

CONSERVATION AND MANAGEMENT OF COASTAL WETLANDS IN CALIFORNIA

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The title, "Conservation and Management of Coastal Wetlands in California," implies that you want to know what is being done to save the habitat for shorebirds, regardless of which agency or organization is involved in such preservation efforts. I am here to tell you about those efforts, of which I am aware, to preserve, maintain, and enhance coastal wetlands habitat. These efforts include activities of several state, federal, and local agencies and private organizations.

Time will not permit a detailed presentation of the various efforts—so, if you have a special interest in a particular wetland and you want to know what's happening there, I would be happy to discuss it with you after my presentation.

What do I mean when I say "coastal wetland"? Our definition in the Department of Fish and Game is all lands subject to regular or periodic tidal influence. We also include freshwater habitats in close proximity to the coast.

The Department of Fish and Game has what might be considered a two-part program to conserve coastal wetlands. The first is an information program to document the resource values of this critical habitat and to make this information available to decision makers as well as to interested publics. The second is an acquisition and management program. In order to tell you where we are toward attaining our goal of preserving and maintaining coastal wetlands, I want you to visualize a normal distribution curve: in my opinion the total government and private effort is about $\frac{3}{4}$ of the way up the curve. In noting progress on elements within the program, we are much further along on our information program than on our acquisition and management programs. In a sense, we've done a good job in identifying the problem. Now it's time to solve it. And we are beginning to do that.

At this point, before detailing some of the activities of the Department of Fish and Game and other agencies to conserve wetlands, I will digress for a moment and give you some background information on the overall status of coastal wetlands.

At the turn of the century, we estimated that the State of California possessed about 381,000 acres of *prime* coastal wetlands, more specifically, that area above low tide, including salt and brackish marshes and tide flats. During the ensuing 75 years, about $\frac{2}{3}$ of this acreage was lost to a variety of developments which were thought to be of more value to man than maintenance of the marsh. We now have about 120,000 acres left. Much of the remaining acreage is owned and controlled by local agencies, including cities, counties, and harbor districts. These locally held wetlands were once owned by the state but subsequently granted to the local agencies by the legislature. There are some 180 parcels of land along California's coast which have been granted by the legislature to local government for their use, generally for harbor purposes. In addition to the locally controlled wetlands, a significant portion of the remaining wetlands are privately owned.

In 1968, when the department first began its program to preserve coastal wet-

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TABLE 1
PUBLICALLY OWNED COASTAL WETLANDS

Department of Fish and Game Owned Wetlands		
Area	Acres	Cost
Buena Vista Lagoon	190	\$ 750,000
Upper Newport Bay	700	3,400,000
Suisun Marsh	890	985,820
Pismo Lake	50	115,000
Tomales Bay	541	386,000
Heerdt Marsh (San Pablo Bay)	95	290,000
Total	2466	\$5,926,820
Wetlands Leased by DFG from State Lands Commission		
Area	Acres	
Bair Island and Redwood Shores (SF Bay)	over	900
Coon Island (Napa Marshes)		250
San Pablo Bay Wildlife Area		10,000
Big Lagoon (Humboldt County)		1800 (incl. 350 acres marsh)
Bolsa Chica		560
Morro Bay (Exercise of Public Trust)		560
Total		14,070
Wetlands Owned by Other State or Federal Agencies		
Area	Controlling Agency	Acres
Pescadero Marsh	(DPR, see below)	250
Los Penasquitos Lagoon	(DPR)	150
Tijuana River	(DPR & Navy)	150 (approx.)
Morro Bay	(DPR)	350 (approx.)
S. F. Bay NWR	(USFWS)	23,000 ^a
San Pablo NWR	(USFWS)	11,711 ^a
Humboldt Bay NWR	(USFWS)	8733 ^a
Anaheim Bay NWR	(USFWS & Navy)	1100
Mugu Lagoon	(U. S. Navy)	1450
Elkhorn Slough	(Nature Conservancy)	500
Santa Margarita River	(U. S. Navy)	300
Goleta Slough	(Santa Barbara County)	360
Santa Ynez River	(U. S. Navy)	160
Bolinas Lagoon	(Marin County)	1240
Carpinteria Marsh	(University of California)	160

DPR = Department of Parks and Recreation
 USFWS = U. S. Fish and Wildlife Service
 NWR = National Wildlife Refuge

^a Area within approved refuge boundary—only a small portion of this area has been acquired.

lands, we looked at areas in private ownership or under local control and predicted that by 1980 these lands would be largely developed and lost as wildlife habitat. Our Chief of the Wildlife Management Branch, at that time Ben Glading, had as a goal to save at least one area. The chosen area was Buena Vista Lagoon in San Diego County and now, 8 years and \$750,000 later we own it. This, of course, is not the only coastal wetland that the department owns—I'll say more about our acquisition program later.

One of the most successful parts of our effort to conserve the state's coastal

TABLE 2
WETLANDS PROPOSED FOR ACQUISITION BY STATE AND FEDERAL AGENCIES

Area	Acres
Napa Marshes	10,000
San Elijo Lagoon	500
Batiquitos Lagoon	600
Ten Mile River	150
Lake Earl and Talawa	2200 ^a
Elkhorn Slough	1400
Big River	150
Petaluma River	3000
Suisun Marsh	55,000 ^b
Buena Vista Lagoon	7
Sweet Springs Marsh	25
Hanna Property (San Pablo Bay)	200
Suisun Bay	182
Various tidal channels and sloughs in South San Francisco Bay ^c	

^a An undetermined acreage around the lakes is also planned for acquisition.

^b Total acreage of marsh—only small portion to be acquired in foreseeable future.

^c Acreage figure not available.

wetlands resource has been a series of published reports documenting the fish and wildlife values of these areas. To date, we have published 18 reports covering 20 separate coastal wetlands. In these reports we describe the habitat and the species of fish and wildlife found there; we describe the various types and degrees of people use of the resources; we identify existing and potential resource problems, such as planned developments; and last but not least, we make recommendations for preservation of the resource.

If you are interested in getting copies of these reports, they are available from the State Documents Section. I am strongly convinced that these reports have played a major role in the preservation of our remaining wetlands. Many of the policy statements in the state's coastal plan were taken directly from, or are related to, recommendations in this series of reports. This series has also provided much of the information that the Department of Fish and Game and other agencies have used to justify acquisition of wetlands.

We believe that gaining control of wetlands is the best means of preserving and enhancing these areas, and providing for their public use. Control has been obtained by purchasing, leasing, or effecting a change in jurisdiction more favorable to natural resource maintenance.

In 1974 the U.S. Fish and Wildlife Service and the Department of Fish and Game issued a joint report entitled Acquisition Priorities for California's Coastal Wetlands. With that report we attempted to direct available funds toward acquisition of those wetlands we believed to be important and most in need of acquisition at that time. The priority setting criteria included the overall habitat value to fish and wildlife, the occurrence of endangered species, and the potential threats from development.

A number of agencies including the Department of Parks and Recreation, U. S. Fish and Wildlife Service, the Coast Commission, and of course the Department of Fish and Game, have used the priority list. In effect we have cut up the pie, with the above-mentioned agencies assuming acquisition responsibilities for

different areas. As a result, of the top 25 areas identified in the report, actions have already been, or will soon be, taken to acquire 15 of them. Since our initial acquisition at Buena Vista Lagoon we have purchased or otherwise gained control of 11 areas. We have spent nearly \$6 million acquiring about 2200 acres of wetlands which comes to \$2700/acre.

Of course, we were quite fortunate that shortly after we published the "Acquisition Priority" report several sources of funds became available to us and to other agencies. The largest source of funds to us and to the Department of Parks and Recreation was the 1974 Park Bond Act and the more recent 1976 Park Bond Act. The Wildlife Conservation Board, the acquisition arm of the Department of Fish and Game, received \$10 million in 1974 and \$15 million in 1976 from the Bond Acts. Most of the monies of the 1974 Bond Act and at least \$10 million of the 1976 Bond Act are earmarked for coastal acquisition projects. In addition, we obtained a \$3.4 million special appropriation from the legislature to acquire Upper Newport Bay. This was part of the 4.5 million-dollar settlement the state received from the Santa Barbara oil spill. The remaining \$1.1 million will be used for habitat improvement and development of public use facilities at Newport Bay. While the state appears to be quite well off now, having a fairly large amount of money for acquiring coastal wetlands, the U. S. Fish and Wildlife Service has not fared as well. While they have approval to acquire lands within the boundaries of several established refuges, the monies to acquire lands have been slow in coming.

To summarize the money situation—it is good as far as the state is concerned. And, in my opinion, with the combined efforts of the several state departments and local agencies who have received monies from the 1974 and 1976 Bond acts, most of the more important coastal wetlands will be placed in public ownership.

Most of the coastal wetland areas over which the Department of Fish and Game has gained control, either by purchase or through action of the State Lands Division and Commission, have been classified as ecological reserves. This means that the primary purposes of areas so classified are to preserve the habitat along with the fish and wildlife there for public observation and scientific study.

Operational plans for maintenance and use of the coastal wetland areas acquired during the last 8 years have been developed. However, few such plans have been implemented, because most available funds continue to be directed toward acquisition. Our management of those areas has been limited to posting and to requesting regulations for the Fish and Game Commission to control public use. Most of our wetland areas do not require an intensive program of maintenance or restoration. We are, however, proceeding with plans to reestablish about 150 acres of marsh at Bolsa Chica and to improve tidal flooding in Upper Newport Bay. Additionally, since both of these areas are within a few minutes of downtown Los Angeles we are also planning to provide facilities for public use. At Upper Newport Bay we are proposing to build an interpretive center which we estimate will be visited by about ½ million people annually. The habitat improvements and public use facilities will cost us over \$1 million at Newport. Our marsh recreation project at Bolsa Chica will cost us about \$750,000, including moderate public use facilities.

In summary, the efforts of public agencies and an interested and concerned citizenry during the last decade have accomplished much toward preservation

and maintenance of the state's coastal wetlands resource. The Department of Fish and Game has taken a lead role in this effort through its informational program, primarily directed at decision makers in all levels of government. With the passage of the 1974 and 1976 Park Bond acts, the Departments of Fish and Game and Parks and Recreation have received \$25 millions for wetlands acquisition and have proceeded to acquire a substantial portion of wetlands remaining in private ownership. With the presently planned acquisitions by state, federal, and local agencies, most of the State's coastal wetlands resources will receive protection. The next step in the process of coastal wetlands protection, which has been somewhat neglected to date, is to devote more effort to improve these areas for wildlife as well as to provide public use and enjoyment.