

Restoring the Estuary

Executive Summary

Whatever you can do, or dream you can, begin it.

—W.H. Murray

An Estuary of International Significance

The San Francisco Bay Estuary is the nation's second largest and perhaps the most biologically significant estuary on the Pacific Coast. It has also suffered the most extensive degradation of any estuary in the nation. Many years of filling, pollution, and alien species invasions have taken a great toll on the ecosystem. Despite these losses, however—or perhaps because of them—the San Francisco Bay Estuary is now a major center for a vibrant habitat restoration movement. Over the past two decades, significant progress has been made to protect what remains and to begin restoring as much as possible of what was lost.

Restoration work on the Bay Estuary is being undertaken by many diverse entities, including public agencies, conservation groups, landowners, corporate interests, local businesses, and citizen volunteers in the nine Bay counties. Working through a variety of partnerships during the past two decades, they have protected and enhanced thousands of acres of wetland and stream habitat.

By 1995, however, it became clear to those involved that this movement's growth was being impeded by a lack of continuity, coordination, and common vision. In response, the San Francisco Bay Joint Venture (SFBJV) was formed. The SFBJV is a partnership, the youngest of 11 habitat joint ventures in the United States, each bringing together public and private agencies, conservation groups, development interests, and others seeking to collaborate

in restoring wetlands and wildlife habitat within its geographic region.

The recent pace of wetland renewal in the San Francisco Bay Estuary is a testament to the power of the emerging partnerships. Over the past few years, the Joint Venture partners have completed 22 wetland protection, restoration, or enhancement projects involving over 11,100 acres, with another 31,400 acres in progress.

The San Francisco Estuary's Wetlands Today

The Bay Estuary's ecological value lies mainly in the wetlands along its edge, and in the riparian habitats of streams and rivers feeding into it. These habitats are essential to the health of the myriad fish and wildlife populations of the region. Millions of shorebirds and water-

fowl stop by during their annual migrations between Alaska and South America. Many overwinter here. San Francisco Bay is the only site along the Pacific Flyway where close to a million shorebirds have been counted in a single day. It hosts more shorebirds than all other coastal California estuaries combined. Up to half the populations of migrating West Coast waterfowl, particularly canvasback and sea ducks, winter in the Bay Estuary. The Western Hemisphere Shorebird Reserve Network has designated the San Francisco Bay Estuary as a site of "Hemispheric Importance" (its highest ranking), and the North American Waterfowl Management Plan has listed it as one of 34 waterfowl habitats of major concern in North America.

Nevertheless, these wetlands are but a remnant of what existed a century ago: some 200,000 acres of tidal marshes, 100,000 acres of seasonal wetlands, vernal pools, creeks, and streams. More than 80 percent of these habitats have been lost, and much of what is left has been damaged. As a result, populations of waterfowl, shorebirds, and fish have been so stressed that 48 species are either listed under the federal Endangered Species Act or are candidates for listing. Development pressures threaten all the lands along the Bay, including wetlands, and—just as importantly—former wetlands that could be restored. Existing wetlands are jeopardized by development impacts, including a decline in water quality caused by water diversions, polluted stormwater runoff, and the loss of adjacent uplands to development. These are problems of urban growth shared by the nation's other major estuaries from Seattle to Boston.



Black-necked stilts are among the many shorebirds that winter in the San Francisco Bay Estuary.

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