream flow, channel condition, and riparian corridor health. In addition, as part of the NOAA Fisheries *Multi-Species Recovery Plan*, a tool has been developed for prioritization of watersheds and restoration projects.

Finally, there is also significant value in opportunistic restoration that considers multi-objective and multi-benefit uses and approaches. While this action emphasizes critical in-stream habitat, it also supports efforts to daylight stream reaches, restore urban waterways, and improve riparian habitat conditions for birds and terrestrial wildlife.

OWNERS

SF Bay Joint Venture (Tasks 7-1, 7-2, 7-3, 7-4)

COLLABORATING PARTNERS

Bay Area Watershed Network, CA Department of Fish and Wildlife, CA State Water Resources Control Board, NOAA Fisheries, SF Bay Regional Water Quality Control Board, Resource Conservation Districts, SF Estuary Institute, SF Estuary Partnership, US Environmental Protection Agency, various local municipalities and non-governmental organizations

NEXUS

Actions 1-8, 15-18; Goals 1, 2; Objectives a,b,d,e