

Implementation Strategy of the San Francisco Bay Joint Venture

Restoring the Estuary

Executive Summary



A Strategic Plan for the Restoration of Wetlands and Wildlife in the San Francisco Bay Area

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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.

MARK RAUZON

The Emergence of Partnerships for Wetlands and Wildlife

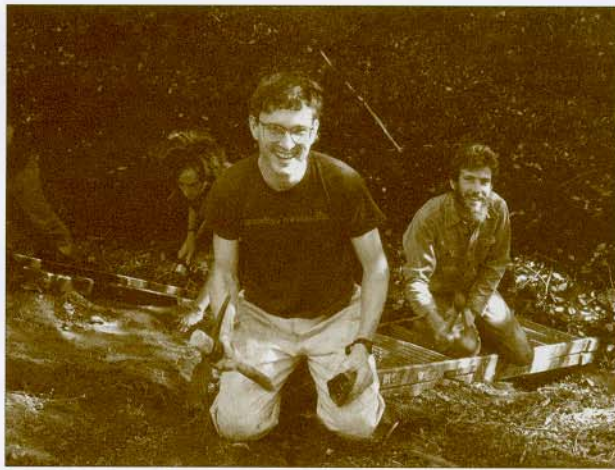
The implications of these trends have prompted a number of organizations to form partnerships to work toward reversing the tide of wetland losses. Many of these organizations are now working in association with the San Francisco Bay Joint Venture.

The San Francisco Bay Joint Venture, like the other joint ventures, is an outgrowth of the North American Waterfowl Management Plan (NAWMP), an international agreement signed in 1986 by the United States and Canada and later joined by Mexico, in response to a decline in waterfowl populations during the preceding decades. Habitat joint ventures were to be formed as vehicles for accomplishing the Plan's major goal: to "maintain and enhance the habitat values of areas identified as internationally significant to waterfowl." As of early 2000, a total of 14 such collaborations had been formed in North America, 11 in the United States and three in Canada, bringing together the fiscal resources and management capabilities of a spectrum of agencies and organizations.

Like the others, the San Francisco Bay Joint Venture provides a framework for sharing skills, funding, and information. Using an integrated and non-regulatory approach, it has been working through its partners to complete on-the-ground habitat projects that benefit wildlife populations by leveraging resources, developing new funding sources, and creating project-specific partnerships.

The partners of the SFBJV recognize that wetlands and riparian habitats are vital not only to wildlife, but also to flood control and water storage and quality improvements. They buffer the impact of floodwaters, cleanse pollutants from runoff, and help to recharge overdrawn water supplies. The diversity of project partnerships being created within the SFBJV suggests a growing awareness that wetlands also provide economic and other benefits, including open space and recreational opportunities. In short, wetlands help to sustain a higher quality of life for residents in the densely populated San Francisco Bay Area.

Understanding the current and potential importance of the Bay's wetlands, the 27 organizations and agencies



Volunteers build support for restoration at the grass roots.
JOHN STEERE

on the SFBJV Board have agreed to pursue this primary goal: "To protect, restore, increase, and enhance all types of wetlands, riparian habitat, and associated uplands throughout the San Francisco Bay region for all types of wildlife." Within the context of this goal, restoration is viewed as the conversion of one habitat type to another (e.g., diked baylands to tidal wetlands), while enhancement is seen as an improvement in the functioning and biological diversity of an existing habitat.

To implement the Board's primary goal, SFBJV partners have defined several objectives:

Secure, restore, and improve wetlands, riparian habitat, and associated uplands by applying incentives and using non-regulatory techniques

Strengthen and promote new sources of funding for such efforts

Improve habitat management on public and private lands through cooperative agreements and incentives

Support the monitoring and evaluation of habitat restoration projects and research to improve future restoration projects.

A Blueprint for Action

The Joint Venture has adopted an Implementation Strategy to help SFBJV partners fulfill their shared habitat objec-

tives by building on what has been accomplished and planning for the future. This Strategy is based on an ecosystem perspective that considers the biological requirements of wetlands, along with issues of public health and safety. It establishes region-wide habitat goals and subregional objectives for the restoration of the Bay Estuary using three broad categories: bay habitats, seasonal wetlands, and creeks and lakes.

Over the next two decades partners plan to protect 63,000 acres, restore 37,000 acres, and enhance another 35,000 acres of Bay habitats that include tidal flats, marshes, and lagoons. They

will also work to secure habitat values of adjoining seasonal wetlands, with protection and restoration/enhancement goals of 37,000 acres and 30,000 acres respectively. In addition, Joint Venture partners intend to protect 4,000 acres of riparian corridors and restore and enhance over 1,000 miles of creeks, as shown in the table below.

The SFBJV's goals offer an ambitious but well-researched and achievable vision for the restoration of the Estuary. Its partners will work only with willing landowners in the pursuit of its goals and objectives, with a focus on conservation easements as a major land protection tool.

The foundation and primary framework for the SFBJV's habitat goals is *Baylands Ecosystem Habitat Goals (1999)*, (*Habitat Goals*) a scientifically based ecosystem management plan for restoring the San Francisco Bay Estuary. This document grew out of the San Francisco Bay Area Wetlands Ecosystem Goals Project, a visionary effort begun in 1995. Its intent was to map and document the changes that have occurred in the Bay's wetlands over the past two centuries and to develop a clear statement of the potential for future restoration based on sound science. The principles and goals of the Goals Project have been incorporated into the Joint Venture's efforts.

To help the SFBJV's partners accomplish this vision for wetlands, acreage objectives were developed for each of the geographic subregions: North Bay, Suisun, Central Bay, South Bay, and the San Francisco/San Mateo Coast. Strategies to accomplish these objectives for each subregion recognize the organizational partners and the unique qualities of each area. To further respect regional differences, watershed working groups within each subregion have been or will be established to inform Joint

Venture activities with local knowledge and carry out responsive recommendations.

A series of objectives that are designed to help accomplish the acreage goals are also provided, each with a set of innovative strategies that support them.

The objectives of *Restoring the Estuary* include:

- Improve management of bay habitats, seasonal wetlands, creeks, lakes, and associated uplands on both public and private lands
- Support monitoring and evaluation of restoration projects, as well as pertinent research studies, to measure success and improve the results of future restoration/enhancement projects
- Strengthen existing and promote new funding sources for wetlands acquisition, restoration, enhancement, and management programs
- Encourage programmatic connections between the Joint Venture's goals and other regional initiatives that have the potential for positive effects on watershed and wetland management and restoration. These linkages include: 1) coordination among multiple conservation programs; 2) watershed man-



Egrets are often seen in Bay marshes.

SAVE THE BAY

agement planning and implementation, through promoting measures that harness and extend the influence of watershed approaches to planning and land stewardship; 3) clean water and non-point source pollution programs; and 4) pursuit of military base closure opportunities for wetland enhancement and restoration

- Develop an inclusive, collaborative and broad-based public outreach program to communicate the vision of restoring the Estuary
- Develop watershed-based partnerships to evaluate and implement recommendations contained in the *Habitat Goals*; promote and assist local organizations

in developing and implementing habitat restoration projects

- Implement all of the acreage goals named in the *Habitat Goals* within thirty years. [The SFBJV goals presented below represent 75 percent "milestones" of *Habitat Goals*.]

Conclusion

The Strategy presents a dramatic vision of more than doubling the existing tidal wetlands and more than tripling riparian habitats that ring the Bay through restoration and enhancement. And by attaining this vision, the partners of the SFBJV will not only renew the health of the Estuary, but will help to sustain and reinvigorate the economic and social health of the communities that share this special place.

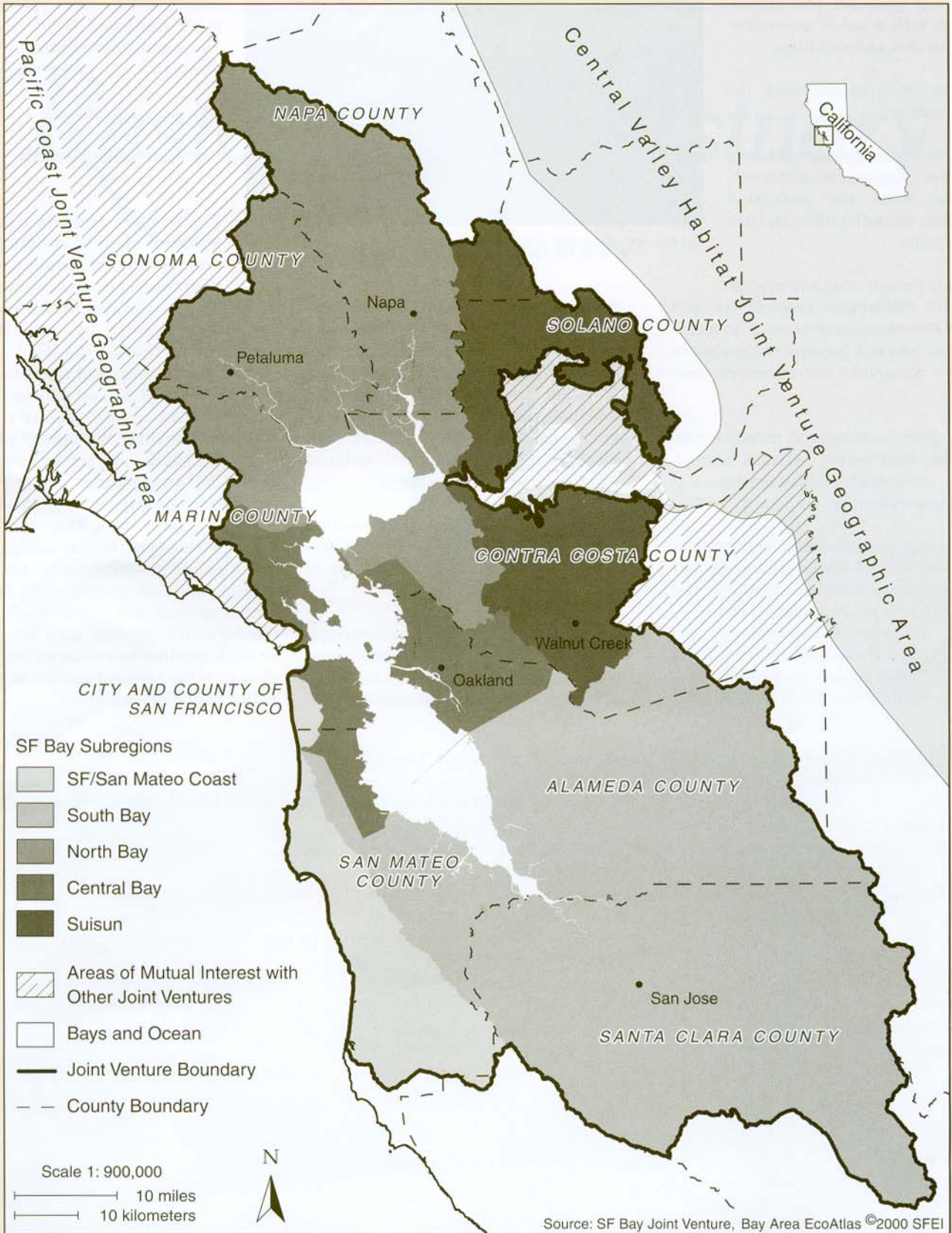
The intent is to achieve this vision in the first two decades of the new millennium. To be attained, that vision must become collective. This will come through the momentum of widening partnerships that encompass the many diverse interests surrounding the wetlands of San Francisco Bay. Fundamentally, this Strategy calls for learning to work together to enhance our relationship with the regional commons that the Estuary represents.

Habitat Goals for the San Francisco Bay Joint Venture

SFBJV Habitats		SFBJV Tracked Habitat Goals (acres)			SFBJV Habitat Goal Categories (acres) ¹		
Habitat Goal Categories	Tracked Habitats	Acquire ²	Restore ²	Enhance	Acquire ³	Restore	Enhance
Bay Habitats	Tidal Marshes	43,000	32,000	20,000	63,000	37,000	35,000
	Tidal Flats	12,000	4,000	6,000			
	Lagoons	1,500	50	1,500			
	Beaches	113	60	35			
	Salt Ponds	6,000	1,000	7,500			
Seasonal Wetlands	Diked Wetlands	16,000	6,000	12,000	37,000	7,000	23,000
	Grasslands and Assoc. Wetlands	21,000	1,000	11,500			
Creeks and Lakes	Lakes	3,000	1,000	6,000	7,000	5,000	22,000
	Creeks and Riparian Zones	4,000	4,000	16,000			

Notes: 1. Numbers are to the nearest thousand. 2. Numbers are double counted in instances where restoration takes place on acquired land. 3. SFBJV is a nonregulatory entity, and thus acquisition goals reflect working cooperatively with a willing seller.

San Francisco Bay Joint Venture Geographic Scope and Subregions



The San Francisco Bay Joint Venture is a partnership of twenty-seven public agencies, environmental organizations, the business community, local governments, and landowners working cooperatively to protect, restore, increase, and enhance wetlands and riparian habitat in the San Francisco Bay Watersheds. We bring an ecosystem and collaborative approach to developing and promoting wetland and riparian habitat projects throughout the Bay Area.

San Francisco Bay Joint Venture Management Board

Nonprofit and Private Organizations

Adopt-A-Watershed
Bay Area Audubon Council
Bay Area Open Space Council
Bay Planning Coalition
Citizens Committee to Complete the Refuge
Ducks Unlimited, Inc.
National Audubon Society
Point Reyes Bird Observatory
PG&E Corporation
Save San Francisco Bay Association
Sierra Club
The Bay Institute
The Conservation Fund
Urban Creeks Council of California

Public Agencies

Bay Conservation and Development Commission
California Coastal Conservancy
California Department of Fish and Game
Coastal Region, Mosquito and Vector Control District
National Fish and Wildlife Foundation
National Marine Fisheries Service
Natural Resource Conservation Service
Regional Water Quality Control Board, San Francisco Bay Region
San Francisco Estuary Project
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
Wildlife Conservation Board

Copies of this document can be ordered through:

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www.sfbayjv.org

