

6.9 California Least Tern (*Sternula antillarum browni*) – Category SO

Management Units with Known Occurrences

The California least tern is the smallest tern in North America and resides on the coasts, nesting on open beaches. One of the first federally and state-listed endangered species (FE, CE), the California least tern forages in bays and estuaries near their colonies, in the ocean nearshore, and at inland lakes in the coastal lowland (Unitt 2004).

Since 1973, CDFW has been conducting annual surveys of the California least tern. San Diego County's California least tern population rose significantly from a scant 500 pairs in the late 1970s to nearly 4,000 pairs in 2003 due in part to intensive studies, monitoring, and management (Unitt 2004). Southern California beaches are used more by California least terns for unknown reasons, even though viable, but disturbed, nesting habitat occurs north of Los Angeles County. Except for 1980 and 1981, San Diego County has contained the most populous clusters of breeding least terns (USFWS 2006). This subspecies has few nesting sites that are in a natural condition, such as the mouths of the Santa Margarita and Tijuana Rivers. Unfortunately, no beach is devoid of human recreation, development, or military pressure (Unitt 2004; USFWS 2006)

In 2015, 18 sites were surveyed throughout San Diego County (see online map: <http://arcg.is/2hnO8lg>), with the highest concentrations of estimated breeding pairs occurring within MCB Camp Pendleton. On Conserved Lands, in MUs 1, 6, and 7, Batiquitos Lagoon Ecological Reserve, Mariner's Point, Sweetwater Marsh National Wildlife Refuge, and Tijuana Estuary National Estuarine Research Reserve had estimations of over 100 breeding pairs each. FAA Island, North Fiesta Island, Stony Point, Chula Vista Wildlife Reserve, and South San Diego Bay/ San Diego National Wildlife Refuge -Saltworks all had estimations below 100 breeding pairs (CDFW 2016).

Management Categorization Rationale

The California least tern should be managed as a Species Management Focus Category SO due to a high risk of loss of nesting territories from Conserved Lands in the MSPA and because management of its coastal habitat alone will not ensure its persistence. Management and monitoring of least terns should be based on

each individual area due to site-specific human-related issues and geographical or biological dictation of the general area or nesting site (CDFW 2016).

Factors contributing to the California least tern's Category SO status include a highly limited range affected by the loss and degradation of habitat, expansion of urban development, and disturbances due to human activities (e.g., people and/or their pets walking too close to nesting areas and/or entering nest sites, jet skiing in feeding zones, and military training exercises) (USFWS 1985). Other threats to California least tern include effects from climate change, disturbances due to altered hydrological conditions, and an increasing predator population, both native and introduced, which can cause a significant level of loss to a nesting colony in a matter of days or a single season. However, since some of the California least terns' predators are declining in populations themselves, such as the northern harrier and the western burrowing owl, management of predator control has become a balancing act (Unitt 2004). Since these threats are ongoing and difficult to eliminate, if at all, the California least tern is considered a "conservation-reliant species" due to its reliance on active and intensive conservation management (Scott et al. 2005; Scott and Goble 2006; USFWS 2006).

Management and Monitoring Approach

The overarching goal for California least tern is protect, enhance, and restore occupied and historically occupied habitat to create resilient, self-sustaining populations that provide for persistence over the long term (>100 years).

For the 2017–2021 planning cycle, the management and monitoring approach for the California least tern is to (1) conduct predatory control at breeding colonies; (2) perform routine annual monitoring following protocols following the CDFW monitoring program; (3) inspect habitat of occurrences and document and management need, and (4) implement routine management of habitat as determined during monitoring of tern nesting sites.

For details and the most up-to-date goals, objectives, and actions, go to the MSP Portal California Least Tern summary page: http://portal.sdmmp.com/view_species.php?taxaid=825084.

California Least Tern References

- CDFW (California Department of Fish and Wildlife). 2016. *California Least Tern Breeding Survey 2015 Season*. South Coast Region, San Diego, California, USA.
- Scott, J. M., and D. D. Goble. 2006. Ongoing Threats to Endemic Species. *Science* 312(5773):526–526.
- Scott, J. M., D. D. Goble, J. A. Wiens, D. S. Wilcove, M. Bean, and T. Male. 2005. Recovery of Imperiled Species under the Endangered Species Act: The Need for a New Approach. *Frontiers in Ecology and the Environment* 3(7):383–389.
- Unitt, P. 2004. *San Diego County Bird Atlas*. Proceedings of the San Diego Society of Natural History #39.
- USFWS (U.S. Fish and Wildlife Service). 1985. *Revised California Least Tern Recovery Plan*. U.S. Fish and Wildlife Service. Region 1. Portland, Oregon.
- USFWS. 2006. *California Least Tern (Sternula antillarum browni) 5-Year Review Summary and Evaluation*. Carlsbad Fish and Wildlife Office, Carlsbad, California.