



STAFF REPORT

Meeting Type: Watershed Committee/Board of Directors
Title: Annual Northern Spotted Owl Report
From: Shaun Horne, Watershed Resources Manager
Carl Sanders, Natural Resources Manager
Through: Ben Horenstein, General Manager
Meeting Date: December 12, 2023

TYPE OF ACTION: Action X Information Review and Refer

RECOMMENDATION: Receive staff update relating to the Annual Northern Spotted Owl monitoring work for 2023

SUMMARY: Since 1997, the District has been monitoring Northern Spotted Owl (NSO) in Marin County. Marin County Parks (MCP) and the District have contracted with Point Blue Conservation Science to support annual NSO work. Surveys are primarily on District and MCP lands, but can also include sites on nearby private, municipal, state, and national park lands, because protections for NSO may extend beyond land ownership boundaries. Staff will present the results of the 2023 Annual Monitoring Report.

DISCUSSION: The Northern Spotted Owl (NSO; *Strix occidentalis caurina*), ranging from southern British Columbia to Marin County, California, is one of three subspecies of the Spotted Owl. It is a year-round resident found primarily in older, coniferous forests. The NSO was listed by the U.S. Fish and Wildlife Service (USFWS) as a Federally Threatened subspecies in 1990, with declines mostly attributed to habitat loss. Due to continued declines, the NSO was also approved for listing as Threatened under California's State Endangered Species Act in 2016 (Forsman et al. 2011, USFWS 2011, Dugger et al. 2016). The USFWS now identifies habitat loss and competition from the Barred Owl (*Strix varia*) as the two primary threats to the continued survival of the NSO.

NSO in Marin County are not impacted by commercial tree harvesting operations as in many other parts of their range, but they face other potential threats including habitat loss from development or potentially from high-severity wildfire, noise and/or other disturbance by humans (e.g., construction, landscaping noise, traffic), rodenticide poisoning, climate change, and genetic isolation (Barrowclough et al. 2005, Stralberg et al. 2009, Klein and Merkle 2016, Ganey et al. 2017). Sudden Oak Death (*Phytophthora ramorum*) may also impact NSO by changing forest structure and food availability; the dusky-footed woodrat (*Neotoma fuscipes*), a primary prey of the NSO in Marin County, depends on

oaks for food and shelter, and their abundance has been found to be negatively correlated with Sudden Oak Death (Swei et al. 2011). Additionally, while the invasion of Barred Owls in Marin County has not yet reached the high densities documented in other parts of the NSO range (Jennings et al. 2011, Cormier and Duncan 2021), an increase in Barred Owl numbers would pose a serious threat to the NSO population in Marin (e.g., Dugger et al. 2016, Wiens et al. 2021).

The District works with Point Blue Conservation Science to conduct annual NSO monitoring to inform compliance for watershed operations and projects. The purpose of these surveys is (1) to monitor the population for trends in occupancy and reproductive success over time, and (2) to determine occupancy and nesting status at sites where proposed management activities may occur, so that disturbance to NSO is avoided. Staff will present the results of the 2023 annual monitoring work.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S):

1. Annual Report 2023