

San Pablo Bay and Marin Islands National Wildlife Refuges - Refuges in the North Bay *by Bryan Winton*

Editor's Note: In March 2003, the National Wildlife Refuge System will be celebrating its 100th anniversary. This system is the world's most unique network of lands and waters set aside specifically for the conservation of fish, wildlife and plants. President Theodore Roosevelt established the first refuge, 3-acre Pelican Island Bird Reservation in Florida's Indian River Lagoon, in 1903. Roosevelt went on to create 55 more refuges before he left office in 1909; today the refuge system encompasses more than 535 units spread over 94 million acres.

Leading up to 2003, the Tideline will feature each national wildlife refuge in the San Francisco Bay National Wildlife Refuge Complex. This complex is made up of seven Refuges (soon to be eight) located throughout the San Francisco Bay Area and headquartered at Don Edwards San Francisco Bay National Wildlife Refuge in Fremont. We hope these articles will enhance your appreciation of the uniqueness of each refuge and the diversity of habitats and wildlife in the San Francisco Bay Area.

San Pablo Bay National Wildlife Refuge

Tucked away in the northern reaches of the San Francisco Bay estuary lies a body of water and land unique to the San Francisco Bay Area. Every winter, thousands of canvasbacks - one of North America's largest and fastest flying ducks, will descend into San Pablo Bay and the San Pablo Bay National Wildlife Refuge. This refuge not only boasts the largest wintering population of canvasbacks on the west coast, it protects the largest remaining contiguous patch of pickleweed-dominated tidal marsh found in the northern San Francisco Bay - habitat critical to the survival of the endangered salt marsh harvest mouse.



Aerial view of San Pablo Bay NWR

Although many may be more familiar with San Pablo Bay NWR's sister refuge, the Don Edwards San Francisco Bay National Wildlife Refuge (Don Edwards), San Pablo Bay NWR was established eight months prior to Don Edwards in February of 1974. San Pablo Bay NWR is the second largest refuge in the San Francisco Bay National Wildlife Refuge Complex (Don Edwards being the first) with 13,189 acres of tidelands, including open water, mudflat, tidal marsh, seasonal wetlands/brackish marsh, managed ponds and upland habitats. It was established to protect migratory birds and endangered species such as the California clapper rail, salt marsh harvest mouse, and California brown pelicans. Management in recent years has focused on tidal marsh restoration and planning, land acquisition, and environmental education.

The refuge protects vital open water and mudflat habitats critical to waterfowl and shorebirds utilizing the Pacific Flyway. Canvasback, scaup, and a myriad of shorebird

species use the Refuge in fall and winter during their southerly migration. Active marsh restoration management to increase salt marsh harvest mouse numbers is currently underway in the Tolay Creek tidal wetland restoration project, and plans are developing to do the same in the Cullinan Ranch Unit, the Tubbs Island Levee Setback, and Mare Island. With a lot of forethought, management, and a little luck, the salt marsh harvest mouse and other species could once again flourish in northern San Francisco Bay.

Land acquisition is an important management aspect of San Pablo Bay NWR in that it will help protect marshes, endangered species habitat, and visitor opportunities for future generations. The base closure on Mare Island in Vallejo has resulted in the opportunity to add an additional 163 acres and 2,473 acres of State of California Lands Commission leased lands. Other lands the refuge hopes to acquire is the 3,300 acre Skaggs Island, former Naval Communications land. This property situated between Sonoma Creek and several sloughs has been identified as the linchpin property integral to successfully facilitate large-scale tidal wetland restoration in northern San Pablo Bay.



Building 505, future headquarters of San Pablo Bay NWR

Without this property, restoration will be very difficult.

Closure of the Mare Island naval base also provided the refuge the opportunity to obtain a building of historical interest. Building 505, the former Naval Communications Center, was the largest communications center on the west coast when constructed in 1941. The bombing at Pearl Harbor was first relayed to the mainland from this site. The building, now under extensive renovation, will be the future home of the San Pablo Bay NWR

headquarters. There will be space for a visitor center, environmental education classrooms and laboratory, staff and co-located offices, a community meeting area, and space for a refuge support group. A book and gift store is also a possibility. Funding for the renovation was secured with help of the refuge's most accomplished volunteer, Myrna Hayes, who chaired the Northern San Francisco Bay Flyway Festival hosted at the refuge in the past six years.

The environmental education program has prospered since 1997 when the refuge initially established a headquarters on Mare Island. Although the location of the headquarters has changed three times, Fran McTamaney, Environmental Education Coordinator for the San Francisco Bay Complex has continued to develop, improve and upgrade the tailored curriculum that promotes natural resources found on Mare Island and the refuge—presented in a format for grades K-6. The field trips and educator workshops (conducted by appointment) have successfully increased awareness and understanding of northern San Pablo Bay wildlife and habitats in local schools.

The California Department of Fish & Game has been an invaluable partner with the refuge in land management. The unmatched state-federal relations are enabled with help of a Memorandum of Understanding which provides guidelines for seamless management of northern San Pablo Bay wetlands. The mutual goal of managing resident, migratory and endangered species while offering compatible wildlife-

dependent recreation opportunities such as hunting, fishing, wildlife observation, photography, environmental education and interpretation, has laid the groundwork for a successful partnership. The refuge also hopes to partner with many other organizations and agencies to continue preserving and restoring one of the most unique natural areas of the San Francisco Bay estuary.

Marin Islands National Wildlife Refuge

As you cross the Richmond Bridge heading toward San Rafael, two small islands are visible to the north, just off the shore of Loch Lomond Yacht Harbor. You may not have given the islands another thought, other than they are both small, with one dominated by Monterey pines and eucalyptus trees. What many do not know is that these islands are teeming with abundant bird life, and also a National



Great blue-heron

Wildlife Refuge in the San Francisco Bay National Wildlife Refuge Complex.

Marin Islands National Wildlife Refuge/State of California Ecological Reserve, located in San Rafael, is the newest addition to the San Francisco Bay National Wildlife Refuge Complex. It was established in 1992 when the Crowley family sold the islands to the State of California and the US Fish and Wildlife Service to protect one of the largest egret and heron rookeries in northern California. These islands are also under protection because of its unique island ecosystem, and plans to promote environmental education are in the works.

Although the two islands and adjacent tidelands represent one of the smallest units of the National Wildlife Refuge System with a boundary of only 339 acres, the Marin Islands National Wildlife Refuge/State Ecological Reserve provides vital island habitat for nesting migratory birds which includes great egrets, great blue herons, snowy egrets and black-crowned night herons. Western gulls and ravens also nest on the islands and harbor seals have been recently observed swimming in the shallow tidelands. Black oystercatchers and sea ducks are commonly observed seasonally while harbor seals have been known to haul-out on the Refuge/Reserve, although no use has been observed in recent years.

Although no authorized access onto the islands is available due to safety reasons, sea kayaking, fishing, and wildlife observation is permitted in the waters around the islands from a safe distance. Environmental education of the Refuge/Reserve will be available through interpretive signs in the future and by information provided through the new San Pablo Bay National Wildlife Refuge visitor center on Mare Island in Vallejo.

The Comprehensive Conservation Planning process will be initiated for the Refuge/Reserve in 2002. This plan, which includes wildlife refuge goals and management practices, will encourage the public to voice their concerns and opinions regarding the future direction of the Refuge/Reserve. Land management considerations subject to public support will include large-scale nonnative plant and building removal from the larger of the two islands. By removing unneeded buildings, while maintaining

the water and electricity capabilities, the larger island can be rehabilitated to promote native vegetation, thereby creating opportunities to restore habitat for resident and migratory birds.

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