Forest Ecosystem Management
1692 East Road * Deary, ID 83823
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Northern Spotted Owl Assessment

Vita Valiente Project

Napa County

Report Completed by: Pamela Town, Consulting Wildlife Biologist on October 14, 2021

Northern Spotted Owls (*Strix occidentalis caurina)*

Northern Spotted Owls (NSO) are listed as Threatened under both the Federal Endangered Species Act (ESA) and California State Endangered Species Act (CESA), as well as Sensitive under California Department of Forestry and Fire Protection (CalFire). They are a common to uncommon owl in the coniferous forest of the Pacific Northwest (PNW), ranging from southern British Columbia south to Marin County in northwestern California.

The northern spotted owl is a subspecies of spotted owl (*Strix occidentalis)* found in western North America. They are a medium-sized (16 to 20 inches) dark brown owl with a barred tail, white spots on their head and breast; and dark brown eyes surrounded by a prominent facial disk. The northern spotted owl is a permanent resident in suitable habitat residing in dense, old-growth, and multi-layered second-growth stands of mixed conifer, redwood, and Douglas-fir habitats.

Northern Spotted Owls are rodent specialists, primarily feeding on woodrats (*Neotoma fuscipes*), deer mice (*Peromyscus spp*.), Sonoma tree voles (*Arborimus pomo*), voles (*Microtus spp.)* and northern flying squirrels (*Glaucomys sabrimus*); but has been known to consume small birds, bats, amphibians, and large arthropods. Foraging is completed by searching for prey from a perch and swooping/pouncing on the prey. NSOs usually nest in stick nests (mistletoe clump, abandoned raptor or squirrel nest), in a cavity tree or snag, or in the broken top of a large tree. In the interior region of their range (as seen in Napa County), there appears to be a preference to well-shaded habitat in narrow, steep-sided canyons with north or east-facing slopes to assist in thermoregulatory needs, as they are intolerant of high temperatures.

Spotted owl life-history traits suggest coevolution with late-seral, old growth forests, and second growth forest with scattered late-seral characteristics. They are relatively long-lived and have high adult survival, low reproductive output, and high parental investment in offspring.

Threats to the northern spotted owl include increased competition, and perhaps predation, from the more aggressive barred owl (*Strix varia).* In addition to the threats from the barred owls, spotted owl

populations may also be negatively impacted by unregulated activities that modify habitat and introduce toxic substances into the environment and food chain (i.e. illegal logging, development, marijuana cultivation, etc.).

This Assessment is for the Vita Valiente Property located at 407 Crystal Springs Road in St. Helena, California; which occurs within the range of the Northern Spotted Owl. This Assessment replaces the September 24, 2019 Northern Spotted Owl Survey Summary for Kaplan Project. The Proposed Project has changed from the 2019 report.

General Project Information

Project Address: 407 Crystal Springs Road; St. Helena, California (Attachment #1)
Legal Description: Portions of Section 13, T08N, R06W MDB&M
County: Napa County
APN: 021-410-013 & 021-372-001
Access: Crystal Springs Road
Proposed Project:

- Construction of Cave for wine storage (Attachment #2)

Known Northern Spotted Owl Territories

According to the California Department of Fish & Wildlife's spotted owl viewer dated 14OCT21, there are no known northern spotted owl territories within 1.3 miles of the Property (Attachment #3). The 1.3-mile assessment area was created by USFWS for a Take Avoidance of northern spotted owls within the California Interior (outside the redwood zone). Although Napa County does have redwoods, the environmental conditions in the area are hotter/drier than the coastal redwood zone; therefore, the 1.3-mile assessment area was used for this Project. The closest known NSO territory is NAP005 that is located over 2 ½ miles from the Property Boundary.

Northern Spotted Owl Habitat

The general attributes for northern spotted owl habitat include a forest with:

- Dense, multi-layered canopy of several tree species.
- Trees of varying sizes and ages.
- Abundant logs, snags/cavity trees, and trees with broken tops or platform-like substrates (i.e., broken tops, mistletoe, debris piles, or old raptor/squirrel nests).
- Open spaces among lower branches to allow flight under the canopy.

USFWS Northern Spotted Owl Take Avoidance Analysis – Interior (Attachment B) dated 27FEB08 further defines NSO habitat as follows:

- High Quality Nesting/Roosting Habitat: Mixed tree species with basal area of 210+ ft2 and $\geq$ 15" quadratic mean diameter, and $\geq$ 8 trees per acre of trees $\geq$ 26" in diameter at breast height, and $\geq$ 60% canopy closure.

- Suitable Nesting/Roosting Habitat: Mixed tree species with basal area ranging from 150 - 180+ ft2 and ≥ 15" quadratic mean diameter, and ≥ 8 trees per acre of trees ≥ 26" in diameter at breast height, and ≥ 60% canopy closure.
- Suitable Forging Habitat: Mixed tree species with basal area ranging from 120 - 180+ ft2 and ≥ 13" quadratic mean diameter, and ≥ 5 trees per acre of trees ≥ 26" in diameter at breast height, and a mix of ≥ 40% to 100% canopy closure.
- Low Quality Foraging Habitat: Mixed tree species with basal area ranging from 80 - 120+ ft2 and ≥ 11" quadratic mean diameter, and ≥ 40% canopy closure.

Property Description: The Vida Valiente Project is located at 407 Crystal Springs Road in St. Helena, California. The Property Boundary borders Crystal Springs Road, with a portion of the boundary including Bell Creek (aka Bell Canyon Creek) (Attachment #4). Historically, Bell Creek within the Property Boundary was surrounded by an overstory vegetative strip varying in width from approximately 55' to 150' wide; with open/agricultural and urban structures (buildings, Crystal Springs Road) outside the forested riparian area. This structure is similar to the area surrounding Bell Creek in the immediate vicinity outside the Property Boundary. The transition between the riparian zone and adjacent non-riparian vegetation is often abrupt. There is a vineyard at the base of Glass Mountain, with the property continuing up the mountain within a Douglas-fir Forest type with slopes approaching 75%. There is a seasonal watercourse, which appears to have been historically diverted, that flows to the west from the flat near the vineyard. In the early fall of 2020, the Glass Wildfire occurred within Napa Valley and engulfed portions of Napa and Sonoma Counties, including this Property. This unprecedented event drastically changed the vegetative structure of the area (Attachment #5).

Current Property Description: The majority of the vegetation (trees, shrubs, and ground cover) burned with only a few trees surviving. There were spots where the fire was in the roots and burned holes in the ground. The soil was burned to grey ash in some areas, with the most intense fire appearing to be on the ridge top in the southwestern corner of the property. The riparian area adjacent to Bell Creek was burned completely, with just a few overstory trees surviving. The hardwood species, including willow, maple, laurel, and ash have resprouted. The upland area was also burned in the fire, with the coniferous species, primarily Douglas-fir with a few knob cone pines, being destroyed, with only a handful of conifer trees surviving.

The Vida Valiente Winery is proposing to construct a cave and is in the process of going through the appropriate permitting process. The proposed project removes 0.8 acres of woodland canopy. The Property did have some attributes that meet USFWS definitions of suitable NSO habitat; however, the Glass Wildfire burned this habitat and it is currently unsuitable due to lack of live overstory canopy cover. The proposed cave will be removing approximately 0.8 acres of mixed forest along the flats, an area that also burned during the Glass Wildfire. Much of the surrounding landscape is also unsuitable habitat due to agricultural (vineyards and wineries), open areas (shrub or insufficient mixed canopy cover), and development (residential housing and commercial wineries).

The riparian area along Bell Creek and the forested habitat within the property boundary will eventually be restored with 2.4 acres being preserved as required by Napa County Ordinance (18.108.020), which also includes an additional 7.1 acres of the over 50% steep hillside on the southern portion of the Property boundary. Eventually this area will return to pre-wildfire conditions and once again provide marginal suitable northern spotted owl habitat. The habitat will only be marginal due to the surrounding vegetation and land uses, and will not be a large enough forested patch size to support a resident northern spotted owl.

Northern Spotted Owl Surveys

Two survey stations were used to survey the Vita Valiente Property (Attachment #6) in 2018 and 2019 with an additional station added in 2020. No northern spotted owls have been detected after four years of surveys (Table #1), with compliance to protocol addressed below. **Surveys are valid for the breeding season in which they were completed, with protocol surveys required prior to all yearly timber harvest operations for the life of the project.**

Table #1: Northern Spotted Owl Surveys for Vita Valiente Project

Date & Survey Number	Survey Station	Survey Time	NSO Response & Notes
04MAR18	K2	2327 – 2337	N/R - Security Guard Stopped by
Survey #1	K1	2344 – 2354	N/R - Clear & Quiet
19MAR18	K2	2140 – 2150	N/R – Helicopter, generator & Frog
Survey #2	K1	2153 - 2203	N/R – Clear & Quiet
02APR18	K2	2138 – 2150	N/R – Quiet
Survey #3	K1	2204 - 2214	N/R – Quiet
18APR18	K2	2200 – 2211	N/R – Quiet
Survey #4	K1	2235 – 2245	N/R – Quiet
08MAY18	K2	2117 – 2127	N/R – Quiet
Survey #5	K1	2137 – 2147	N/R – Clear and Quiet
16MAY18	K2	2231 – 2241	N/R – Clear & Quiet
Survey #6	K1	2251 – 2301	N/R – Quiet, Fox
03MAR19	K2	2146 – 2156	N/R – Heather Surveyed
Survey #1	K1	2151 – 2201	N/R – Scott Surveyed, Creek Noise
15MAR19	K2	0208 – 0218	N/R – Traffic & Hospital Noise
Survey #2	K1	0225 – 0236	N/R – Canada Geese
02APR19	K2	0026 – 0036	N/R – Hospital Noise
Survey #3	K1	0043 – 0053	N/R – Light Rain starting
23APR19	K2	2135 – 2148	N/R – Hospital Noise
Survey #4	K1	2155 – 2205	N/R – Quiet
05MAY19	K1	2320 – 2330	N/R – Quiet
Survey #5	K2	2337 – 2347	N/R – Hospital Noise
19MAY19	K2	2028 – 2038	N/R – Quiet, few cars
Survey #6	K1	2252 – 2302	N/R – Cold, quiet, little fog

01MAR20	K3	2027 – 2037	N/R – New Station Added in 2020
Survey #1	K2	2040 – 2050	N/R
	K1	2059 – 2109	N/R
16MAR20	K3	2229 – 2239	N/R
Survey #2	K2	2242 – 2252	N/R
	K1	2258 - 2308	N/R
07APR20	K1	0019 – 0029	N/R
Survey #3	K2	0035 – 0045	N/R – SWOW and frogs
	K3	0048 – 0058	N/R – frogs and dog
20APR20	K3	2300 – 2310	N/R
Survey #4	K2	2320 – 2330	N/R - Frogs
	K1	2340 – 2350	N/R - Car
13MAY20	K1	2249 – 2259	N/R
Survey #5	K2	2233 – 2243	N/R - frogs
	K3	2219 – 2229	N/R
04JUN20	K1	2357 – 0007	N/R - cars
Survey #6	K2	0012 – 0022	N/R
	K3	0025 – 0035	N/R – cars in distance
15MAR21	K3	1947 – 1957	N/R – traffic and frogs
Survey #1	K1	1959 – 2009	N/R - frogs
	K2	2011 – 2021	N/R – distant traffic
29MAR21	K3	2047 – 2109	N/R – Frogs, car, crickets
Survey #2	K1	2113 – 2123	N/R – Frogs and crickets
	K2	2128 – 2138	N/R – Frogs, culvert water, few cars
20APR21	K3	2305 – 2315	N/R - car
Survey #3	K1	2319 – 2329	N/R – bright ½ moon
	K2	2334 – 2344	N/R - cat
27APR21	K3	2115 – 2125	N/R - car
Survey #4	K1	2130 – 2140	N/R - frog
	K2	2145 – 2155	N/R – distant cars
10MAY21	K3	2315 – 2325	N/R - car
Survey #5	K1	2329 – 2339	N/R – cool and quiet
	K2	2344 – 2354	N/R – wind machine noise
03JUN21	K2	2130 – 2140	N/R – hospital noise

Survey #6	K1	2145 – 2155	N/R – crickets and frogs
	K3	2158 – 2208	N/R - car

Survey Compliance to Protocol:

- Protocol Followed: 2011 Protocol for Surveying Proposed Management Activity that may impact NSOs (Revised 09JAN12).

- Three different surveyors were used over the years:
  - Scott Butler, RPF
  - Heather Morrison, Botanist & RPF
  - Pamela Town, Consulting Wildlife Biologist

- 10 – Minute Point Count Survey Used
- Digital Recording Used at all survey stations
- At least 7 Days between Surveys: Yes

- Surveys Between Sunset and Sunrise: Yes

- Barred Owls Detected: No
- Northern Spotted Owls Detected: No
- Other Owl Species Detected: Saw-whet owl was detected once in 2020

- Survey stations the same: Yes, added new station in 2020
- Survey Stations ¼ to ½ mile apart: Yes

- Daytime follow-up within 48 hours if NSO Detected: N/A
- Survey Coverage to 1.3 miles of Property Boundary: No
  - Much of the 1.3-mile assessment area is unsuitable NSO habitat. Areas that do have NSO habitat are private property with no access (no roads or locked gated roads).

Northern Spotted Owl Protection Measures

- Portions of the Property and surrounding area was considered marginal suitable northern spotted owl habitat prior to the Glass Wildfire. It has been an observation from this Biologist that some northern spotted owls have been forced into marginal habitat due to wildfire; therefore, the Project Area should be treated as occurring within unsuitable NSO habitat; however, there is potentially suitable habitat within ¼ mile of the proposed project. Therefore,
  - Northern Spotted Owl surveys will be required prior to timber operations **OR**
  - Surveys are not required but seasonal restrictions to timber operations would be required to prevent disturbance to potentially nesting owls. Seasonal restrictions are no timber operations between 01FEB – 09JUL.
- Due to the survey history - Surveys in 2022 would include three spot check surveys prior to timber operations; unless seasonal restrictions are going to be followed. Spot Check surveys will

occur between 15MAR22 – 15APR22. Once surveys are complete, if no NSOs are detected, timber operations could occur.

- Surveys are valid for the breeding season in which they were completed, with protocol surveys required prior to all yearly timber harvest operations for the life of the project.
- If a new NSO territory is identified within 1.3 miles of the Project, a habitat assessment of the new territory will be completed and additional mitigation measures set.

Attachments

Attachment #1 – Vicinity Map of Property Boundary
Attachment #2 – Engineer's Map – Project Area
Attachment #3 – NSO Database & Map of NSO Territories (2 pages)
Attachment #4 – Aerial Photo of Property
Attachment #5 – Pictures of Property
Attachment #6 – Map of Survey Stations

Additional Information

Northern Spotted Owl Contact Information:

Questions or comments regarding this NSO information can be directed to:

Pamela Town
Consulting Wildlife Biologist & SOE
Forest Ecosystem Management
(406) 490-7427
cptown@blackfoot.net

Definitions:

- Activity Center: Area of concentrated activity of either a pair of NSOs or a single territorial NSO, represented by a mapped location (usually a nest tree) that occurs within, but not necessarily in the exact center of, the core area. Where clusters of site centers exist in a core area a geographic centroid or nearest neighbor calculation may be used as a designated activity center for habitat analysis purposes. A single territory may also have more than one designated activity center.
- Territory: A spatial area of landscape that is defended by a single resident or pair of northern spotted owls. Specific NSO territories generally refer to a fixed geographic area. Over time, individual spotted owls may occupy different territories (i.e. breeding dispersal, interference competition with barred owls, changes in habitat or prey availability, etc.).
- Territory Identification Number (NAP0007): A number generated by the California Department of Fish & Wildlife assigned to a geographic area currently and/or historically occupied by northern spotted owls.
- High Quality Nesting/Roosting Habitat: Mixed tree species with basal area of 210+ ft2 and $\geq$ 15" quadratic mean diameter, and $\geq$ 8 trees per acre of trees $\geq$ 26" in diameter at breast height, and $\geq$ 60% canopy closure.

- Suitable Nesting/Roosting Habitat: Mixed tree species with basal area ranging from 150 - 180+ ft2 and ≥ 15" quadratic mean diameter, and ≥ 8 trees per acre of trees ≥ 26" in diameter at breast height, and ≥ 60% canopy closure.
- Suitable Forging Habitat: Mixed tree species with basal area ranging from 120 - 180+ ft2 and ≥ 13" quadratic mean diameter, and ≥ 5 trees per acre of trees ≥ 26" in diameter at breast height, and a mix of ≥ 40% to 100% canopy closure.
- Low Quality Foraging Habitat: Mixed tree species with basal area ranging from 80 - 120+ ft2 and ≥ 11" quadratic mean diameter, and ≥ 40% canopy closure.
- Suitable Habitat: Areas meeting the criteria for nesting/roosting habitat and/or foraging habitat.
- Unsuitable Habitat: Areas not meeting the criteria for nesting/roosting habitat and/or foraging habitat.
- NSO Breeding Season: February 1st to August 31st in the California inland ecotype.

References:

Important Information for Timber Operations Proposed within the Range of the Northern Spotted Owl. Department of Forestry and Fire Protection. February 2008.

Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls. Endorsed by the U.S. Fish & Wildlife Service. February 2, 2011 and Revised January 9, 2012.

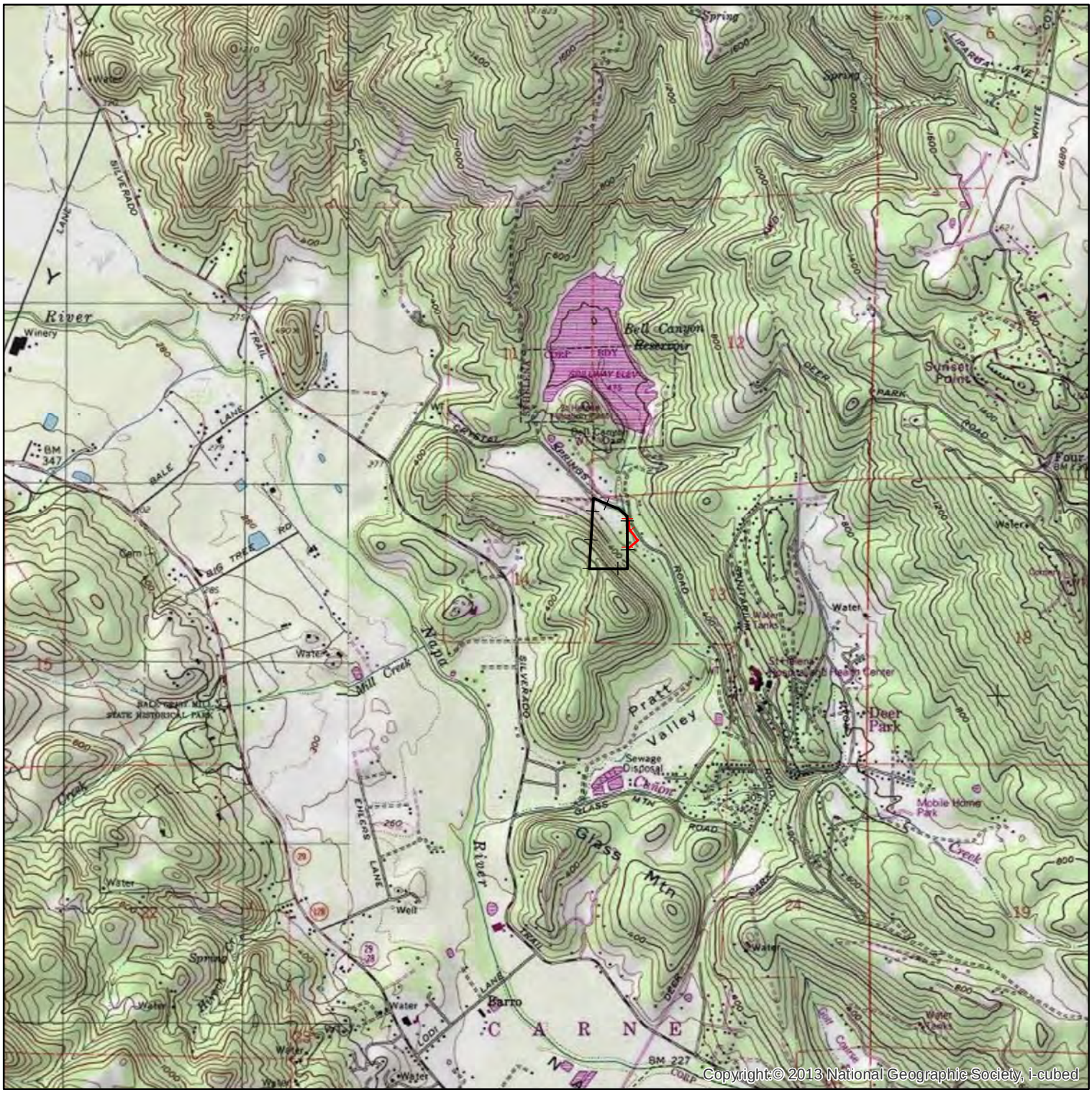
Northern Spotted Owl Take Avoidance Analysis and Guidance for Private Lands in California. Attachment B: Take Avoidance Analysis – Interior. United States Fish & Wildlife Service. February 27, 2008 (updated: November 1, 2019).

Northern Spotted Owl Viewer (BIOS CA Natural Diversity Database). Managed by California Department of Fish & Wildlife.

Zeiner, D.C., W.F. Laudenslayer, K.E. Mayer, and M. White, eds. 1988 – 1990. California's Wildlife. Vol. I – III. California Department of Fish & Game, Sacramento, CA.

Attachment #1

Vita Valiente Vicinity Map



Legend

- Property Boundary
- Added Parcel

Section 13 T08N, R06W MDB&M
APN: 021-410-013
APN: 021-372-001
Napa County

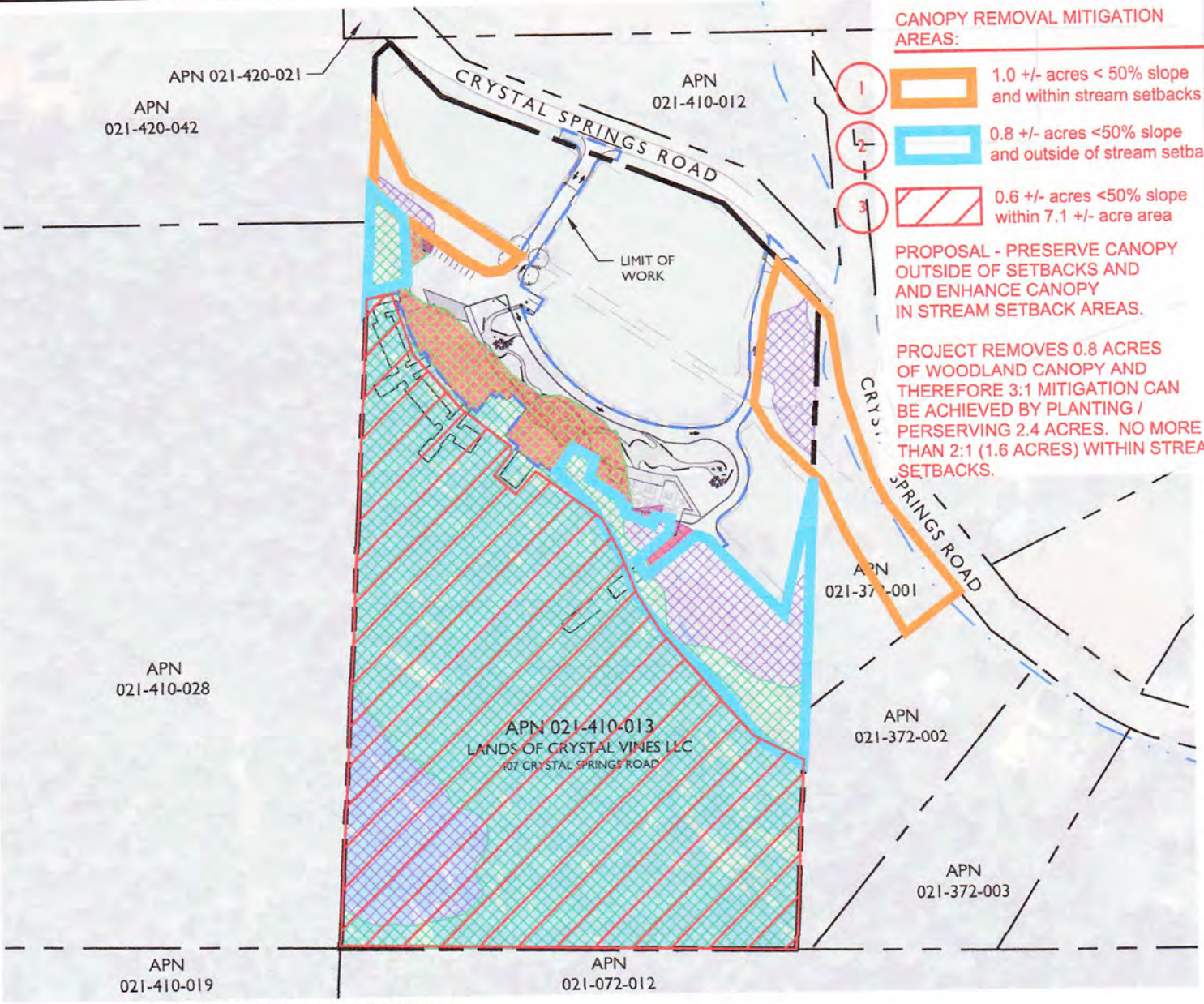
N

1 in = 3,232 ft

Date: 10/14/2021

Map Created By: Forest Ecosystem Management

Attachment #



RETENTION SUMMARY

(E) VEGETATION CANOPY COVER	TOTAL
DOUGLAS FIR FOREST	9.5 ± ACRES
DOUGLAS FIR FOREST TO BE REMOVED	0.7 ± ACRES
MIXED OAK WOODLAND	2.2 ± ACRES
MIXED OAK WOODLAND TO BE REMOVED	0.1 ± ACRES
PERCENTAGE RETAINED	93% ±

AERIAL PHOTO SOURCE:

AERIAL PHOTOGRAPHS WERE OBTAINED FROM GOOGLE EARTH, DATED MARCH 2016 AND MAY NOT REPRESENT CURRENT CONDITIONS.

SLOPES OVER 50% IN THE VEGETATION CANOPY COVER AREA

* VEGETATION CANOPY COVER BASED ON ANALYSIS OF OAK WOODLAND AND DOUGLAS FIR FOREST BY NW BIOSURVEY.

VEGETATION RETENTION ANALYSIS EXHIBIT

SCALE: 1" = 200'

APPLIED CIVIL ENGINEERING
INCORPORATED
2074 West Lincoln Avenue
Napa, CA 94558
(707) 320-4968 (707) 320-2395 Fax
www.appliedcivil.com

VIDA VALIENTE WINERY
407 CRYSTAL SPRINGS ROAD
ST. HELENA, CA 94574
APN 021-410-013

SCALE: 1" = 225'

JOB NO. 19-123

MAY 2021

Attachment #3

Data Version Date:
09/28/2021

Report Generation Date:
10/14/2021

Report #1 - Spotted Owl Sites Found
Known Spotted Owl sites having observations within the search area.

Meridian, Township, Range, Section (MTRS) searched:

M_08N_06W Sections(01,02,03,10,11,12,13,14,15,22,23,24,25,26,27);

M_08N_05W Sections(06,07,18,19,30);

NOTES:

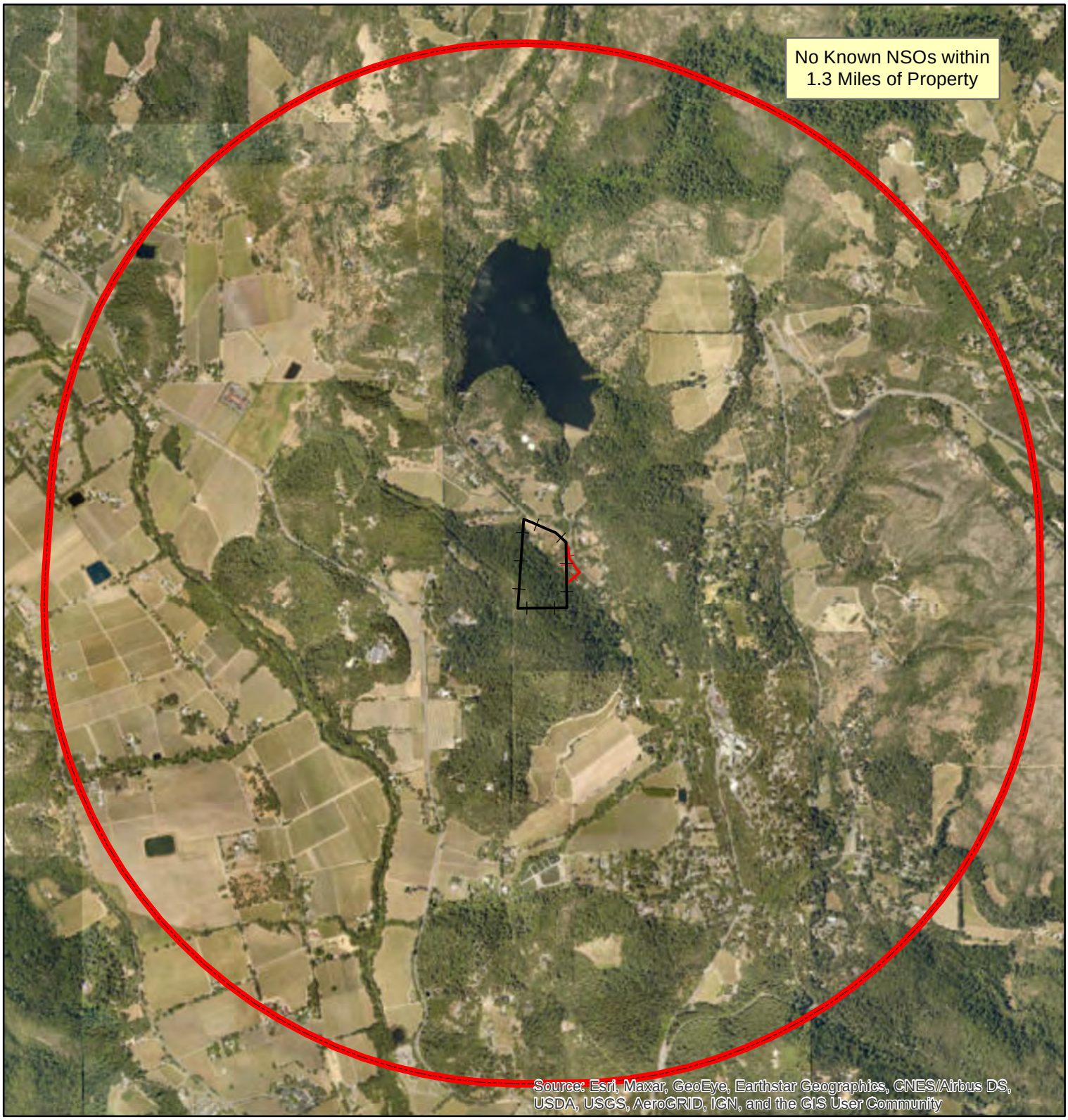
Valiente

Masterowl	*Subspecies*	*LatDD NAD83*	*LonDD NAD83*	*MTRS*	*AC Coordinate Source*	MILES
NAP0005	NORTHERN	38.532391	-122.521177	M 08N 06W 22	Contributor	2.4+
NAP0014	NORTHERN	38.545901	-122.438464	M 08N 05W 17	Contributor	2.5+
NAP0033	NORTHERN	38.508038	-122.526177	M 08N 06W 33	Contributor	3.7+

Owls within 1.3 MILES
NONE

NO Report #2

Northern Spotted Owls within 1.3 Miles of Vita Valiente



Legend

- Property Boundary
- 1.3 Mile NSO Assessment Area
- Added Parcel

Section 13 T08N, R06W MDB&M
APN: 021-410-013
APN: 021-372-001
Napa County

N

1 in = 2,500 ft

Date: 10/14/2021

Map Created By: Forest Ecosystem Management

Attachment #4

Vita Valiente Project Area - Pre-Wildfire

Legend

- Property Boundary
- Added Parcel
- Watercourse

Section 13 T08N, R06W MDB&M
APN: 021-410-013
APN: 021-372-001
Napa County

N

1 in = 417 ft

Date: 8/3/2021

Map Created By: Forest Ecosystem Management

Attachment #5

Pictures from Vida Valiente Property
Pictures Taken July 2021

Looking South from Crystal Springs Road

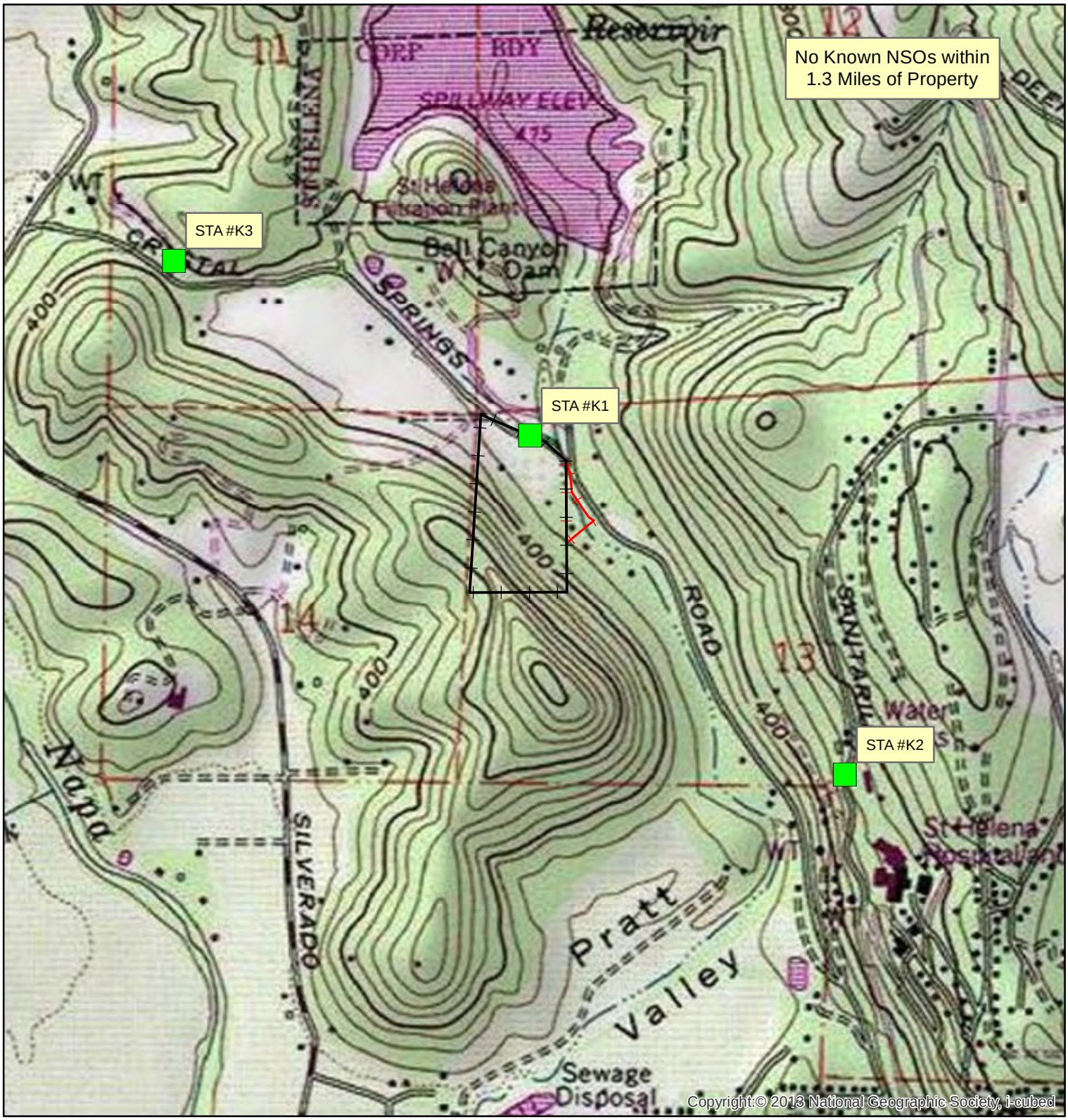
Stump Sprouting on Hardwoods on Vida

Mid-Slope of Vita Valiente Property.

Looking Toward Crystal Springs Road

Attachment #6

Northern Spotted Owl Survey Stations for Vita Valiente



Legend

- Property Boundary
- Added Parcel
- NSO Survey Station

Section 13 T08N, R06W MDB&M
APN: 021-410-013
APN: 021-372-001
Napa County

N

1 in = 1,250 ft

Date: 10/14/2021

Map Created By: Forest Ecosystem Management