“J”

Biological 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)

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

February 03, 2024

Kevin Morrison
Hillwalker Vineyards
405 Alexander Avenue
Larkspur, CA 94939

Subject: Biological Habitat Assessment for Hillwalker Winery Use Permit
1871 Mount Veeder Road, Napa, Napa County

Dear Kevin:

This letter report provides a focused biological habitat assessment for California giant salamander, foothill yellow-legged frog, and western pond turtle for the above-referenced project site (Assessor's Parcel No. 034-110-047) in Napa County. The Napa County Planning Department (County), in a Zoom meeting with Mr. Morrison (dated December 13, 2023), requested this follow up biological habitat assessment as part of a Winery Use Permit application because a portion of the proposed project area occurs within potential habitat for California giant salamander, foothill yellow-legged frog, and western pond turtle. The California giant salamander and foothill yellow-legged frog are not formally listed; the western pond turtle is proposed for federal listing. These species are known to occur in the region of the project site. This report was prepared to address the County's concerns of the potential effects of the proposed project on these three additional species. A northern spotted owl report that includes the biological setting of the site was previously submitted to you on October 12, 2023. This report was prepared as an addendum to the NSO report that includes a discussion of the natural communities and vegetation map that encompasses the project area.

PROJECT DESCRIPTION

Hillwalker Vineyards is proposing driveway improvements for fire code purposes as part of the Winery Use Permit application. The project, beginning at Mt Veeder Road, includes the construction of 9 turnout shoulders and 3 areas of intermittent driveway widening along 4,390-feet of driveway (Figure 1; all figures attached).

METHODS

Prior to conducting fieldwork, the California Department of Fish and Wildlife's Natural Diversity Database was reviewed for occurrence records within a 2-mile radius around the project site (CDFW 2024)[1].

[1] California Department of Fish and Wildlife. 2024. California Natural Diversity Database. RareFind 5 (version 5.2.14). Website: https://wildlife.ca.gov/Data/CNDDB (accessed January 2024).

In addition, other readily available literature (AmphibiaWeb 2024[2]; Stebbins 2003[3]) was reviewed for observations in the project vicinity.

LSA biologist Gretchen Zantzinger conducted a field survey on January 10, 2024, to assess the potential breeding and estivation habitats for these three herpetological species to the greatest extent feasible around the project site. The survey area includes the locations where general construction activity is proposed to occur and potential dispersal distance from the aquatic features. 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 these species including forest type, as described in the previous NSO report. In addition, the understory was characterized by identifying shrubs and other dominant plant species and density. Interpretation of aerial imagery (Google Earth) and available vegetation maps of the area contributed to the habitat assessment as well.

DATABASE RECORDS

Figure 2 shows previously recorded observations within a 2-mile radius of the project site.

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. See attached NSO report for vegetation type discussion and associated map.

California Giant Salamander

The California giant salamander (*Dicamptodon ensatus*), a California Species of Special Concern, have potential to occur in areas adjacent to the project site. The California giant salamander frequents damp woods in or near streams and may be found under logs, bark, or rocks. However, this species is unlikely to occur in the majority of the project area due to the gravel groundcover. Their breeding requires clear cold perennial streams such as Redwood Creek located to the south. Adult California giant salamander will disperse overland after metamorphosis. The ephemeral drainage that runs north along the driveway is not expected to support breeding on this property, but occurrences of this species have been detected within 0.41 mile in Redwood Creek.

Foothill Yellow-Legged Frog

The foothill yellow-legged frog (*Rana boylii,* pop 1, FYLF) North Coast DPS, a California Species of Special Concern, have potential to occur in areas adjacent to the project site. The FYLF is a frog of

[2] AmphibiaWeb. 2024. AmphibiaWeb. University of California, Berkeley. Website: https://amphibiaweb.org (accessed January 2024).

[3] Stebbins, Robert C. 2003. *Western Reptiles and Amphibians*. Third Edition.

the streams and rivers of the forest, woodland, and chapparal. The frogs may occur in intermittent drainages but are typically found in association with flowing water, especially riffles, and breed after high flows subside. As the streams dry, the juvenile and adult frogs will disperse to the upland to seek moisture elsewhere, under leaf litter and vegetation on the forest floor. Foothill yellow-legged frogs do not often leave the immediate vicinity of their home stream or pool (Stanford University 1999) although recent studies have shown frogs disperse considerable distances (Bourque 2008, Thomson et al. 2016). Different life cycle stages for this species utilize various habitat types for foraging, developing, and overwintering (Thomson et al. 2016). There are two historic occurrence records, 1973 and 1956, approximately 2 miles of the project site, but the steep ephemeral drainage weaving through the driveway is not expected to support breeding of this species as the inundation period may be insufficient for metamorphosis.

Western Pond Turtle

The western pond turtle (*Emmys marmorata*, WPT), a California Species of Special Concern, and proposed federally threatened species, have potential to occur in the detention basin adjacent to the project site. The steep ephemeral drainage that runs intermittently through the project area drains to a fabric lined detention basin near the entrance of the Hillwalker property. The detention basin provides potentially suitable habitat for western pond turtles to reside, though none were observed during the January visit due to the lack of presence or aestivation. Adult western pond turtle will nest in sandy soils and can disperse over several miles. Northwestern pond turtle populations require sufficient numbers of individuals and connectivity for long-term survival, especially in relation to stochastic events such as severe droughts (USFWS 2023b). There are two historic occurrence records from 1999 and 2002 of this species observed more than 2 miles from the project area.

RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES

Although the above referenced species are not expected to be within the compacted gravel driveway improvement areas or ephemeral drainage, 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 California giant salamander, foothill yellow-legged frog, western pond turtle, and northern spotted owl 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.

- No project work should be conducted at night.
- If logs, bark, or rocks are in the driveway improvement areas, a biological monitor should be present during clearing and grubbing activities.
- Install a temporary wildlife exclusion fence between the edge of the pond and driveway improvement locations to prevent animals from entering the work area.

SUMMARY AND CONCLUSIONS

Based on the most recent, available recorded data, there are 4 observations of California giant salamander and 2 observations of foothill yellow-legged frog within 2 miles. No observations of western pond turtle that have been previously identified within 2 miles or adjacent to the project site. Based on the above discussion and field assessment, the Hillwalker property woodland could provide foraging and dispersal habitat for these species. Though driveway improvements are unlikely to impact these species, as noted above, the presence of these special status species 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 impact these special-status species.

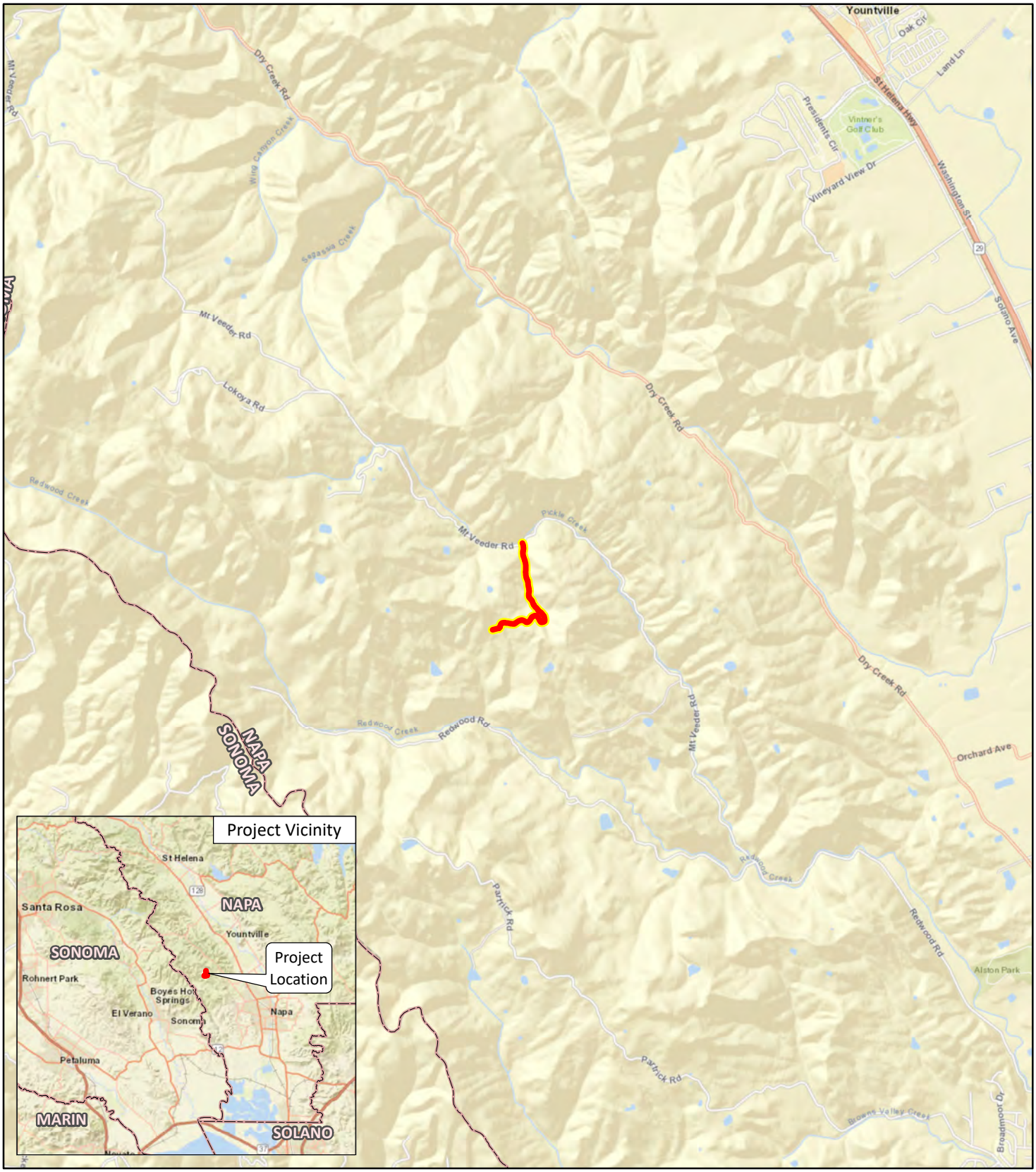
If you have any questions or comments, please contact me at (510) 710-9112 or gretchen.zantzinger@lsa.net.

Sincerely,

LSA Associates, Inc.

Gretchen Zantzinger
Senior Wildlife Biologist

Attachments: Figure 1: Regional Location
Figure 2: Special-Status Herpetological Occurrence Results
Figure 3: Representative Photo Pages
CNDDB Occurrence Records
NSO Report



LSA

LEGEND

Project Location

FIGURE 1

N

0 2000 4000

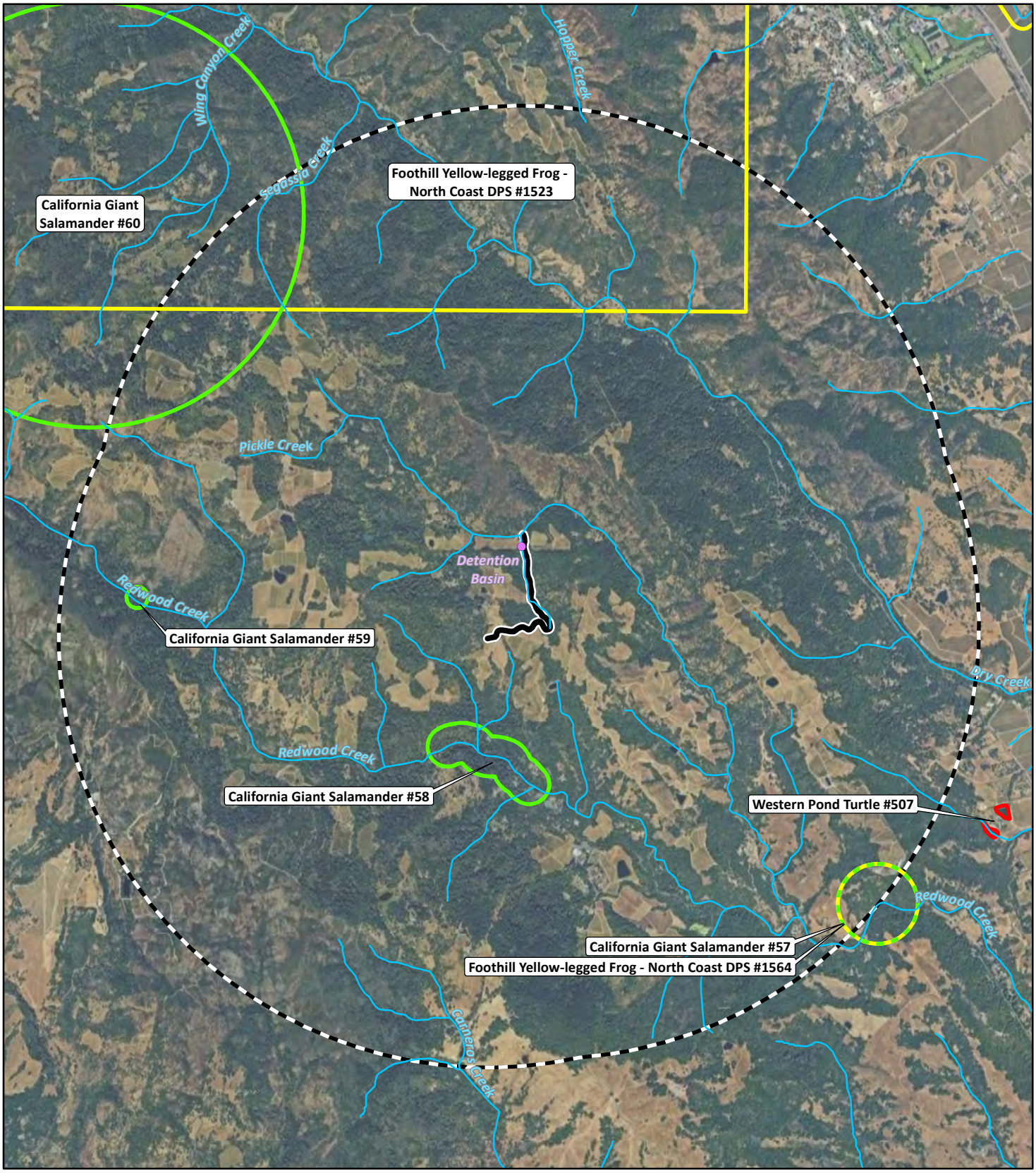
FEET

1871 Mt. Veeder Rd
Napa County, California

Regional Location

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

I:\20231115\GIS\MXD\Bio Report\Figure 1_Regional Location.mxd (1/26/2024)



LSA

LEGEND

- Driveway
- 2-mile Buffer of Driveway
- USGS Blueline Streams
- Detention Basin

CNDDB Occurrences

- California Giant Salamander
- Foothill Yellow-legged Frog - North Coast DPS
- Western Pond Turtle

0 1500 3000
FEET

FIGURE 2

1871 Mt. Veeder Rd
Napa County, California
Special-status Reptile and Amphibian Occurrences within 2 Miles

SOURCE: CDFW CNDDB (01/2024); Napa County (01/2004); Google Maps (2024)..

I:\20231115\GIS\MXD\Herps\Figure 2_Special-status Reptile and Amphibian Occurrences.mxd (2/1/2024)

Photo 1: Ephemeral Drainage

Photo 2: Ephemeral Drainage

Photo 3: Detention Basin (Upper)

Photo 4: Detention Basin (Lower)

LSA

FIGURE 3

Hillwalker Winery
Site Photographs

Photo 5: Culvert flow during precipitation.

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: EOndx IS (41494 OR 59707 OR 76049 OR 98371 OR 98372 OR 98373 OR 98391)

Map Index Number: 97122
EO Index: 98371
Key Quad: Napa (3812233)
Element Code: AAAAH01020
Occurrence Number: 57
Occurrence Last Updated: 2015-08-05

Scientific Name: *Dicamptodon ensatus*
Common Name: California giant salamander

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G2G3
State: S2S3

General Habitat:

KNOWN FROM WET COASTAL FORESTS NEAR STREAMS AND SEEPS FROM MENDOCINO COUNTY SOUTH TO MONTEREY COUNTY, AND EAST TO NAPA COUNTY.

Micro Habitat:

AQUATIC LARVAE FOUND IN COLD, CLEAR STREAMS, OCCASIONALLY IN LAKES AND PONDS. ADULTS KNOWN FROM WET FORESTS UNDER ROCKS AND LOGS NEAR STREAMS AND LAKES.

Last Date Observed: 1979-01-10
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1979-01-10
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG REDWOOD CREEK, ABOUT 3.9 ROAD MILES ALONG REDWOOD ROAD FROM HIGHWAY 29, WEST OF NAPA.

Detailed Location:

MAPPED WITH RESPECT TO THE SPECIMEN DESCRIPTION AND AN AREA OF REDWOOD CREEK THAT MIGHT BE MORE ACCESSIBLE; SEVERAL HOMES ALONG ROAD, BUT THE CREEK AND HABITAT MAY BE ACCESSIBLE WHERE THE ROAD CROSSES OVER THE CREEK.

Ecological:

Threats:

General:

ONE COLLECTED ON 10 JAN 1979.

PLSS: T06N, R05W, Sec. 25, S (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4243166 E555534
Latitude/Longitude: 38.33491 / -122.36456
Elevation (feet): 350

County Summary:	Quad Summary:
Napa	Napa (3812233)

Sources:

JON79S0003 JONES, R. - MVZ #170922 COLLECTED 3.9 MI W (BY ROAD) NAPA REDWOOD RD 1979-01-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97123	**EO Index:**	98372
Key Quad:	Sonoma (3812234)	**Element Code:**	AAAAH01020
Occurrence Number:	58	**Occurrence Last Updated:**	2015-08-05

Scientific Name: *Dicamptodon ensatus*

Common Name: California giant salamander

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G2G3

State: S2S3

General Habitat:

KNOWN FROM WET COASTAL FORESTS NEAR STREAMS AND SEEPS FROM MENDOCINO COUNTY SOUTH TO MONTEREY COUNTY, AND EAST TO NAPA COUNTY.

Micro Habitat:

AQUATIC LARVAE FOUND IN COLD, CLEAR STREAMS, OCCASIONALLY IN LAKES AND PONDS. ADULTS KNOWN FROM WET FORESTS UNDER ROCKS AND LOGS NEAR STREAMS AND LAKES.

Last Date Observed:	1985-05-19	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1985-05-19	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG REDWOOD CREEK / REDWOOD RD, ABOUT 0.75 MI E OF CASTLE ROCK, ABOUT 6.5 ROAD MILES NW OF HIGHWAY 29, WEST OF NAPA.

Detailed Location:

MAPPED NON-SPECIFICALLY WITH RESPECT TO SPECIMEN LOCALES.

Ecological:

Threats:

General:

ONE COLLECTED ON 10 JAN 1979. TEN COLLECTED ON 19 MAY 1985.

PLSS:	T06N, R05W, Sec. 22, S (M)	**Accuracy:**	non-specific area	**Area (acres):**	72
UTM:	Zone-10 N4244279 E552529	**Latitude/Longitude:**	38.34512 / -122.39886	**Elevation (feet):**	650

County Summary:	**Quad Summary:**
Napa	Sonoma (3812234)

Sources:

GOO85S0007	GOOD, D. & W. RAINEY - MVZ #203123, 203124, 203125, 203126, 203127, 203128, 203129, 203130, 203131 & 203132 COLLECTED FROM REDWOOD CREEK, 6.7 MI W HWY 29 (IN NAPA) ON REDWOOD RD 1985-05-19
JON79S0004	JONES, R. - MVZ #192614 COLLECTED 6.2 MI W (BY ROAD) NAPA REDWOOD RD 1979-01-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	97124	**EO Index:**	98373
Key Quad:	Sonoma (3812234)	**Element Code:**	AAAAH01020
Occurrence Number:	59	**Occurrence Last Updated:**	2015-08-05

Scientific Name: *Dicamptodon ensatus*

Common Name: California giant salamander

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

CNDDB Element Ranks: **Global:** G2G3

State: S2S3

General Habitat:

KNOWN FROM WET COASTAL FORESTS NEAR STREAMS AND SEEPS FROM MENDOCINO COUNTY SOUTH TO MONTEREY COUNTY, AND EAST TO NAPA COUNTY.

Micro Habitat:

AQUATIC LARVAE FOUND IN COLD, CLEAR STREAMS, OCCASIONALLY IN LAKES AND PONDS. ADULTS KNOWN FROM WET FORESTS UNDER ROCKS AND LOGS NEAR STREAMS AND LAKES.

Last Date Observed:	2005-02-06	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2005-02-06	**Occurrence Rank:**	Unknown
Owner/Manager:	LAND TRUST OF NAPA COUNTY	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG REDWOOD CREEK IN DEVILS CANYON, 1.7 MILES SSE OF MOUNT VEEDER, ARCHER TAYLOR PRESERVE, NW OF NAPA.

Detailed Location:

MAPPED TO SPECIMEN COORDINATES.

Ecological:

Threats:

General:

1 COLLECTED ON 6 FEB 2005.

PLSS:	T06N, R05W, Sec. 20, NE (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4245403 E549955	**Latitude/Longitude:**	38.35540 / -122.42824	**Elevation (feet):**	1,300

County Summary:	**Quad Summary:**
Napa	Sonoma (3812234)

Sources:

DEV05S0012	DEVITT, T. & S. CAMERON - MVZ #249022 COLLECTED AT DEVILS CANYON, ARCHER TAYLOR PRESERVE, NAPA CO, CA, 353 M, 38.35541, -122.42825, WGS 84 2005-02-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97142
Key Quad: Rutherford (3812244)
Occurrence Number: 60
EO Index: 98391
Element Code: AAAAH01020
Occurrence Last Updated: 2015-08-06

Scientific Name: *Dicamptodon ensatus*
Common Name: California giant salamander

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2G3
State: S2S3
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_NT-Near Threatened

General Habitat:

KNOWN FROM WET COASTAL FORESTS NEAR STREAMS AND SEEPS FROM MENDOCINO COUNTY SOUTH TO MONTEREY COUNTY, AND EAST TO NAPA COUNTY.

Micro Habitat:

AQUATIC LARVAE FOUND IN COLD, CLEAR STREAMS, OCCASIONALLY IN LAKES AND PONDS. ADULTS KNOWN FROM WET FORESTS UNDER ROCKS AND LOGS NEAR STREAMS AND LAKES.

Last Date Observed: 1981-04-02
Last Survey Date: 1981-04-02
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

ALONG MOUNT VEEDER ROAD NEAR LOKOYA AND ENCHANTED HILLS ON EAST SIDE OF MOUNT VEEDER, ABOUT 4 MILES WSW OF YOUNTVILLE.

Detailed Location:

SPECIMEN LOCALE STATED AS MOUNT VEEDER. CONSIDERING ACCESSIBILITY AND OTHER COLLECTIONS BY WAKE ET AL. ON THIS DATE, IT IS MOST PLAUSIBLE THAT THE COLLECTION OCCURRED ALONG MOUNT VEEDER ROAD. NEED RESEARCH.

Ecological:

Threats:

General:

ONE COLLECTED ON 2 APR 1981.

PLSS: T06N, R05W, Sec. 08 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4248271 E549571
Latitude/Longitude: 38.38127 / -122.43243
Elevation (feet): 1,300

County Summary:

Napa, Sonoma

Quad Summary:

Sonoma (3812234), Rutherford (3812244)

Sources:

SES81S0001 SESSIONS, S. & D. WAKE - MVZ #192638 COLLECTED FROM MT VERDER [ASSUMED TYPO OF MT VEEDER] 1981-04-02

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 59671
Key Quad: Rutherford (3812244)
Occurrence Number: 1523

EO Index: 59707
Element Code: AAABH01051
Occurrence Last Updated: 2005-01-27

Scientific Name: *Rana boylii pop. 1*
Common Name: foothill yellow-legged frog - north coast DPS

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G3T4
State: S4

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

NORTHERN COAST RANGES NORTH OF SAN FRANCISCO BAY ESTUARY, KLAMATH MOUNTAINS, AND CASCADE RANGE INCLUDING WATERSHED SUBBASINS (HU 8) LOWER PIT, BATTLE CREEK, THOMES CREEK, AND BIG CHICO CREEK IN LASSEN, SHASTA, TEHAMA, AND BUTTE COUNTIES.

Micro Habitat:

PARTLY SHADED SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS. NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING AND AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 2003-09-19
Last Survey Date: 2003-09-19
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:

SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:

PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

HABITAT CONSISTS OF A PERENNIAL SEEP, WHICH FLOWS INTO A SMALL TRIBUTARY TO DRY CREEK; SURROUNDING HABITAT IS CHAPARRAL, WITH PATCHES OF MIXED EVERGREEN.

Threats:

General:

PLSS:
Accuracy: 2/5 mile
Area (acres): 0
UTM:
Latitude/Longitude:
Elevation (feet): 1,600

County Summary:	Quad Summary:
Napa	Rutherford (3812244)

Sources:

MIC03F0002 MICHAUD, J. (PRUNUSKE CHATHAM, INC.) - FIELD SURVEY FORM FOR RANA BOYLII 2003-09-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 97122
Key Quad: Napa (3812233)
Occurrence Number: 1564
EO Index: 76049
Element Code: AAABH01051
Occurrence Last Updated: 2018-08-20

Scientific Name: *Rana boylii pop. 1*
Common Name: foothill yellow-legged frog - north coast DPS

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3T4
State: S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
USFS_S-Sensitive

General Habitat:

NORTHERN COAST RANGES NORTH OF SAN FRANCISCO BAY ESTUARY, KLAMATH MOUNTAINS, AND CASCADE RANGE INCLUDING WATERSHED SUBBASINS (HU 8) LOWER PIT, BATTLE CREEK, THOMES CREEK, AND BIG CHICO CREEK IN LASSEN, SHASTA, TEHAMA, AND BUTTE COUNTIES.

Micro Habitat:

PARTLY SHADED SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS. NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING AND AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.

Last Date Observed: 1972-10-15
Last Survey Date: 1972-10-15
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

ALONG REDWOOD CREEK; ABOUT 3 ROAD MILES WNW OF DRY CREEK RD & REDWOOD CREEK RD JCT NW OF NAPA.

Detailed Location:

MVZ STATED LOCALITY: "REDWOOD CREEK, 3 MI FROM JCT REDWOOD AND DRY CREEK RDS; NAPA COUNTY."

Ecological:

Threats:

General:

1 COLLECTED ON 15 OCT 1972 (MVZ 136250). IT APPEARS THAT JENNINGS & HAYES INDICATE THAT THIS SITE IS EXTIRPATED. NEEDS FURTHER FIELD RESEARCH AND REPORTING.

PLSS: T06N, R05W, Sec. 25, S (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4243166 E555534
Latitude/Longitude: 38.33491 / -122.36456
Elevation (feet): 350

County Summary:

Napa

Quad Summary:

Napa (3812233)

Sources:

CAS72S0012	CASE, S. (UNIVERSITY OF CALIFORNIA, BERKELEY) - MVZ #136250 REDWOOD CREEK, 3 MI FROM JCT. REDWOOD AND DRY CREEK RDS. 1972-10-15
JEN94R0001	JENNINGS, M. & M. HAYES - AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN IN CALIFORNIA. FINAL REPORT SUBMITTED TO DFG, INLAND FISHERIES DIVISION, RANCHO CORDOVA. 255 PP. 1994-11-01

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41494
EO Index: 41494
Key Quad: Napa (3812233)
Element Code: ARAAD02030
Occurrence Number: 507
Occurrence Last Updated: 1999-08-18

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

Listing Status: **Federal:** Proposed Threatened
State: None
Rare Plant Rank:

CNDDB Element Ranks: **Global:** G3G4
State: S3
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:

A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:

NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 1999-05-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-05-15
Occurrence Rank: Fair
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

WSW OF THE INTERSECTION OF DRY CREEK ROAD AND ORCHARD AVENUE, NNW OF NAPA.

Detailed Location:

SITE CONSISTS OF TWO AGRICULTURAL RESERVOIRS USED FOR VINEYARD IRRIGATION AND FROST PROTECTION.

Ecological:

HABITAT CONSISTS OF TWO AGRICULTURAL RESERVOIRS SURROUNDED BY ABANDONED VINEYARD AND UPLAND OAK WOODLAND.

Threats:

General:

15+ ADULTS OBSERVED ON 15 MAY 1999. SITE IS GOING TO BE REPLANTED AS A VINEYARD AND ONE OF THE RESERVOIRS WILL BE EXPANDED.

PLSS: T06N, R05W, Sec. 25 (M)
Accuracy: specific area
Area (acres): 3
UTM: Zone-10 N4243870 E556471
Latitude/Longitude: 38.34120 / -122.35380
Elevation (feet): 250

County Summary:	Quad Summary:
Napa	Napa (3812233)

Sources:

KJE99F0001	KJELDSEN, D. & C. KJELDSEN (KJELDSEN BIOLOGICAL CONSULTING) - FIELD SURVEY FORM FOR CLEMMYS MARMORATA MARMORATA 1999-05-15

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

October 12, 2023

Kevin Morrison
Hillwalker Vineyards
405 Alexander Avenue
Larkspur, CA 94939

Subject: Northern Spotted Owl Habitat Assessment for Hillwalker Winery Use Permit
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 Winery 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 Winery 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 Zantzinger 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 11 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	**No Tree Removal**		0
Turnout 5	**No Tree Removal**		0
Turnout 6	California Black Oak	8	1
	Live Oak	8	1
	Live Oak	12	1
Turnout 7	**No Tree Removal**		0
Turnout 8	**No Tree Removal**		0
Turnout 9	**No Tree Removal**		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 AVOIDENCE 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 or Eric Lichtwardt at (510) 376-5767 or 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

ATTACHMENT A

REFERENCES

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

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

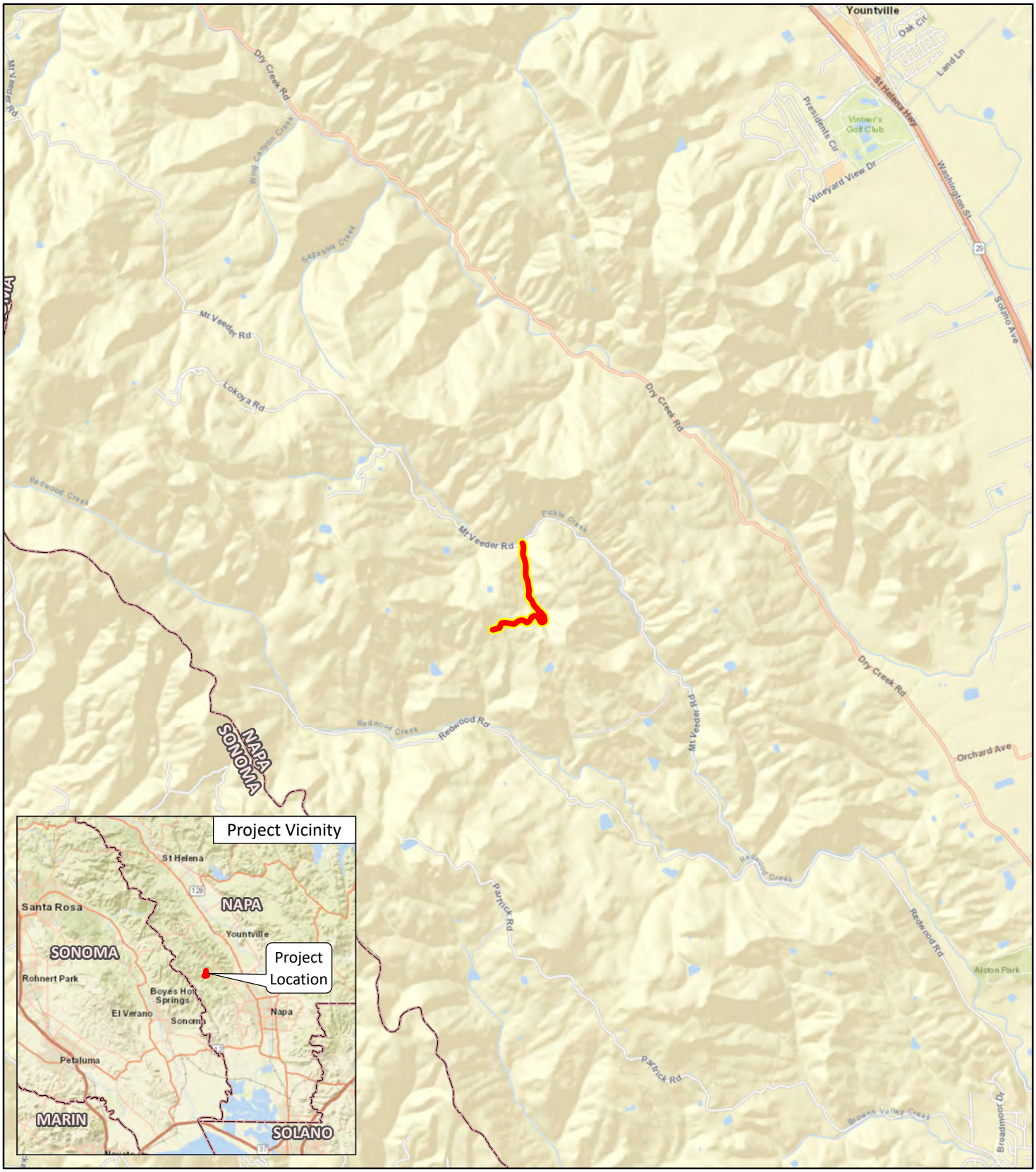
Thorne, J.H., R.M. Boynton, A. Merritt, S.K. Rice, E. Kalalipour, and J. Patrick. 2019. The 2016 update to the Napa Vegetation Map of 2004. University of California, Davis.

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



LSA

LEGEND

Project Location

FIGURE 1

N

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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Driveway

Existing Gravel Driveway

Proposed Minimum 22' Wide Gravel Driveway

Proposed 22' Wide Gravel Turnout Location

San Francisco Dusky-footed Woodrat House

0 150 300
FEET

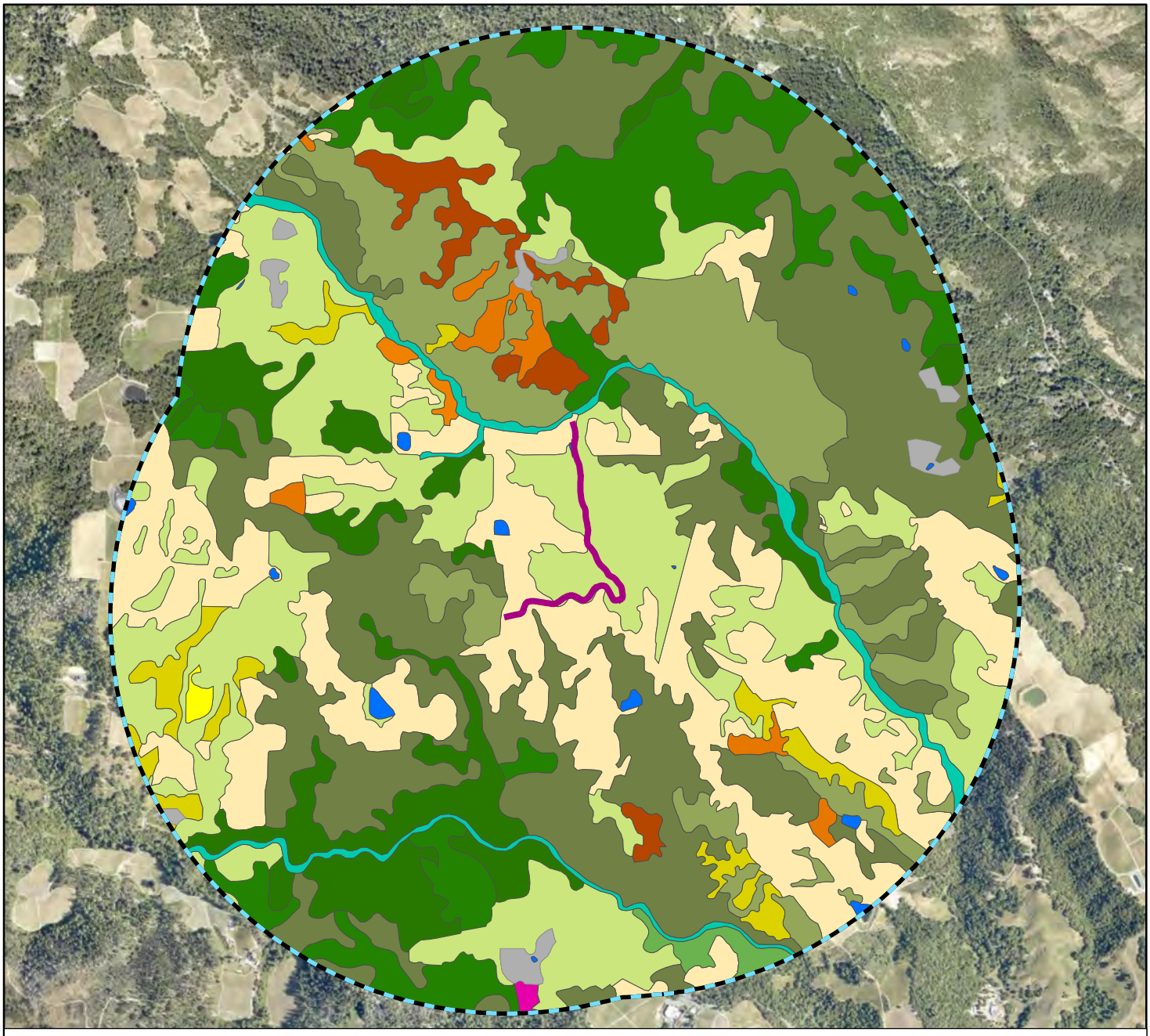
FIGURE 2

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).

I:\20231115\GIS\MXD\Bio Report\Figure 2_Proposed Project and Survey Results.mxd (9/25/2023)



Land Cover Types

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

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- Driveway
- 1-mile Buffer of Driveway

N

0 1000 2000

FEET

FIGURE 3

1871 Mt. Veeder Rd
Napa County, California

Land Cover within 1 Mile

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

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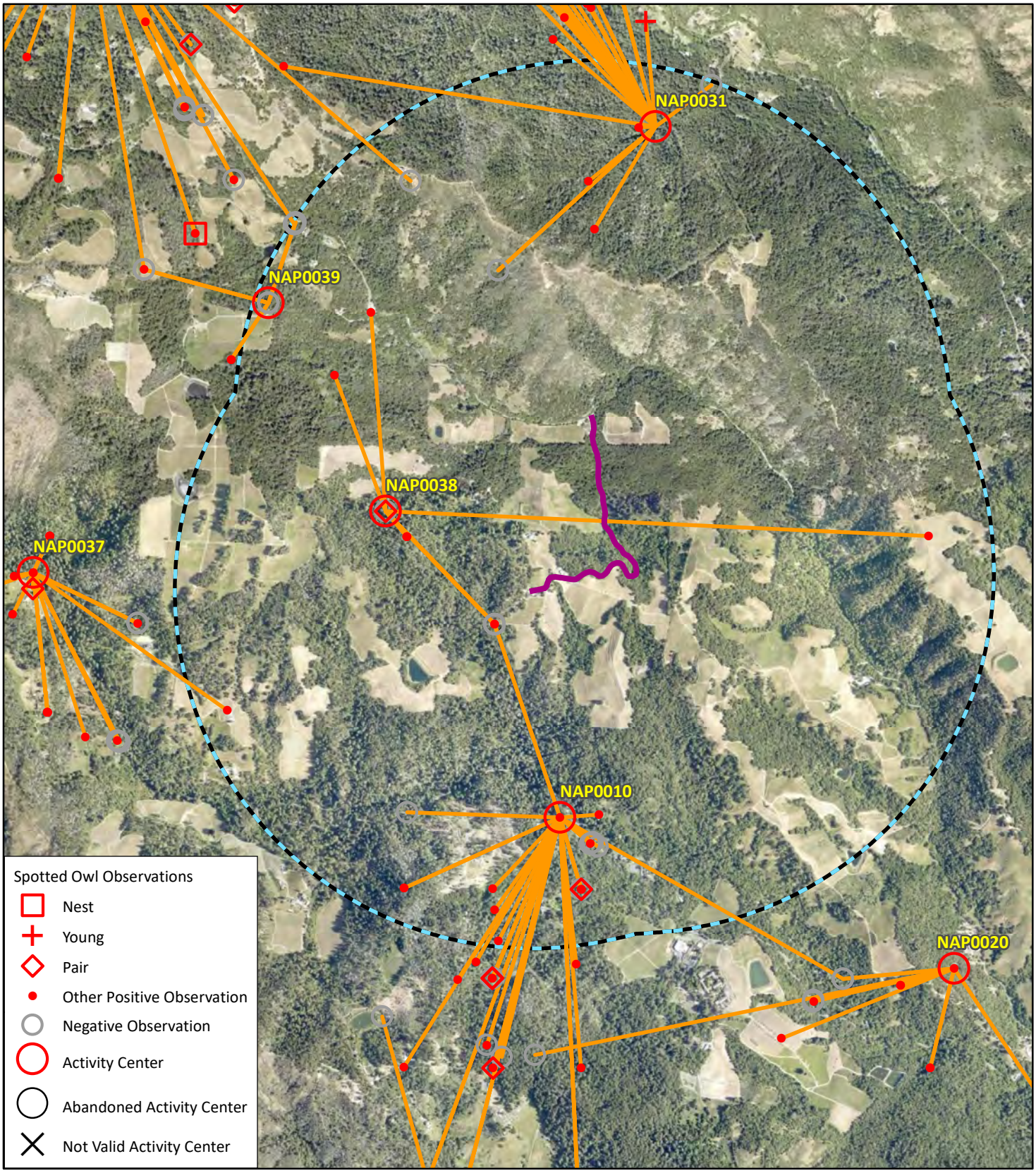

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LEGEND

Driveway

FIGURE 4

N

0 1000 2000

FEET

1871 Mt. Veeder Rd
Napa County, California

Spotted Owl Occurrences

SOURCE: Use Upper and Lower Case Fonts (MM/YY)

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Turnout 1

Turnout 2

Turnout 3

Turnout 4

LSA

FIGURE 5

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Turnout 5

Turnout 6

Turnout 7

Turnout 8

Turnout 9

Widening Area 10

LSA

FIGURE 5

1875 Mt. Veeder Road-Habitat Assessment Report
Site Photographs

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