

6.6 Northern Harrier (*Circus cyaneus*) – Category SO

Management Units with Known Occurrences

The northern harrier is a state species of special concern and the only harrier in North America. Also known as the marsh hawk, it is found year-round in San Diego County though more numerous and widespread as a winter visitor than during the breeding season (Unitt 2004). The northern harrier breeds and forages in a variety of open habitats that provide adequate vegetative cover; an abundance of suitable prey; and scattered hunting, plucking, and lookout perches such as shrubs or fence posts. Such habitats include freshwater marshes; brackish and saltwater marshes; wet meadows; weedy borders of lakes, rivers, and streams; annual and perennial grasslands (including those with vernal pools); weed fields; ungrazed or lightly grazed pastures; some croplands; sagebrush flats; and desert sinks (MacWhirter and Bilstein 1996; J. Silveira in preparation.; J. Seay in preparation.; Davis and Niemela 2008). Northern harrier populations continue to decline due to numerous threats faced as described below.

On Conserved Lands, occurrences have been seen in MUs 1, 3, 4, 5, 6, 7, and 8. Unitt (2004) describes the Tijuana River estuary and valley as having the largest concentration of nesting harriers, with up to 13 pairs in MU1 at the Border Field State Park observed in 2002. During the 2009 breeding season, biologists found occurrences in MU1 at the Tijuana River Valley Regional Park (see Table of Occurrences). Baseline surveys at the Lawrence and Barbara Daley Preserve in MU3 had one observation of the harrier in 2010 (County of San Diego Department of Parks and Recreation 2011). In the spring of 2011, RECON biologists observed several occurrences in Otay Ranch Preserve located in MU3 (City of Chula Vista 2012) and once again in the spring and winter of 2013 (see Table of Occurrences).

Management Categorization Rationale

The northern harrier should be managed as a Species Management Focus Category SO because persistence of one or more significant occurrences in the MSPA is at high risk of loss without immediate management action above and beyond that of daily maintenance activities and because management of grasslands and marshes alone will not ensure its persistence. The northern harrier should be managed at a species-specific level of management due to losses of productivity from active predator management aimed at protecting other declining species within the

MSPA, such as the California least tern and the Ridgway's rail (Davis and Niemela 2008).

The primary threat within the MSPA is the overall loss of degradation of nesting and foraging habitat due to urban development. Since the northern harrier nests on the ground, human use of preserves can cause nest failure because of the proximity of people walking near nests, off-leash dogs, and ORVs (Unitt 2004). Other threats include rodenticides, which may limit prey abundance and distribution, and invasive plants changing the landscape of their preferred nesting and foraging habitat. A potential threat to the harrier population in the MSPA may include the effects of prolonged drought from a changing climate, where breeding populations can vary with the amount of rainfall and the abundance of prey (Unitt 2004).

Management and Monitoring Approach

The overarching goal for the northern harrier is to 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 northern harrier is to:

- (1) conduct surveys in 2019 to determine species status and abundance, locate nesting areas, and document threats;
- (2) perform routine monitoring and management actions from 2017 through 2021;
- (3) prepare a management plan in 2020 based off data from previously performed surveys;
- (4) implement the highest-priority management actions for the northern harrier, and
- (5) monitor the implementation of the final management plan at the end of the planning cycle.

For details and the most up-to-date goals, objectives, and actions, go to the MSP Portal Northern Harrier summary page: http://portal.sdmmp.com/view_species.php?taxaid=175430

Northern Harrier References

City of Chula Vista. 2012. 2012-11 Baseline Survey Report for the Northern San Ysidro, McMillin, and Little Cedar Canyon Parcels of the Otay Ranch Preserve. Prepared by RECON Environmental, Inc., San Diego, CA.

County of San Diego Department of Parks and Recreation. 2011. Biological Diversity Baseline Report for the Lawrence and Barbara Daley Preserve, County of San Diego. Prepared by Technology Associates, San Diego, CA.

Davis, J. N., and C. A. Niemela. 2008. Northern Harrier. In Shuford, W. D., and Gardali, T., editors. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

MacWhirter, R. B., and K. L. Bildstein. 1996. Northern Harrier (*Circus cyaneus*), in *Birds of North America* (A. Poole and F. Gill, eds.), no. 210. Acad. Nat. Sci., Philadelphia.

Unitt, P. 2004. *San Diego County Bird Atlas*. Proceedings of the San Diego Society of Natural History #39.