

Seal Beach NWR Comprehensive Conservation Plan

Comments from the Wildlife and Habitat Management Review Held June 26, 2007

Habitat and Wildlife Management Issues

Light-footed Clapper Rail

It was pointed out that at higher high tide periods most of the cordgrass within the marsh is completely inundated. The reasons could range from extreme tide elevations, less than optimal cordgrass height, subsidence of the marsh plain, or a combination of these factors.

The quality and height of the cordgrass habitat might be improved if it were possible to restore some freshwater flow into the marsh. Only limited potential for freshwater input is currently available within the Refuge, including a small drainage that carries runoff from adjacent agricultural areas on the Naval Weapons Station into the Case Road Pond and a drainage that travels along Kitt's Highway and empties into the restored wetland just north of Bolsa Avenue.

Introducing additional freshwater into the system raises questions regarding the ability to control the quality of the freshwater inputs. Water quality monitoring is currently being conducted within the Bolsa Chica Channel at Westminster.

There may be some seasonal freshwater flows entering Anaheim Bay via the Bolsa Chica flood control channel. Following significant storm events, freshwater, which is less dense than seawater, floats on top of the higher salinity water. This lens of freshwater can be pushed into the bay by high tides and/or strong winds. The quantity of freshwater that enters the Bay is dependent upon the size of the storm event. Consider conducting a study to quantify the amount of freshwater influence that may be entering the bay from this channel.

Another option for addressing adequate cordgrass habitat for the rail is to provide more cover (emergent vegetation) to improve habitat quality for rails.

The Refuge would also benefit from a study into why the cordgrass is reaching optimal height. Quality could be related to salinity, herbivory, water levels, or perhaps export of sediment from the system.

Raising marsh elevation might be accomplished by pumping sediment onto the marsh allowing the vegetation to grow up through the sediment. In considering this opinion, it is important to take into consideration temporary increases in turbidity and its effect on fish, marine organisms, and eelgrass.

Factors such as sea level rise could also be affecting cordgrass habitat quality. Tide elevations in the marsh should be monitored over time to track long term changes. In addition to sea level rise, the marsh may be experiencing subsidence due to oil extraction occurring in the area.

There is significant predation pressure on clapper rails at this Refuge. This pressure comes primarily from avian predators, and for rails, the highest numbers of potential predators are present during the winter months.

The primary area in the marsh where rails are nesting in native habitat is along the old alignment of Case Road south of the drop tower. If additional areas are provided as potential rail nesting sites, they should reflect the conditions in this area. Elsewhere in the marsh, the rails are using the platforms that have been installed to protect nests and adults from high tide inundation.

The drop tower provides nesting sites for great blue heron which are documented predators of California least tern chicks and light-footed clapper rails. The week of June 25, a great blue heron was observed taking four least tern chicks within the NASA Island colony.

It was suggested that the drop tower which currently supports a heron rookery could be removed or could be netted prior to the breeding season to prevent the establishment of a heron rookery. However, others noted that control of great blue herons and their nesting areas is controversial. Although the current population along the coast appears to be abundant, there is pressure to remove potential nesting areas on private lands and other public lands with the idea that the displaced birds can nest on adjacent reserves and the Refuge. The loss of the drop tower probably will not effect the Refuge heron population because of the availability of eucalyptus trees on the Naval Weapons Station. These trees and the drop tower are about equal distance from the rails and tern nesting site. There may be more prey choices for the herons in the vicinity of the eucalyptus trees.

Existing clapper rail platforms need to be maintained in good repair and the design of these platforms should continue to be perfected. Existing platforms with upright posts should be replaced with a less visible design.

SeaWorld is currently working on developing a new design for the clapper rail platforms. The use of wood and PVC pipe will reduce the amount of platform bobbing that occurs during high tide.

California Least Tern

The issue of whether adequate nesting habitat is available for the California least tern was addressed. The NASA Island site does not appear to have reached its saturation point; therefore, providing a second site should not be a priority. Instead, the focus should be on continuing to reduce predation at the NASA Island site. Providing a second nesting site would require more management within the Refuge.

Several potential nesting sites were suggested including: Oil Island once oil drilling is removed from the site, the triangular area near the 7th Street Pond, or some of the islands within Case Road Pond or 7th Street Pond (although these areas will have to be reviewed to determine what habitats were proposed on these islands as part of the Port of Long Beach restoration project.

Management of the least tern colony should have a great focus on fledgling success, which has been variable over the years.

Fish and Marine Organisms

Habitat for fish appears adequate and erosion appears limited.

Potential research issues include: the extent of and effects from external parasites on Refuge fish populations, and the effects of sedimentation on eelgrass.

In monitoring changes in fish populations over time, consider the data provided in the 5-year Port of Long Beach restoration monitoring plan.

Include in the CCP a proposal to establish baseline data for fish and benthic invertebrates.

Tiger Beetle Management

Obtain information on the diversity and abundance of tiger beetles within the Refuge.

Identify and protect potential habitat and consider restoring additional habitat.

Global climate change, including sea level rise, could effect on the current habitat areas.

General Habitat and Wildlife Management

The shape of the main tidal channels appear to have changed very little from historic photos, however, the depth of the channels may be different. These changes should also be monitored.

In considering the effects of sea level rise on habitats on the Refuge, consider keeping the remaining upland areas on the Refuge at their current elevations to provide for salt marsh vegetation in the future.

Include shorebirds and waterfowl when developing management objectives.

Nixilite or other similar measures should be used to eliminate raptor perches in proximity to clapper rail and tern nesting sites.

Opportunities for Habitat Restoration/Enhancement

North of Case Road Pond (approximately 20 acres)

The area does have upland habitat value and supports finches, blue grosbeak and other seed eaters, as well as hummingbirds. When it floods, ducks are present. Control of invasive plants has been conducted and native bunch grass was planted at that site, however, control the invasive plants must be routinely implemented.

To increase the value of the area as upland habitat, the invasive plants need to be removed and replaced with appropriate native upland species.

Another option would be to restore this area to provide a transition from marsh to upland habitat.

A colonial seabird nesting area could be created with this 20-acre that might also support some nesting by western snowy plovers.

Pond Islands

The elevations of the islands in the Case Road Pond and 7th Street Pond could be raised and enhanced to provide nesting for seabirds. If this is done, the marsh vegetation around the edges should also be maintained to support nesting by Forester's terns.

Triangle Area SE of the 7th Street Ponds

Restoration of wetland/upland transition habitat in the triangle area located to the southeast of the 7th Street Pond was proposed. This habitat could provide good cover for rails during high tides.

Other options: restoration to salt marsh habitat or creation of native upland habitat.

Drop Tower Site

Options included removing the drop tower and retaining the drop tower. If the tower is retained, the area around it would be restored to upland habitat. If it is removed, the area could be restored to wetland or wetland/upland transition habitat.

If the old bunkers and other structures to the east of drop tower are removed, that area could be restored to salt pan habitat, a habitat already found around the edges of the area.

Re-establishing Sensitive Species/Habitats on the Refuge

Salt Marsh Bird's Beak

To establish a population of salt marsh bird's beak along the marsh edge will require the presence of native pollinators. Since the native plant garden has been established, several native pollinators have been observed in the area. There are seeds available from a local source that could be used to attempt once again to reestablish this species on the Refuge. The reintroduction site will need to support the appropriate native host species, have some potential for freshwater runoff during the rainy season, and be at the appropriate elevation within the marsh.

Burrowing Owls

Although burrowing owls do nest on the Naval Weapons Station to the north of the Refuge, they do not appear to be impacting the least tern colony on the Refuge. However, it was not considered wise to establish a nesting area for this species any close to the Refuge, because the owls are nocturnal predators that can devastate a tern colony.

Climate Change and Sea Level Rise

Sea Level Rise

Long term solutions could involve the use of tide gates in the restored areas, and berms and maybe some tide gates in the main part of the marsh.