December 1, 2020

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Re: Northern spotted owl assessment for 52/54 Fremont Road (APNs: 012-043-011, -012), San Rafael, California

Mr. Dluzak:

This letter provides a habitat and impacts assessment for the federal and state listed northern spotted owl (NSO; *Strix occidentalis caurina*) for two adjacent residential properties located at 52 and 54 Fremont Road (collectively Study Area; APNs: 012-043-011, -012) in the City of San Rafael, Marin County, California. This assessment was performed to address concerns regarding potential impacts to NSO raised by the City for proposed construction activities on the properties. It is WRA's understanding that the proposed action involves construction of a new on-site residence and renovation/rebuilding of an existing residence, as well as the necessary removal of 14 on-site trees for purposes of accommodating the development and fire safety. Specifically, this letter will: 1) provide an NSO habitat assessment for the Study Area; 2) review local NSO occurrence information; and, 3) provide an impacts analysis and related conclusions.

Study Area Description

The Study Area is approximately 0.34 acre in size and consists of two directly adjacent developed or otherwise modified parcels situated on a northeast-facing slope in the western portion of San Rafael. It is immediately bounded by residential development in all directions, though such development is limited in extent on the western side (see below). An existing residential structure is present in the western portion of the site along Fremont Road. Although most of the Study Area's surrounds are developed, tree cover is relatively thick in the area as is typical of much of the vicinity. Within the Study Area, trees present are predominantly native species; coast redwood (*Sequoia sempervirens*) is the most numerous, with California bay laurels (*Umbellularia californica*) also present. The trees present vary in size, though the primary small cluster of on-site redwoods contains some moderate-sized individuals. Throughout the site the understory (shrubbery and small/young trees) has been nearly entirely removed, rendering the property open and park-like. There are several large trees in the immediate vicinity, including hardwoods (e.g., bay laurels, bigleaf maple [*Acer macrophyllus*]) on neighboring properties.

Within a broader context, the Study Area is situated near the central portion of San Rafael and in proximity to the urban thoroughfare of 4th Street (roughly 500 feet to the north). While most of the surrounding area is developed, the Study Area is located in proximity to an irregularly-shaped area of contiguous

forested (undeveloped) land within the City of San Rafael that is very approximately 65-70 acres in size. Approximately 36 contiguous acres of this area consists of preserved land (San Rafael Open Space); much of the remainder (primarily peripheral areas) is zoned for (future) residential development (City of San Rafael 2013). Forest within this area is somewhat variable but best characterized for purposes of this assessment as mixed coniferous-hardwood forest that is typical of much of Marin County. NSO is known to be present in this forested area (see below).

Northern Spotted Owl Background

Natural History

NSO is the resident spotted owl subspecies found in cool temperate forests in the coastal portion of California, from Marin County northward. The natural history of this subspecies is summarized by the USFWS (2008) and Gutiérrez et al. (1995). Typical habitats consist of native old-growth or otherwise mature coniferous forest and mixed coniferous-hardwood forest; younger (second-growth) forest with stands of large/mature trees are also used, particularly in the southern portion of the range (e.g., Marin County). High-quality breeding habitat features a tall, multi-tiered, multi-species canopy dominated by big trees, trees with cavities and/or broken tops, and woody debris and space under the canopy. NSO breeding pairs are usually monogamous and also demonstrate site fidelity, maintaining nesting territories and home ranges across years. The general breeding season is February through August, and nesting occurs on platform-like substrates in the forest canopy. Substrates used as nest sites include tree cavities, epicormic branching (multiple branches forming from a single node), broken tree tops, large horizontal branches, and old nests built by other birds or squirrels. NSO young leave the nest (by gliding and climbing through the canopy) in late May through June, though they remain dependent on their parents for several weeks thereafter as they learn how to fly and forage independently. NSOs forage for nocturnal mammals; dusky-footed woodrats (*Neotoma fuscipes*) are the primary prey in the southern portion of the California range.

Local Occurrence Information

As per the California Department of Fish and Wildlife (CDFW) Spotted Owl Viewer database (CDFW 2020), the undeveloped area of mixed coniferous-hardwood forest to the southwest of the Study Area is occupied by NSO. More specifically, a cluster of recent breeding observations is located on a northeast-facing slope near the ridgeline that forms a threshold between San Rafael and the Town of Ross. The nearest documented NSO nest site is located 0.22 mile (1,550 feet) southwest of the Study Area, where nesting was most recently observed in 2017. Two other nest sites, used in 2016 and 2018-2019 respectively, are slightly to the northwest of the former site and in close proximity. In all cases these nesting locations are within or directly adjacent to preserved San Rafael Open Space land. The nearest individual NSO observation (not associated with nesting) is located approximately 0.21 mile (1,100 feet) to the southwest of the Study Area, adjacent to Terrace Lane in San Rafael.

Habitat Assessment and Survey

Methods

On November 20, 2020 from 12:55 PM to 1:50 PM, I performed a field investigation of the Study Area. The entirety of the subject properties was examined directly, including the various trees present. I evaluated the potential for larger trees on-site trees (and those visible from the Study Area) to support NSO activity, most especially nesting. Using binoculars and the naked eye, trees were visually surveyed

for NSO presence, as well as any potential nesting substrates (platform-like structures) or sign of the species, e.g., whitewash (feces stains) under the canopy. The overall level of disturbances in the area were also noted.

Results

The Study Area and its immediate vicinity provide only marginally suitable NSO habitat elements, namely some medium-sized to large native trees. Canopy is provided primarily by a small cluster of coast redwoods (seven trees) located near the center of the 52 Fremont parcel, all of which are proposed for removal.[1] These redwoods vary in size but the largest are moderate-sized and exhibit some canopy complexity, e.g., elevated gnarled trunks and limbs. However, these portions of canopy are limited in extent and adjacent to more open zones (including on adjacent developed lots) and thus relatively exposed. The site lacks the dense, contiguous forest that constitutes typical local NSO forest habitat. No arboreal substrates typical of NSO nesting (e.g., broken trees tops, large cavities) sites were observed on-site; the one platform-like feature visible in the aforementioned redwood cluster appeared to be an accumulation of redwood duff (fallen needles/twigs) and was both sagging heavily in the canopy and exposed to the sun. Additionally, the lack of an understory reduces NSO foraging potential, and the developed/residential character of the area results in habitual anthropogenic disturbances, including cars (driving, parking) and sounds from residences, all of which were audible during the site visit. Finally, no NSOs or indication of the species' presence were observed throughout the Study Area.

There is some potential for NSOs occupying the nearby forested (preserved) area to occasionally move through or even roost within the Study Area and adjacent properties (e.g., those to the south and west). However, any utilization of this area is presumably uncommon, ephemeral, and most likely to occur outside of the nesting season, when adults and most especially juveniles (recently fledged birds) disperse and move from core habitat into and through more marginal wooded areas.

Impacts Analysis

The USFWS uses the term "disturbance-only" to describe projects that will not impact NSO habitat directly, but will generate acoustic and/or visible disturbances potentially leading to nest abandonment or other forms or reduced reproductive success (which may be considered "take" under the federal Endangered Species Act). For such projects, potential NSO habitat areas within 0.25 mile of such disturbance point-sources are included in impact analyses (USFWS 2011). Because the Study Area is developed, located within a matrix of existing residential development, and subject to relatively minimal tree removal, the current project is treated as "disturbance only."

The USFWS has published a guiding technical document regarding acoustic and visual disturbances and the potential for harassment of the NSO (USFWS 2006). Regarding visual disturbances, USFWS (2006) provides a general setback distance of 131 feet (40 meters) from active nests (i.e., those with eggs or young, or being attended by adults in preparation for breeding). For acoustic disturbances, using a conservative approach in which ambient/existing conditions in the Study Area are considered "natural ambient" (< 50 decibels [dB]; the lowest such category) and conditions during construction are considered "high" (averaging 81-90 dB), the estimated NSO harassment distance would be 500 feet. Given that 1) the nearest documented NSO nest sites are a minimum distance of 1,550 feet from the Study Area, no adverse impacts to nesting NSO are anticipated as a result of project implementation.

[1] Other trees proposed for removal consist of several very small ornamental (planted) fruit trees, and some small and isolated/exposed redwoods and bay laurels; none of these trees provide any typical NSO habitat.

Summary and Conclusions

While no NSOs or indication of their presence was observed during the site visit, these results should not be used to infer total absence in the general area given the limited scope of the investigation. However, it is my professional opinion that the proposed residential project at 52/54 Fremont Road is unlikely to result in NSO harassment or other adverse impacts to this species, including during the breeding season. This includes the proposed removal of 14 on-site trees. The rationale for this conclusion is as follows:

- The Study Area's immediate surrounds are largely developed lack contiguous stands of large/mature trees. As such, on-site NSO nesting is highly unlikely given the level of disturbance there and the presence of far more suitable (typical) habitat within the nearby area of undeveloped open space, e.g., the preserved stand of mixed forest to the southwest.
- Although on-site nesting by NSO is highly unlikely, it is WRA's understanding that all tree removal associated with the project will occur from September 1 to February 14, outside of the NSO nesting season.
- Available data indicates that NSOs have been observed consistently in recent years in the focal nearby area that provides typical forest habitat. The nearest documented NSO nesting sites are located a minimum distance of 1,550 feet from the Study Area (approximately 0.2 mile).
- The necessary removal of some on-site trees (outside of the NSO nesting season) is not anticipated to impact NSO. This removal will not will preclude potential occasional use (largely incidental) of the immediate area, nor reduce the ability of the species to persist in the local forest preserve.
- Using a technical guidance document from the USFWS, an analysis of anticipated project-related acoustic disturbances indicates that these disturbances are unlikely to harass NSOs that may be present in areas of documented observation and occupancy.

Please contact me with questions or comments.

Sincerely,

Jason Yakich
Senior Wildlife Biologist
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References

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