



Forest Ecosystem Management

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Northern Spotted Owl Assessment for Harcross Winery Project

Completed by: Pamela Town, Consulting Wildlife Biologist
December 13, 2023

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 medium-sized (16 to 20 inches) dark brown owls 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 sabrinus*); 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 for 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 forests 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 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 Harcross Winery Project located at 6402 Dry Creek Road, Napa, CA in Napa County; which occurs within the range of the Northern Spotted Owl. In 2022, this property was seeking an assessment for the building of a home within the existing opening on the parcel. This Project involves the construction of a winery and driveway access along with planting 3 small vineyard blocks; also located within the existing opening on the parcel. This Project includes the removal of 23 trees (1 conifer and 22 hardwoods).

Project General Information (Attachment #1)

Project Location: 6402 Dry Creek Road; Napa, CA

Legal Description: Portions of Section 31, T07N, R05W MDB&M

APN: 027-530-006

Parcel Size: 51 +/- Acres

County: Napa County

Access: Dry Creek Road

Proposed Project:

- Build a winery and driveway within and along the edge of the existing opening on the parcel, and plant vineyards (3 separate blocks) within the existing opening (Attachment #2).
 - The project size includes:
 - 1.0 +/- acres for winery site
 - 2.5 +/- acres will be planted vineyard
 - 3.0 +/- acres for vineyard total development area (avenues/access/etc)
 - The project will include removing 1 conifer (Douglas-fir) and 22 hardwoods (Live Oak [*Quercus agrifolia*], Bay Laurel [*Laurus nobilis*], Madrone [*Arbutus menziesii*], White Oak [*Quercus garryana*], and Black Oak [*Quercus kelloggii*]).

Known Northern Spotted Owl Territories

According to the California Department of Fish & Wildlife's spotted owl viewer dated 13DEC23, there are four 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 following briefly discusses the history of the four known territories:

NAP008: This territory is located approximately ½ mile from the Parcel. The territory was first identified in 1989 with a pair. From 1989 through 2015, the territory was monitored and found active every year except 1999 and 2001. The activity center is based upon a 2012 pair, with

later years' detections close to this activity center. Due to this territory's location and behavior; they have historically been used for educational "show me" trips. More recent monitoring efforts include surveys completed for this parcel with no NSOs or barred owls being detected.

NAP009: This territory is located over a mile from the Parcel. The territory was first identified in 1989 with a pair. From 1989 through 2015, the territory was monitored and found active every year. The activity center is based on a 2015 pair. The owls move up and down Montgomery Creek, both within and between given breeding seasons. More recent monitoring efforts include surveys completed along Mt Veeder Road which detected a pair within the territory in 2022 and 2023. Barred owls have also been detected within this territory.

NAP0036: This territory is located approximately ½ mile from the Parcel. The territory was first identified in 1995. From 1995 through 2015, the territory was monitored and found active every year except 2000. The activity center is based upon a 2013 pair, with later years' detections close to this activity center. More recent monitoring efforts include surveys completed for this parcel with northern spotted owls detected within the territory in 2022 and 2023. Barred owls have been detected to the north of Dry Creek.

NAP0042: This territory is located over a mile from the Parcel. The territory was first identified in 2008. This territory was monitored and found active in 2008, and 2011 through 2013. The activity center is based on a 2012 pair. More recent monitoring efforts are unknown or were not completed.

Northern Spotted Owl Habitat

The attributes of 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.

The specific definitions of NSO habitat from USFWS include:

- High Quality Nesting/Roosting Habitat: Mixed tree species with a basal area of 210+ ft² and $\geq 15''$ quadratic mean diameter, and ≥ 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 $\geq 15''$ quadratic mean diameter, and ≥ 8 trees per acre of trees $\geq 26''$ in diameter at breast height, and $\geq 60\%$ canopy closure.
- Suitable Foraging Habitat: Mixed tree species with basal area ranging from 120 - 180+ ft² and $\geq 13''$ quadratic mean diameter, and ≥ 5 trees per acre of trees $\geq 26''$ in diameter at breast height, and a mix of $\geq 40\%$ to 100% canopy closure.
- Low Quality Foraging Habitat: Mixed tree species with basal area ranging from 80 - 120+ ft² and $\geq 11''$ quadratic mean diameter, and $\geq 40\%$ canopy closure.

Project:

The Project is located within an existing 5 +/- acre open area (Attachment #4). The Project is expected to remove 1 conifer (Douglas-fir) and 22 hardwoods (Live Oak [*Quercus agrifolia*], Bay Laurel [*Laurus nobilis*], Madrone [*Arbutus menziesii*], White Oak [*Quercus garryana*], and Black Oak [*Quercus kelloggii*]).

The 5-acre opening is not suitable northern spotted owl habitat due to lack of forest canopy. The trees to be removed occur along the forest edge. The area around the trees to be removed includes a very minimal conifer component (a total of 5 conifers were noted including the 1 to be removed near the proposed winery). The parcel and surrounding landscape were impacted during the 2017 Nuns wildfire. The forest immediately surrounding the opening, and Project Area is a hardwood forest consisting of primarily Black Oak with Live Oak, California Bay Laurel, White Oak, and Madrone scattered throughout. Further away from the opening, more conifers are mixed within the hardwood; thereby improving northern spotted owl habitat.

Northern Spotted Owl Surveys

The opening, Project Area, is not considered Northern Spotted Owl habitat due to lack of overstory canopy. The trees along the edge would be considered very marginal foraging NSO habitat due to the lack of conifers, being adjacent to an opening, structural component post-2017 Nuns wildfire, and topography.

As there is suitable northern spotted owl habitat within ¼-mile of the Project Area, known northern spotted owl territories within ½-mile of the parcel, and recent large-scale wildfires impacting northern spotted owl habitat and movement; the area was surveyed during the planning stages of this Project. Four survey stations were used, including one station (STA #4) monitoring the historic activity center of NAP0008 and one station (STA #2) monitoring the historic activity center of NAP0036 (Attachment #5).

No Northern Spotted Owls were detected within the NAP008 activity center. Northern Spotted Owls were detected in 2022 and 2023 within the NAP0036 territory. **Surveys are valid for the breeding season in which they were completed (01FEB – 31AUG).**

Northern Spotted Owl Surveys for Harcross Winery Project

<u>Date</u>	<u>Weather & Surveyor</u>	<u>Station</u>	<u>Survey Time</u>	<u>Results</u>
18MAR20	Overcast & Calm	1	2057 – 2107	N/R - Frogs
Survey #1	S. Butler	2	2112 – 2132	N/R – SWOW and upset resident
		3	2137 – 2147	N/R
		4	2157 – 2207	N/R
09APR20	Overcast & Calm	2	2332 – 2342	N/R – water & 1 car
Survey #2	S. Butler	1	2349 – 2359	N/R - water
		3	0005 – 0015	N/R – GHOW
		4	0019 – 0030	N/R

20APR20	Ptly cloudy & lt breeze	1	2115 – 2125	N/R - frogs
Survey #3	P. Town	2	2130 – 2140	N/R - car
		3	2146 – 2156	N/R
		4	2210 – 2220	N/R
28APR20	Clear & Calm	4	1959 – 2010	N/R - songbird
Survey #4	H. Morrison	3	2015 – 2025	N/R – turkeys and cricket
		1	2032 – 2042	N/R – WSOW, crickets, turkeys
		2	2050 – 2100	N/R – Frogs and crickets
11MAY20	Overcast, wet, calm	1	2352 – 0002	N/R - Frogs
Survey #5	S. Butler	2	2338 – 2348	N/R – skunk, frogs
		3	2321 – 2331	N/R - skunk
		4	2308 – 2318	N/R – high fog
04JUN20	Clear, Warm	2	2100 – 2110	N/R – 2 cars, crickets
Survey #6	S. Butler	1	2122 – 2132	N/R - Deer
		3	2138 – 2148	N/R - crickets
		4	2151 – 2201	N/R - Car
16MAR21	Cold, Calm & Clear	3	1959 – 2009	N/R – GHOW Very Vocal
Survey #1	S. Butler	4	2014 – 2024	N/R
		2	2030 – 2040	N/R – frogs and car
		1	2046 – 2056	N/R – frogs, cows
30MAR21	Clear, lt breeze	1	2125 – 2135	N/R – frogs and landowner
Survey #2	S. Butler	3	2142 – 2152	N/R
		4	2157 – 2207	N/R – cars and breezy
		2	2215 – 2225	N/R
15APR21	Clear & Calm	1	2221 – 2231	N/R – water, cricket, frogs
Survey #3	H. Morrison	2	2342 – 2352	N/R – frogs and car
		3	2356 – 0006	N/R
		4	0011 – 0021	N/R
26APR21	Clear, Calm & Warm	1	2033 – 2043	N/R - frogs
Survey #4	P. Town	3	2100 – 2110	N/R - GHOW
		4	2116 – 2126	N/R
		2	2135 – 2145	N/R
11MAY21	Warm & Clear	4	2237 – 2247	N/R - car
Survey #5	S. Butler	3	2252 – 2302	N/R - cars
		1	2310 – 2320	N/R - SWOW
		2	2326 – 2336	N/R
04JUN21	Clear & Lt breeze	1	2242 – 2252	N/R – water, frogs, crickets
Survey #6	H. Morrison	2	2304 – 2314	N/R – car and frogs
		3	2318 – 2328	N/R
		4	2334 – 2344	N/R

17MAR22	Clear, Calm	1	2110 – 2120	N/R – frogs and neighbor
Survey #1	S. Butler	2	2127 – 2137	N/R – frogs, car
		3	2053 – 2103	N/R
		4	2040 – 2050	N/R
03APR22	Clear, breeze	2	2006 – 2016	N/R - frogs
Survey #2	S. Butler	1	2022 – 2032	N/R - frogs
		3	2037 – 2047	N/R
		4	2050 – 2100	N/R - car
17APR22	Clear & Calm	4	2000 – 2010	N/R
Survey #3	S. Butler	3	2013 – 2023	N/R - GHOW
		1	2030 – 2040	N/R – frogs & water
		2	2044 – 2054	Single NSO (NAP0036) near historic AC
04MAY22	Clear & lt breeze	2	2227 – 2237	Single NSO – hillside of historic AC but to the west – southwest (NAP0036)
Survey #4	S. Butler	1	2240 – 2250	Can still hear (NAP0036) – Triangulate on NSO
		3	2256 – 2306	Can hear (NAP0036) – due east – Triangulate on NSO
		4	2312 – 2322	N/R
16MAY22	Clear, Calm, Cool	4	2120 – 2130	N/R
Survey #5	S. Butler	3	2135 – 2145	N/R - frogs
		1	2152 – 2202	N/R - frogs
		2	2205 – 2215	N/R – frogs and crickets
03JUN22	Overcast & Calm	4	2046 – 2056	N/R - car
Survey #6	S. Butler	3	2059 – 2109	N/R - car
		1	2115 – 2125	N/R – frogs and deer
		2	2129 – 2139	N/R - cars
18MAR23	Overcast, calm & cold	2	2006 – 2016	N/R – cold, cars & water
Survey #1	S. Butler	1	2026 – 2036	N/R – frogs and water
		3	2042 – 2052	N/R – frogs
		4	2057 – 2107	N/R - car
28MAR23	Calm, Clear	4	1900 – 1910	N/R
Survey #2	S. Butler	3	1914 – 1924	N/R
		1	1940 – 1950	N/R – water and clouds moving in
		2	1954 – 2004	N/R - water
11APR23	Clear & Calm	4	2051 – 2101	N/R – cold, crickets
Survey #3	S. Butler	3	2103 – 2113	N/R
		1	2120 - 2130	N/R - frogs
		2	2134 - 2149	N/R - frog
26APR23	Clear & Calm	4	1943 – 1958	N/R - car
Survey #4	S. Butler	3	2000 – 2010	N/R
		1	2016 – 2026	N/R - frogs
		2	2030 – 2040	N/R
10MAY23	Clear, lt breeze	4	2047 – 2057	N/R - car

Survey #5	S. Butler	3	2100 – 2110	N/R
	Cool	1	2117 – 2127	N/R - frogs
		2	2132 – 2142	Vocal NSO (NAP0036) On north side of road but close to Dry Creek
01JUN23	Clear & Cool	4	2132 – 2142	N/R – screaming mt lion
Survey #6	S. Butler	3	2146 – 2156	Vocal NSO (NAP0036) – very faint to North – northeast. Moving closer to surveyor
		1	2204 – 2214	Vocal NSO (NAP0036) – Triangulate on owl
		2	2221 – 2231	N/R - frogs

N/R – No Response from Northern Spotted Owls

NOTE: Due to private property, surveyors were not able to complete daytime follow-up on NSO evening detections or complete an Activity Center Stand Search (ACS) on known NSO activity centers. NSO detections in 2022 and 2023 were in the general area of a known NSO territory (NAP0036).

Northern Spotted Owl Protection Measures

The Project Area does not have suitable Northern Spotted Owl habitat due to topography and vegetation type, grassy opening with a lack of trees; however, there will be some trees removed along the forest edge. There is suitable Northern Spotted Owl habitat within ¼ mile of the Project Boundary and two known Northern Spotted Owl territories occur within ½ mile of the Parcel. In addition, the surrounding landscape was impacted by the 2017 Nuns Wildfire, and the impacts of the recent large-scale wildfires on Northern Spotted Owl movement are not known. As a portion of this project is removing trees; it is recommended that Northern Spotted Owl protocol surveys are met before tree removal for this project. Therefore, specific to this Project, the following is recommended:

- If trees are not cut and removed before 01FEB24, Northern Spotted Owl surveys are required before cutting trees.
- Depending on the results of the current year's breeding season Northern Spotted Owl survey and monitoring efforts, seasonal restrictions may be applied to prevent disturbance to nesting owls. Seasonal Restrictions will occur if a Northern Spotted Owl active nest site is located within ¼-mile of the Project Area.

Attachments

Attachment #1 – Map of Project Area
Attachment #2 – Engineers Project Map Description
Attachment #3 – NSO Database Reports
Attachment #4 – Project Area Arial Photo
Attachment #5 - Map of Northern Spotted Owl 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, PLLC
(406) 490-7427
Pamtown30@gmail.com

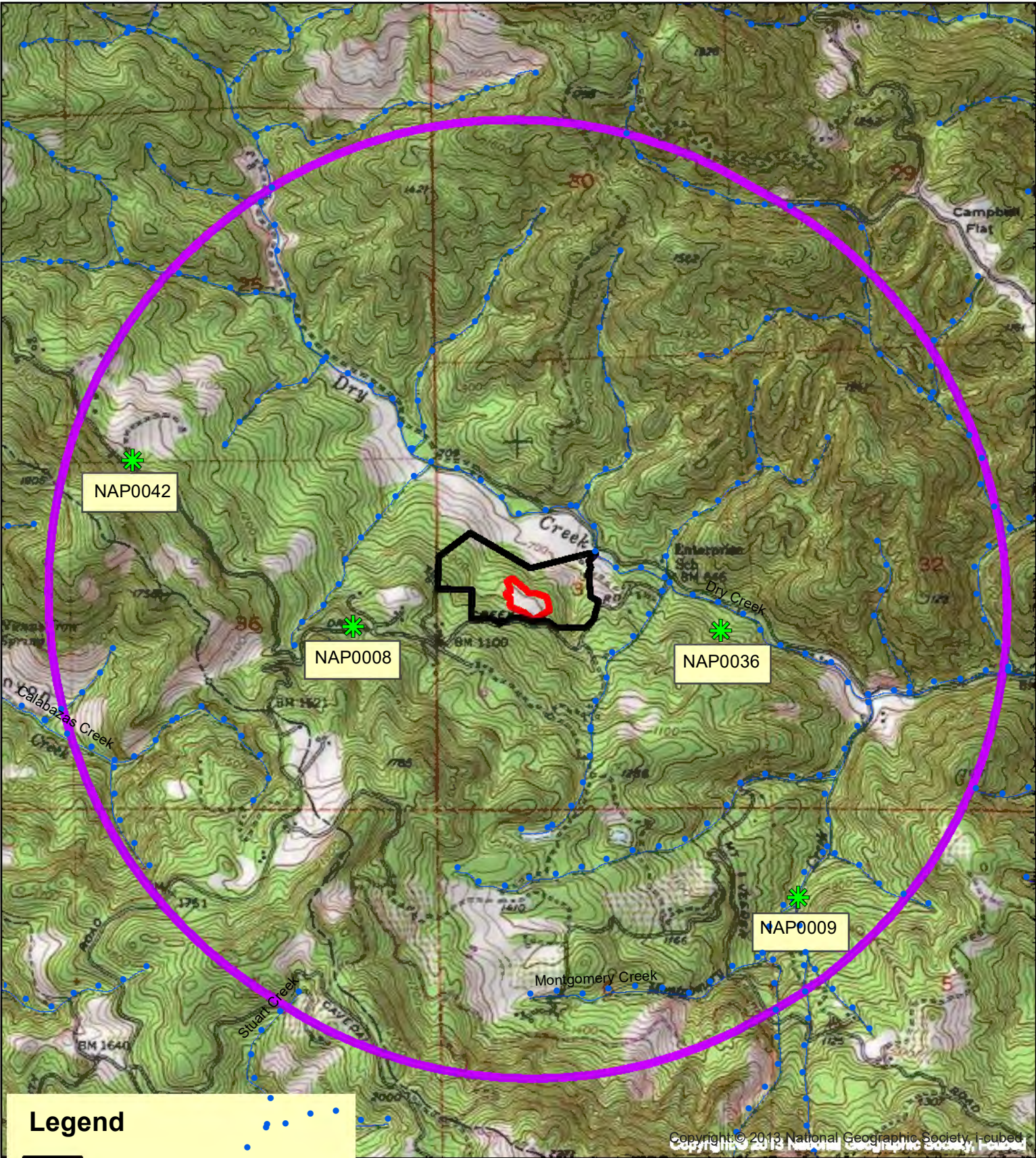
References:

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





United States Fish and Wildlife Service. Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California. October 1, 2020.

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.



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Legend

-  Basil Property Line
-  Basil Project Area
-  Owl Assessment (1.3 Miles)
-  NSO Activity Center

Section 31 T07N, R05W MDB&M
Parcel #: 027-530-006
Napa County

Forest Ecosystem Management, pllc

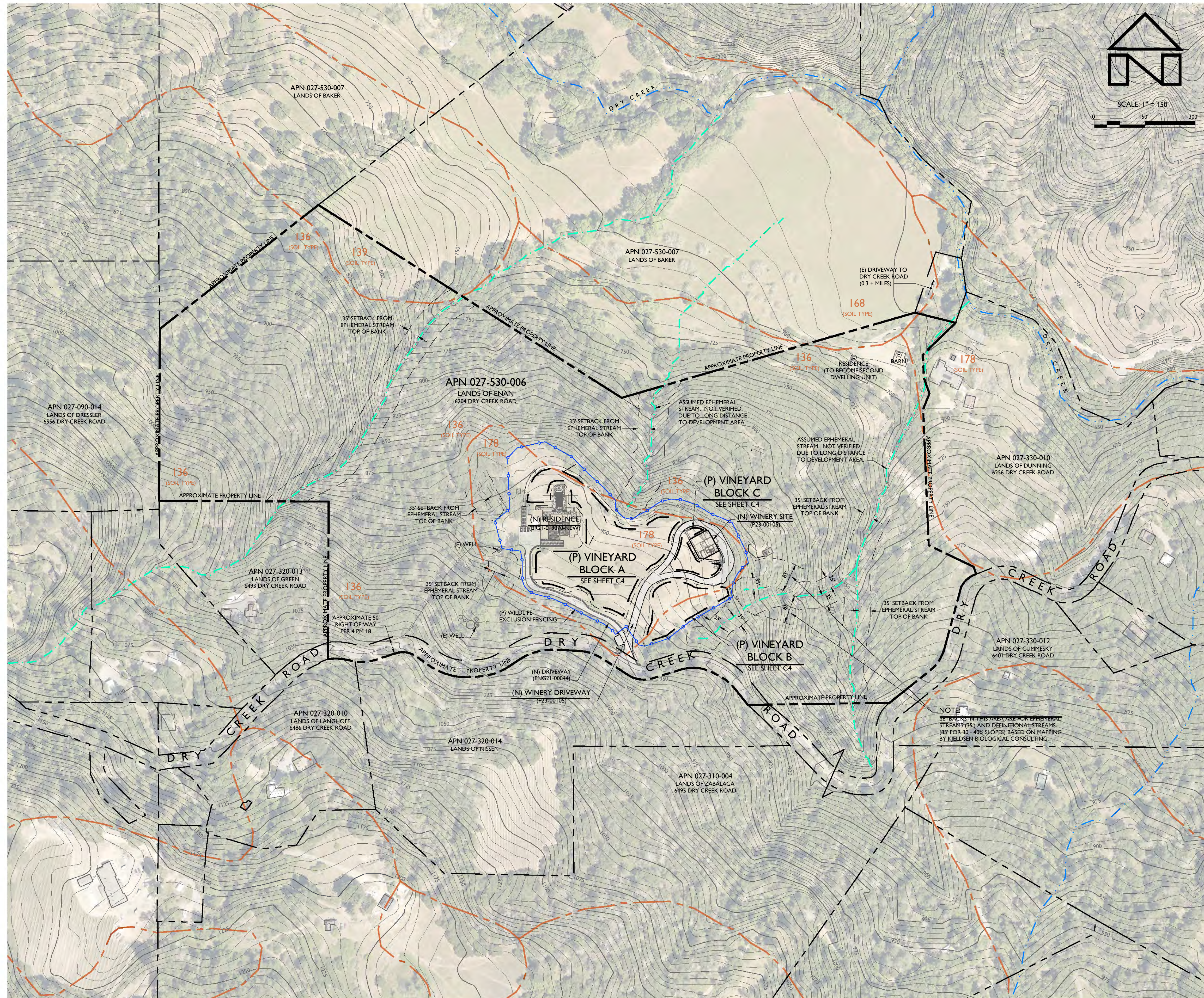
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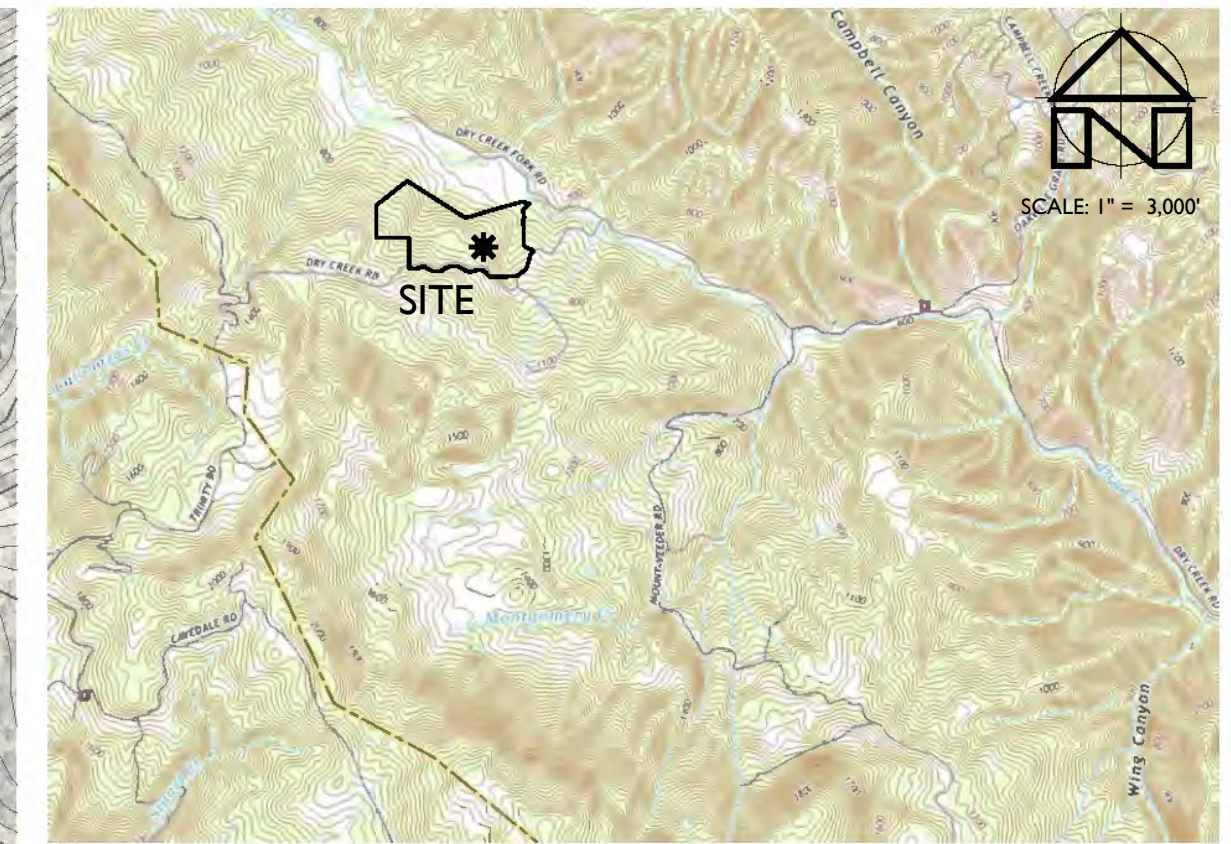
1:30,000
Date: 12/13/2023

HARCROSS WINERY

VINEYARD DEVELOPMENT EROSION CONTROL PLAN



OVERALL SITE PLAN
SCALE: 1" = 150'



LOCATION MAP

SCALE: 1" = 3,000'

PROJECT INFORMATION:

PROPERTY OWNER & APPLICANT:

BASIL AND ROBIN ENAN
1765 POPPY AVENUE
MENLO PARK, CA 94025

SITE ADDRESS:

6402 DRY CREEK ROAD
NAPA, CA 94558

ASSESSOR'S PARCEL NUMBER:
027-530-006

PARCEL SIZE:
51 ± ACRES

PROJECT SIZE:

- 1.0 ± ACRES (WINERY SITE)
- 3.0 ± ACRES (VINEYARD TOTAL DEVELOPMENT AREA)
- 2.5 ± ACRES (PLANTED VINEYARD)

ZONING: AGRICULTURAL WATERSHED (AW)

WATER SOURCE:
PRIVATE WELL

SHEET INDEX:

- | | |
|----|-----------------------------|
| C1 | OVERALL SITE PLAN |
| C2 | NOTES AND ABBREVIATIONS |
| C3 | SLOPE DETERMINATION EXHIBIT |
| C4 | EROSION CONTROL PLAN |
| C5 | DETAILS |







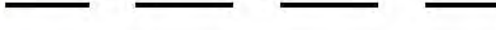




PURPOSE STATEMENT:

THE PURPOSE OF THIS PROJECT IS TO PLANT THREE (3) NEW VINEYARD BLOCKS ON THE SUBJECT PROPERTY.

FLOOD HAZARD NOTE:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 06055C0390E, EFFECTIVE SEPTEMBER 26, 2008, THE PROJECT SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA.

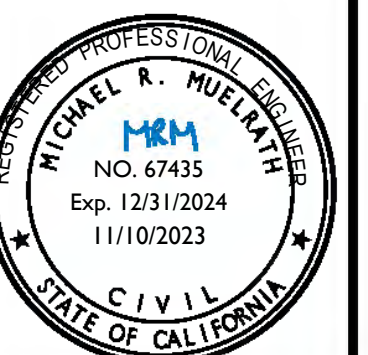
LEGEND:

	APPROXIMATE PROPERTY BOUNDARY (SUBJECT PARCEL)
	APPROXIMATE PROPERTY BOUNDARY (ADJACENT PARCEL)
	EXISTING EASEMENT OR SETBACK
	EXISTING RIGHT OF WAY LINE
	EXISTING CENTERLINE OF ROADWAY
	EXISTING STREAM
	COUNTY DEFINITION STREAM
	BLUE LINE STREAM
	EPHEMERAL STREAM
	SOIL TYPE BOUNDARY
	PROPOSED WILDLIFE EXCLUSION FENCING

SOIL TYPE LEGEND:

136	FELTON GRAVELLY LOAM, 30 TO 50 PERCENT SLOPES
139	FORWARD GRAVELLY LOAM, 9 TO 30 PERCENT SLOPES
168	PERKINS GRAVELLY LOAM, 2 TO 5 PERCENT SLOPES
178	SOBRANTE LOAM, 5 TO 30 PERCENT SLOPES

SOIL TYPE BOUNDARIES SHOWN ON THIS MAP ARE BASED ON THE
NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATA AND
SHOULD BE CONSIDERED APPROXIMATE.



RAWN BY:
PowerCAD LLC

CHECKED BY:
MRM

DATE:
NOVEMBER 10, 2023

REVISIONS: BY:
11/10/2023 YMS
PERMIT SUBMITTAL

OB NUMBER:
19-140

FILE: 9-140ECP-HW-OSP.DWG

ORIGINAL SIZE:
24" X 36"

SHEET NUMBER:

1

GENERAL NOTES:

1.

THESE DRAWINGS WERE DEVELOPED EXCLUSIVELY FOR THIS PROJECT AND ARE NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF APPLIED CIVIL ENGINEERING INCORPORATED.
2.

ALL MATERIALS AND WORKMANSHIP FOR THE WORK DESCRIBED ON THESE PLANS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AS ADOPTED AND AMENDED BY NAPA COUNTY:

A.

CALIFORNIA BUILDING CODE (2022)

B.

CALIFORNIA ELECTRIC CODE (2022)

C.

CALIFORNIA PLUMBING CODE (2022)

D.

CALIFORNIA MECHANICAL CODE (2022)

E.

CALIFORNIA FIRE CODE (2022)

F.

CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS (2022)

G.

NAPA COUNTY CODE (CURRENT)

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR BEING FAMILIAR WITH ALL STANDARDS, CODES AND REGULATIONS APPLICABLE TO THIS PROJECT.

3.

CONTRACTOR SHALL BE APPROPRIATELY LICENSED WITH THE STATE OF CALIFORNIA TO PERFORM THE WORK SHOWN ON THESE PLANS.
4.

CONTRACTOR SHALL SUPPLY ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO CONSTRUCT THE IMPROVEMENTS ILLUSTRATED ON THESE PLANS.
5.

CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL MATERIALS AND PRODUCTS TO BE USED FOR THE SITE IMPROVEMENTS TO APPLIED CIVIL ENGINEERING INCORPORATED FOR REVIEW AND APPROVAL.
6.

THE IMPROVEMENTS SHOWN ON THESE PLANS REQUIRE INSPECTION BY THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL INSPECTIONS.
7.

CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH APPLIED CIVIL ENGINEERING INCORPORATED AND NAPA COUNTY AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO REVIEW THE PROJECT PLANS AND SPECIFICATIONS AND NAPA COUNTY REQUIREMENTS.
8.

CONTRACTOR IS RESPONSIBLE FOR SECURING ALL CONSTRUCTION RELATED PERMITS FROM THE GOVERNING AGENCIES AND MAINTAINING A COPY OF THE PERMITS AND THE APPROVED PLANS ON THE JOB SITE AT ALL TIMES.
9.

THE PROPERTY OWNER AND CONTRACTOR ARE RESPONSIBLE FOR OBTAINING ALL APPROPRIATE PERMITS FOR WORK WITHIN ANY RIPARIAN AREA PRIOR TO COMMENCING WORK IN THAT AREA.
10.

CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS AND THE SAFETY OF PROPERTY AND PEOPLE ON THE JOB SITE AT ALL TIMES. CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE CONDITION, IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS, AT ALL TIMES, INCLUDING OUTSIDE OF NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
11.

CONTRACTOR SHALL PROVIDE AND MAINTAIN BARRICADES TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC TO THE SATISFACTION OF NAPA COUNTY AND THE OWNER.
12.

THESE PLANS ARE INTENDED TO PROVIDE HORIZONTAL AND VERTICAL CONTROL FOR THE PROPOSED SITE IMPROVEMENTS SHOWN HEREON.
13.

ALL DIMENSIONS SHOWN ON THESE PLANS SHOW MEASUREMENTS IN A HORIZONTAL PLANE UNLESS OTHERWISE SPECIFIED.
14.

ALL WRITTEN DIMENSIONS SUPERCEDE ANY SCALED DIMENSIONS. IF AN APPARENT DISCREPANCY IS IDENTIFIED CONTACT APPLIED CIVIL ENGINEERING INCORPORATED IMMEDIATELY FOR A WRITTEN CLARIFICATION.
15.

IF ANY CONTRACTOR, SUBCONTRACTOR, OR SURVEYOR IDENTIFIES ANY OMISSIONS, DEFICIENCIES, CONFLICTS OR ERRORS IN THESE PLANS AND SPECIFICATIONS OR IF THERE IS ANY DOUBT AS TO THEIR MEANING OR INTENT, THEY SHALL CONTACT APPLIED CIVIL ENGINEERING INCORPORATED FOR A WRITTEN ADDENDUM OR CLARIFICATION. CONTRACTOR IS NOT ELIGIBLE FOR ADDITIONAL COMPENSATION IF THEY FAIL TO DO SO BEFORE PROVIDING A PROPOSAL.
16.

CONTRACTOR IS TO PROTECT ALL EXISTING SITE IMPROVEMENTS, UTILITIES, BUILDINGS AND NATURAL FEATURES FROM DAMAGE THROUGHOUT THE DURATION OF CONSTRUCTION. ANY DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
17.

IN THE EVENT THAT ARCHEOLOGICAL ARTIFACTS OR HUMAN REMAINS ARE DISCOVERED DURING CONSTRUCTION, WORK SHALL CEASE IN A 50-FOOT RADIUS SURROUNDING THE AREA OF DISCOVERY. THE PERMITTEE SHALL CONTACT NAPA COUNTY PLANNING BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT AT (707) 253-4417 FOR FURTHER GUIDANCE, WHICH WILL LIKELY INCLUDE THE REQUIREMENT FOR THE PERMITTEE TO HIRE A QUALIFIED PROFESSIONAL TO ANALYZE THE ARTIFACTS ENCOUNTERED AND TO DETERMINE IF ADDITIONAL MEASURES ARE REQUIRED.

IF HUMAN REMAINS ARE ENCOUNTERED DURING THE DEVELOPMENT, ALL WORK IN THE VICINITY MUST BE, BY LAW, HALTED, AND THE NAPA COUNTY CORONER INFORMED, SO THAT THE CORONER CAN DETERMINE IF AN INVESTIGATION OF THE CAUSE OF DEATH IS REQUIRED, AND IF THE REMAINS ARE OF NATIVE AMERICAN ORIGIN. IF THE REMAINS ARE OF NATIVE AMERICAN ORIGIN, THE NEAREST TRIBAL RELATIVES AS DETERMINED BY THE STATE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED BY THE PERMITTEE TO OBTAIN RECOMMENDATIONS FOR TREATING OR REMOVAL OF SUCH REMAINS, INCLUDING GRAVE GOODS, WITH APPROPRIATE DIGNITY, AS REQUIRED UNDER PUBLIC RESOURCES CODE SECTION 5097.98.

EXISTING UTILITY NOTES:

1.

THE EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. THEY ARE BASED ON INFORMATION PROVIDED BY THE PROPERTY OWNER, THE SURVEYOR AND THE RESPECTIVE UTILITY COMPANIES. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR THE COMPLETENESS OF THEIR LOCATIONS.
2.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING UTILITY LOCATIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. IF A DISCREPANCY BETWEEN THE PLANNED AND ACTUAL HORIZONTAL OR VERTICAL LOCATION OF AN EXISTING UTILITY EXISTS, CONTACT APPLIED CIVIL ENGINEERING INCORPORATED FOR AN ALTERNATE DESIGN.
3.

CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO MARK THE LOCATION OF EXISTING UTILITY LINES. CALL UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600.
4.

EXISTING UTILITIES ARE TO REMAIN IN SERVICE AT ALL TIMES. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES PER THE REQUIREMENTS OF THE UTILITY OWNER.
5.

CONTRACTOR SHALL COORDINATE ANY REQUIRED UTILITY RELOCATIONS WITH THE UTILITY OWNER.

SURVEY NOTES:

1.

FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION ON SHEET C1 WAS TAKEN FROM THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATABASE. TOPOGRAPHIC INFORMATION ON OTHER SHEETS WAS TAKEN FROM THE "MAP OF TOPOGRAPHY OF A PORTION OF THE LANDS OF ENAN" PREPARED BY ALBION SURVEYS, INC., DATED JANUARY 30, 2020, UPDATED MARCH 22, 2022. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
2.

AERIAL PHOTOGRAPHS ARE NADIR IMAGES CAPTURED BY PICTOMETRY INTERNATIONAL DATED JULY 15, 2021 AND MAY NOT REPRESENT CURRENT CONDITIONS.
3.

CONTOUR INTERVAL:

SHEET C1: FIVE (5) FEET, HIGHLIGHTED EVERY TWENTY FIVE (25) FEET.

OTHER SHEETS: ONE (1) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET.
4.

VERTICAL DATUM: NAVD 88
5.

THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
6.

CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS. ANY AT-RISK MONUMENTS SHALL BE IDENTIFIED BY A PRE-CONSTRUCTION CORNER RECORD SUBMITTED TO THE COUNTY SURVEYOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. PRE AND POST CONSTRUCTION CORNER RECORDS SHALL BE PREPARED AS NEEDED TO PERPETUATE LOCATIONS THAT ARE AT RISK DUE TO PROJECT ACTIVITIES. ALL WORK TO BE PERFORMED BY A LICENSED SURVEYOR. MONUMENTS AND MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED SUBJECT TO THE PROVISIONS OUTLINED ABOVE AT THE CONTRACTOR'S EXPENSE.
7.

ALL CONSTRUCTION STAKING SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR.

GRADING NOTES:

1.

ALL EARTHWORK IS TO CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODE, NAPA COUNTY CONSERVATION REGULATIONS AND THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT - ENGINEERING DIVISION STANDARDS.
2.

ALL CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2:1 UNLESS OTHERWISE APPROVED BY A GEOTECHNICAL ENGINEER.
3.

ALL DEBRIS GENERATED DURING DEMOLITION, SITE STRIPPING AND GRADING ACTIVITIES IS TO BE DISPOSED OF PROPERLY OFFSITE BY THE CONTRACTOR.
4.

CONTRACTOR IS RESPONSIBLE FOR IMPORTING AND / OR EXPORTING MATERIALS AS NECESSARY TO ACHIEVE THE FINISH GRADES ILLUSTRATED ON THESE PLANS.
5.

CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN A MANNER THAT PREVENTS WIND BLOWN DIRT AND DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES.
6.

CONTRACTOR SHALL CONFORM TO EXISTING IMPROVEMENTS WITH A SMOOTH TRANSITION TO AVOID ABRUPT CHANGES IN GRADE, LOW SPOTS OR OTHER HAZARDOUS CONDITIONS.
7.

PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTAINING ALL FINISH GRADED SLOPES AFTER THE COMPLETION OF CONSTRUCTION AND REPAIRING ANY EROSION DAMAGE.

UTILITY NOTES:

STORM DRAIN PIPING NOTES:

1.

ALL STORM DRAIN PIPE 8" IN DIAMETER AND SMALLER IS TO BE SDR 35 PVC OR ADS N-12 WITH WATER TIGHT JOINTS UNLESS OTHERWISE NOTED.
2.

ALL STORM DRAIN PIPE 12" IN DIAMETER AND LARGER IS TO BE ADS N-12 WITH WATER TIGHT JOINTS UNLESS OTHERWISE NOTED.
3.

ALL 4" DIAMETER STORM DRAIN PIPE IS TO BE INSTALLED WITH A MINIMUM SLOPE OF 1% UNLESS OTHERWISE NOTED.
4.

ALL 6" AND LARGER STORM DRAIN PIPE IS TO INSTALLED WITH A MINIMUM SLOPE OF 0.5% UNLESS OTHERWISE NOTED.
5.

ALL STORM DRAIN PIPE WITH LESS THAN ONE FOOT OF COVER (FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF CONCRETE) IS TO BE BACKFILLED WITH LEAN CONCRETE.

EROSION CONTROL NOTES: PERMANENT COVER / NO TILL

1.

ALL EROSION CONTROL WORK WILL BE PERFORMED BY THE VINEYARD MANAGER IN ACCORDANCE WITH THIS APPROVED VINEYARD EROSION CONTROL PLAN.
2.

ALL DISTURBED AREAS MUST BE WINTERIZED BY OCTOBER 15TH OF EACH YEAR THAT THE PROJECT IS UNDER CONSTRUCTION.
3.

A REQUEST TO ALLOW GRADING TO EXTEND BEYOND OCTOBER 15TH MAY BE GRANTED BY THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT - CONSERVATION DIVISION IF A MAJORITY OF THE GRADING HAS BEEN COMPLETED AND THERE COULD BE A DETRIMENTAL EFFECT ON THE ENVIRONMENT IF THE REMAINING GRADING REMAINS INCOMPLETE. A REQUEST TO ALLOW GRADING TO EXTEND BEYOND OCTOBER 15TH MUST BE SUBMITTED IN WRITING TO NAPA COUNTY NO LATER THAN OCTOBER 1ST. GRADING BEYOND THE WINTERIZATION DEADLINE WILL NOT BE ALLOWED PRIOR TO APPROVAL BY NAPA COUNTY.
4.

ALL PERMANENT DRAINAGE FACILITIES AND SEDIMENT RETENTION STRUCTURES MUST BE INSTALLED BY OCTOBER 1ST.
5.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (WATER BARS, SILT FENCE & STRAW WATTLES) MUST BE INSTALLED BY OCTOBER 15TH.
6.

ALL EROSION CONTROL MEASURES MUST BE INSPECTED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE RAINY SEASON (OCTOBER 15TH THROUGH APRIL 1ST). INSPECTIONS MUST BE PERFORMED AT LEAST ONCE PER WEEK DURING EXTENDED DRY PERIODS, IMMEDIATELY BEFORE ANTICIPATED RAIN EVENTS, ONCE EVERY 24 HOURS DURING EXTENDED RAIN EVENTS AND IMMEDIATELY FOLLOWING EACH RAIN EVENT.
7.

ALL DISTURBED AREAS ARE TO BE STABILIZED BY PLANTING OF AN EROSION CONTROL COVER CROP. PRIOR TO APPLYING THE EROSION CONTROL SEED BLEND, THE SEED BED SHOULD BE PREPARED BY UNIFORMLY SCARIFYING THE GROUND SURFACE TO A DEPTH OF TWO TO FOUR INCHES AND CONDITIONING TO BREAK UP LARGE PEDS.
8.

THE COVER CROP SEED BLEND SHOULD BE BROADCAST OR DRILLED AFTER THE SEED BED HAS BEEN PREPARED.
9.

A TEMPORARY TILLED COVER CROP WILL BE ESTABLISHED IN THE VINEYARD BLOCK AREAS FOR THE FIRST THREE YEARS AFTER PLANTING WHILE THE VINEYARD IS GETTING ESTABLISHED. THE TEMPORARY COVER CROP SEED MIX FOR THE VINEYARD ESTABLISHMENT SHOULD BE THE "SOIL BUILDER" AVAILABLE FROM NAPA VALLEY AG SUPPLY APPLIED AT A MINIMUM RATE OF 75 POUNDS PER ACRE:

COMMON VETCH	10%
CALIFORNIA RED OATS	20%
FIELD PEAS	30%
BELL BEANS	40%
10.

THE PERMANENT COVER CROP SEED MIX FOR ALL NO-TILL VINEYARD BLOCKS AND VINEYARD AVENUES SHOULD BE THE "VINTNER'S BLEND" AVAILABLE FROM NAPA VALLEY AG SUPPLY APPLIED AT A MINIMUM RATE OF 75 POUNDS PER ACRE:

CREeping RED FESCUE	40%
CHewing FESCUE	25%
DWARF PERENNIAL RYE	25%
ROSE CLOVER	8%
NEW ZEALAND WHITE CLOVER	2%
11.

ALTERNATE SEED MIX MAY BE USED BY THE VINEYARD MANAGER PROVIDED THAT ATTENTION IS GIVEN TO CHOOSING A COVER CROP THAT IS SUITABLE FOR THE SITE SOIL AND TOPOGRAPHIC CONDITIONS. ANY ALTERNATE SEED MIX MUST BE APPROVED BY THE ENGINEER AND THE NAPA COUNTY RESOURCE CONSERVATION DISTRICT PRIOR TO USE.
12.

ALL SEEDED AREAS ARE TO BE FERTILIZED TO PROMOTE SUCCESSFUL ESTABLISHMENT OF THE COVER CROP. THE RECOMMENDED FERTILIZER IS AMMONIUM PHOSPHATE (16-20-0) APPLIED AT A RATE OF 250 POUNDS PER ACRE.
13.

ADDITIONAL SOIL AMENDMENTS WILL BE ADDED BASED ON FUTURE SOILS TESTING REPORTS BY OTHERS. TYPICAL AMENDMENTS INCLUDE COMPOSTED ORGANIC MATTER, LIME AND / OR GYP-SUM. THE AMENDMENTS SHOULD BE INCORPORATED DURING THE LAND PREPARATION PROCESS TO INCREASE SOIL NUTRIENT CONTENT AND AVAILABILITY, AND TO IMPROVE SOIL STRUCTURE AND WATER HOLDING CAPACITY.
14.

AFTER THE SEED AND FERTILIZER HAVE BEEN PLACED THE SEEDED AREA SHOULD BE RAKED, DRAGGED OR HARROWED TO ENSURE THAT SEEDS ARE PROPERLY BEDDED.
15.

ALL DISTURBED AREAS ARE TO BE MULCHED WITH STRAW AT A RATE OF 3,000 POUNDS PER ACRE TO PROTECT THE BARE SOILS WHILE THE COVER CROP IS GETTING ESTABLISHED.
16.

STRAW SHOULD BE SPREAD BY HAND IN A MANNER THAT PROMOTES FORMATION OF AN INTERWOVEN MATRIX. CRIMPING STRAW INTO THE SOIL IS HIGHLY RECOMMENDED ESPECIALLY ON WINDY SITES AND IS MANDATORY ON SITES WHERE STRAW IS MECHANICALLY CHOPPED AND BLOWN INTO PLACE.
17.

ALL SOIL CUT AND FILL SLOPES THAT ARE STEEPER THAN 4:1 (HORIZONTAL TO VERTICAL) MUST BE COVERED WITH NORTH AMERICAN GREEN C125BN EROSION CONTROL BLANKET AFTER THE EROSION CONTROL SEED AND FERTILIZER HAVE BEEN PLACED.
18.

CONTRACTOR MUST MAINTAIN AN ADEQUATE SUPPLY OF EROSION CONTROL MATERIALS ONSITE TO FACILITATE MAINTENANCE AND REPAIR THROUGHOUT THE RAINY SEASON. TYPICAL MATERIALS THAT SHOULD BE KEPT ONSITE INCLUDE SILT FENCE AND STRAW WATTLE SEDIMENT BARRIERS, GRAVEL BAGS, EROSION CONTROL BLANKETS, STRAW AND EROSION CONTROL SEED MIX.

EROSION CONTROL COVER CROP MANAGEMENT NOTES:

1.

ESTABLISHING AN EFFECTIVE VEGETATIVE COVER CROP WILL BE THE PRIMARY MEANS OF PREVENTING EROSION FROM THE PROPOSED VINEYARD DEVELOPMENT AREA. AFTER THE INITIAL LAND PREPARATION ACTIVITIES ARE COMPLETE A TEMPORARY COVER CROP WILL BE PLANTED AND STRAW MULCH WILL BE APPLIED THROUGHOUT THE CLEARED AREA TO STABILIZE THE PROJECT AREAS THROUGH THE WINTER. A MINIMUM COVERAGE OF 80% IS REQUIRED TO MAINTAIN EROSION RATES AT ACCEPTABLE LEVELS.
2.

THE TEMPORARY COVER CROP WILL BE TILLED IN THE SPRING DURING THE INITIAL VINEYARD ESTABLISHMENT PERIOD (UP TO THE FIRST THREE YEARS). THE TILLED AREAS AND ANY OTHER DISTURBED AREAS OR AREAS WITH LESS THAN ADEQUATE COVER WILL ALSO BE MULCHED EACH YEAR IN THE FALL TO PROTECT THE BARE SOIL WHILE THE COVER CROP IS GETTING ESTABLISHED.
3.

AFTER THE VINEYARD ESTABLISHMENT PERIOD ALL VINEYARD BLOCKS WILL BE CONVERTED TO A NO-TILL REGIME. THE NO-TILL COVER CROP WILL BE MOWED IN THE SPRING AND WILL BE RESEEDD AND MULCHED IN THE FALL AS NECESSARY TO ACHIEVE THE SPECIFIED 80% COVER.
4.

ALL VINEYARD AVENUES WILL BE PROTECTED WITH A PERMANENT NO-TILL COVER CROP WITH DENSITIES MAINTAINED AT 80% OR MORE THROUGHOUT THE RAINY SEASON. VINEYARD AVENUES SHALL NOT BE TILLED.
5.

THE COVER CROP SHOULD BE IRRIGATED PRIOR TO THE RAINY SEASON TO ESTABLISH A DENSE COVER PRIOR TO THE ONSET OF HEAVY RAINS. THIS IS ESPECIALLY IMPORTANT IN EROSION PRONE AREAS SUCH AS CROSS SLOPE DIVERSIONS. IN ORDER TO EFFECTIVELY ESTABLISH COVER IN THE CROSS SLOPE DIVERSIONS, AT LEAST TWO INCHES OF WATER SHOULD BE APPLIED TO A 20 FOOT WIDE STRIP CENTERED ALONG THE DIVERSIONS TO GERMINATE THE SEEDS. WATER SHOULD BE APPLIED BY SPRINKLER OR MICROSPRAYERS AT A RATE THAT DOES NOT CAUSE RUNOFF OR EROSION. ADDITIONAL WATER SHOULD BE APPLIED, AS NECESSARY, TO ACHIEVE THE DESIGN COVER PERCENTAGE AND TO MAINTAIN THE COVER CROP UNTIL SUFFICIENT RAINFALL OCCURS.

ABBREVIATIONS:

AB	AGGREGATE BASE	MIN	MINIMUM
AC	ASPHALT CONCRETE	(N)	NEW
AD	AREA DRAIN	NO	NUMBER
AP	ANGLE POINT	OC	ON CENTER
BTM	BOTTOM	OD	OUTSIDE DIAMETER
CLR	CLEAR	OG	ORIGINAL GRADE
CONF	CONFORM	(P)	PROPOSED
CP	CONTROL POINT	PC	POINT OF CURVATURE
DCV	DOUBLE CHECK VALVE	PCC	PORTLAND CEMENT CONCRETE
DI	DROP INLET	PIV	POST INDICATOR VALVE
DN	DOCUMENT NUMBER	PL	PROPERTY LINE
DOC	DOCUMENT	PT	POINT OF TANGENCY
DS	DOWN SPOUT	PVC	POLYVINYL CHLORIDE
(E)	EXISTING	PW	PROCESS WASTE
EC	END CURVE	PWCO	PROCESS WASTE CLEANOUT
ELEV	ELEVATION	RSV	RECIRCULATING SPLITTER VALVE
EP	EDGE OF PAVEMENT	SAD	SEE ARCHITECTURAL DRAWINGS
EPB	ELECTRICAL PULL BOX	SD	STORM DRAIN
EOC	EDGE OF CONCRETE	SDCO	STORM DRAIN CLEANOUT
(F)	FUTURE	SDMH	STORM DRAIN MANHOLE
FDC	FIRE DEPARTMENT CONNECTION	SED	SEE ELECTRICAL DRAWINGS
FF	FINISH FLOOR	SF	SQUARE FEET
FG	FINISH GRADE	SHLDR	SHOULDER
FH	FIRE HYDRANT	SLD	SEE LANDSCAPE DRAWINGS
FL	FLOW LINE	SHD	SEE MECHANICAL DRAWINGS
FSR	FINISH SURFACE	SPD	SEE PLUMBING DRAWINGS
FSR	FIRE SPRINKLER RISER	SSD	SEE STRUCTURAL DRAWINGS
GB	GRADE BREAK	SS	SANITARY SEWER
GM	GAS METER	SSCO	SANITARY SEWER CLEANOUT
HMA	HOT MIX ASPHALT	SSMH	SANITARY SEWER MANHOLE
HP	HIGH POINT	TC	TOP FACE OF CURB
INV	INVERT	TD	TERRACE DRAIN
IPS	IRON PIPE SIZE	TW	TOP OF WALL
IRR	IRRIGATION	TYW	TYPICAL
LF	LINEAR FEET	WM	WATER METER
LP	LOW POINT	WV	WATER VALVE
MAX	MAXIMUM	XFMR	TRANSFORMER

PREPARED UNDER THE DIRECTION OF:



DRAWN BY:
PowerCAD LLC

CHECKED BY:
MRM

DATE:
NOVEMBER 10, 2023

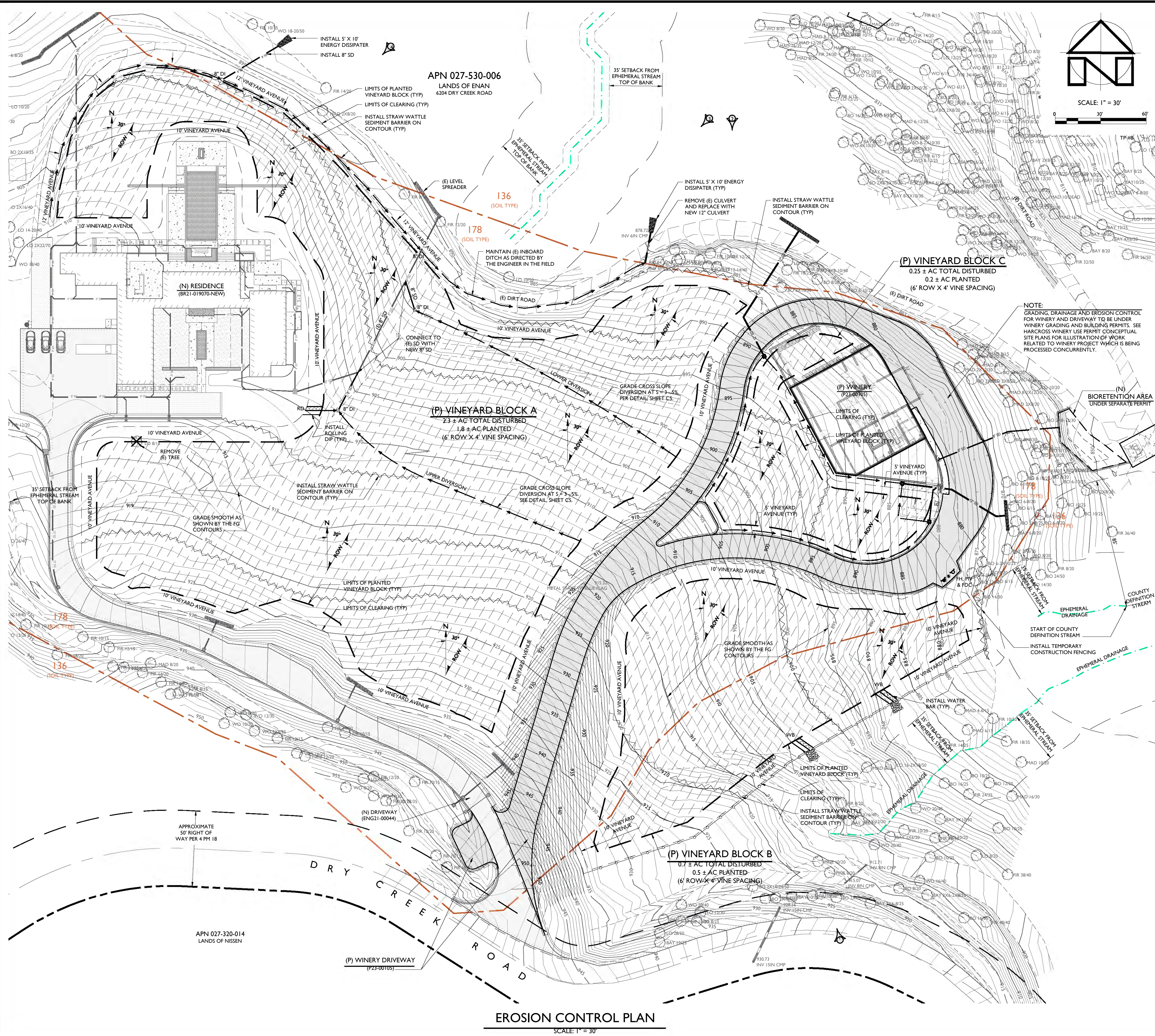
REVISIONS: BY:
11/10/2023 YMS
PERMIT SUBMITTAL

JOB NUMBER:
19-140

FILE:
19-140ECP-HW-NOTES.DWG

ORIGINAL SIZE:
24" X 36"

SHEET NUMBER:



SOIL TYPE LEGEND:

136 FELTON GRAVELLY LOAM, 30 TO 50 PERCENT SLOPES
178 SOBRANTE LOAM, 5 TO 30 PERCENT SLOPES

SOIL TYPE BOUNDARIES SHOWN ON THIS MAP ARE BASED ON THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATA AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND:	
	APPROXIMATE PROPERTY LINE (SUBJECT PARCEL)
	APPROXIMATE PROPERTY LINE (ADJACENT PARCEL)
	VINEYARD CLEARING LIMITS / VINEYARD AVENUE
	LIMIT OF VINEYARD BLOCK
	VINE ROW & ROW DIRECTION
	BLUE LINE STREAM
	EPHEMERAL STREAM
	COUNTY DEFINITION STREAM
	SOIL TYPE BOUNDARY
	STRAW WATTLE SEDIMENT BARRIER
	TEMPORARY CONSTRUCTION FENCE
	DRAIN INLET
	ROLLING DIP
	WATERBAR
	ROCK ENERGY DISSIPATOR
	PHOTO LOCATION AND DIRECTION

- NOTES:
- ALL CLEARING LIMITS SHALL BE MARKED BY THE ENGINEER OR SURVEYOR PRIOR TO CONSTRUCTION AND TEMPORARY CONSTRUCTION FENCING (ORANGE FENCING OR EQUIVALENT) SHALL BE INSTALLED ALONG THE CLEARING LIMITS PRIOR TO ANY LAND PREPARATION ACTIVITIES. THE TEMPORARY CONSTRUCTION FENCING SHALL BE ADJUSTED AROUND THE CANOPY OF ANY TREES THAT ARE TO REMAIN OUTSIDE OF THE CLEARING LIMITS WITH CANOPY THAT OVERHANGS INTO THE CLEARING LIMITS TO KEEP LAND PREPARATION ACTIVITIES OUTSIDE OF THE TREE CANOPY AREA.
 - ALL STREAM SETBACKS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO CONSTRUCTION.
 - TRACK WALK ENTIRE DISTURBED AREA. SEE SURFACE ROUGHENING DETAIL, SHEET CS.
 - ALL TEMPORARY STAGING, STOCKPILE AND PARKING AREAS SHALL BE WITHIN THE PROPOSED DEVELOPMENT AREAS. NO STAGING, STOCKPILING, PARKING OR OTHER LAND DISTURBANCE SHALL OCCUR OUTSIDE OF THE PROPOSED DEVELOPMENT AREAS.
 - ALL EROSION CONTROL MATERIALS SHALL BE FREE OF PLASTIC MONOFILAMENT SO THAT SMALL WILDLIFE WILL NOT BECOME ENTANGLED.

SITE PHOTOGRAPH NOTES:

REPRESENTS APPROXIMATE LOCATION AND DIRECTION OF ISOMETRIC VIEW OBTAINED FROM GOOGLE EARTH IMAGERY DATED MAY 16, 2023. SEE PHOTOGRAPHIC DOCUMENTATION OF EXISTING SITE CONDITIONS FOR THE HARCROSS WINERY VINEYARD DEVELOPMENT EROSION CONTROL PLAN FOR PHOTOGRAPHS AND DESCRIPTIONS.

HARCROSS WINERY

VINEYARD DEVELOPMENT EROSION CONTROL PLAN

EROSION CONTROL PLAN

PREPARED UNDER THE DIRECTION OF:



DRAWN BY: PowerCAD LLC
CHECKED BY: MRM
DATE: NOVEMBER 10, 2023
REVISIONS: BY: YMS
11/10/2023 PERMIT SUBMITTAL

JOB NUMBER: 19-140
FILE: 19-140ECP-HW-PLAN.DWG
ORIGINAL SIZE: 24" X 36"
SHEET NUMBER:

Data Version Date:
11/27/2023
Report Generation Date:
12/13/2023

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



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

M_07N_05W Sections(28,29,30,31,32,33);

M_07N_06W Sections(23,24,25,26,35,36);

M_06N_06W Sections(01,02,11,12);

M_06N_05W Sections(04,05,06,07,08,09);

NOTES:

Harcross Winery

Masterowl	Subspecies	LatDD NAD83	LonDD NAD83	MTRS	AC Coordinate Source
NAP0004	NORTHERN	38.380662	-122.421447	M 06N 05W 09	Contributor 2.9M
→ NAP0008	NORTHERN	38.408767	-122.468067	M 07N 06W 36	Contributor 0.4 Miles
→ NAP0009	NORTHERN	38.397579	-122.444580	M 06N 05W 05	Contributor 1.2 Miles
NAP0012	NORTHERN	38.424667	-122.433793	M 07N 05W 29	Contributor 1.8M
NAP0015	NORTHERN	38.393189	-122.418256	M 06N 05W 04	Contributor 2.8M
NAP0030	NORTHERN	38.414673	-122.417376	M 07N 05W 33	Contributor 2.1M
NAP0031	NORTHERN	38.371590	-122.391900	M 06N 05W 15	Contributor 4M
NAP0032	NORTHERN	38.385050	-122.448919	M 06N 05W 07	Contributor 2.1M
NAP0034	NORTHERN	38.381433	-122.439017	M 06N 05W 08	Contributor 2.6M
→ NAP0036	NORTHERN	38.408611	-122.448657	M 07N 05W 31	Contributor .4M
→ NAP0042	NORTHERN	38.415649	-122.479700	M 07N 06W 36	Contributor 1.1M
SON0026	NORTHERN	38.388499	-122.485832	M 06N 06W 02	Contributor 2.5

Known
Owls
within
1.3 Miles

NAP0008
NAP0009
NAP0036
NAP0042

Data Version Date:
11/27/2023

Report Generation Date:
12/13/2023

Report #2 - Observations Reported

List of observations reported by site.



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

M_07N_05W Sections(28,29,30,31,32,33);

M_07N_06W Sections(23,24,25,26,35,36);

M_06N_06W Sections(01,02,11,12);

M_06N_05W Sections(04,05,06,07,08,09);

NOTES:

Harcross Winery

Only
Relevant
Pages
Submitted

NAP00079
Barned owls
Pair NSO-2023

NAP0008
BARNED-NONE close listed
but to W & S
↓
Nunns
Canyon

NAP00036-
Barned owls
to N

NAP00042
Barned none listed

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2008-04-02	2047	1	UM				38.374301	-122.424309	M 06N 05W 09	Contributor
NEG	2008-04-15	2137- 2147	0					38.372277	-122.416166	M 06N 05W 16	Contributor
NEG	2009-02-03	1758- 1809	0					38.372162	-122.416169	M 06N 05W 16	Contributor
NEG	2009-02-03	1814- 1824	0					38.367574	-122.410497	M 06N 05W 16	Contributor
POS	2009-02-03	1850	1	UM				38.380174	-122.418339	M 06N 05W 09	Section centroid
NEG	2009-03-19	2123- 2133	0					38.367574	-122.410497	M 06N 05W 16	Contributor
NEG	2009-03-19	1941- 1951	0					38.372162	-122.416169	M 06N 05W 16	Contributor
POS	2009-03-27	2111	1	UM				38.380174	-122.418339	M 06N 05W 09	Section centroid
POS	2009-12-30	1758	1	UM				38.379259	-122.420489	M 06N 05W 09	Contributor
POS	2009-12-30	1758	1	UM				38.375736	-122.418206	M 06N 05W 09	Contributor
AC	2010-05-05	2105	2	UMUF				38.380662	-122.421447	M 06N 05W 09	Contributor
NEG	2010-12-30	1830- 1840	0					38.371965	-122.415206	M 06N 05W 16	Contributor
POS	2011-01-31	2103	1	UM				38.376574	-122.413632	M 06N 05W 09	Quarter-section centroid
POS	2012-04-09	2034	1	UM				38.378227	-122.420122	M 06N 05W 09	Contributor
Masterowl: NAP0008 Subspecies: NORTHERN											
POS	1989-08-16	0045	2	UMUF	Y			38.410601	-122.470784	M 07N 06W 36	Contributor
POS	1990-03-03	1910	1	UM				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1990-11-04	1830	1	UM				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
POS	1991-09-30	2014	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	1991-11-15		1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1992-01-23		0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	1992-09-28	2242	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	1993-02-13	2122	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	1993-03-12	2004	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	1993-06-11	1707	1	UM				38.405543	-122.468302	M 07N 06W 36	Contributor
POS	1993-10-10	1940	1	UM				38.405543	-122.468302	M 07N 06W 36	Contributor
POS	1994-04-06	1448	2	UMUF	Y			38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1994-10-30	1902	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	1994-11-16	2129	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	1995-05-25	2101	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1995-07-16	1450	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1995-12-26	1812	0					38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
POS	1995-12-28	1851	1	UM				38.412229	-122.478012	M 07N 06W 36	Quarter-section centroid
POS	1996-03-10	1900	1	UM				38.407972	-122.467368	M 07N 06W 36	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	1996-09-01	2000	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1996-11-23	1820	0					38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
POS	1997-02-28	2130	1	UM				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	1997-03-15	1920	0					38.405096	-122.473115	M 07N 06W 36	Half-section centroid
POS	1997-04-22	1740	2	AMAF	Y			38.409515	-122.469762	M 07N 06W 36	Contributor
NEG	1997-12-13	1702	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	1998-08-21	2107	2	UMUF	Y			38.405545	-122.468794	M 07N 06W 36	Activity center
NEG	1999-05-11	1930	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1999-05-21	2030	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1999-06-03	1918	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1999-06-09	2112	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1999-06-14	2014	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1999-06-21	1949	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	1999-07-13	2116	0					38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	1999-07-14	2110	0					38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	2000-04-04	1850	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2000-04-24	2013	0					38.408692	-122.473146	M 07N 06W 36	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2000-05-08	2150	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2000-05-08	2150	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2000-05-11	2107	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2000-05-11	2107	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2000-05-19	2002	0					38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2000-05-19	2002	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2000-05-20	2042	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2000-05-20	2042	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2001-02-03	1848	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2001-03-21	1804	0					38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2001-03-21	1804	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2001-04-10	2233	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2001-04-24	2110	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2001-05-21	2134	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2001-12-25	2400	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2002-02-01	2032	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2002-03-08	1836	1	UM				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2002-03-20	1803	0					38.394355	-122.491630	M 06N 06W 02	Section centroid
NEG	2002-03-20	1803	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2002-03-29	1827	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2002-04-10	2233	0					38.394355	-122.491630	M 06N 06W 02	Section centroid
NEG	2002-05-06	2016	0					38.394355	-122.491630	M 06N 06W 02	Section centroid
NEG	2002-05-06	2016	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2002-06-04	2043	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2002-06-20	1937	2	UMUF	Y			38.407201	-122.470282	M 07N 06W 36	Contributor
NEG	2002-11-22	1906	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2003	2400	0					38.407459	-122.470504	M 07N 06W 36	Contributor
POS	2003-01-20	1930	1	UM				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	2003-02-04	2122	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2003-02-17	2007	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2003-03-20	1847	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2003-04-06	1948	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2003-04-07	1903	2	UMUF	Y	Y		38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2003-04-08	2015	0					38.390733	-122.477594	M 06N 06W 01	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2003-04-13	1155	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2003-04-25	1705	2	UMUF	Y	Y		38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2003-05-05	1355	2	UMUF	Y	Y		38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2003-05-14	2139	0					38.390733	-122.477594	M 06N 06W 01	Quarter-section centroid
NEG	2003-06-05	2129	0					38.390733	-122.477594	M 06N 06W 01	Quarter-section centroid
POS	2003-06-07	1231	2	UMUF	Y	Y	1	38.405545	-122.468794	M 07N 06W 36	Contributor
POS	2003-06-17	1201	2	UMUF	Y		1	38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2003-06-18	1638	1	UF			1	38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2003-12-19	1204	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2003-12-19	1948	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2004-06-12	2225	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2005-02-06	1854	2	UMUF	Y			38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2005-04-04		1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2006-01-26	1657	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2006-03-19	2012	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2006-04-01	1636	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2006-04-03	1936	2	UMUF	Y			38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2006-04-08	1838	2	UMUF	Y			38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
POS	2006-04-23	2020	1	UM				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
POS	2006-05-04	1012	1	UU				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2006-05-20	0818	2	UMUF	Y	N		38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2006-07-05	2049	1	UU				38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	2006-10-11	1910	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2006-10-15	1829	1	UU				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2006-11-10	1741	1	UF				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2006-12-07	1704	0					38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2007-01-09	1720	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
NEG	2007-02-03	1751- 1819	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2007-02-05	2000- 2011	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
NEG	2007-02-15	1825- 1855	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2007-02-16	1810	1	UM				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2007-03-02	1741	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2007-03-19	1848	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2007-03-21	1610	2	UMUF				38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2007-03-25	1631	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2007-04-12	1618	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2007-04-20	1735	2	UMUF	Y			38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	2007-05-10	2158- 2208	0					38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2007-05-15	0941	1	UM		N		38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2007-05-20	1639	2	UMUF	Y			38.412294	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	2008-01-02	1848- 1858	0					38.408691	-122.473142	M 07N 06W 36	Section centroid
NEG	2008-01-07	1721- 1731	0					38.408691	-122.473142	M 07N 06W 36	Section centroid
NEG	2008-01-07	1738- 1748	0					38.408691	-122.473142	M 07N 06W 36	Section centroid
POS	2008-02-18	1923	1	UM				38.408650	-122.468554	M 07N 06W 36	Contributor
NEG	2008-02-29	1919- 1929	0					38.408691	-122.473142	M 07N 06W 36	Section centroid
NEG	2008-03-20	1911- 1921	0					38.408691	-122.473142	M 07N 06W 36	Section centroid
POS	2008-04-02	2152	1	UM				38.408691	-122.473142	M 07N 06W 36	Section centroid
POS	2008-04-16	1944	1	UM				38.412296	-122.468413	M 07N 06W 36	Quarter-section centroid
NEG	2008-04-17	1611- 1621	0					38.408691	-122.473142	M 07N 06W 36	Section centroid
POS	2008-04-17	2004	2	UMUF	Y			38.409549	-122.468339	M 07N 06W 36	Contributor
POS	2009-06-15	2044	1	UM				38.407972	-122.467368	M 07N 06W 36	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2009-07-02	1954	1	UM				38.412296	-122.468413	M 07N 06W 36	Quarter-section centroid
POS	2009-12-30	2050	1	UM				38.408691	-122.473142	M 07N 06W 36	Section centroid
POS	2010-05-02	2034	2	UMUF				38.408833	-122.469066	M 07N 06W 36	Contributor
NEG	2010-11-12	1850- 1900	0					38.408833	-122.469066	M 07N 06W 36	Contributor
POS	2011-01-31	1815- 1822	2	UMUF	Y			38.414963	-122.479650	M 07N 06W 36	Contributor
POS	2011-02-12	1847	1	UM				38.408783	-122.468066	M 07N 06W 36	Contributor
POS	2011-05-04	1953	2	UMUF	Y			38.408783	-122.468066	M 07N 06W 36	Contributor
NEG	2011-05-09	2126- 2136	0					38.398316	-122.471616	M 06N 06W 01	Contributor
NEG	2011-05-09	2113- 2123	0					38.408833	-122.469066	M 07N 06W 36	Contributor
NEG	2011-05-09	2031- 2041	0					38.400683	-122.465599	M 06N 06W 01	Contributor
NEG	2011-05-09	2042- 2052	0					38.400683	-122.465599	M 06N 06W 01	Contributor
NEG	2011-05-09	2102- 2112	0					38.408833	-122.469066	M 07N 06W 36	Contributor
POS	2011-05-09	2149	1	UU				38.415733	-122.479916	M 07N 06W 36	Contributor
POS	2011-05-09	2208	1	UM				38.408783	-122.468066	M 07N 06W 36	Contributor
POS	2011-05-18	2005	2	UMUF	Y			38.408783	-122.468066	M 07N 06W 36	Contributor
POS	2011-05-22	1750- 1804	2	UMUF	Y			38.407587	-122.468934	M 07N 06W 36	Contributor
POS	2011-11-02	1729	1	UM				38.408783	-122.468066	M 07N 06W 36	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2011-11-02	1743- 1753	0					38.415533	-122.479499	M 07N 06W 36	Contributor
NEG	2011-11-02	1826- 1836	0					38.415533	-122.479499	M 07N 06W 36	Contributor
NEG	2012-03-20	1843- 1855	0					38.408766	-122.468066	M 07N 06W 36	Contributor
POS	2012-03-20	2034	2	UMUF	Y			38.408799	-122.468885	M 07N 06W 36	Contributor
NEG	2012-04-05	2012- 2022	0					38.400682	-122.469293	M 06N 06W 01	Contributor
POS	2012-04-05	2011	1	UF				38.408767	-122.468067	M 07N 06W 36	Contributor
NEG	2012-04-15	2042- 2052	0					38.400683	-122.465600	M 06N 06W 01	Contributor
POS	2012-04-15	2133	1	UM				38.408367	-122.471750	M 07N 06W 36	Contributor
POS	2012-04-30	2031	1	UM				38.407514	-122.471105	M 07N 06W 36	Contributor
NEG	2012-04-30	1933- 1943	0					38.408317	-122.470733	M 07N 06W 36	Contributor
POS	2012-05-09	2210	1	UM				38.408767	-122.468067	M 07N 06W 36	Contributor
AC	2012-05-22	1736- 1743	2	UMUF	Y			38.408767	-122.468067	M 07N 06W 36	Contributor
POS	2012-05-27	1331- 1343	2	UMUF	Y			38.408767	-122.468067	M 07N 06W 36	Contributor
POS	2013-02-11	1419	2	UMUF	Y			38.408266	-122.468204	M 07N 06W 36	Contributor
POS	2013-04-12	1547- 1604	2	UMUF	Y			38.408750	-122.468030	M 07N 06W 36	Contributor
POS	2013-04-21	1624- 1633	2	UMUF	Y			38.408750	-122.468030	M 07N 06W 36	Contributor
POS	2013-04-27	1836- 1839	2	UMUF	Y			38.408266	-122.468204	M 07N 06W 36	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2013-05-19	1130- 1150	2	UMUF	Y			38.408266	-122.468204	M 07N 06W 36	Contributor
POS	2014-02-19	1111	2	UMUF	Y			38.407742	-122.468201	M 07N 06W 36	Contributor
POS	2014-02-22	1801	2	UMUF	Y			38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2014-03-04	1905	1	UM				38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2015-01-15	1339- 1342	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2015-02-16	1143- 1150	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2015-04-04	1021- 1031	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2015-04-25	1948	2	UMUF	Y			38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
POS	2015-05-06	1117- 1123	2	UMUF	Y	(Y)		38.405093	-122.468351	M 07N 06W 36	Quarter-section centroid
Masterowl: NAP0009 Subspecies: NORTHERN											
POS	1989-08-09		2	UMUF	Y			38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1989-11-02	1822	1	UM				38.394439	-122.450382	M 06N 05W 06	Half-section centroid
POS	1990-03-03	2020	2	UMUF	Y			38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	1990-05-29	2028	2	UMUF	Y			38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1990-08-21	2208	2	UMUF				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1990-11-04		1	UF				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1990-11-04	1857	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1990-11-11		1	UM				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
POS	1990-11-11	1712	1	UF				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1990-12-27	1753	2	UMUF				38.395256	-122.445932	M 06N 05W 05	Contributor
POS	1991-03-31	1856	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1991-05-28	2017	2	UMUF	Y			38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1991-07-23	2205	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1991-09-28	1944	1	UM				38.394361	-122.432243	M 06N 05W 05	Half-section centroid
POS	1991-09-28		1	UF				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1991-11-15		1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1991-11-15		1	UF				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	1991-11-20		0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	1991-12-25		1	UM				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
NEG	1992-01-04		0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	1992-01-30		1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1992-03-07	1901	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1992-04-22	1938	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1992-08-30	2054	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1992-11-01	1953	1	UF				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1993-05-20	2117	2	UMUF				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
POS	1993-10-10	1920	1	UM				38.394477	-122.441426	M 06N 05W 05	Half-section centroid
POS	1994-02-01	1841	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1994-05-29	2107	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1994-10-30	1846	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1994-12-26	1739	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1994-12-28	1906	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1995-04-16	2033	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1995-05-20	2050	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1995-05-25	2010	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1995-12-26	1748	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1995-12-28	1906	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1996-01-02	1823	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1996-09-01	2040	1	UM				38.390604	-122.459022	M 06N 05W 06	Quarter-section centroid
NEG	1996-11-23	1741	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	1997-04-06	2004	1	UU				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1997-05-07	2155	2	UMUF	Y			38.396191	-122.443635	M 06N 05W 05	Contributor
POS	1997-11-08	1650	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1997-12-13	1737	1	UM				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
POS	1998-04-27	2025	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1998-07-08	2154	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	1998-08-21	2045	1	UM				38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	1999-01-14	1856	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	1999-07-13	2048	2	UMUF	Y			38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2000-03-03	1832	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	2000-03-03	1941	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2000-03-03	1941	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2000-04-19	2140	0					38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2000-04-19	2140	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	2000-04-29	2142	1	UF				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2000-04-29	2142	1	UF				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2000-05-20	2159	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	2000-05-20	2159	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2001-01-07	1750	1	UM				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
NEG	2001-02-03	1848	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2001-04-21	2116	1	UM				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
POS	2001-04-21	2116	1	UM				38.390944	-122.441431	M 06N 05W 05	Quarter-section centroid
POS	2001-05-12	2137	1	UM				38.390944	-122.441431	M 06N 05W 05	Quarter-section centroid
POS	2002-02-01	2105	1	UM				38.390944	-122.441431	M 06N 05W 05	Quarter-section centroid
POS	2002-03-08	1928	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	2002-04-29	2107	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2002-11-22	1833	2	UMUF	Y			38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2003-02-04	1932	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2003-02-17	1944	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	2003-02-25	2033	1	UF				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2003-02-25	2026	2	UMUF	Y			38.390769	-122.450089	M 06N 05W 06	Contributor
POS	2003-03-20	1942	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2003-12-19	1911	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	2004-02-12	1835	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2004-03-12	1824	0					38.394351	-122.454768	M 06N 05W 06	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2004-03-23	1933	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	2004-05-12	2132	1	UM				38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2005-02-06	1908	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	2005-02-12	1958	1	UF				38.394351	-122.454768	M 06N 05W 06	Section centroid
NEG	2005-04-06	2008	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
NEG	2005-05-01	2159	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
NEG	2005-05-23	2221	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
NEG	2006-04-03	2045	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
NEG	2006-05-07	2055	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
NEG	2006-05-20	2156	0					38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
POS	2006-06-05	2132	1	UU				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
NEG	2006-06-11	2114	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	2006-06-20	2145	1	UF				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
NEG	2006-10-11	1953	0					38.394351	-122.454768	M 06N 05W 06	Section centroid
POS	2006-12-29	1928	1	UM				38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	2007-01-09	1830	2	UMUF	Y			38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
POS	2007-02-03	1852	2	UMUF	Y			38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2007-02-16	1855	1	UF				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
POS	2007-03-11	2021	1	UM				38.390870	-122.450363	M 06N 05W 06	Quarter-section centroid
POS	2007-04-20	2228	2	UMUF	Y			38.397998	-122.450400	M 06N 05W 06	Quarter-section centroid
NEG	2007-05-14	2209	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
POS	2007-12-26	1736	1	UM				38.394419	-122.436823	M 06N 05W 05	Section centroid
NEG	2007-12-28	1810	0					38.394419	-122.436823	M 06N 05W 05	Section centroid
NEG	2008-02-08	1816- 1826	0					38.396444	-122.448055	M 06N 05W 06	Contributor
POS	2008-02-08	1843	1	UM				38.392222	-122.449250	M 06N 05W 06	Contributor
POS	2008-04-02	1956	1	UM				38.396444	-122.448055	M 06N 05W 06	Contributor
POS	2008-09-03	2027	1	UM				38.396444	-122.448055	M 06N 05W 06	Contributor
POS	2009-02-03	1930	1	UM				38.397998	-122.450397	M 06N 05W 06	Quarter-section centroid
POS	2009-02-20	1903	1	UM				38.398007	-122.441413	M 06N 05W 05	Quarter-section centroid
POS	2009-07-02	2107	1	UM				38.398085	-122.445170	M 06N 05W 05	Contributor
POS	2009-12-30	2009	1	UM				38.397209	-122.437305	M 06N 05W 05	Contributor
POS	2010-01-03	2024- 2027	2	UMUF				38.391596	-122.434812	M 06N 05W 05	Contributor
POS	2010-05-02	2125	1	UM				38.397930	-122.445772	M 06N 05W 05	Contributor
POS	2010-11-12	1800	2	UMUF				38.397297	-122.445893	M 06N 05W 05	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2011-01-31	1920	1	UF				38.396400	-122.448216	M 06N 05W 06	Contributor
POS	2011-01-31	1919	1	UM				38.396400	-122.448216	M 06N 05W 06	Contributor
POS	2011-04-21	2112	1	UM				38.396416	-122.448066	M 06N 05W 06	Contributor
POS	2011-11-02	1916	2	UMUF	Y			38.396400	-122.448216	M 06N 05W 06	Contributor
POS	2011-11-11	1853	2	UMUF	Y			38.390416	-122.437233	M 06N 05W 05	Contributor
POS	2011-11-11	1839	2	UMUF	Y			38.387800	-122.445216	M 06N 05W 05	Contributor
POS	2012-03-20	2140	2	UMUF	Y			38.398010	-122.441411	M 06N 05W 05	Quarter-section centroid
NEG	2012-04-09	2058- 2108	0					38.387167	-122.442883	M 06N 05W 08	Contributor
POS	2012-04-15	2027	1	UM				38.398978	-122.448092	M 06N 05W 06	Contributor
POS	2012-05-09	2236	2	UMUF	Y			38.398010	-122.441411	M 06N 05W 05	Contributor
POS	2013-02-12	1946	1	UM				38.393585	-122.449331	M 06N 05W 06	Contributor
POS	2013-02-15	1036	1	UM				38.396378	-122.445448	M 06N 05W 05	Contributor
POS	2014-03-04	2015	2	UMUF	Y			38.396398	-122.446041	M 06N 05W 06	Contributor
POS	2014-04-14	2155	2	UMUF	Y			38.396378	-122.445448	M 06N 05W 05	Contributor
AC	2015-02-12	1920	2	UMUF	Y			38.397579	-122.444580	M 06N 05W 05	Contributor
Masterowl: NAP0012 Subspecies: NORTHERN											
POS	1989-08-04		1	UM	Y			38.417257	-122.415145	M 07N 05W 33	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2009-12-30	1745- 1755	0					38.383470	-122.432594	M 06N 05W 08	Contributor
NEG	2009-12-30	1718- 1728	0					38.380904	-122.436813	M 06N 05W 08	Contributor
NEG	2009-12-30	1718- 1755	0					38.380204	-122.436669	M 06N 05W 08	Section centroid
NEG	2010-12-30	1851- 1901	0					38.390416	-122.437233	M 06N 05W 05	Contributor
POS	2011-01-31	2030- 2051	2	UMUF	Y			38.382116	-122.432100	M 06N 05W 08	Contributor
AC	2012-04-09	1919	2	UMUF	Y			38.381433	-122.439017	M 06N 05W 08	Contributor
POS	2013-05-04	1307	1	UU				38.380432	-122.440923	M 06N 05W 08	Contributor
Masterowl: NAP0036 Subspecies: NORTHERN											
POS	1995-12-26	1834	1	UM				38.415407	-122.451620	M 07N 05W 31	Quarter-section centroid
POS	1995-12-26		1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	1995-12-28	1817	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	1996-01-02	1810	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	1996-03-10	1842	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	1996-09-01	2032	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	1996-11-23	1833	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	1997-04-06	2025	2	UMUF	Y			38.409516	-122.450405	M 07N 05W 31	Contributor
POS	1997-12-13	1726	1	UM				38.415407	-122.451620	M 07N 05W 31	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1998-08-21	2056	1	UM				38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	1999-01-14	2006	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	1999-04-09	2005	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
NEG	1999-05-11	1930	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	1999-05-21	2030	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	1999-06-03	1918	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	1999-06-09	2112	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	1999-06-14	2014	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	1999-06-21	1949	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	1999-07-13	2105	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
NEG	2000-03-03	1957	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2000-03-03	1957	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2000-04-19	2152	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2000-04-19	2152	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2000-05-20	2130	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2000-05-20	2130	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2001-02-03	1848	0					38.410575	-122.455310	M 07N 05W 31	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2001-04-04	2115	0					38.410772	-122.451208	M 07N 05W 31	Half-section centroid
NEG	2001-04-10	2223	0					38.410772	-122.451208	M 07N 05W 31	Half-section centroid
NEG	2001-04-17	2312	0					38.410772	-122.451208	M 07N 05W 31	Half-section centroid
NEG	2001-04-24	2223	0					38.410772	-122.451208	M 07N 05W 31	Half-section centroid
POS	2001-05-12	2149	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
NEG	2002-02-01	2400	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2002-02-11	2400	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2002-03-08	1904	1	UM				38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2002-03-29	1905	1	UM				38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2002-06-04	2400	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2002-11-22	1923	1	UF				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
NEG	2002-12-25	2400	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2003-01-20	1950	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2003-02-04	2055	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2003-02-17	2025	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2003-03-20	1906	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2003-04-06	2033	1	UM				38.410575	-122.455310	M 07N 05W 31	Section centroid

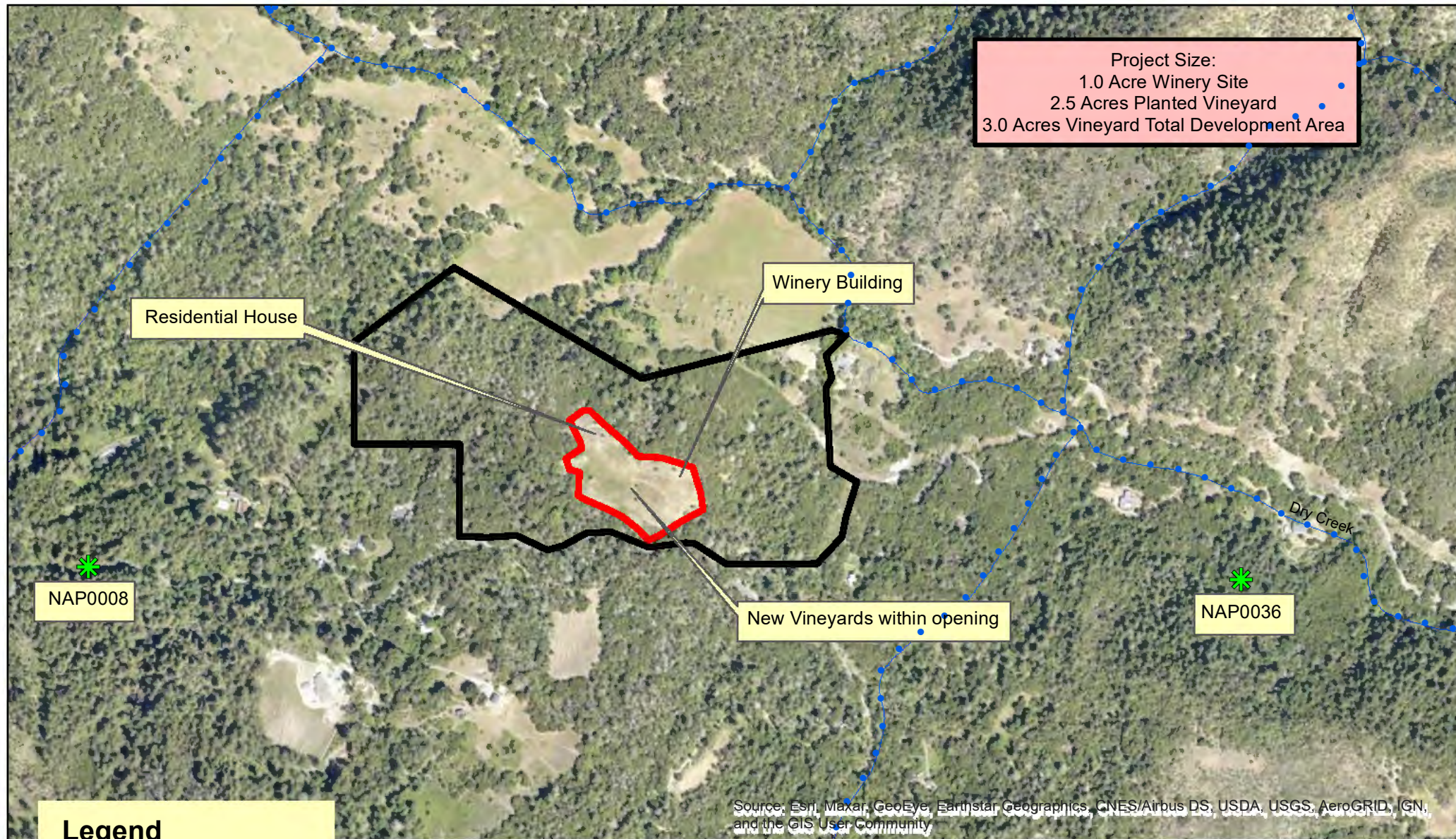
<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2003-12-19	1935	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	2004-02-15	1925	2	UMUF	Y			38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	2004-03-12	1744	2	UMUF	Y			38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2004-03-21	1729	2	UMUF	Y			38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2004-04-22	1112	2	UMUF	Y			38.408692	-122.473146	M 07N 06W 36	Section centroid
POS	2004-06-07	2138	1	UF				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	2005-02-06	1842	1	UM				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
NEG	2005-03-28	1901	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2005-04-06	1951	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2006-01-26	1727	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2006-04-03	2008	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2006-04-23	2027	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2006-06-12	2040	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2006-07-05	2106	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2006-08-06	2039	0				1	38.408659	-122.455321	M 07N 05W 31	Contributor
POS	2006-10-11	1933	1	UF				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid
POS	2007-01-09	1811	1	UU				38.406147	-122.450797	M 07N 05W 31	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2007-02-05	1944- 2023	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2007-02-15	1903	1	UM				38.406052	-122.459330	M 07N 05W 31	Quarter-section centroid
NEG	2007-02-16	1825- 1835	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
NEG	2007-03-02	1929- 1939	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2007-03-19	1955	2	UMUF	Y			38.407651	-122.456375	M 07N 05W 31	Contributor
NEG	2007-05-10	2144- 2154	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2008-01-07	1803	1	UM				38.406056	-122.459326	M 07N 05W 31	Quarter-section centroid
NEG	2008-03-20	2027- 2037	0					38.410846	-122.451600	M 07N 05W 31	Contributor
NEG	2008-03-20	2014- 2024	0					38.410576	-122.455313	M 07N 05W 31	Section centroid
POS	2009-06-15	2137	2	UMUF	Y			38.410476	-122.451615	M 07N 05W 31	Contributor
POS	2009-07-02	2038	2	UMUF				38.406145	-122.450800	M 07N 05W 31	Quarter-section centroid
POS	2010-05-02	2056	2	UMUF				38.409951	-122.453208	M 07N 05W 31	Contributor
NEG	2010-05-02	2043- 2053	0					38.408316	-122.455883	M 07N 05W 31	Contributor
POS	2011-01-31	1859	2	UMUF	Y			38.410400	-122.452000	M 07N 05W 31	Contributor
POS	2011-05-04	2120	1	UM				38.409792	-122.452999	M 07N 05W 31	Contributor
NEG	2012-03-20	2046- 2056	0					38.410467	-122.452000	M 07N 05W 31	Contributor
POS	2012-04-15	2201	1	UF				38.408342	-122.455932	M 07N 05W 31	Contributor




Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2012-04-30	2047	1	UM				38.406056	-122.459326	M 07N 05W 31	Quarter-section centroid
NEG	2013-04-27	1905- 1915	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
AC	2013-04-27	1935	2	UMUF	Y			38.408611	-122.448657	M 07N 05W 31	Contributor
NEG	2013-04-27	1921- 1931	0					38.410575	-122.455310	M 07N 05W 31	Section centroid
POS	2014-03-04	1900	1	UF				38.409096	-122.452208	M 07N 05W 31	Contributor
POS	2015-04-25	2035	2	UMUF	Y			38.408939	-122.450119	M 07N 05W 31	Contributor
Masterowl: NAP0042 Subspecies: NORTHERN											
POS	2008-02-18	1941	1	UM				38.419842	-122.485486	M 07N 06W 26	Contributor
NEG	2008-02-29	1903- 1913	0					38.422779	-122.492185	M 07N 06W 26	Section centroid
NEG	2008-02-29	1850- 1900	0					38.422779	-122.492185	M 07N 06W 26	Section centroid
NEG	2008-03-20	1932- 1942	0					38.422779	-122.492185	M 07N 06W 26	Section centroid
NEG	2008-03-20	1953- 2003	0					38.422779	-122.492185	M 07N 06W 26	Section centroid
NEG	2011-05-04	2015- 2025	0					38.424849	-122.488299	M 07N 06W 26	Contributor
POS	2011-05-04	2030	2	UMUF	Y			38.414761	-122.479422	M 07N 06W 36	Contributor
POS	2012-03-20	2009	1	UM				38.400470	-122.480210	M 06N 06W 01	Contributor
POS	2012-03-20	2035	1	UM				38.415364	-122.479922	M 07N 06W 36	Contributor
POS	2012-04-15	2105	1	UM				38.400470	-122.480210	M 06N 06W 01	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
AC	2012-04-30	1953	2	UMUF	Y			38.415649	-122.479700	M 07N 06W 36	Contributor
POS	2013-02-11	1436	1	UM				38.415765	-122.480789	M 07N 06W 36	Contributor
Masterowl: SON0026 Subspecies: NORTHERN											
POS	1990-04-18	2107	1	UM				38.380097	-122.491524	M 06N 06W 11	Section centroid
POS	1992-08-30	2028	1	UM				38.382916	-122.487016	M 06N 06W 11	Contributor
NEG	1999-05-11	1930	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	1999-05-21	2030	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	1999-06-03	1918	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	1999-06-09	2112	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	1999-06-14	2014	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	1999-06-21	1949	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
AC	1999-07-14	2138	1	UM				38.388499	-122.485832	M 06N 06W 02	Contributor
NEG	2000-04-04	1850	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	2000-04-04	1850	0					38.390733	-122.477594	M 06N 06W 01	Quarter-section centroid
NEG	2000-04-24	2013	0					38.390733	-122.477594	M 06N 06W 01	Quarter-section centroid
NEG	2000-04-24	2013	0					38.394254	-122.472874	M 06N 06W 01	Section centroid
NEG	2000-05-11	2122	0					38.380097	-122.491524	M 06N 06W 11	Section centroid

Harcross Winery - Project Area



Legend

-  Basil Property Line
-  Basil Project Area
-  NSO Activity Center

Section 31 T07N, R05W MDB&M
Parcel #: 027-530-006
Napa County

Forest Ecosystem Management, pllc

Date: 12/13/2023

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1:10,000

Harcross Winery - Northern Spotted Owl Survey Stations

