



# Northern Spotted Owl Habitat Assessment

Hillwalker Vineyards Winery Use Permit P23-00101-UP and Exception  
to the Conservation Regulations P23-00239-UP  
Planning Commission Hearing Date (August 7, 2024)



June 10, 2024

Kevin Morrison  
Hillwalker Vineyards Winery  
405 Alexander Avenue  
Larkspur, CA 94939

Subject: Northern Spotted Owl Habitat Assessment for Hillwalker Vineyards Winery,  
1871 Mount Veeder Road, Napa, Napa County

Dear Mr. Morrison:

This letter report provides a habitat assessment for northern spotted owl (*Strix occidentalis caurina*) (NSO) for the above-referenced project site (Assessor's Parcel No. 034-110-047) in Napa County. The Napa County Planning Department (County), in a letter addressed to Mr. Morrison (dated August 10, 2023), requested the NSO habitat assessment as part of a Use Permit application because this federal and State-listed threatened species is known to occur in the region of the project site. The report was prepared to address the County's concerns of the potential effects of the proposed project on NSO.

## PROJECT DESCRIPTION

Hillwalker Vineyards is proposing driveway improvements for fire code purposes as part of the Use Permit application. The project, beginning at Mt Veeder Road, include the construction of 9 turnout shoulders and 3 areas of intermittent driveway widening along 4,390-feet of driveway (Figure 1; all figures provided in Attachment B). Portion of the proposed project area occurs within potential habitat for NSO.

## METHODS

Prior to conducting fieldwork, the Spotted Owl (SO) Observations Database was reviewed for NSO observations within a 2-mile radius around the project site (California Department of Fish and Wildlife [CDFW] 2023; all references provided in Attachment A). In addition, other readily available literature (Smith 2003) was reviewed for NSO occurrence records in the project vicinity.

LSA biologist Gretchen Zantzing conducted a field survey to assess the potential nesting and roosting/foraging habitat for NSO within an area approximately 330 feet or the greatest extent feasible around the project site; this distance is based on the visual/auditory impact distance suggested by United States Fish and Wildlife Service ([USFWS] 2020). The 330-foot survey area includes the area when most noise (e.g., general construction activity and Mt. Veeder Road noise) and/or visual line-of-sight disturbance distance from a nest would occur (USFWS 2020). The field survey was conducted by walking the driveway and making observations of the adjacent forest. The habitat assessment focused on identifying general habitat characteristics of NSO including forest type, dominant tree species, tree size, relative canopy cover, and slope aspect. In addition, the understory was characterized by identifying shrubs and other dominant plant species and density. The presence of potential prey species, such as the dusky-footed woodrat (*Neotoma fuscipes*), was also noted. Special attention was made to identify any potential nest sites, such as cavities in large

mature trees, broken off snags, mistletoe (*Phoradendron* sp.) clumps, and/or debris accumulations on large horizontal branches that offer typical nesting substrate for NSO. Interpretation of aerial imagery (Google Earth) and available vegetation maps of the area contributed to the habitat assessment as well.

## NORTHERN SPOTTED OWL DATABASE RECORDS

Figure 3 shows observations within a 2-mile radius of the project site. Observations in the SO Observations Database are categorized as nest sites, young, pairs, or activity centers. Spotted owls are characterized as central-place foragers; individuals forage over a wide area and subsequently return to a nest or roost location that is often centrally located (CDFW 2023) within the home range. Activity centers are a site or point within an owl's core use area that represents this central location. Nest sites are typically used to identify activity centers, or in cases where nests have not been identified, breeding-season roost sites or areas of concentrated nighttime detections may be used to identify activity centers.

Activity centers are assigned a unique "MASTEROWL" (MO) number. Generally, each MO number is associated with a cluster of related observations in the same geographic area. Usually (but see below), only one observation per MO number is designated as an activity center. The MO number does not explicitly refer to an individual owl or pair of owls and is not necessarily synonymous with an owl's territory. The group of observations that share an MO number are best thought of as a survey history for a known NSO site, (i.e., a patch of habitat that is currently occupied [or has been occupied in the past] by one or more NSO). The spider diagram aids in visualizing the geographic extent of the site and shifts in habitat use over time.

Based on the SO Observations Database search, a single activity center is within 2 miles of the project site: MO NAP0038 (0.46 mile north of the project site) (Figure 3). This activity center was identified in 1997 by NSO expert Ted Wooster and is west of the Hillwalker Vineyard. Six NSO detections associated with this activity center were made in 2009, 2008, 2005, 2004, 1997, and 1998 and range from 0.15 to 0.65 mile from the project site; most of these detections were west of the project site (Figure 2). There is no data in the SO Observations Database after 2009 for this activity center.

The median home range radius for NSO in interior areas, such as Napa County, is 1.3 miles (USFWS 2012). Based on this data, the project site could be within the MO NAP0038 home range. The latest positive observation associated with this Activity Center was in 2009. Based on the field survey and Google Earth imagery, the habitat surrounding MO NAP0038 is a patchwork of oak woodland, grassland, and agriculture.

## HABITAT ASSESSMENT

The driveway is on a northeast-facing slope along an elevation gradient from about 800 feet in the north to 1,000 feet by the vineyards, dwellings, and outbuildings. An unnamed tributary of Pickle Creek crosses under the driveway through culverts at two locations and drains to a detention basin; no other wetland features were observed on the project site. To the west, the slope rises toward the

ridge line of Bismark Knob at 2,340 feet in elevation; Bismark knob lies on the ridgeline that divides Napa County from Sonoma County.

The primary vegetation type within the project vicinity is oak woodland or riparian woodland forest with an overstory dominated by oaks such as canyon live oak (*Quercus chrysolepis*), California black oak (*Quercus kelloggii*), coast live oak (*Quercus agrifolia*), California buckeye (*Aesculus californium*), bigleaf maple (*Acer macrophyllum*), California madrone (*Arbutus menziesii*), tanoak (*Lithocarpus densiflorus*), California bay (*Umbellularia californica*), and scattered small Douglas fir (*Pseudotsuga menziesii*). Native Coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*) and snowberry (*Symphoricarpos mollis*) is present adjacent to the driveway and within the survey area. Non-native species such as Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*) are also present in the understory. Based on the Napa Baseline Data Report the woodland in the project area is mapped as oak woodland; Thorne et al. (2019) maps this woodland as mixed oak.

A total of 10 trees have been identified for complete or partial removal as part of the driveway modification project.

**Table A: Trees to be Removed**

Turnouts	Tree Species	DBH (inches)	Proposed for Removal
Turnout 1	Coast Live Oak	8	1
	Coast live Oak	12	1
	California Buckeye	6	1
Turnout 2	Coast Live Oak Cluster	12, 8, 6	3
Turnout 3	Coast Live Oak	12, 10, 10	3
Turnout 4	<b>No Tree Removal</b>		0
Turnout 5	<b>No Tree Removal</b>		0
Turnout 6	California Black Oak	8	1
	Live Oak		0
	Live Oak		0
Turnout 7	<b>No Tree Removal</b>		0
Turnout 8	<b>No Tree Removal</b>		0
Turnout 9	<b>No Tree Removal</b>		0

Source: Compiled by LSA from Rangel Gonzales Civil Plans (2023).

DBH = diameter at breast height (about 4 feet above grade)

The forest within the survey area has a generally closed canopy with a shaded, cool understory; however, the canopy is broken and relatively open in some areas, particularly near the vineyards and on the slopes above Mt. Veeder Road. There are scattered, small (less than 10-inches in diameter at breast height) snags in some of the more open canopy areas, but none were observed in the driveway improvement locations. One dusky-footed woodrat nest was observed at the base of a California black oak upslope of the driveway, indicating the presence of this native mammal in the forest. As previously noted, dusky-footed woodrats are an important prey species of NSO. In general, the oak woodland is low in stature and lacking large, mature trees and a multilayered canopy. As noted above, NSO prefer closed canopy stands of forest with large, old trees with cavities, broken tops, snags, and/or platforms such as mistletoe clumps that provide suitable nesting

sites. This suggests that the woodland along the driveway (within 330 feet) is not suitable nesting/diurnal roosting habitat for NSO but could provide nocturnal foraging and dispersal habitat for these birds.

The upland annual grasslands and forbs cover type is present around the vineyard and dwelling area (Figure 4). This area is dominated primarily by weedy, non-native grasses and forbs and is not a habitat generally used by NSO.

## **RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES**

Although NSO nesting and/or diurnal roosting sites are not expected to be present within 330 feet of the proposed project work areas, the following avoidance and minimization measures are recommended.

- Prior to the start of construction, a biologist would provide a training session for all work personnel to identify any sensitive species, including NSO, that may be in the area, their basic habits, how they may be encountered in their work area, and procedures to follow when they are encountered. Any personnel joining the work crew later would receive the same training before beginning work. Upon completion of the education program, employees would sign a form stating they attended the program and understand all protection measures. A pamphlet that contains images of sensitive species that may occur within the project area, environmentally sensitive areas within the project area, key avoidance measures, and employee guidance would be given to each person who completes the training program. These forms would be made available to the resource agencies upon request.
- Even though the presence of NSO within 330 feet of the project site is unlikely, the presence of this species in this area cannot be completely discounted. Therefore, to ensure that potential adverse noise or visual impact effects on NSO are avoided and/or minimized, a preconstruction survey will be conducted in areas of potential NSO habitat within the 330-foot visual line of disturbance contour of the project site. The focus of the survey should be on the detection of the species and potential active nest sites that could be affected by proposed project work. If an active nest is found within the 330-foot contour visual line of disturbance, the start of construction will be delayed until the young have fledged. NSO young generally leave the nest (that is, fledge) in late May or June. If an active nest is found within the 330-foot visual line of disturbance contour, it will be monitored by a qualified biologist to document when the young have left the nest and construction can start.
- If project activities take place between February 1 and September 30, then a qualified biologist should conduct preconstruction survey for other nesting birds no more than 3 days before tree removal. If active nests are found, then an appropriate buffer would be established, and the nest would be monitored for compliance with the federal Migratory Bird Treaty Act and California Fish Game Code Section 3503.

- No project work should be conducted at night.
- To minimize noise generated from the proposed action to the degree possible, all construction equipment, fixed or mobile, will be fitted with properly operating and maintained mufflers consistent with manufacturers' standards.

## SUMMARY AND CONCLUSIONS

Based on the most recent data, there are no known NSO nesting sites or activity centers that have been previously identified within or adjacent to the project site; however, there are four activity centers within a 2-mile radius of the project site (Figure 3). The last definitive observation within 2 miles of the project site was an owl heard by retired CDFW Biologist Ted Wooster in 2009, approximately 0.5 mile west of the project site (Figure 3). Based on the above discussion and field assessment, the oak woodland within 330 feet of the project site does not appear to provide suitable nesting and/or diurnal roosting habitat for NSO due to its generally low stature and lack of large multi-canopied trees; however, this woodland could provide nocturnal foraging and dispersal habitat for NSO. The 11 trees proposed for removal average between 1 and 6 inches in diameter at breast height, are adjacent to an existing active driveway, and are too small to provide suitable NSO nesting and/or diurnal roosting habitat. Therefore, the removal of these trees would not likely adversely affect the nesting and or diurnal roosting NSO. However, as noted above, the presence of NSO in the project area cannot be completely ruled out. Therefore, the above avoidance and minimization measures are provided and, if followed, the proposed driveway improvements related to the widening/turnout areas would not be expected to adversely affect NSO.

If you have any questions or comments, please contact me at (510) 710-9112 or [gretchen.zantzinger@lsa.net](mailto:gretchen.zantzinger@lsa.net) or Eric Lichtwardt at (510) 376-5767 or [eric.lichtwardt@lsa.net](mailto:eric.lichtwardt@lsa.net).

Sincerely,

**LSA Associates, Inc.**



Gretchen Zantzinger  
Senior Wildlife Biologist

Attachments: A: References  
B: Figures

- Figure 1: Regional Location
- Figure 2: Proposed Project and Survey Results
- Figure 3: Land Cover Within 1 Mile
- Figure 4: Spotted Owl Occurrences
- Figure 5: Site Photographs

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## ATTACHMENT A

### REFERENCES

California Department of Fish and Wildlife (CDFW). 2023. Spotted Owl Observations Database. Website: <https://wildlife.ca.gov/Data/CNDDDB/Spotted-Owl-FAQ> (accessed September 5, 2023).

Smith, Ann, ed. 2003. *Breeding Birds of Napa County*. Vallejo, California: Napa-Solano Audubon Society.

Thorne, J.H., R.M. Boynton, A. Merritt, S.K. Rice, E. Kalalipour, and J. Patrick. 2019. The 2016 update to the Napa Vegetation Map of 2004. University of California, Davis.

United States Fish and Wildlife Service (USFWS). 2012. Protocol for Surveying Proposed Management Activities that may Impact Northern Spotted Owls. Portland, Oregon: USFWS. January 9.

\_\_\_\_\_. 2020. Revised Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California.

## **ATTACHMENT B**

### **FIGURES**

Figure 1: Regional Project Location

Figure 2: Proposed Project and Survey Results

Figure 3: Land Cover Within 1 Mile

Figure 4: Spotted Owl Occurrences

Figure 5: Site Photographs



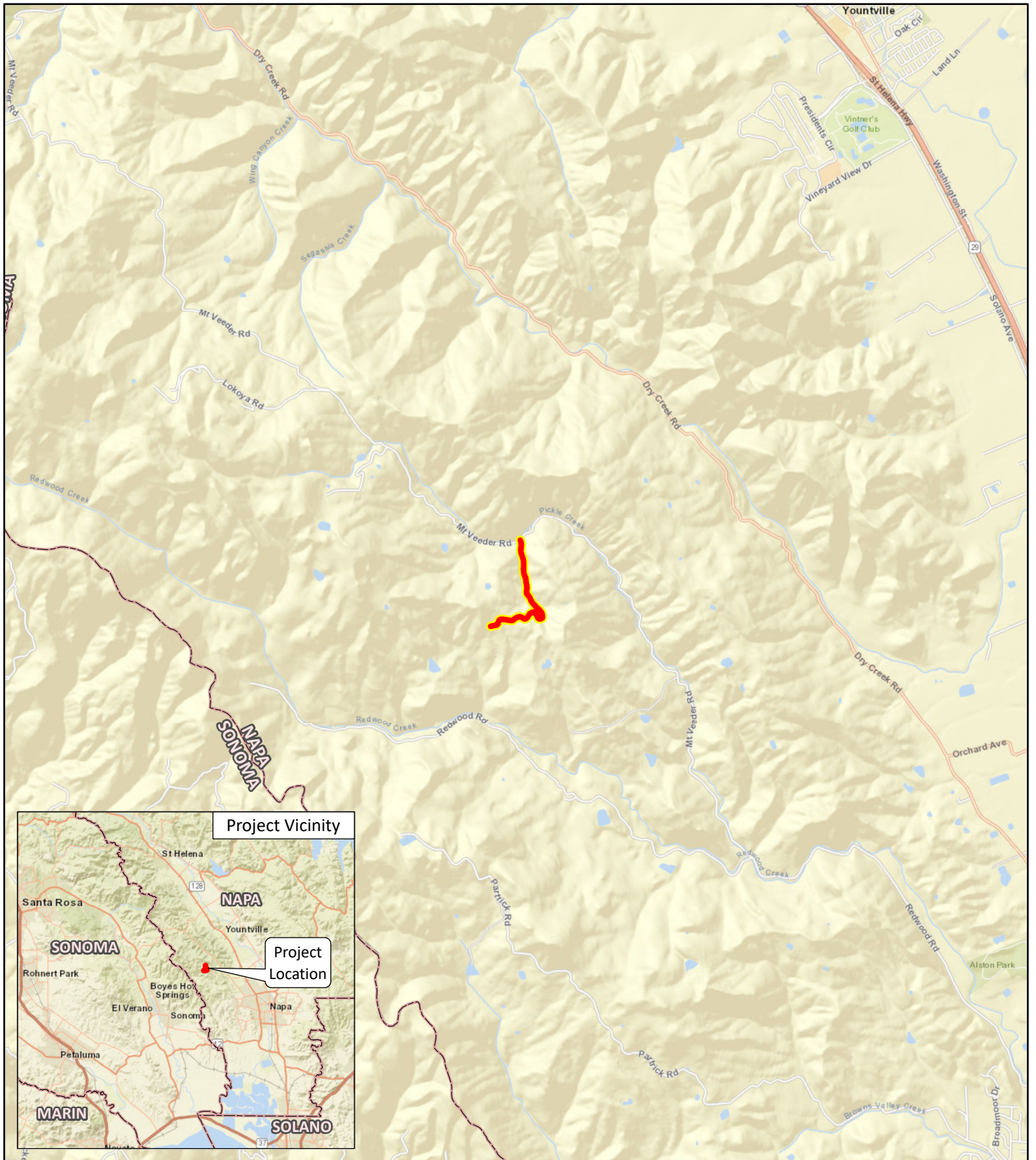


FIGURE 1

LSA

LEGEND

 Project Location



0 2000 4000  
FEET

1871 Mt. Veeder Rd  
Napa County, California  
Regional Location

SOURCE: Stillwater Civil Design (07/2023); Esri World Street Map (2023).

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FIGURE 2

LSA

LEGEND

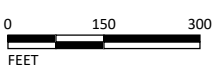
Driveway

Existing Gravel Driveway

Proposed Minimum 22' Wide Gravel Driveway

Proposed 22' Wide Gravel Turnout Location

San Francisco Dusky-footed Woodrat House

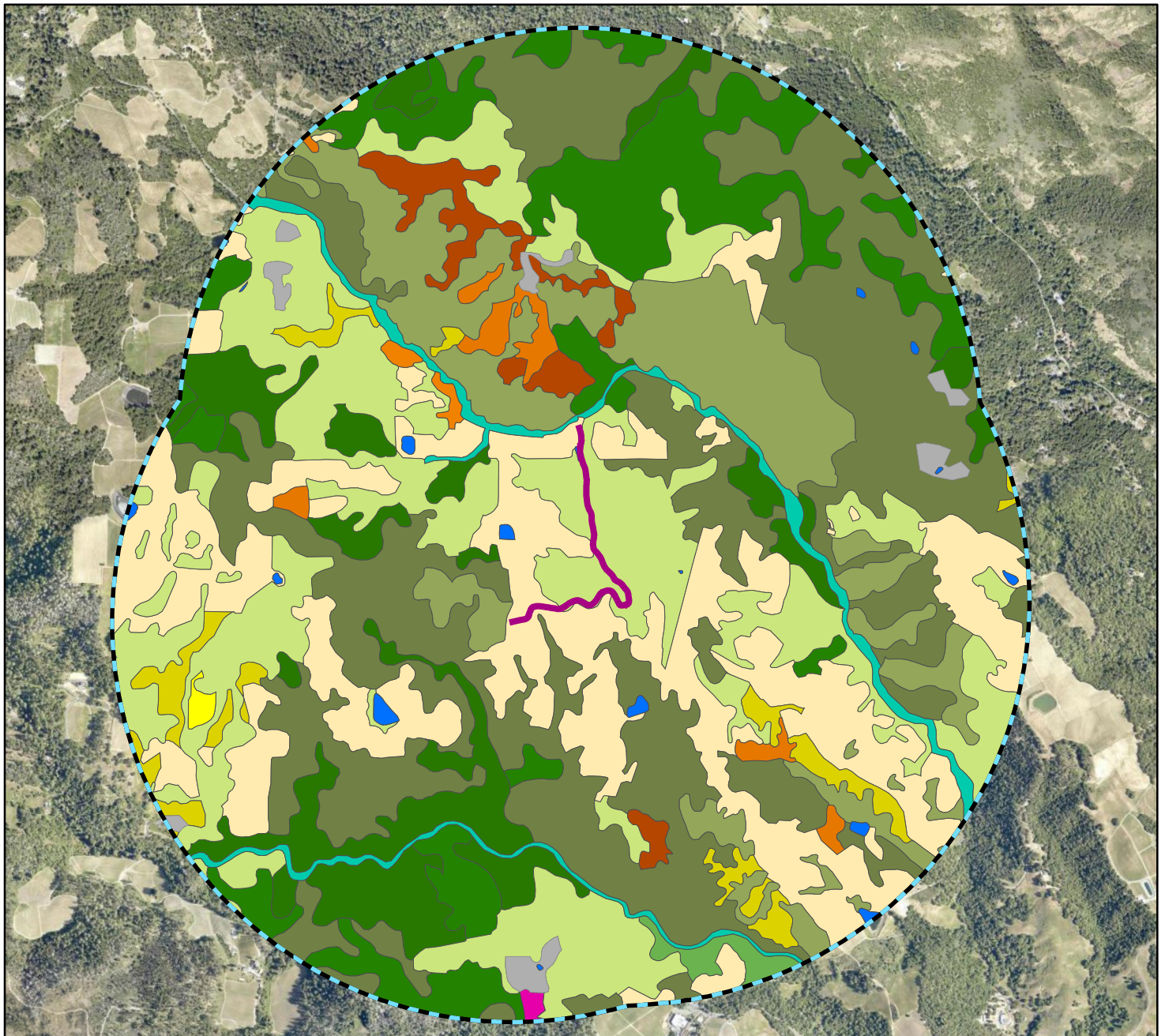


1871 Mt. Veeder Rd  
Napa County, California

















Proposed Project and Survey Results

SOURCE: Stillwater Civil Design (07/2023); Napa County Orthos (04/2021); LSA (09/02/2023).

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Land Cover Types

 Coast Redwood - Douglas-fir / California Bay	 Chamise Alliance
 Douglas-fir	 Mixed Manzanita - (Interior Live Oak - California Bay - Chamise) West County
 Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest	 Sclerophyllous Shrubland
 California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)	 California Annual Grasslands
 Coast Live Oak	 Upland Annual Grasslands & Forbs Formation
 Eucalyptus	 Agriculture
 Mixed Oak	 Urban or Built-up
 White Alder (Mixed Willow - California Bay - Big Leaf Maple) Riparian Forest	 Water

LSA

LEGEND

-  Driveway
-  1-mile Buffer of Driveway

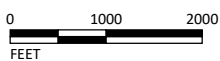
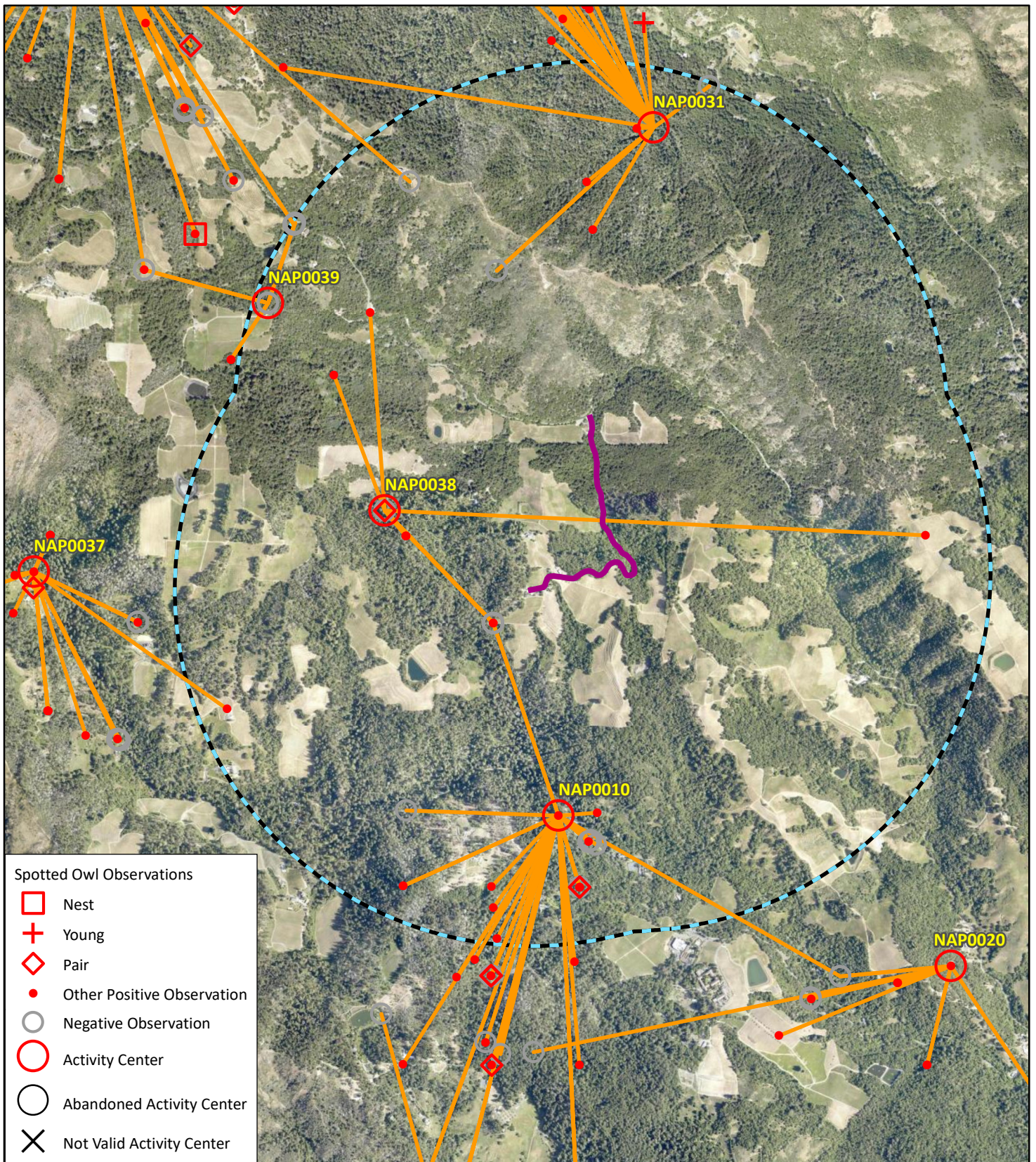


FIGURE 3

1871 Mt. Veeder Rd  
 Napa County, California  
 Land Cover within 1 Mile

SOURCE: Thorne JH, et al. (06/2019); Esri World Imagery (2023).

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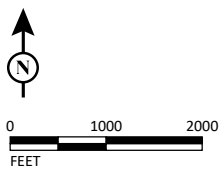


- Spotted Owl Observations
- Nest
  - + Young
  - ◇ Pair
  - Other Positive Observation
  - Negative Observation
  - Activity Center
  - Abandoned Activity Center
  - ✕ Not Valid Activity Center

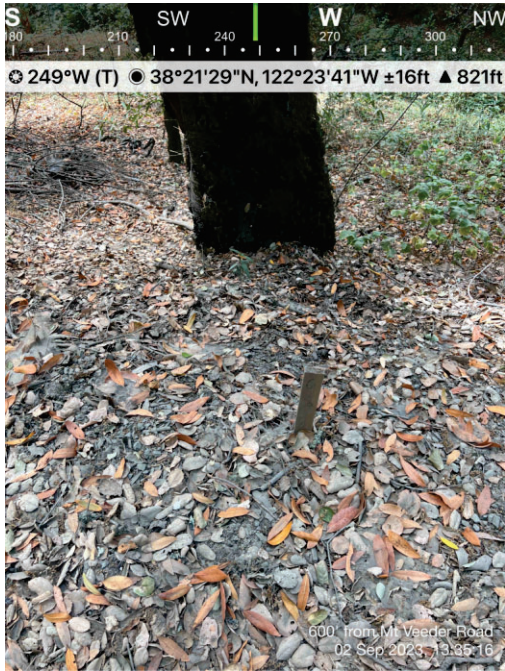
LEGEND  
— Driveway

LSA

FIGURE 4



1871 Mt. Veeder Rd  
 Napa County, California  
 Spotted Owl Occurrences



Turnout 1



Turnout 2



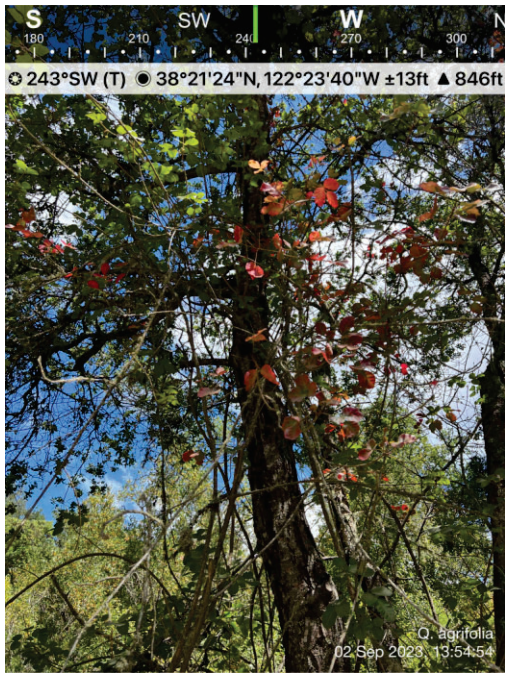
Turnout 3



Turnout 4

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FIGURE 5  
Page 1 of 3



Turnout 5



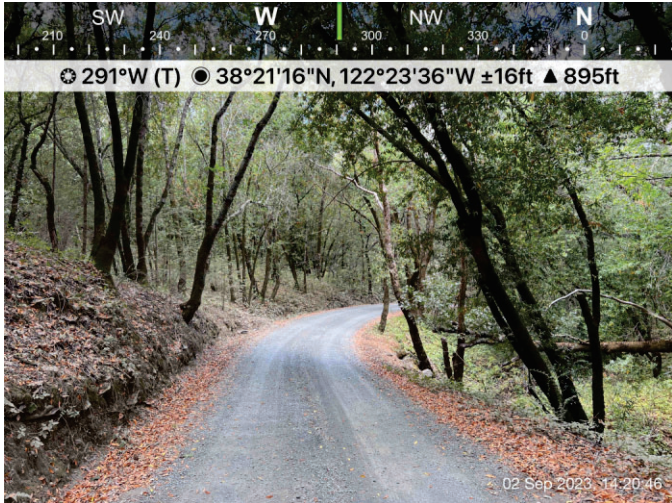
Turnout 6



Turnout 7



Turnout 8



Turnout 9



Widening Area 10