

Mission Bay: A Vision

Protecting and Restoring A Vital Urban Wetland

By Rebecca Schwartz, Conservation Program Manager

Long-billed Curlew by Ed Henry

During 2011 and 2012, San Diego Audubon led a large-scale conservation planning effort for Mission Bay. Our goal was to bring together stakeholders and experts to answer a seemingly simple question: In terms of Mission Bay conservation, are we doing the work that needs doing?

About Mission Bay

"Mission Bay" is a misnomer. For the majority of the bay's existence, it wasn't really a bay at all, but rather a vast estuary complex covering over 4,000 acres of pristine salt marsh at the mouth of the San Diego River. When sailing down the coast of California in the early 1800s, Spanish explorers so often confused the shallow estuary inlet for

the mouth of the larger, deeper San Diego Bay to the south, that they named the area "Bahia Falsa", or False Bay. This valuable wetland has been dramatically altered since the days of the explorers, replacing salt marsh, mudflat, and eel grass habitats with large hotels, man-made islands, and dredged bays.

The process of alteration began when the first jetty was put in place along

the San Diego River in the mid-1800s. Historically, the San Diego River would periodically change course, emptying into San Diego Bay until the build-up of sediment forced it northward again into the estuary of Bahia Falsa. While this "meandering" is normal for a naturally-flowing river, it was certainly not conducive to the growth of the fledgling city of San Diego. In 1852, the U.S. Army Corps of Engineers built a jetty along the south side of the river from the Presidio to what is now Midway Drive and Frontier Street, beginning a 150-plus-year process of large-scale alteration along this piece of California's coast. The transformation of the wetland ramped up during the post-World War II years of 1945-1962. During this time, the City of San Diego, along with state and federal agencies, worked together to turn Bahia Falsa into Mission Bay Park, the largest aquatic recreational facility in the United States. In doing so, the vast majority of the natural habitats in the bay were destroyed by dredging, with the dredge spoils used as fill to create islands and sand-capped peninsulas.

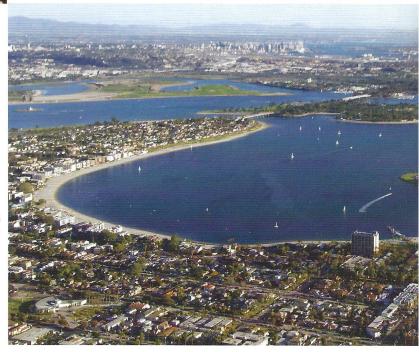
Despite this alteration, the Mission Bay area still supports thousands of waterfowl, shorebirds, and waders. This is especially apparent during migration and winter, when over 5,000 shorebirds utilize the bay during their stops along the Pacific Flyway (see the January 2014 *Sketches* for details about the Pacific Flyway). In fact, Mission

Bay has been designated as a Globally Important Bird Area (or Global IBA) by BirdLife International and the National Audubon Society because of its value as a hotspot for avian biodiversity. The bay supports several threatened and endangered species, including resident populations of Belding's Savannah Sparrow (state-listed endangered) and migratory Brant (California state species of special concern), the latter of which appear during winter to feed in eelgrass beds. The resident Light-footed Clapper Rail and migratory California Least Tern, both federally-listed endangered species, have populations within the Mission Bay IBA, and the area is also home to the Nuttall's Lotus, a rare dune plant designated as "seriously endangered" by the California Native Plant Society.

Remnants of the once-vast estuary complex in Mission Bay are now restricted to three areas of ecologically valuable salt marsh habitat: the 200-acre Southern Wildlife Preserve (habitat that has developed in the soft-bottomed channel of the San Diego River in the years since channelization), the 40-acre Kendall Frost Reserve/Northern Wildlife Preserve in the north-east corner of the bay, and the 37-acre Famosa Slough. The Slough, an urban wetland preserve, was originally part of the Mission Bay estuary complex but has been hydrologically separated from the bay since the channelization of the San Diego River. These salt marshes complement the other important habitats in Mission Bay, including eelgrass beds, exposed shoreline/sandy beaches, and alkali flats, plus the open water of the bay itself.

Conservation in Mission Bay

Many organizations, including the City of San Diego, state and federal wildlife agencies, and several non-profits, work collaboratively to manage and enhance sensitive habitat within Mission Bay. San Diego



Beach Primrose (above left) and arial view of Mission Bay Park by Karen Straus.

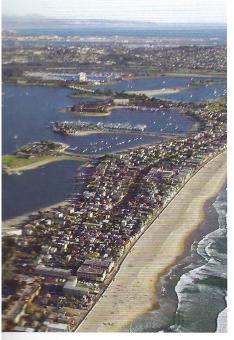
Audubon's Conservation Program helps to coordinate ecosystem-based adaptive management of sensitive wildlife and their habitats in Mission Bay. We are dedicated not only to the conservation of the thousands of birds that rely on the bay's resources, but also the myriad of other flora and fauna integral to the health and function of the ecosystem. San Diego Audubon has been working to restore California Least Tern habitat at Mariner's Point for over 20 years and began working in the wetlands of Mission Bay with a Mangrove Eradication Project in 2007, which aimed to remove an invasive plant that was threatening Lightfooted Clapper Rails in the northeast corner of the bay.

Our current work includes adaptive management and restoration of three designated California Least Tern nesting sites and two Nuttall's Lotus sites. San Diego Audubon is also working to protect the Lightfooted Clapper Rail through high-tide population counts, and with the Mission Bay Wetlands Initiative (more on that below). Overall, San Diego Audubon engages more than 200 volunteers per year in Mission Bay who donate thousands of volunteer hours towards community-based conservation of sensitive wildlife habitat in this designated Global IBA.

During 2011 and 2012, San Diego Audubon led a large-scale conservation planning effort for Mission Bay. Our goal was to bring together stakeholders and experts to answer a seemingly simple question: In terms of Mission Bay conservation, are we doing the work that needs doing? To answer that question, we held two planning

workshops in 2011 in collaboration with Audubon California, SeaWorld San Diego, California Native Plant Society, San Diego River Park Foundation, City of San Diego, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and several independent biologists. The group identified seven key conservation targets in Mission Bay, significant threats that are negatively affecting those





targets, and the most effective conservation actions that we can take. Following those workshops, there was enough interest in three targets (California Least Tern, Light-footed Clapper Rail, and Nuttall's Lotus) to form dedicated working groups that met quarterly for over two years to come up with detailed species assessments and action plans. The results of the workshops and working groups were then synthesized by San Diego Audubon staff into a single "Mission Bay Conservation Action Plan", recently presented to all of the planning process participants on March 4, 2014.

As Chris Redfern, Executive Director of San Diego Audubon, noted, "This planning effort has already resulted in over \$200,000 of project funding to San Diego Audubon, helping us to protect much more critical habitat for endangered species in Mission Bay." This funding has supported adaptive management of California Least Tern habitat, restoration of a historically important nesting site (FAA Island), a volunteer predator monitoring project, and a Light-footed Clapper Rail high-tide count in the Kendall Frost Marsh Reserve.

Mission Bay Wetlands Initiative

One of the most exciting projects to come out of the conservation planning process is the Mission Bay Wetlands Initiative, which aims to protect and restore 270 acres of salt marsh in the northeast corner of Mission Bay, contiguous with the Kendall Frost/Northern Wildlife Preserve. Not only will this initiative provide crucial habitat for wildlife in Mission Bay, expanding the marsh will also increase the scope of ecosystem services the wetland is able to provide. These services include coastline stabilization, water quality control, and (increasingly important) a buffer against future sea level rise in the face of global climate change. The first step of this optimistic undertaking is a large-scale feasibility study that will analyze methods to expand and improve at least 100 acres of tidal marsh and mudflat habitats and reestablish the historic connection between Rose Creek and the Kendall Frost Marsh Reserve. Other benefits of this significant project would include expanded opportunities for education, research, recreation

and community engagement. The goal of this feasibility study is to work with stakeholders, a Technical Advisory Committee (TAC), and a consulting firm to come up with a set of conceptual restoration approaches robust enough to begin environmental review.

In late 2013, this feasibility study was added to the Work Plan of the Southern California Wetlands Recovery Project (WRP). The WRP is a group of 18 partner state and federal agencies (including the state Coastal Conservancy and the U.S. Fish and Wildlife Service, among others) which have come together to identify and support wetland

restoration projects in Southern California. Their "Work Plan" represents a mutually vetted list of priority projects, and by inclusion on this list, the feasibility study of San Diego Audubon's Mission Bay Wetlands Initiative, (a \$430,000 effort) is eligible for new funding opportunities. Representatives from WRP member agencies from around the state met with San Diego Audubon staff and partners at a site visit to Mission Bay on February 11, and San Diego Audubon will be working closely with these agencies to fund the project over the coming months.

Even before large-scale funding has been secured for the feasibility study, the Mission Bay Wetlands Initiative has become a priority for San Diego Audubon in terms of building community involvement in and support for the project. Thanks to a recent Collaborative Grant from the National Audubon Society, San Diego Audubon has been involved with community outreach and engagement, including leadership in the 2014 Love Your Wetlands Day at the Kendall Frost Marsh (hosted by the UC Natural Reserve System), and through taking the lead in establishing the Technical Advisory Committee to help guide planning efforts. Most recently, San Diego Audubon was awarded a WRP Community Wetland Restoration Grant to re-vegetate native plants in the upland area of the marsh. "We are excited and grateful to

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continue with San Diego Audubon the upland restoration work begun with San Diego EarthWorks and the U.S. Fish and Wildlife Service," says Isabelle Kay, Manager of the Kendall Frost Marsh Reserve for the UC Natural Reserve System, "It's a great opportunity to engage and inform local Pacific Beach community members through close up, hands-on learning and volunteer projects."

Timing Is Everything

This is an especially exciting time for doing conservation work in Mission Bay, especially wetland restoration, because of a couple key timing opportunities. Virtually all of the available open space in and around Mission Bay is addressed in the 1994 Mission Bay Park

Master Plan, which lays out guidelines for restoration and enhancement of sensitive habitat. While this plan secures the remnant salt marsh preserves and designated nesting habitat from development, both direct and indirect human disturbances (e.g. trampling and urban predators, respectively) remain a constant threat. The 2002 update to the Master Plan specifically calls for the restoration of wetland habitat contiguous with the Northern Wildlife Preserve at the mouth of Rose Creek. However, very little has happened on that front because most of the area adjacent to the Northern Wildlife Preserve is

occupied by Campland by the Bay (a recreational vehicle resort) and the DeAnza Mobile Home Park (to the east of Rose Creek). The lease for the DeAnza Mobile Home Park expired in 2003 and the lease for Campland by the Bay expires in 2017. In just three short years, the City of San Diego will be in a position to adhere to their own Master Plan and restore vital wetland habitat in the northeast corner of the bay, providing crucial support for the endangered species that live and breed in Mission Bay every year. "This is an unprecedented opportunity, not only for the City of San Diego but for the entire region," says Jim Peugh, Chair of the San Diego Audubon Conservation Committee, "Nowhere else in Southern California is there a potential for such a large scale wetland restoration project, especially one immediately adjacent to

healthy, existing marsh."

The natural history of Mission Bay is evident everywhere – from the Long-billed Curlews we see wading along the edges of Fiesta Island to the endangered California Least Terns that arrive each April to breed. The area has no doubt been transformed from its original state, but with our help we can perhaps bring back a piece of Bahia Falsa – one where the importance of estuaries for both wildlife and society is understood, where we can once again know the feeling of looking out over native California wildlands with awe and wonder.

Snowy Egret, by Karen Straus



Americorps Team Green :

Bobcats, Mountain Lions and Mule Deer are just some of the species seen in the prospective 28-acre addition to Silverwood near Wiedenhoff Peak. As we go to press, the land transfer looks increasingly hopeful. Bobcat photo by Tom Medvitz.

Silverwood Scene By Phillip Lambert, Silverwood Manager

During the month of February Silverwood received more the 200 visitors. Among those who visited were 83 4th grade students from Rolando Elementary School from the La Mesa-Spring Valley School District. On February 8th an OutdoorExplore! for Families event brought out several families including nine children. The groups of families were lead by Janice Swaisgood on an exploration nature hike along Silverwood's trails. The children observed many types of wildlife including Slender Salamanders (Batrachoseps pacificus), Common Scorpion (Paruroctonus silvestrii) and many species of birds.

We have been busy doing work projects this month with AmeriCorps members from Team Green 7. The team of ten members has helped to construct a memorial bench, a birdseed storage box in the observation area and performed maintenance on more than two miles of Silverwood's trails along with several other projects. Because to their

