



6



Ongoing and Potential Wetland Habitat Projects

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The San Francisco Bay Joint Venture partners have been undertaking a wide array of wetland projects throughout the region. The following listing of their habitat projects comprises 43,000 acres of ongoing and potential initiatives. It demonstrates both the great level of activity and the promise for wetland and riparian restoration and enhancement throughout the geographic scope of the Joint Venture. To underscore the reality and the potential of the SFBJV's efforts, this listing is divided between "Ongoing and Pending Habitat Projects" and "Potential Projects for 2001 and Beyond." These categories serve to distinguish near-term initiatives from long-term opportunities.

The projects listed below are keyed to **Figure 6-1**, "San Francisco Bay Joint Venture Habitat Projects: 2000." These are partnership-based and are grouped by subregion, beginning with the North Bay, moving clockwise around the Bay. The project codes refer to these subregions, where "N" means North Bay, "CB" equals Central Bay, etc. Project descriptions are also keyed to this figure; they are a reasonable representation of the projects that are being undertaken or contemplated around the Bay Area. While this listing is intended to be comprehensive, it is not exhaustive. In addition, not all projects shown in Figure 6-1 are described here. For identification purposes, "High Activity" wetlands and creek projects shown on the map have been denoted in the project title. The term "High Activity Project" represents habitat projects where the Joint Venture is active.

Ongoing and Pending Habitat Projects

The projects below are well distributed among acquisition, enhancement, or restoration. They can be regarded as *in process* or partially completed, but generally in need of additional funding for completion. Together, these habitat projects constitute roughly 31,400 acres.

North Bay Subregion (N)

N2. Triangle Marsh, Marin County. The 31-acre Triangle Marsh property, near Corte Madera, is a remnant tidal area (with a tidal panne) along the Marin Baylands. Marin Audubon initiated the project and it was recently purchased with grants from the Coastal Conservancy and Marin Open Space District. The marsh provides habitat for the endangered California clapper rail and shorebirds and waterfowl migrating along the Pacific Flyway. It will become a part of the expanded San Pablo Bay National Wildlife Refuge (Project N9).

N7. Hamilton Wetlands Restoration, Novato, Marin County. The Coastal Conservancy and Bay Conservation and Development Commission are taking the lead on securing the transfer of 700 acres from the former Hamilton Army Airfield to a public resource agency. The commission is completing a plan for the

restoration of tidal and seasonal wetlands. With the purchase of the adjoining 1,600-acre Bel Marin Keys parcel in process, the project can be expected to restore 2,300 acres of habitat.

N9. San Pablo Bay National Wildlife Refuge Expansion, Marin County. (*High Activity*)

The San Pablo Bay National Wildlife Refuge expanded its boundaries in 1996 by approximately 7,000 acres. The Marin Audubon Society and the Joint Venture are working with the U.S. Fish and Wildlife Service to expand the refuge to the Marin Baylands where numerous restorable properties are proposed for development. Once added to the Refuge, these properties can be restored to tidal and seasonal wetlands.

N10. San Antonio Creek—George Googins Project, Sonoma County. The Southern Sonoma County Resource Conservation District is overseeing the enhancement of 50 acres of stream bank along San Antonio Creek. The project will apply various techniques including revegetation to control sediment in order to improve salmon rearing and spawning habitat.

N11.1 Petaluma River, Marin and Sonoma County. (*High Activity*) The City of Petaluma has been active in the acquisition and restoration of riparian habitat and diked baylands along the portions of the Petaluma River within its limits. The SFBJV is working with the Southern Sonoma Resource Conservation District (RCD), which completed a Watershed Plan in 1999, in convening a broad public-private partnership to foster riparian and land stewardship, and tidal restoration projects all along the river.

N12. Petaluma Marsh Expansion, Marin County. Marin Audubon Society and the Coastal Conservancy are coordinating the acquisition and restoration of 180 acres of diked land on the Marin side of the Petaluma River.

N13. Rush Creek/Cemetery Marsh Enhancement, Novato, Marin County. Marin Audubon Society has



Corte Madera Marsh in Mill Valley prior to restoration (May 1992)

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raised funds through the Marin Conservation Foundation, the Coastal Conservancy, and the FWS to enhance wetlands through improved tidal inflow to adjoining properties totaling 300 acres. The land is owned by the California Department of Fish and Game and Marin Open Space District.

N14. Scottsdale Marsh, Novato, Marin County. The City of Novato has been restoring a 41-acre marsh consisting of emergent, seasonal, riparian, open water, upland transitional habitat, and a 14-acre pond.

N15. Parcels at Olive and Atherton Avenues, Marin County. This project comprises 144 acres of critical wetland acquisition that will help preclude urban expansion into upland transitional marshes that surround San Pablo Bay. Restoration activities include constructing levees, designing and constructing wetlands, and installing water-control structures.

N16 North Parcel, Sonoma County. This is a 470-acre former agricultural parcel located in Sonoma County. The project will restore and enhance seasonal wetlands, with modifications to activities including installing water control systems and recontouring wetland pond bottoms. The restored parcel will provide alternative roosting and foraging habitat for wintering shorebirds and waterfowl.

N17.1 Schellville Restoration and Flood Control Project, Sonoma County. The Southern Sonoma



Corte Madera Marsh in Mill Valley after restoration (Sept. 1992)

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County Resource Conservation District is working to acquire and restore 700 acres of tidal wetlands along lower Sonoma Creek. The multi-objective restoration and flood protection project would provide protection for light and commercial industry, and residential and local infrastructure.

N17.2 Carriger Creek, Sonoma County. The Southern Sonoma County Resource Conservation District is working with property owners to restore 500 acres of riparian habitat along Carriger Creek. The Creek, which has historically provided good spawning habitat for steelhead, has experienced severe erosion and is down-cutting rapidly.

N17.3 Sonoma Creek (Various Sites), Sonoma County. The Sonoma Ecology Center, The Southern Sonoma County Resource Conservation District, and various public and private agencies are working on the restoration and enhancement of numerous sites along Sonoma Creek. A restoration and enhancement plan will focus on creek restoration, vineyard demonstration projects, and habitat monitoring.

N18. Camp Two, Sonoma County. The Wildlife Conservation Board recently acquired two Camp Two properties totaling 608 acres. These properties are being restored for floodplain and wetlands habitat.

N19. Tolay Creek, Sonoma County. This project returned tidal flows to Tolay Creek, restoring 435 acres to tidal marsh. The U.S. Fish and Wildlife

Service is the lead agency, but many partners have contributed to the completion of this project.

N20. Lower Tubbs Island Restoration, Sonoma County. The U.S. Fish and Wildlife Service is restoring 72 acres of diked agricultural baylands to wetlands, high salt marsh, and transitional uplands with assistance from Ducks Unlimited. The parcel is immediately adjacent to San Pablo Bay and when restored will provide critical roosting and foraging habitat for wintering shorebirds. Restoration activities include engineering and design, building a new levee inland from

the Bay, then breaching the bayside levee.

N23. San Pablo Bay North American Wetland Conservation Act Grant Sites, North Bay Counties. (*High Activity*) Under this grant, 13,874 acres of varied wetland habitat types critically important for migrating and wintering waterfowl will be enhanced and restored. Newly constructed lagoon areas will provide protected open water habitat for waterfowl until those areas revert to tidal marsh. Managed and seasonal wetlands will increase the available habitat for foraging and roosting waterfowl. Among the restoration and enhancement sites included in the grant are the following: North Parcel/Leonard Ranch (Project N16); the Lower Tubbs Island Setback Levee project (Part of Project N20), and Ringstrom Bay, Camp 2, Pond 8, and Huichica Creek Units of the Napa-Sonoma Marshes Wildlife Area. These last four habitat enhancement projects are being undertaken by the California Department of Fish and Game and Ducks Unlimited in order to enhance 4,691 acres of a mosaic of wetlands via improved water control.

N25. Cullinan Ranch, Vallejo, Solano County. This 1,500-acre ranch was purchased by the U.S. Fish and Wildlife Service for the San Pablo Bay National Wildlife Refuge several years ago. The Service is working with Ducks Unlimited to complete the first phase of tidal restoration.

N27. Mare Island and North Bay Discovery Center, Vallejo, Solano County. The U.S. Fish and Wildlife

Service will acquire 162 acres of tidal and seasonal marsh from the closed Mare Island Naval Station. The Service will lease approximately 2,000 additional acres from the State Lands Commission. The Service is also working with the community to develop the North Bay Discovery Center.

N29. Napa River Flood Control Project, Napa, Napa County. The Napa County Flood Control District, working with the community, Coastal Conservancy, Department of Fish and Game, Napa County Land Trust, Army Corps of Engineers, and several other agencies, has completed a flood control/habitat restoration plan that

will restore approximately 950 acres of wetland habitat along the Napa River as part of an environmentally oriented approach to flood control. With funding matches from federal, state, and local sources established, the project has begun implementation.

N30. American Canyon Acquisition and Restoration, American Canyon, Napa County. (*High Activity*) The City of American Canyon and the Department of Fish and Game have recently completed the purchase of 460 acres from the Port of Oakland. This will permit a floodplain connection to the Napa River and provide a foundation for tidal and seasonal wetland restoration.

N37.2. Lower Wildcat Creek, San Pablo, Contra Costa County. (*High Activity*) County Flood Control, Urban Creeks Council, and other organizations are working on a habitat restoration plan for 100 acres of disturbed habitat along the lower regions of Wildcat Creek. The plan would include restoration of fisheries, floodplain management, and an environmental youth program.

Suisun Subregion (S)

S3. Martinez Regional Shoreline Marsh Restoration, Martinez, Contra Costa County. The East Bay



Gallinas Creek prior to restoration (Spring, 1992)

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Regional Park District (EBRPD), Caltrans, Contra Costa Mosquito and Vector Control District, and the City of Martinez have begun implementation of restoration and enhancement of 50 acres of tidal marsh within the Martinez Regional Shoreline.

S5. McNabney (Shell) Marsh, Martinez, Contra Costa County. The McNabney Marsh Management Advisory Committee, with the Contra Costa Mosquito and Vector Control District as the lead agency, is restoring and enhancing the 200-acre Shell Marsh by improving tidal flushing. The project provides ancillary benefits for flood reduction and mosquito control.

S7. Point Edith Wetlands Project, Contra Costa County. The Contra Costa County Mosquito and Vector Control District (CCCMVD), California Department of Fish and Game, and the U.S. Navy are restoring tidal action to portions of 3,000 acres of private and public land, including the Concord Naval Weapons Station. Current activities include wetland restoration pilot projects and feasibility studies.

S9. North Contra Costa County Shoreline. (*High Activity*) This subregional ecological initiative is primarily focused on joint use resource management proposals for tidal wetlands and riparian restoration on the Concord Naval Weapons Station, that involves a variety of federal and state agencies, as well as special districts such as the EBRPD and CCCMVCD. It also incorporates the partnerships



Gallinas Creek after restoration (Fall 1992)

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and geographic scope of other major wetland sites along the south Shore of Suisun Bay including the Martinez Regional Shoreline (S3), Point Edith (S7), and Bay Point (S10).

S10. Bay Point Restoration Project, Bay Point, Contra Costa County. The East Bay Regional Park District is nearing completion of a plan for tidal marsh restoration on this 150-acre site near Pittsburg.

S13. Big Break Acquisitions, Oakley, Contra Costa County. The East Bay Regional Park District has acquired 2,000 acres of Delta wetlands. A land use plan has been prepared and funding for wetlands restoration is being sought.

S14. Delta Science Center Wetland Restoration, Oakley, Contra Costa County. The East Bay Regional Park District, Mt. Diablo Audubon, Contra Costa Mosquito and Vector Control District, and the Ironhouse Sanitary District are the major partners in creating the Delta Science Center. The center has been envisioned as a nonprofit research and educational facility offering visitors an opportunity to learn more about the Delta and participate in developing solutions to Delta problems. The Center has the potential to restore tidal and riparian habitat to approximately 3,500 acres.

S23.1 Lower Walnut Creek Restoration, Contra Costa County. (*High Activity*) Contra Costa County

Flood Control District is working with a range of federal and state agencies, municipalities, and the Friends of the Creeks to initiate a pilot project to restore a riparian ecosystem on the creek. Corps of Engineers support is being sought for a number of potential actions including removal of fish barriers (drop structures), creation of a low-flow channel, resolution of sedimentation problems, and restoration of tidal action at the mouth of the creek.

S23.3 Walnut Creek, Walnut Creek, Contra Costa County. Friends of the Creeks and the City of Walnut Creek have completed a master restoration

and enhancement plan for the downtown section of Walnut Creek. The plan includes a trail along the entire downtown section of the creek, removal of invasive plant species, and subsequent revegetation.

Central Bay Subregion (CB)

CB13. Sausal Creek, Oakland, Alameda County. (*High Activity*) The Aquatic Outreach Institute, Friends of Sausal Creek, the City of Oakland, and other public and private entities have undertaken two actions to enhance this urban creek. The first is to develop an exotics eradication program, which includes the development of an Exotic Species Management Plan and the restoration of areas most in need of preservation, slope stabilization, and revegetation. The second major activity consists of developing a watershed management plan for this 2,656-acre watershed. Currently, restoration work is occurring on six acres. The overall watershed plan will focus on natural resource and public access assessments, defining appropriate management actions and time frames to ensure the plan is a success.

CB16. Alameda Naval Air Station, Alameda, Alameda County. The U.S. Fish and Wildlife Service in conjunction with Golden Gate Audubon are requesting transference of 565 acres of land from the decommissioned naval air station. If successful, the

Key to San Francisco Bay Joint Venture Habitat Projects (by Subregion)

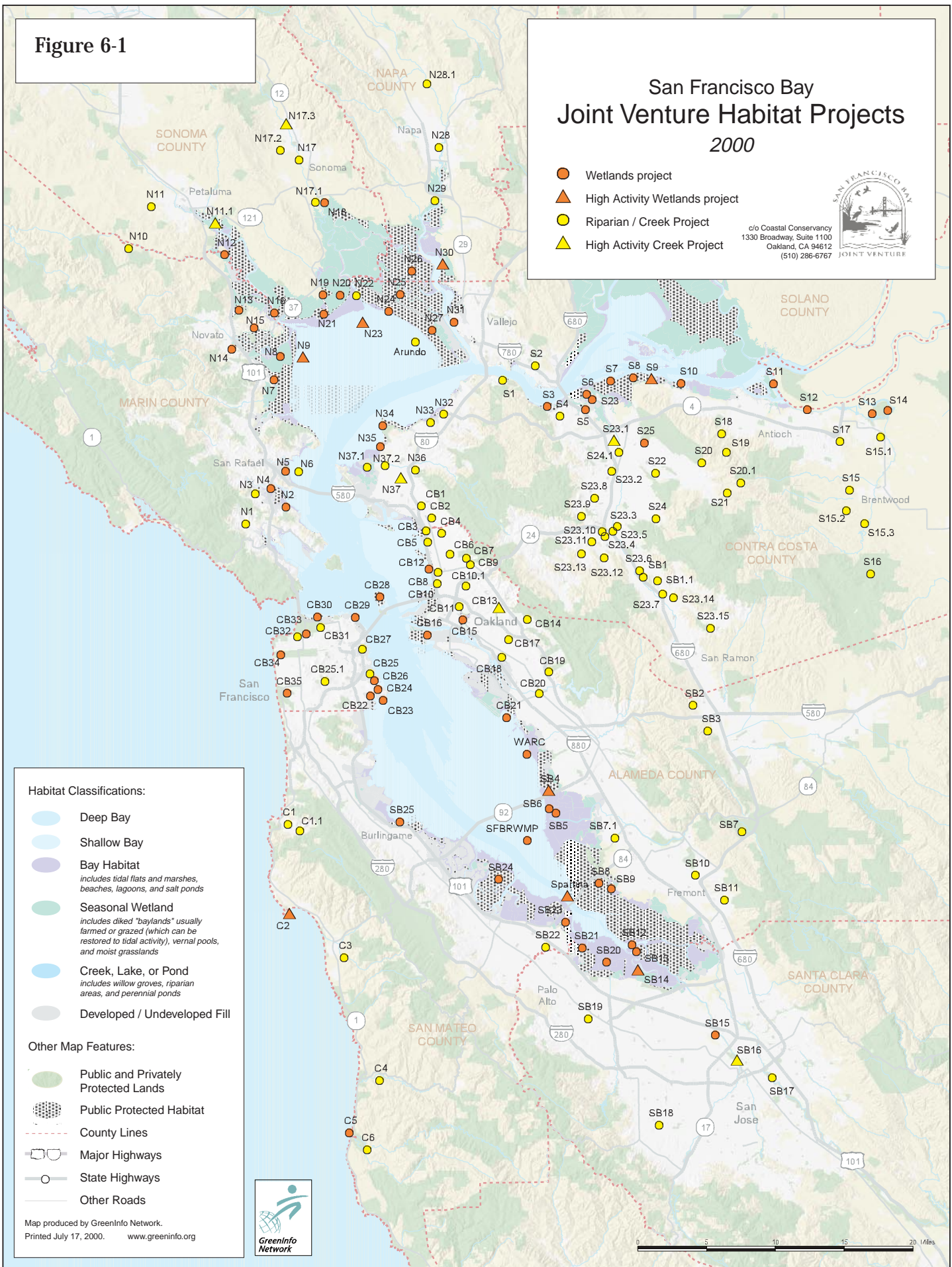
ID	Habitat Project Name	Acreage	ID	Habitat Project Name	Acreage
North Bay (N)			Central Bay (CB)		
N1	Arroyo Corte Madera (Mill Valley)	4	CB1	Baxter Creek	7
N2	Triangle Marsh - Corte Madera	31	CB2	Cerrito Creek	2
N3	Corte Madera Creek	NS	CB3	Village Creek	NS
N4	Madera Bay Park	5	CB4	Codomices Creek	5
N5	Canalways (San Rafael)	85	CB5	Schoolhouse Creek	NS
N6	North Bay Riparian Station	NA	CB6	Strawberry Creek	NS
N7	Hamilton Wetlands Restoration	900	CB7	Derby Creek	NS
N8	Bel Marin Keys	1,600	CB8	Potter Creek	NS
N9	San Pablo Bay NWR Expansion (among sites are Bahia and Silveira Ranch)	8,000	CB9	Claremont Creek	NS
N10	San Antonio Creek - George Googins Project	NS	CB10	Temescal Creek - Emeryville	NS
N11	Petaluma River Watershed Plan	NA	CB10.1	Temescal Creek - Oakland	NS
N11.1	Petaluma River	NS	CB11	Glen Echo Creek	NS
N12	Petaluma Marsh Expansion	180	CB12	Eastshore State Park	100
N13	Rush Creek/Cemetery Marsh Enhancement	300	CB13	Sausal Creek	NS
N14	Scottsdale Marsh	41	CB14	Leona Creek	NS
N15	Parcels at Olive and Atherton Avenues	144	CB15	Lake Merritt	NA
N16	North Parcel	430	CB16	Alameda Naval Air Station	565
N17	Sonoma Creek Watershed Plan	NA	CB17	Courtland Creek	NS
N17.1	Schellville Restoration and Flood Control Proj.	NS	CB18	Arroyo Viejo Creek	NS
N17.2	Carriger Creek	NS	CB19	San Leandro Creek	NS
N17.3	Sonoma Creek (Various Sites)	NS	CB20	San Lorenzo Creek	NS
N18	Camp Two	608	CB21	Oyster Bay	90
N19	Tolay Creek	435	CB22	Yosemite Creek - Candlestick Point	25
N20	Lower Tubbs Island Restoration	72	CB23	Bayview Hunters Point Shipyard	18
N21	Tubbs Island Expansion	NA	CB24	India Basin - West and East	3.4
N22	San Pablo Bay Watershed Study	NA	CB25	Islais Creek - Yosemite Creek	NS
N23	San Pablo Bay North American Wetland Conservation Act Grant Sites	13,874	CB25.1	Islais Creek - Glen Canyon	NS
N24	Partnership for the San Pablo Baylands	NA	CB26	Pier 94 North	4
N25	Cullinan Ranch	1,500	CB27	Mission Creek - San Francisco	NS
N26	Napa/Sonoma Marsh Restoration	9,000	CB28	Treasure Island	40
N27	Mare Island and North Bay Discovery Center	2,162	CB29	SF Bay and Delta Estuary Center at Pier 45	NA
N28	Napa River Watershed Plan	NA	CB30	Crissy Field	20
N28.1	Napa River Habitat Assessment	NA	CB31	Tennessee Hollow	NS
N29	Napa River Flood Control Project	950	CB32	Lobos Creek	NS
N30	American Canyon Acquisition and Restoration	460	CB33	Mountain Lake	1
N31	River Park	48	CB34	Golden Gate Park Lakes	4
N32	Rodeo Creek	NS	CB35	Lake Merced	12
N33	Pinole Creek	NS	South Bay (SB)		
N34	Point Pinole Wetlands Enhancement	400	SB1	Alamo Creek - Danville	NS
N35	San Pablo Bay Wetlands Restoration	100	SB1.1	Alamo Creek - San Ramon	NS
N36	San Pablo Creek	NS	SB2	Martin Canyon Creek	8
N37	Wildcat Creek Watershed	175	SB3	Tehan Creek	16
N37.1	Wildcat Creek - San Pablo	NS	SB4	Oliver Property	324
N37.2	Lower Wildcat Creek	NS	SB5	Whale's Tail	49
Suisun (S)			SB6	Eden Landing Ecological Reserve	835
S1	Elkhorn Creek Habitat Restoration	2	SB7	Southern Alameda Creek Watershed Plan	NA
S2	Benicia Creek and Wetland	4	SB7.1	Alameda Creek Restoration	NS
S3	Martinez Regional Shoreline Marsh Restoration	100	SB8	Triangle Marsh - Newark	3
S4	Alhambra Creek Watershed Plan	NA	SB9	Mayhews Landing	108
S5	McNabney (Shell) Marsh	200	SB10	Laguna Creek Restoration	NS
S6	Pacheco Marsh	140	SB11	Mission Creek	NS
S7	Point Edith Wetlands Project	2,000	SB12	Don Edwards SF Bay NWR	NS
S8	Concord NWS Wetlands Restoration	700*	SB13	Knapp Tract	450
S9	North Contra Costa County Shoreline	NS	SB14	New Chicago Marsh	90
S10	Bay Point Restoration Project	150	SB15	Ulistac Natural Area	40
S11	Delta Channel Islands	NS	SB16	Lower Guadalupe River	NS
S12	Julia Cox Freeman Wetland Preserve	8	SB17	Coyote Creek	NS
S13	Big Break Acquisitions	1,000	SB18	Saratoga Creek	NS
S14	Delta Science Center Wetland Restoration	3,500	SB19	Stevens Creek	NS
S15	Marsh Creek Restoration Master Plan	NA	SB20	Cargill Salt Enhancement	NS
S15.1	Lower Marsh Creek - Oakley	NS	SB21	Palo Alto Harbor Point	7.2
S15.2	Marsh Creek Griffith Park	7	SB22	San Francisquito Creek CRMP	NA
S15.3	Upper Marsh Creek - Brentwood	NS	SB23	Ravenswood Preserve	200
S16	Kellogg Creek	NS	SB24	Bair Island	1,600
S17	East Antioch Creek	NS	SB25	Burlingame Waterfront Park	8.8
S18	Kirker Creek	NS	San Mateo Coast (C)		
S19	Mt. Diablo and Galindo Creeks	NS	C1	San Pedro Creek Flood Control Project	15
S20	Mt. Diablo Creek	NS	C1.1	San Pedro Creek Watershed Plan	NA
S20.1	Lower Mt. Diablo Creek	NS	C2	Pillar Point Marsh	23
S21	Mitchell Creek	4	C3	Pillarcitos Creek Watershed Plan Implementation	NA
S22	Gallindo Creek	NS	C4	San Gregorio Creek Riparian Restoration	NA
S23	Walnut Creek - Pacheco Slough	NS	C5	Pescadero Marsh	345
S23.1	Lower Walnut Creek Restoration	NS	C6	Pescadero/Butano Watershed Plan	NA
S23.2	Walnut Creek - Pleasant Hill	NS	Regional Projects		
S23.3	Walnut Creek - Walnut Creek	NS	WARC	Watershed Assessment Resource Center	NA
S23.4	Tice Creek	NS	SFBRWMP	SF Bay Rgnl. Wetlands Monitoring Program	NA
S23.5	San Ramon Creek - Walnut Creek	NS	Spartina	Support for Invasive Spartina Control Efforts in San Francisco Bay	NA
S23.6	San Ramon Creek - Alamo	NS	Arundo	Support for Arundo Donax Control	NA
S23.7	San Ramon Creek - Danville	NS	NA = Not Applicable, NS= Not Specified *700 acres in S8 are part of S7 acres.		
S23.8	Grayson Creek	NS	NOTES:		
S23.9	Lafayette Creek	NS	1. Projects are numbered according to their subregion within the SF Bay Joint Venture geographic scope and are generally arranged in a clockwise direction.		
S23.10	Las Trampas Creek - Walnut Creek	NS	2. Habitat projects include acquisition, enhancement, and restoration, and include watershed planning initiatives and regional ecological education facilities.		
S23.11	Las Trampas Creek - Lafayette	NS	3. Multiple creek habitat projects within the same watershed are noted by decimal points after the whole number.		
S23.12	Grizzly Creek	NS	4. Project points in the bay refer to projects with multiple sites or that are regional in nature.		
S23.13	Old Jonas Hill Creek	NS			
S23.14	Green Valley Creek	NS			
S23.15	Sycamore Creek	NS			
S24	Pine Creek	36			
S24.1	Lower Pine Creek	NS			
S25	Chupcan Preserve Wetlands Restoration	NS			

Figure 6-1

San Francisco Bay Joint Venture Habitat Projects 2000

- Wetlands project
- ▲ High Activity Wetlands project
- Riparian / Creek Project
- ▲ High Activity Creek Project

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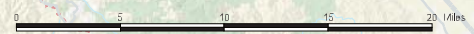
Habitat Classifications:

- Deep Bay
- Shallow Bay
- Bay Habitat
includes tidal flats and marshes, beaches, lagoons, and salt ponds
- Seasonal Wetland
includes diked "baylands" usually farmed or grazed (which can be restored to tidal activity), vernal pools, and moist grasslands
- Creek, Lake, or Pond
includes willow groves, riparian areas, and perennial ponds
- Developed / Undeveloped Fill

Other Map Features:

- Public and Privately Protected Lands
- Public Protected Habitat
- County Lines
- Major Highways
- State Highways
- Other Roads

Map produced by GreenInfo Network.
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transfer will protect 49 acres of tidal and non-tidal marsh, as well as upland habitat for the least tern.

CB23. Bayview Hunters Point Shipyard, San Francisco, San Francisco County. Golden Gate Audubon, Port of San Francisco, Coastal Conservancy, Save San Francisco Bay Association, and several community groups are restoring 15 acres of tidal and seasonal wetlands in Bayview Hunters Point.

CB30. Crissy Field, San Francisco, San Francisco County. The National Park Service is restoring 20 acres of tidal marsh located within the historic Presidio and adjacent to the mouth of San Francisco Bay.

South Bay Subregion (SB)

SB6. Eden Landing Ecological Reserve, Hayward, Alameda County. The California Department of Fish and Game and East Bay Regional Park District are close to completing the restoration plan for this 835-acre property, purchased in 1996. Restoration will include both tidal and seasonal habitat.

SB7. Southern Alameda Creek Watershed Plan, Alameda County. The Alameda County Resource Conservation District has completed a watershed plan and has begun riparian restoration and erosion control projects along Alameda Creek and its tributaries.

SB8. Triangle Marsh, Newark, Alameda County. Ducks Unlimited is partnering with the Fish and Wildlife Service in implementing the restoration of tidal and seasonal wetlands for this 3-acre parcel within the Don Edwards National Wildlife Refuge.

SB14. New Chicago Marsh, Santa Clara County. (*High Activity*) The Santa Clara Valley Audubon Society is leading a campaign to protect 70 acres of tidal wetlands, as well as to restore to salt marsh another 20 acres that had been illegally filled. Once accomplished, both areas would become part of the San Francisco Bay National Wildlife Refuge.

SB15 Ulistac Natural Area, Santa Clara, Santa Clara County. This 40-acre project involves the City of Santa Clara, the county open space authority, and Santa Clara Audubon in restoring wetland and riparian habitat along the Guadalupe River. A restoration master plan that includes public access and education has been adopted; riparian and oak woodland planting is underway.

SB16. Lower Guadalupe River, Santa Clara County. (*High Activity*) The Santa Clara Valley Water District is currently exploring restoration and enhancement options to the Lower Guadalupe River. The design and construction of this flood protection project is expected to be completed by 2001 and will encompass more than 10 miles of shoreline and 84 acres of wetlands and aquatic habitat.

SB24. Bair Island, Redwood City, San Mateo County. The Peninsula Open Space Trust (POST), U.S. Fish and Wildlife Service (FWS), Wildlife Conservation Board (WCB), and others have completed the acquisition of 1,600 acres for addition to the Refuge. The FWS and WCB have acquired it from POST. FWS has initiated a public process for preparing the master plan for Bair Island's restoration and management.

San Mateo Coast Subregion (C)

C2. Pillar Point Marsh, San Mateo County. (*High Activity*) The San Mateo County Parks Division and the California Habitat Fund purchased 17 acres of marshland in 1996. Since then, the Parks Division has completed a master plan for the restoration of the marsh area. In addition, there are 42 acres of surrounding land that could be acquired but to date have been retained by the owners. Much of the Pillar Point Marsh area has been adversely impacted by an access road, the Half Moon Bay County Airport, and the U.S. Army Corps of Engineers Breakwater at Pillar Point Harbor.

Regional Projects

Support for Invasive *Spartina* Control Efforts in San Francisco Bay. (*High Activity*) The Coastal Conservancy is coordinating the Invasive *Spartina* Project, a comprehensive Bay-wide effort to eradicate four species of the exotic cordgrass from the San Francisco Bay Estuary. To date, more than 1,000 acres of exotic *Spartina* (primarily eastern cordgrass, *Spartina alterniflora*) have become established in the Bay's marshes and tidal flats, particularly in the South Bay. *Alterniflora* is considered an "ecological engineer" and could significantly alter the estuary ecosystem, compromising the success of tidal restoration efforts if not controlled.

Support for *Arundo donax* Control. Team Arundo Del Norte is a coalition of government managers, sci-

entists, and environmentalists formed in 1996 to battle this invasive reed. The team, led by scientists from the USEPA, San Francisco Estuary Institute, and the Sonoma Ecology Center, has conducted eradication efforts on the Russian River and Sonoma Creek, and has several other removal projects in the works. It is also mapping the spread of *Arundo* and educating the community about this dangerous plant.

Watershed Assessment Resource Center. The center, sponsored by the Regional Water Quality Control Board and the Coastal Conservancy, is housed at the Friends of the Estuary headquarters, and provides technical assistance to grassroots creeks organizations. It is also working to develop regional, scientifically based protocols for volunteer monitoring and to assist with cooperative agreements.

San Francisco Bay Regional Wetlands Monitoring Program. The Coastal Conservancy, San Francisco Estuary Institute, San Francisco Bay Regional Water Quality Control Board, and U.S. Environmental Protection Agency are part of this new interagency initiative. The Wetlands Regional Monitoring Program (RMP) is intended to provide the scientific understanding necessary to create, restore, and enhance wetlands of the San Francisco Bay Estuary through objective monitoring, research, and communication. Starting with a pilot program, researchers will conduct both ambient monitoring and project monitoring. To guide the program's development, organizers have convened a Wetlands RMP steering committee (composed of senior staff of the wetlands agencies of the region), and focus teams (of scientists).

Potential Projects for 2001 and Beyond

This set of habitat projects includes more riparian projects, and plans for a range of wetland acquisitions, enhancements, and restorations. As "potential projects," these should be seen as near-term to long-term opportunities. Many projects are in some stage



Corte Madera Ecological Reserve at the outset of restoration (Fall 1990)

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of planning, but with much work and funding still needed to implement them. Together these habitat projects comprise about 12,000 acres.

North Bay Subregion (N)

N5. Canalways, San Rafael, Marin County. The San Rafael Canalways is an 85-acre marsh of pickleweed, mudflats, and shallow water which provides wildlife habitat for the endangered salt marsh harvest mouse and over 100 species of resident or migrating birds, as well as public access, through a segment of the Bay Trail. The Friends of Canalways Wetlands is working with the City of San Rafael and the Audubon Society to provide funding and support for site protection through donations, the Park Bond, and the federal Land and Water Conservation Fund.

N6. North Bay Riparian Station, Marin County. The recently created riparian station is a cooperative project of The Bay Institute, Wildlife Conservation Board, the Army Corps of Engineers Bay Model, and several others. The focus of this project will be on the monitoring and restoration of watersheds in Marin and Sonoma Counties.

N22. San Pablo Bay Watershed Study, North Bay Counties. The U.S. Army Corps of Engineers is undertaking a study of ecological restoration opportunities in San Pablo Bay including Marin, Sonoma,



Corte Madera Ecological Reserve immediately after restoration (Spring 1991)

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Napa, Solano, and Contra Costa Counties. Once the study is completed, additional federal, state, and private funds will be sought to implement restoration recommendations.

N24. Partnership for the San Pablo Baylands, Sonoma County. The Save San Francisco Bay Association, funded by the San Francisco Bay Regional Water Quality Control Board, established a partnership among agencies and landowners that resulted in a Stewardship Plan. The plan balances the needs of agriculture with wildlife protection in the watersheds of Marin, Sonoma, and Napa Counties.

N26. Napa/Sonoma Marsh Restoration, Napa County. The California Department of Fish and Game and the Coastal Conservancy are working with state, federal, and private partners to restore and/or enhance 9,000 acres of salt ponds.

N28. Napa River Watershed Plan, Napa County. The Napa Resource Conservation District facilitated the development of this stakeholder plan. Implementation of the plan's recommendations has been progressing steadily, including riparian restoration, erosion control, and vineyard demonstration projects.

N31. River Park, Vallejo, Solano County. The Greater Vallejo Recreation District is planning to restore 22 acres of tidal marsh and 26 acres of

upland habitat along the Napa River.

N34. Point Pinole Wetlands Enhancement, Pinole, Contra Costa County. The East Bay Regional Park District has purchased close to 400 acres of shoreline property that can be restored to tidal marsh.

N35. San Pablo Bay Wetlands Restoration, Contra Costa County. The East Bay Regional Park District has purchased 100 acres of San Pablo Bay shoreline that will be restored to tidal marsh.

Suisun Subregion (S)

S4. Alhambra Creek Watershed Plan, Contra Costa County. The

Contra Costa Resource Conservation District is coordinating the development of a watershed plan for Alhambra Creek involving landowners, agencies, and interested citizens.

S6. Pacheco Marsh, Martinez, Contra Costa County. The Muir Heritage Land Trust, the Coastal Conservancy, Contra Costa Mosquito and Vector Control District, and the Joint Venture are pursuing the acquisition of this 140-acre parcel for tidal and seasonal wetland restoration.

S12. Julia Cox Freeman Wetland Preserve, Antioch, Contra Costa County. Mt. Diablo Audubon and Contra Costa County are working cooperatively to restore 7.5 acres of tidal marsh.

Central Bay Subregion (CB)

CB4. Codornices Creek, Albany, Alameda County. The Cities of Albany and Berkeley are working with Friends of Five Creeks and the Waterways Restoration Institute to restore five acres of riparian habitat along segments of Codornices Creek, including at University Village.

CB12. Eastshore State Park, Alameda County. East Bay Regional Park District has purchased 1,700 acres along the Emeryville, Berkeley, and Albany waterfronts for the Eastshore State Park. Approxi-

mately 100 acres of tidal marsh will be restored in the Park; seasonal wetlands may also be constructed.

CB15. Lake Merritt, Oakland, Alameda County. The City of Oakland, the Lake Merritt Institute, and the Coastal Conservancy are exploring the means and options for restoring wetlands at three locations in Lake Merritt, the first wildlife refuge in the U.S.

CB21. Oyster Bay, San Leandro, Alameda County. East Bay Regional Park District is currently remediating and will eventually restore 90 acres of tidal marsh.

CB22. Yosemite Creek–Candlestick Point, San Francisco County. The Department of Parks and Recreation is partnering with Audubon in plans to restore 34 acres of tidal marsh at the mouth of this creek.

South Bay Subregion (SB)

SB4. Oliver Property, Alameda County. (*High Activity*) The Hayward Area Recreation and Park District (HARD) has applied for permitting from the U.S. Army Corps of Engineers for enhancing 324 acres of former salt pond along Hayward Shoreline. The project, which includes mudflats and wetlands, will enhance tidal circulation and water control in both HARD Marsh and the East Bay Regional Park District's salt marsh harvest mouse preserve.

SB9. Mayhews Landing, Newark, Alameda County. Planning is underway to restore 108 acres of tidal and seasonal wetland habitat.

SB12. Don Edwards San Francisco Bay National Wildlife Refuge, Alameda County. The U.S. Fish and Wildlife Service has numerous restoration and enhancement projects located within the refuge boundaries, (e.g., see projects SB9 and SB13).

SB13. Knapp Tract, Alviso, Santa Clara County. Tidal marsh restoration is planned for this 450-acre site that is already part of the San Francisco Bay Refuge.

SB20. Cargill Salt Enhancement, Santa Clara County. The San Francisco Bay Joint Venture and Cargill are exploring opportunities to enhance shorebird and waterfowl habitat provided by

Cargill's salt ponds, as well as partnerships for the purchase of 19,000 acres of salt ponds.

SB22. San Francisquito Creek Coordinated Resource Management Plan, San Mateo County. The Plan pulled together many stakeholders and was completed last year. It recommends numerous actions including flood and erosion control, public education, monitoring, evaluation, and pollution prevention.

SB23. Ravenswood Preserve, East Palo Alto, San Mateo County. The Mid-Peninsula Regional Open Space District is overseeing the tidal marsh restoration of this 200-acre salt pond.

San Mateo Coast Subregion

C1. San Pedro Creek Flood Control Project, Pacifica, San Mateo County. The City of Pacifica is designing an innovative flood control project that incorporates tidal marsh restoration on approximately 15 acres. In order to restore steelhead habitat and riparian values, funding is needed to remove fish barriers and stabilize the channel within the County Park and at two bridge crossings.

C3. Pilarcitos Creek Watershed Plan Implementation, San Mateo County. The Pilarcitos Creek Watershed Plan is in the implementation phase, with several fish passage projects pending or under construction by the San Mateo Resource Conservation District.

C4. San Gregorio Creek Riparian Restoration, San Mateo County. The San Mateo Resource Conservation District is developing a riparian restoration project that will also protect agricultural land from further erosion.

C5. Pescadero Marsh, Pescadero, San Mateo County. The California Department of Parks and Recreation has been gradually restoring the 345-acre Pescadero Marsh. The project includes the restoration of tidal wetlands at the mouth of Pescadero Creek and the restoration of both Pescadero and Butano Creek watersheds.

C6. Pescadero/Butano Watershed Plan, San Mateo County. The San Mateo Resource Conservation District is guiding the development of a watershed plan for Pescadero and Butano creeks, which drain into Pescadero Marsh.