“E”

Biological Study

Kallweit Residence P20-00100
Zoning Administrator Hearing Date June 30, 2021

BIOLOGICAL RESOURCES REPORT

Oakville Ridge Road Single-Family Residence (APN 027-340-024) and Road Improvements Project, Napa County, CA

Prepared for:

Keith Kallweit
440 Wellesley Avenue
Mill Valley, CA 94941

Project No. 2006

Prepared by:

Dana Riggs
Principal Biologist
Sol Ecology, Inc.
P.O. Box 5214
Petaluma, CA 94955
driggs@solecology.com
707-241-7718

Date: July 24, 2020

SOL ECOLOGY

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

CDFG/CDFW	California Department of Fish and Game/Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
ESA	Federal Endangered Species Act
NRCS	Natural Resources Conservation Service
NSO	Northern Spotted Owl
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

1.0 INTRODUCTION

On January 21, April 15, and June 11, 2020 Sol Ecology, Inc. (Sol Ecology) performed biological resources surveys at Oakville Ridge Road (APN 027-340-024), Napa County, California (Project Study Area - Appendix A, Figure 1). The proposed project includes the development of a new, single-family residence, secondary unit, and accessory structure. As part of the project, the Applicant will also provide improvements to the existing 10 to 12-foot wide residential driveway (Oakville Ridge Road) including clearing vegetation removal from existing turnouts, construction of new turnouts per County standards where feasible, and improvement of existing road surfaces.

The purpose of the assessment was to gather information necessary to complete a review of potential biological resources that may be affected by development of the proposed Project for Napa County Planning Division. This report describes the results of the site survey and assessment of the Project Study Area for the presence of sensitive biological resources protected by local, state, and federal laws and regulations and recommendations for avoidance and/or additional studies as necessary to ensure potential impacts are minimized. This assessment is based on information available at the time of the survey and on-site conditions that were observed on the date of the site visit.

1.1 Project Setting

The Project Study Area is located in Napa County, accessed via Oakville Ridge Road, off of Oakville Grade. The approximately 46.4-acre Project Study Area is within APN 027-340-024 (Figure 1). The parcel is currently zoned as Agricultural Watershed (AW) (Napa County 2020). The parcel is bounded by parcels that are also classified as Agricultural Watersheds. The Project Study Area consists of hilly terrain with elevation changes from approximately 750 to 1,500 feet above sea level (approximately 200-500 meters).

2.0 METHODS

On January 21, April 15, and June 11, 2020, the Project Study Area was traversed on foot to determine the presence of (1) plant communities both sensitive and non-sensitive, (2) special status plant and wildlife species, and (3) presence of essential habitat elements for any special status plant or wildlife species.

2.1 Literature Review

To evaluate whether special status species or other sensitive biological resources (e.g., wetlands) could occur in the Project Study Area and vicinity, Sol Ecology biologists reviewed the following:

- California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Plants of California search for U.S. Geological Survey (USGS) 7.5-minute Rutherford quadrangle and eight adjacent quadrangles (CNPS 2020a);
- California Natural Diversity Database (CNDDB) records search for USGS 7.5-minute Rutherford quadrangle and eight adjacent quadrangles (California Department of Fish and Wildlife [CDFW] 2020);
- U.S. Fish and Wildlife Service (USFWS) list of threatened and endangered species for the Project Study Area (USFWS 2020a);
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990);
- CDFG publication California Bird Species of Special Concern (Shuford and Gardali 2008);
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016);
- USFWS National Wetlands Inventory, Wetlands Mapper (USFWS 2020b); and
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey (USDA 2019).

Based on information from the above sources, Sol Ecology developed lists of special status species and sensitive natural communities that could be present in the project vicinity based on a 9-quad search (Appendix B). Figures 3, 4, and 5 (Appendix A) present the results of a 5-mile CNDDB map record search around the Project Study Area for special status plants and wildlife. All biological resources are evaluated for their potential to occur within the study area in Section 3.0 of this report.

2.2 Field Survey

Sol Ecology biologists conducted a biological resources survey on January 21, 2020. Biologists walked through accessible portions of the Project Study Area identifying all plant and wildlife species encountered and mapping vegetation communities. Plant species were recorded and identified using the second edition of the *Jepson Manual* (Baldwin et al. 2012). All plant species observed in the study area are included in Appendix D – Observed Species Table. Vegetation communities were identified using the online version of *A Manual of California Vegetation* (CNPS 2020b). Dispersal habitat, foraging habitat, refugia or estivation habitat, and breeding (or nesting habitat) were noted for wildlife species.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of Sol Ecology biologists with experience working with the species and habitats. If a special status species was observed during the site visit, its presence is recorded and discussed. For some threatened and endangered species, a site survey at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies.

Concurrently with the botanical and wildlife surveys, biologists identified wetland and non-wetland waters potentially subject to regulation by the federal government (U.S. Army Corps of Engineers [USACE]) and the state of California (Regional Water Quality Control Board [RWQCB] and CDFW). The delineation of wetland boundaries was based on the presence/absence of indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. The boundaries of non-wetland waters were identified by locating the ordinary high-water mark (OHWM).

Protocol-level surveys for special status plants with potential to occur were also performed on April 15, and June 11, 2020 in accordance with CDFW protocol (CDFW 2018). The entire Project Study Area (including areas outside the proposed footprint) were traversed on foot. Plant species were recorded and identified to a taxonomic level sufficient to determine rarity using the second edition of the *Jepson Manual* (Baldwin et al. 2012). All plant species observed in the project study area are included in Appendix D – Observed Species Table. Vegetation communities were identified using the online version of *A Manual of California Vegetation* (CNPS 2020b).

3.0 RESULTS

3.1 Existing Conditions and General Wildlife Use

Soils at the site are mapped as Felton gravelly loam, 30 to 50 percent slopes; Lodo-Maymen-Felton association, 30 to 75 percent slopes; and rock outcrop. These soils are not listed as hydric. The Felton gravelly loam series is well drained, occurs on hillslopes, and parent material is residuum weathered from sandstone. Lodo-Maymen-Felton association is somewhat excessively drained, occurs on hills and hillslopes, and parent material is residuum weathered from sandstone. Rock outcrops have very high runoff, typically occur on hills, and parent material is residuum (USDA 2019).

General conditions on the site are somewhat disturbed due to clearing for fire prevention and the associated driveway uses. The majority of the site (excluding the paved portion of the driveway) occurs along the ridgeline. General wildlife usage is limited to those species that can tolerate the high winds and colder temperatures present on the ridgeline compared with more sheltered slopes. Such ridgelines can often serve as migratory corridors for many species particularly where roads or trails are present. Headwaters adjacent to the study area do not provide suitable habitat for the numerous aquatic species documented in the region due to the predominantly ephemeral flows. A number of cliff-dwelling raptors and/or bats can occupy rock outcrops present along the ridgeline. Overall songbird nesting may be limited due to exposure to higher winds than further down the slope.

Vegetation communities present in the study area were classified using the online version of *A Manual of California Vegetation* (CNPS 2020b). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Vegetation communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations. Vegetation communities and alliances within the Project Study Area are depicted in Appendix A, Figure 2. Photographs of the study area are provided in Appendix C.

3.1.1 Non-Sensitive Natural Communities

Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*) Forest and Woodland Alliance
Rank: S4 G5. This community consists of trees less than 75 m tall with an intermittent to continuous canopy that may be two tiered. Douglas-fir is the dominant species at greater than 50% relative cover in the tree canopy with hardwoods dominate or co-dominate in the subcanopy and regeneration layer. This community occurs on all topographic positions and aspects with various substrates including serpentine (CNPS 2020b).

California Broadleaf Forest and Woodland
This community is dominated by broadleaved trees, 10-30 meters tall, and forms an intermittent to closed canopy with relatively little understory. This includes the Coast live oak (*Quercus agrifolia*) Forest and Woodland Alliance [S4 G5]. Other tree species observed in this community

include oaks (*Quercus* sp.), Pacific madrone (*Arbutus menziesii*), pine (*Pinus* sp.), and California bay (*Umbellularia californica*).

3.1.2 Sensitive Natural Communities

Chaparral

This community is dominated by shrubs, 1-5 meters tall, and forms an intermittent to continuous canopy with a sparse to intermittent herbaceous layer. The dominant species within the Project Study Area is hoary manzanita (*Arctostaphylos canescens subsp. canescens*). Chaparral and rock outcrops occur where the new, single-family residential property is proposed to be built. During the January 21, 2020 site visit it was noted that manzanita was cleared for the staking of the residential development and for fire safety. Other plant species observed in the chaparral community include California yerba santa (*Eriodictyon californicum*), chia (*Salvia columbariae*), coyote brush (*Baccharis pilularis*), and orange bush monkeyflower (*Diplacus aurantiacus*). Emergent trees are present at low cover including Douglas-fir and knobcone pine (*Pinus attenuata*). In addition, this community includes the Chamise (*Adenostoma fasciculatum)* Chaparral Shrubland Alliance [S5 G5] which is not a sensitive natural community.

Non-wetland Waters of the United States

Headwater tributaries to Dry Creek occur primarily in the north to northwestern portion of the parcel more than 100 feet from the proposed Project Study Area. Dry Creek is a tributary to the Napa River which flows to the San Pablo Bay.

3.2 Special Status Plants

Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed species and those that are formal candidates for listing. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory with California Rare Plant Ranks of 1 and 2 are also considered special status plant species and must be considered under CEQA[1].

[1] California Rare Plant Rank
1B – Plants rare, threatened, or endangered in California and elsewhere.
2B – Plants rare, threatened, or endangered in California but more common elsewhere.
0.1 – Seriously threatened in California
0.2 – Moderately threatened in California
0.3 – Not very threatened in California

Based upon a review of the resources and databases given in Section 2.1, fifty-seven (57) special status plant species have been documented within a 9-quad search of the Project Study Area; 18 of these species have been documented within 5 miles. Nine (9) special status plant species documented in the region can be found in chaparral, woodland, and coniferous forest habitat (Table 1). Other special status plant species documented in the area are unlikely or have no potential to occur on the Project Study Area for one or more of the following reasons:

- Hydrologic conditions (e.g. marsh habitat, seeps, vernal pools) necessary to support the special status plants do not exist on site;
- Edaphic (soil) conditions (e.g. sandy soils) necessary to support the special status plants do not exist on site;
- Topographic conditions (e.g. slopes) necessary to support the special status plants do not exist on site;
- Unique pH conditions (e.g. serpentine) necessary to support the special status plant species are not present on the Project Study Area;
- Associated vegetation communities (e.g. valley and foothill grassland, meadows) necessary to support the special status plants do not exist on site.

Protocol-level special status plant surveys occurred on April 15 and June 11, 2020 throughout the entire Project Study Area. No special status plants were observed during the survey. The survey was conducted during the appropriate season and was floristic in nature. Plant species in the hardwood forest and California annual grassland communities were evident and easily identifiable. All plant species were recorded and identified to a taxonomic level sufficient to determine rarity using the second edition of the *Jepson Manual* (Baldwin et al. 2012) and listed in Appendix D – Observed Plant Species Table. No special status plant species were observed within the Project Study Area.

The months of May and June were selected as an appropriate time to conduct a special status plant survey as most spring flowering herbaceous species are in flower and/or fruit at that time. Twenty-four (24) perennial herbs and thirteen (13) annual herbs were observed during the survey. Native perennial herbs observed include blue dicks (*Dipterostemon capitatus*), California milkwort (*Polygala californica*), California poppy (*Eschscholzia californica*),Diogene's lantern (*Calochortus amabilis*), soap plant (*Chlorogalum pomeridianum*), and wild pea (*Lathyrus vestitus*). Native annual herbs observed include red maids (*Calandrinia menziesii*), goose grass (*Galium aparine*), redstem filaree (*Erodium circutarium*), smooth cat's ear (*Hypochaeris glabra*), daggerleaf cottonrose (*Logfia gallica*), skunkweed (*Navarretia squarrosa*), and Cusick's popcornflower (*Plagiobothrys cusickii*). None of the 9 special status species was observed.

Weather conditions, including both precipitation and temperature, can influence the likelihood that herbaceous annuals will germinate in a given year. In a year with rainfall above average, it is probable that more annuals will be in bloom or fruiting due to increased availability of the water required for germination and growth. In a year where temperature increases too quickly or too slowly in the spring, the heat regime can affect germination rates.

Table 1. Special Status Plants with Potential to Occur in the Project Study Area

Scientific Name/Common Name	Status[1]	Habitat	Elevation (meters)	Flowering Period	Potential for Occurrence
Calistoga ceanothus *Ceanothus divergens*	1B.2	Chaparral (serpentinite or volcanic, rocky)	170-950	Feb-Apr	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Cobb Mountain lupine *Lupinus sericatus*	1B.2	broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest	275-1,525	Mar-June	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Jepson's leptosiphon *Leptosiphon jepsonii*	1B.2	Usually volcanic; chaparral, cismontane woodland, valley and foothill grassland	100-500	Mar-May	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Napa False indigo *Amorpha californica* var. *napensis*	1B.2	broadleafed upland forest (openings), chaparral, cismontane woodland	120-2,000	Apr-July	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Narrow-anthered brodiaea *Brodiaea leptandra*	1B.2	Volcanic; broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland	110-915	May-July	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Oval-leaved viburnum *Viburnum ellipticum*	2B.3	chaparral, cismontane woodland, lower montane coniferous forest	215-1,400 m	May-June	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Rincon Ridge ceanothus *Ceanothus confusus*	1B.1	Volcanic or serpentinite; closed-cone coniferous forest, chaparral, cismontane woodland	75-1,065	Feb-June	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Rincon Ridge manzanita *Arctostaphylos stanfordiana* subsp. *decumbens*	1B.1	Chaparral (rhyolitic), cismontane woodland	75-370	Feb-Apr (May)	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.
Sonoma ceanothus *Ceanothus sonomensis*	1B.2	Chaparral (sandy, serpentinite, or volcanic)	215-800	Feb-Apr	**Low potential.** Suitable habitat is present, however species not observed during spring surveys.

Spring 2020 was a relatively dry season in the Bay Area. Based on data from the National Oceanic and Atmospheric Administration (NOAA) California Nevada River Forecast Center (Napa State Hospital), the Project Study Area vicinity received 46% of the normal precipitation for the water year to date. The water year starts on October 1 and the most current data are based on the months of October 2019 through May 2020 (NOAA 2020). Temperatures were mild enough to trigger germination. However, the lack of observations of native herbaceous annuals suggests that emergence of annuals was not obvious.

3.3 Special Status Wildlife

In addition to wildlife listed as federal or state endangered and/or threatened, federal and state candidate species (FE, FT, FCT, SE, ST, or SCT), CDFW Species of Special Concern (SSC), CDFW California Fully Protected species (CFP), USFWS Birds of Conservation Concern (BCC), and CDFW Special status invertebrates (SSI) are all considered special status species. Although these species generally have no special legal status, they are given special consideration under CEQA. The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that are roughly analogous to those of listed species. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special status and also considered under CEQA; bat roosts are protected under CDFW Fish and Game Code. In addition to regulations for special status species, most native birds in the United States (including non-status species) are protected by the federal Migratory Bird Treaty Act of 1918 (MBTA) and the California Fish and Game Code (CFGC), i.e., sections 3503, 3503.5 and 3513. Under these laws, deliberately destroying active bird nests, eggs, and/or young is illegal.

Thirty-seven (37) special status wildlife species have been documented within a 9-quad search of the property; 14 of these species have been documented within five miles of the Project Study Area (Appendix A, Figure 3 and 4). Based on the presence of biological communities described above, the Project Study Area has the potential to support 5 of these species as documented in Table 2 below. No federal or state listed species are potentially present, except for Northern spotted owl. Species with potential to occur on the Project Study Area are described in more detail below. No special status species have been observed in the study area to date.

Table 2. Special Status Wildlife with Potential to Occur in the Project Study Area

Scientific Name/Common Name	Status	Habitat	Potential for Occurrence
pallid bat *Antrozous pallidus*	SSC, WBWG High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees, and various human structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Sensitive to disturbance of roosting sites.	**Moderate potential** Rock outcrops adjacent to the proposed residence provide suitable roost habitat for this species. This species is also documented south along the same ridgeline. Pallid bat is sensitive to disturbance and as such not likely to be present on the driveway.
long-legged myotis *Myotis volans*	WBWG High	Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines, and buildings.	**Low-moderate potential. R**ock outcrops adjacent to the proposed residence provide suitable roost habitat for this species. This species may roost in trees under exfoliating bark along the roadway.
golden eagle *Aquila chrysaetos*	BCC, CFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**Low-moderate potential.** Moderately suitable habitat is along the canyon wall to the west of the proposed residence and upper driveway.
northern spotted owl *Strix occidentalis caurina*	FT, SCT SSC	Year-round resident in dense, structurally complex forests, primarily those with old-growth conifers. It nests in cavities or on platforms in large trees, preferentially inhabiting old growth forests, though it can be found in mixed primary- and secondary-growth forests in the southern part of its range (southern Oregon and California). Preys on mammals.	**High potential.** Northern spotted owl is documented in multiple locations along the driveway and may potentially be present to the east of the residence (Appendix A, Figure 5).
purple martin *Progne subis*	SSC	Inhabits woodlands and low elevation coniferous forests. Nests in old woodpecker cavities and human-made structures. Nest is often located in tall, isolated tree or snag.	**Low-moderate potential.** Moderately suitable habitat is present in trees adjacent to the proposed residence and less likely along the driveway.

The remaining species found in the review of background literature were determined to be unlikely to occur due to absence of suitable habitat elements in and immediately adjacent to the Project Study Area. Habitat elements that were evaluated but found to be absent from the immediate area of the Project Study Area or surrounding habitats include the following elements.

- Suitable nesting habitat is not present on or adjacent to the Project Study Area for raptor species found on the valley floor, lower elevation habitats, or in annual grasslands (e.g. Swainson's hawk, white tailed kite, bald eagle, etc).
- No suitable burrows or burrowing habitat are present on or adjacent to the Project Study Area (e.g. for American badger).
- No suitable stream or pond habitat is present on or immediately adjacent to the property (e.g. for steelhead, western pond turtle, red-bellied newt, California giant salamander, California red-legged frog, or foothill yellow-legged frog).
- Suitable grassland and/or vernal pool habitats with flowering nectars for protected bees are not present.
- No suitable roosting habitat such as barns, old buildings, or large snags (e.g. for Townsend's big-eared bat) are present on or adjacent to the Project Study Area.

4.0 CONCLUSION AND RECOMMENDATIONS

Sensitive Natural Communities

Chaparral habitat is the only sensitive natural community within the Project Study Area; all headwater streams will be completely avoided. In order to build the residential property and a few select turnouts, a portion of the chaparral community will need to be removed for the property's footprint and fire safety. Removal should be minimized to these purposes only to avoid significant impacts.

Special Status Plant Species

Nine special status plants have potential to occur within the Project Study Area (Table 1). None of these plants were observed during protocol-level surveys performed in the spring of 2020. As such, no impacts are expected, and no further measures are proposed.

Special Status Wildlife Species

Five (5) special status species have potential to occur on or adjacent to the site including two special status bat species and three special status birds/raptors. Two of these species, **pallid bat** and **long-legged bat** may potentially roost in a small rock outcrop located immediately adjacent to the proposed residence, or in trees along the driveway and as such, could be impacted during tree removal and/or ground-disturbing activities.

To avoid impacts to special status bats the following measures are recommended:

1. To the extent feasible, noise-producing activities should be initiated between September 1 and April 15 to avoid maternity roosting bats if present.

2. Alternatively, a pre-construction bat roost survey is recommended to be performed if activities are initiated within the maternity season where large rock outcrops are present within 100 feet of proposed activities. If a maternity roost is found, a minimum 100-foot no-disturbance buffer should be placed around the roost until September 1 when pups are likely to be weaned.

3. Felled trees shall remain overnight prior to chipping or hauling off the site to allow any solitary bats to relocate.

One special status bird, **purple martin** may potentially nest on or adjacent to the study area. Additionally, a number of migratory songbirds protected under the Migratory Bird Treaty Act may also nest on the site. Vegetation including trees and shrubs within the project study area may provide habitat for nesting birds. To avoid impacts to special status and migratory birds the following measures are recommended:

- To the extent feasible, tree removal and/or noise-producing activities should be initiated during the non-nesting season from September 1 to January 31 to avoid impacts to nesting birds if present on or in the immediate vicinity.

- If work cannot be initiated during this period, or if there is a break in activity lasting more than 14 days after February 1 then nesting bird surveys should be performed within the project study area. If nests are found, a no-disturbance buffer should be placed around the nest until young have fledged or the nest is determined to be no longer active by the biologist. The size of the buffer shall be determined by the biologist based on species, status of the nest, and proximity to proposed activities.

Two special status raptors may also nest in taller trees along the driveway including **golden eagle and Northern spotted owl** (NSO); NSO is documented along the driveway as shown in Appendix A, Figure 5. Construction activities have potential to impact special status raptors during the breeding season, if noise disturbances exceed thresholds set by the USFWS for federal listed raptor species. Using guidance prepared by USFWS (2006) for northern spotted owl, the following criteria would factor into whether noise disturbances would be considered significant to any nesting raptors if present:

- Project-generated sound exceeds ambient nesting conditions by 20-25 decibels (dB).
- Project-generated sound, when added to existing ambient conditions, exceeds 90 dB.

Additionally, the USFWS guidance indicates that any human activities occurring within a visual line-of-sight distance of 40 meters (130 feet) or less from a nest may also result in take. Therefore,

to avoid significant impacts to nesting raptors, the following measures are recommended if activities are likely to exceed the above thresholds:

- Construction activities over the decibel limits provided above should be initiated during the non-nesting season from September 1 to January 31.

- If work at or above the listed decibel tolerances cannot be initiated during this period, protocol-level surveys should be performed within one-half mile of activities for golden eagle and NSO the season prior to the start of those activities. The survey radius may be modified based on the distance that noise disturbances exceeding tolerances could occur over. Note: it should be assumed that prior documented NSO nests are still active and noise disturbing activities within one half mile, or visual disturbances within 40 meters shall be avoided between **March 15 to August 31** to avoid impacts to NSO**.**

- If nests are found, a no-disturbance buffer should be placed around the nest until young have fledged or the nest is determined to be no longer active by the biologist. Typically buffers for **golden eagle are one quarter mile and up to one half mile for Northern spotted owl**. These buffers may be modified based on the above tolerances or in consultation with the appropriate listing agency (USFWS or CDFW).

5.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB). Wildlife and Habitat Data Analysis Branch, Sacramento, CA.

California Native Plant Society (CNPS), Rare Plant Program. 2020a. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available at: http://www.rareplants.cnps.org. Most recently accessed: February 2020.

----. 2020b. A Manual of California Vegetation, Online Edition. Available at: http://www.cnps.org/cnps/vegetation/. Most recently accessed: February 2020.

Napa County. 2020. Napa County Public Browser. Available at: http://gis.napa.ca.gov/Html5Viewer/Index.html?viewer=Public_HTML. Most recently accessed: February 2020.

Shuford, WD, and T Gardali (eds). 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and CDFG, Sacramento.

Thomson, Robert C., Amber N. Wright, and H. Bradley Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. California Department of Fish and Wildlife University Press.

U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2019. Web Soil Survey. Web application. Last updated: April 9, 2019. Available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Most recently accessed: February 2020.

U.S. Fish and Wildlife Service (USFWS). 2020a. Information for Conservation and Planning Database. Available at: https://ecos.fws.gov/ipac/. Most recently accessed: February 2020.

----. 2020b. National Wetlands Inventory, Wetlands Mapper. Available at: https://www.fws.gov/wetlands/data/mapper.html. Most recently accessed: February 2020.

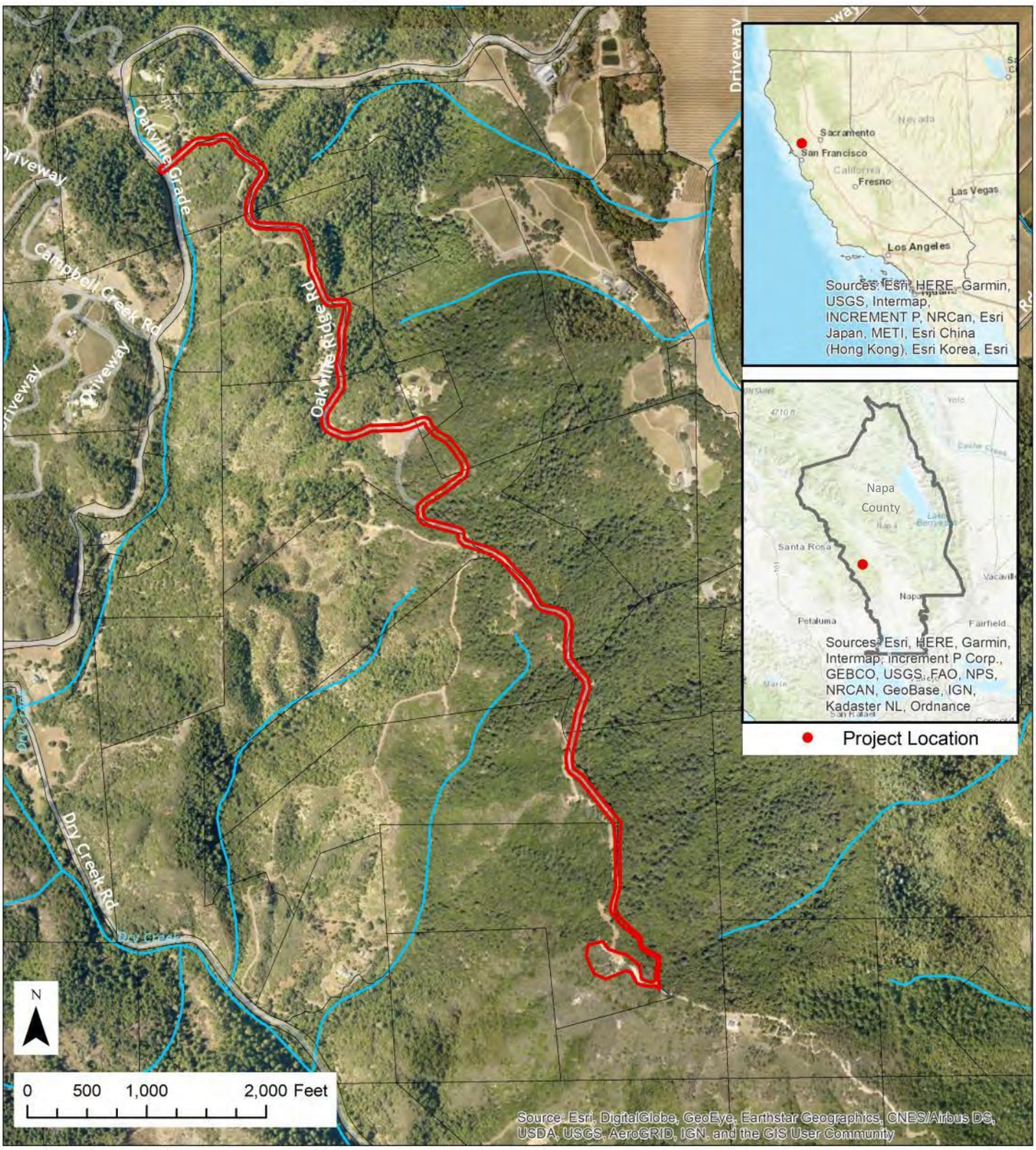
USFWS. 2006. Estimating the Effects of Auditory and Visual Disturbance of Northern Spotted Owls and Marbled Murrelets in Northwestern California. July 31, 2006.

APPENDIX A

PROJECT FIGURES: PROJECT STUDY AREA LOCATION MAP, VEGETATION COMMUNITIES, AND CNDDB MAP RESULTS

Figure 1: Location of Project Area

Oakville Ridge Single Family Residence & Driveway Improvement Project, Napa County, CA



Date: 7-22-2020
Data: Sol Ecology Inc., Napa Co., USGS

Datum: NAD 83
Base: ESRI
GIS: AJG2006

SOL ECOLOGY
solecology.com

Figure 2: Sensitive Communities

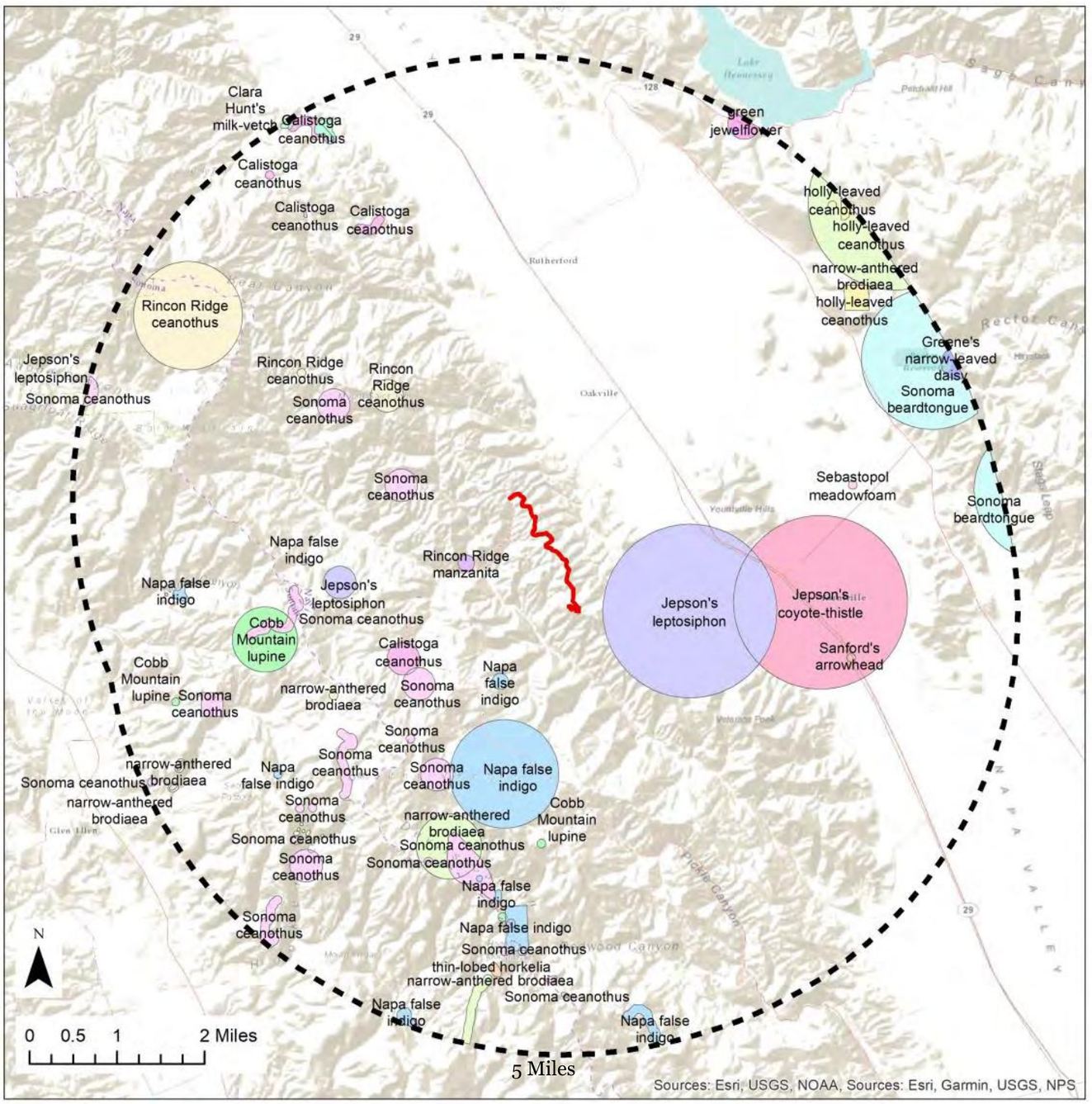
Oakville Ridge Single Family Residence & Driveway Improvement Project, Napa County, CA

Date: 7-22-2020
Data: Sol Ecology Inc., Napa Co., USGS,

Datum: NAD 83
Base: ESRI
GIS: AJG1929

SOL ECOLOGY
solecology.com

Figure 3: Special Status Plant Species within 5 Miles of the Project Site
Oakville Ridge Single Family Residence & Driveway Improvement Project, Napa County, CA

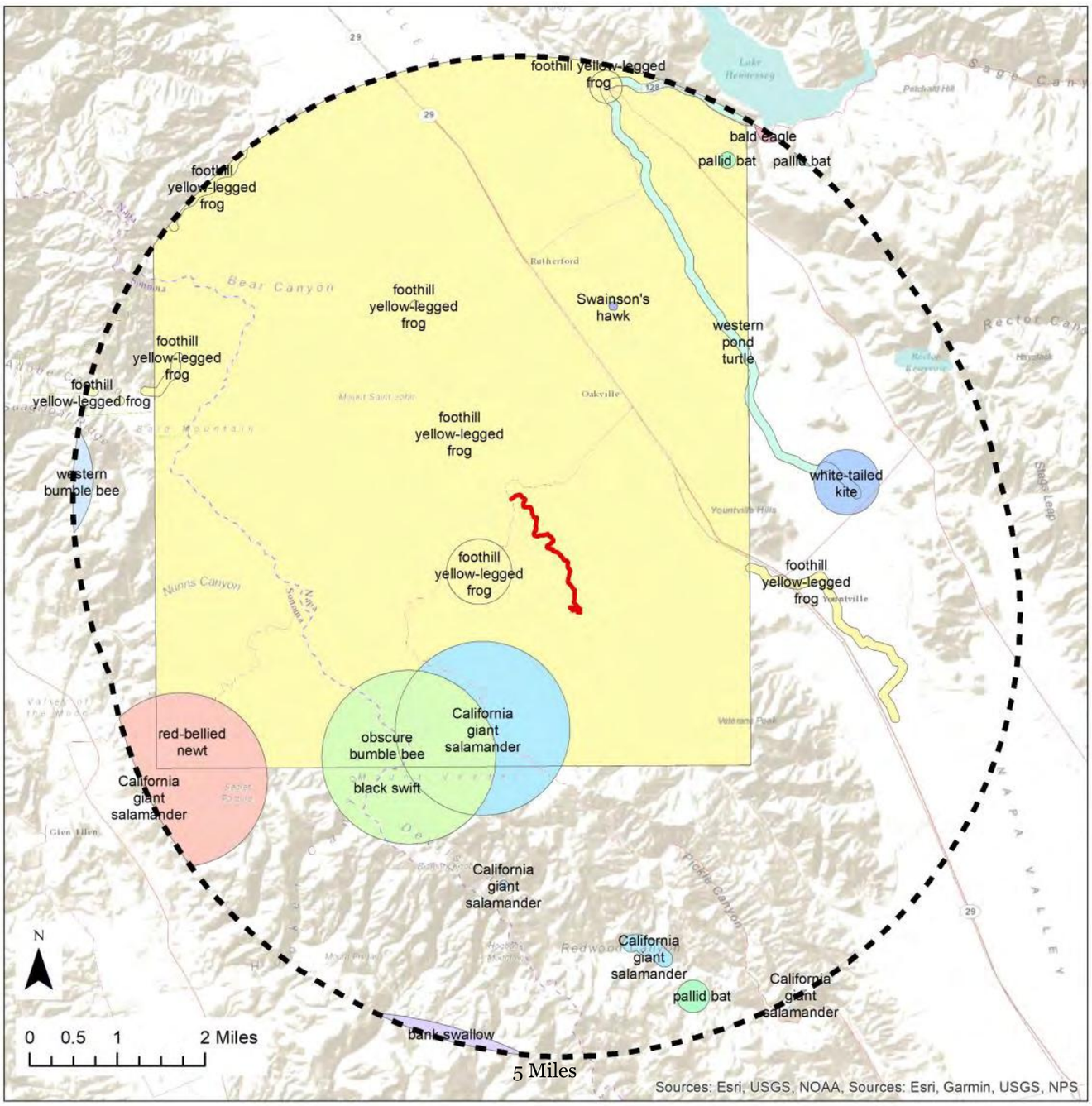


Date: 7-22-2020
Data: Sol Ecology Inc., Napa Co., CDFW

Datum: NAD 83
Base: ESRI
GIS: AJG 2006

SOL ECOLOGY
solecology.com

Figure 4: Special Status Animal Species within 5 Miles of the Project Site
Oakville Ridge Single Family Residence & Driveway Improvement Project, Napa County, CA

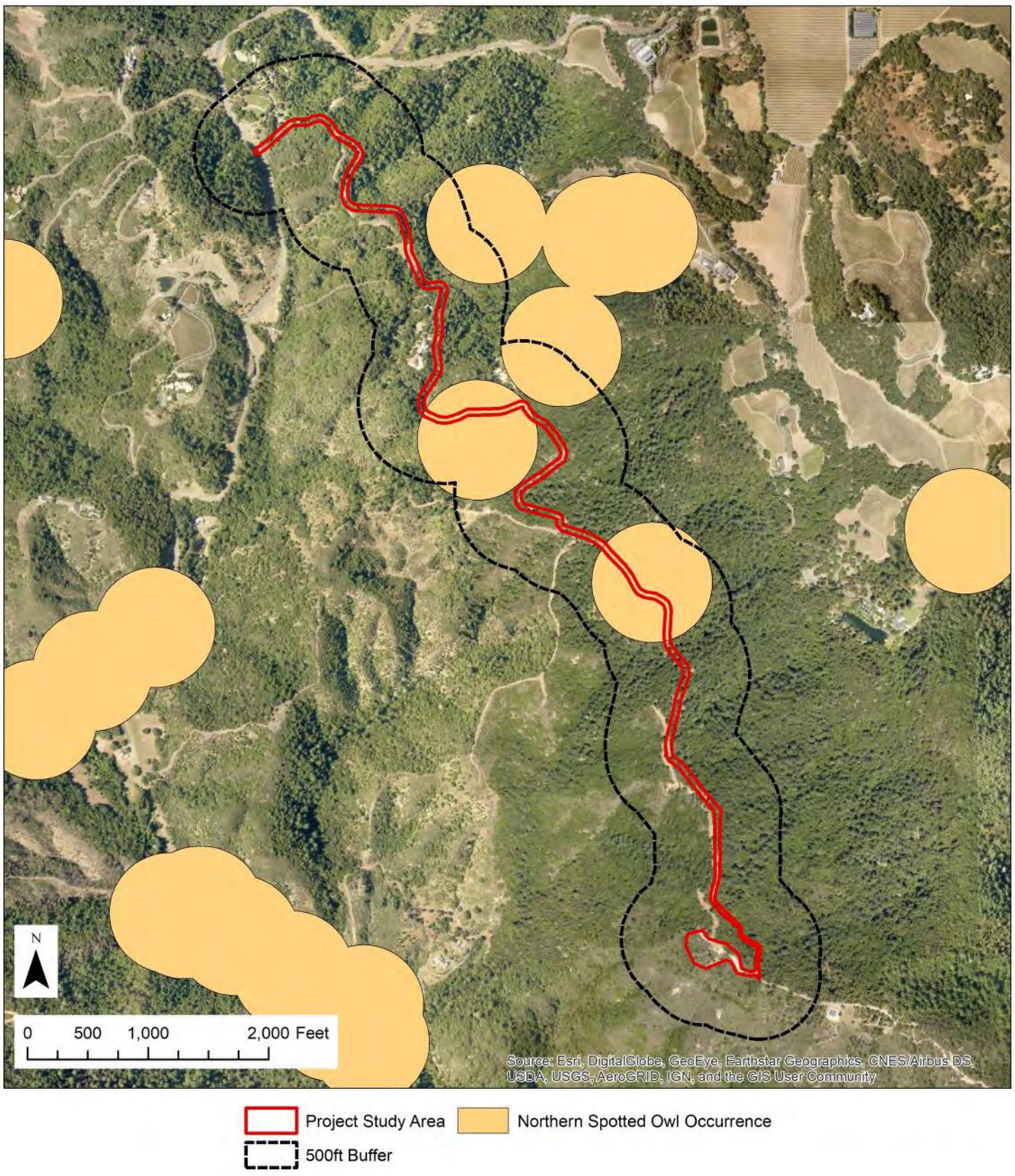


Project Study Area
5-Mile Buffer
California giant salamander (5)
Swainson's hawk (1)
bald eagle (1)
bank swallow (1)
black swift (1)
foothill yellow-legged frog (11)
obscure bumble bee (1)
pallid bat (3)
red-bellied newt (1)
steelhead - central California coast DPS (1)
western bumble bee (1)
western pond turtle (1)
white-tailed kite (1)

Date: 7-7-2020
Data: Sol Ecology Inc., Napa Co., CDFW
Datum: NAD 83
Base: ESRI
GIS: AJG1929

SOL ECOLOGY
solecology.com

Figure 5: Northern Spotted Owl Occurrences
Oakville Ridge Single Family Residence & Driveway Improvement Project, Napa County, CA



Date: 7-7-2020
Data: Sol Ecology Inc., Napa Co., CDFW

Datum: NAD 83
Base: ESRI
GIS: AJG1929

SOL ECOLOGY
solecology.com

APPENDIX B

CNPS, CNDDB, AND USFWS IPAC DATABASE RESULTS FOR THE PROJECT STUDY AREA

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

58 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3812255, 3812254, 3812253, 3812245, 3812244, 3812243, 3812235 3812234 and 3812233;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jun	1B.2	S2	G5T2
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	Poaceae	perennial herb	May-Jul	1B.1	S1	G5T1
Amorpha californica var. napensis	Napa false indigo	Fabaceae	perennial deciduous shrub	Apr-Jul	1B.2	S2	G4T2
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
Arctostaphylos bakeri ssp. bakeri	Baker's manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	S1	G2T1
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr(May)	1B.1	S1	G3T1
Astragalus claranus	Clara Hunt's milk-vetch	Fabaceae	annual herb	Mar-May	1B.1	S1	G1
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Blennosperma bakeri	Sonoma sunshine	Asteraceae	annual herb	Mar-May	1B.1	S1	G1
Brodiaea leptandra	narrow-anthered brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	1B.2	S3?	G3?
Calycadenia micrantha	small-flowered calycadenia	Asteraceae	annual herb	Jun-Sep	1B.2	S2	G2
Castilleja ambigua var. meadii	Mead's owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Apr-May	1B.1	S1	G4T1
Ceanothus confusus	Rincon Ridge ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Jun	1B.1	S1	G1
Ceanothus divergens	Calistoga ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	1B.2	S2	G2
Ceanothus purpureus	holly-leaved ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Jun	1B.2	S2	G2

Ceanothus sonomensis	Sonoma ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	1B.2	S2	G2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	May-Nov	1B.2	S2	G3T2
Chorizanthe valida	Sonoma spineflower	Polygonaceae	annual herb	Jun-Aug	1B.1	S1	G1
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	perennial herb	May-Sep	1B.2	S3	G3
Eryngium constancei	Loch Lomond button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.1	S1	G1
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?	G2?
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	1B.2	S2	G5T2
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2Q
Horkelia tenuiloba	thin-lobed horkelia	Rosaceae	perennial herb	May-Jul(Aug)	1B.2	S2	G2
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	Apr-May	1B.1	S1	G1
Lasthenia burkei	Burke's goldfields	Asteraceae	annual herb	Apr-Jun	1B.1	S1	G1
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	1B.2	S2	G5T2
Layia septentrionalis	Colusa layia	Asteraceae	annual herb	Apr-May	1B.2	S2	G2
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	1B.2	S2S3	G2G3
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	1B.1	S2	G2
Limnanthes vinculans	Sebastopol meadowfoam	Limnanthaceae	annual herb	Apr-May	1B.1	S1	G1
Lupinus sericatus	Cobb Mountain lupine	Fabaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G4T2
Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	Polemoniaceae	annual herb	May-Jun	1B.1	S1	G4T1
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	Polemoniaceae	annual herb	May-Jun	1B.2	S1	G4T1
Navarretia rosulata	Marin County navarretia	Polemoniaceae	annual herb	May-Jul	1B.2	S2	G2
Penstemon newberryi var. sonomensis	Sonoma beardtongue	Plantaginaceae	perennial herb	Apr-Aug	1B.3	S2	G4T2
Plagiobothrys strictus	Calistoga	Boraginaceae	annual herb	Mar-Jun	1B.1	S1	G1

	popcornflower						
Poa napensis	Napa blue grass	Poaceae	perennial herb	May-Aug	1B.1	S1	G1
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
Sidalcea hickmanii ssp. napensis	Napa checkerbloom	Malvaceae	perennial herb	Apr-Jun	1B.1	S1	G3T1
Sidalcea oregana ssp. hydrophila	marsh checkerbloom	Malvaceae	perennial herb	(Jun)Jul-Aug	1B.2	S2	G5T2
Sidalcea oregana ssp. valida	Kenwood Marsh checkerbloom	Malvaceae	perennial rhizomatous herb	Jun-Sep	1B.1	S1	G5T1
Spergularia macrotheca var. longistyla	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May(Jun)	1B.2	S2	G5T2
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	1B.2	S2	G2
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	S2	G2
Trichostema ruygtii	Napa bluecurls	Lamiaceae	annual herb	Jun-Oct	1B.2	S1S2	G1G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	Apr-Jun	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 18 February 2020].

Search the Inventory
Simple Search
Advanced Search
Glossary

Information
About the Inventory
About the Rare Plant Program
CNPS Home Page
About CNPS
Join CNPS

Contributors
The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Questions and Comments
rareplants@cnps.org

© Copyright 2010-2018 California Native Plant Society. All rights reserved.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Calistoga (3812255) OR St. Helena (3812254) OR Chiles Valley (3812253) OR Kenwood (3812245) OR Rutherford (3812244) OR Yountville (3812243) OR Glen Ellen (3812235) OR Sonoma (3812234) OR Napa (3812233))
 AND Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Woodland OR Forest OR Alpine OR Inland Waters OR Marine OR Estuarine OR Riverine OR Palustrine OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes OR Fungi)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Allium peninsulare var. franciscanum Franciscan onion	G5T2 S2	None None	Rare Plant Rank - 1B.2	280 600	25 S:3	0	0	1	0	0	2	1	2	3	0	0
Alopecurus aequalis var. sonomensis Sonoma alopecurus	G5T1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	1,180 1,180	21 S:1	1	0	0	0	0	0	0	1	1	0	0
Amorpha californica var. napensis Napa false indigo	G4T2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	330 2,100	76 S:32	5	6	6	2	0	13	11	21	32	0	0
Amsinckia lunaris bent-flowered fiddleneck	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley SB_UCSC-UC Santa Cruz	195 195	93 S:1	0	0	0	0	0	1	0	1	1	0	0
Arctostaphylos stanfordiana ssp. decumbens Rincon Ridge manzanita	G3T1 S1	None None	Rare Plant Rank - 1B.1	300 900	12 S:3	0	1	1	0	0	1	1	2	3	0	0
Astragalus claranus Clara Hunt's milk-vetch	G1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	320 500	6 S:4	0	2	2	0	0	0	0	4	4	0	0
Astragalus tener var. tener alkali milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.2	15 15	65 S:1	0	0	0	0	1	0	1	0	0	0	1
Balsamorhiza macrolepis big-scale balsamroot	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive		51 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Blennosperma bakeri Sonoma sunshine	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	60 330	24 S:4	0	2	0	0	2	0	2	2	2	0	2
Brodiaea leptandra narrow-anthered brodiaea	G3? S3?	None None	Rare Plant Rank - 1B.2	400 1,932	39 S:23	1	7	0	0	1	14	8	15	22	1	0
Castilleja ambigua var. meadii Mead's owls-clover	G4T1 S1	None None	Rare Plant Rank - 1B.1	1,600 1,600	3 S:2	0	0	0	0	0	2	0	2	2	0	0
Ceanothus confusus Rincon Ridge ceanothus	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	650 2,700	33 S:8	1	1	0	0	0	6	2	6	8	0	0
Ceanothus divergens Calistoga ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	320 1,900	26 S:20	2	4	1	2	0	11	9	11	20	0	0
Ceanothus purpureus holly-leaved ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2 SB_SBBG-Santa Barbara Botanic Garden	475 2,350	43 S:16	0	5	1	0	1	9	9	7	15	1	0
Ceanothus sonomensis Sonoma ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2 SB_SBBG-Santa Barbara Botanic Garden	475 2,600	30 S:28	3	1	0	1	0	23	21	7	28	0	0
Centromadia parryi ssp. parryi pappose tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	350 390	39 S:2	0	1	0	0	0	1	1	1	2	0	0
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	G3 S2.1	None None		400 400	60 S:1	0	0	1	0	0	0	1	0	1	0	0
Downingia pusilla dwarf downingia	GU S2	None None	Rare Plant Rank - 2B.2	10 1,600	132 S:6	1	0	0	1	1	3	3	3	5	0	1
Erigeron greenei Greene's narrow-leaved daisy	G3 S3	None None	Rare Plant Rank - 1B.2	300 1,200	20 S:7	0	1	0	0	0	6	6	1	7	0	0
Eryngium constancei Loch Lomond button-celery	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	2,060 2,060	4 S:1	0	1	0	0	0	0	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Eryngium jepsonii Jepson's coyote-thistle	G2 S2	None None	Rare Plant Rank - 1B.2	620 620	19 S:2	0	0	0	0	0	2	1	1	2	0	0
Extriplex joaquinana San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	5 5	127 S:1	0	0	1	0	0	0	1	0	1	0	0
Fritillaria liliacea fragrant fritillary	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive		82 S:2	0	0	0	0	0	2	2	0	2	0	0
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_UCBG-UC Botanical Garden at Berkeley	1,705 1,705	52 S:3	0	0	0	0	0	3	2	1	3	0	0
Hesperolinon sharsmithiae Sharsmith's western flax	G2Q S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	800 2,200	32 S:14	0	4	3	0	0	7	8	6	14	0	0
Horkelia tenuiloba thin-lobed horkelia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	1,230 1,230	27 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasthenia burkei Burke's goldfields	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley		35 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasthenia conjugens Contra Costa goldfields	G1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	60 230	36 S:2	0	0	0	0	2	0	2	0	0	1	1
Lathyrus jepsonii var. jepsonii Delta tule pea	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_BerrySB-Berry Seed Bank SB_RSABG-Rancho Santa Ana Botanic Garden	5 5	133 S:2	0	0	0	1	1	0	0	2	1	1	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Layia septentrionalis Colusa layia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley	480 1,400	57 S:5	0	1	0	0	0	4	3	2	5	0	0
Legenere limosa legenere	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley	1,400 1,400	83 S:1	0	0	0	0	1	0	1	0	0	0	1
Leptosiphon jepsonii Jepson's leptosiphon	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	350 1,900	51 S:21	1	1	1	1	0	17	5	16	21	0	0
Lilaeopsis masonii Mason's lilaeopsis	G2 S2	None Rare	Rare Plant Rank - 1B.1	10 10	197 S:1	0	1	0	0	0	0	0	1	1	0	0
Limnanthes vinculans Sebastopol meadowfoam	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	90 320	46 S:2	0	1	0	0	0	1	1	1	2	0	0
Lupinus sericatus Cobb Mountain lupine	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400 2,400	46 S:14	0	0	4	1	0	9	13	1	14	0	0
Navarretia leucocephala ssp. bakeri Baker's navarretia	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	300 1,320	64 S:6	1	1	0	0	2	2	5	1	4	1	1
Navarretia leucocephala ssp. pauciflora few-flowered navarretia	G4T1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	1,600 1,600	10 S:1	0	1	0	0	0	0	0	1	1	0	0
Navarretia rosulata Marin County navarretia	G2 S2	None None	Rare Plant Rank - 1B.2	2,100 2,100	15 S:1	1	0	0	0	0	0	0	1	1	0	0
Northern Vernal Pool Northern Vernal Pool	G2 S2.1	None None		560 1,400	20 S:6	0	1	0	0	0	5	6	0	6	0	0
Penstemon newberryi var. sonomensis Sonoma beardtongue	G4T2 S2	None None	Rare Plant Rank - 1B.3	600 2,600	11 S:3	0	1	0	0	0	2	3	0	3	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Plagiobothrys strictus Calistoga popcornflower	G1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	300 400	3 S:3	0	2	0	0	0	1	1	2	3	0	0
Poa napensis Napa blue grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	340 400	2 S:2	0	2	0	0	0	0	0	2	2	0	0
Puccinellia simplex California alkali grass	G3 S2	None None	Rare Plant Rank - 1B.2	400 400	80 S:1	0	0	0	0	0	1	1	0	1	0	0
Sagittaria sanfordii Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	80 80	126 S:1	0	0	1	0	0	0	0	1	1	0	0
Sidalcea hickmanii ssp. napensis Napa checkerbloom	G3T1 S1	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden		2 S:1	0	0	0	0	0	1	1	0	1	0	0
Sidalcea oregana ssp. hydrophila marsh checkerbloom	G5T2 S2	None None	Rare Plant Rank - 1B.2	1,800 1,800	35 S:1	0	0	0	0	1	0	1	0	0	1	0
Sidalcea oregana ssp. valida Kenwood Marsh checkerbloom	G5T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	400 400	2 S:1	0	0	1	0	0	0	0	1	1	0	0
Spergularia macrotheca var. longistyla long-styled sand-spurrey	G5T2 S2	None None	Rare Plant Rank - 1B.2	350 400	22 S:2	0	0	0	0	0	2	1	1	2	0	0
Streptanthus hesperidis green jewelflower	G2 S2	None None	Rare Plant Rank - 1B.2	1,300 1,300	19 S:5	0	1	0	0	0	4	4	1	5	0	0
Symphyotrichum lentum Suisun Marsh aster	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	5 5	175 S:1	0	0	0	1	0	0	1	0	1	0	0
Trichostema ruygtii Napa bluecurls	G1G2 S1S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	95 1,720	19 S:10	0	0	1	0	0	9	1	9	10	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Trifolium amoenum	G1	Endangered	Rare Plant Rank - 1B.1	100	26	0	0	0	0	0	2	2	0	2	0	0
two-fork clover	S1	None	SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley SB_USDA-US Dept of Agriculture	100	S:2											
Trifolium hydrophilum	G2	None	Rare Plant Rank - 1B.2	10	49	0	1	0	0	1	1	2	1	2	0	1
saline clover	S2	None		400	S:3											
Valley Needlegrass Grassland	G3	None		1,200	45	0	0	0	0	0	1	1	0	1	0	0
Valley Needlegrass Grassland	S3.1	None		1,200	S:1											
Viburnum ellipticum	G4G5	None	Rare Plant Rank - 2B.3		39	0	0	0	0	0	2	2	0	2	0	0
oval-leaved viburnum	S3?	None			S:2											

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Calistoga (3812255) OR St. Helena (3812254) OR Chiles Valley (3812253) OR Kenwood (3812245) OR Rutherford (3812244) OR Yountville (3812243) OR Glen Ellen (3812235) OR Sonoma (3812234) OR Napa (3812233))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Accipiter striatus sharp-shinned hawk	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	900 900	22 S:1	1	0	0	0	0	0	1	0	1	0	0
Agelaius tricolor tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	566 566	955 S:1	0	0	0	0	0	1	0	1	1	0	0
Ambystoma californiense California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable		1231 S:1	0	0	0	0	1	0	1	0	0	1	0
Ammodramus savannarum grasshopper sparrow	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	2,150 2,150	27 S:1	1	0	0	0	0	0	0	1	1	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	15 1,760	420 S:23	2	3	1	1	4	12	15	8	19	1	3
Aquila chrysaetos golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,800 1,800	321 S:1	1	0	0	0	0	0	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Ardea alba great egret	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	350 350	43 S:1	0	0	1	0	0	0	0	1	1	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	350 350	155 S:1	0	0	1	0	0	0	0	1	1	0	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	2,400 2,400	1989 S:1	0	0	0	0	0	1	0	1	1	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	600 2,500	181 S:5	0	0	0	0	0	5	5	0	5	0	0
Bombus crotchii Crotch bumble bee	G3G4 S1S2	None Candidate Endangered		300 300	234 S:1	0	0	0	0	0	1	1	0	1	0	0
Bombus occidentalis western bumble bee	G2G3 S1	None Candidate Endangered	USFS_S-Sensitive XERCES_IM-Imperiled	25 750	280 S:5	0	0	0	0	0	5	5	0	5	0	0
Buteo regalis ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	2,278 2,278	107 S:1	0	1	0	0	0	0	0	1	1	0	0
Buteo swainsoni Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	82 140	2518 S:2	0	0	1	0	0	1	0	2	2	0	0
Caecidotea tomalensis Tomales isopod	G2 S2S3	None None		1,640 2,120	6 S:2	1	0	0	0	0	1	2	0	2	0	0
Calasellus californicus An isopod	G2 S2	None None		25 25	3 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	600 600	156 S:1	0	0	0	0	0	1	1	0	1	0	0
Corynorhinus townsendii Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	295 1,600	635 S:7	0	1	0	0	0	6	7	0	7	0	0
Coturnicops noveboracensis yellow rail	G4 S1S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	60 60	45 S:1	0	0	0	0	0	1	1	0	1	0	0
Cypseloides niger black swift	G4 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_YWL-Yellow Watch List USFWS_BCC-Birds of Conservation Concern	2,500 2,500	46 S:1	0	0	0	0	0	1	1	0	1	0	0
Dicamptodon ensatus California giant salamander	G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	350 2,185	234 S:15	4	3	0	0	0	8	5	10	15	0	0
Elanus leucurus white-tailed kite	G5 S3S4	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	10 2,160	180 S:5	3	1	0	0	1	0	2	3	4	1	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	5 2,240	1385 S:20	4	5	5	0	0	6	6	14	20	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Eremophila alpestris actia California horned lark	G5T4Q S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	2,275 2,275	94 S:1	1	0	0	0	0	0	0	1	1	0	0
Erethizon dorsatum North American porcupine	G5 S3	None None	IUCN_LC-Least Concern	277 277	523 S:1	0	0	0	0	0	1	0	1	1	0	0
Falco peregrinus anatum American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	1,700 2,000	56 S:2	1	0	1	0	0	0	1	1	2	0	0
Geothlypis trichas sinuosa saltmarsh common yellowthroat	G5T3 S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	7 12	112 S:2	0	0	0	0	0	2	2	0	2	0	0
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	315 315	327 S:1	1	0	0	0	0	0	1	0	1	0	0
Hydrochara rickseckeri Ricksecker's water scavenger beetle	G2? S2?	None None		1,500 1,500	13 S:1	0	0	0	0	0	1	1	0	1	0	0
Hydroporus leechi Leech's skyline diving beetle	G1? S1?	None None		1,180 1,180	13 S:1	0	0	0	0	0	1	1	0	1	0	0
Melospiza melodia samuelis San Pablo song sparrow	G5T2 S2	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	10 10	41 S:1	0	0	0	0	0	1	1	0	1	0	0
Myotis evotis long-eared myotis	G5 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_M-Medium Priority	840 840	139 S:1	0	0	0	0	0	1	0	1	1	0	0
Myotis thysanodes fringed myotis	G4 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	210 360	86 S:2	0	0	1	0	0	1	1	1	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Myotis volans long-legged myotis	G5 S3	None None	IUCN_LC-Least Concern WBWG_H-High Priority	210 210	117 S:1	0	0	0	0	1	0	1	0	0	1	0
Myotis yumanensis Yuma myotis	G5 S4	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM-Low-Medium Priority	210 840	265 S:3	1	0	0	0	0	2	1	2	3	0	0
Nycticorax nycticorax black-crowned night heron	G5 S4	None None	IUCN_LC-Least Concern	157 157	37 S:1	0	0	0	0	0	1	0	1	1	0	0
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	G5T2T3Q S2S3	Threatened None	AFS_TH-Threatened	380 600	44 S:5	1	3	1	0	0	0	0	5	5	0	0
Pandion haliaetus osprey	G5 S4	None None	CDF_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern	544 662	504 S:2	1	0	0	0	0	1	0	2	2	0	0
Phalacrocorax auritus double-crested cormorant	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	350 350	39 S:1	0	0	1	0	0	0	0	1	1	0	0
Progne subis purple martin	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	400 1,820	71 S:3	0	0	0	0	0	3	3	0	3	0	0
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	80 2,100	2468 S:32	9	9	1	0	2	11	12	20	30	1	1
Rana draytonii California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	300 2,230	1542 S:15	2	5	5	0	2	1	2	13	13	1	1
Riparia riparia bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	25 25	298 S:1	0	0	0	0	0	1	1	0	1	0	0
Spirinchus thaleichthys longfin smelt	G5 S1	Candidate Threatened		0 0	46 S:1	0	0	0	0	0	1	0	1	1	0	0
Syncaris pacifica California freshwater shrimp	G2 S2	Endangered Endangered	IUCN_EN-Endangered	100 358	20 S:7	3	3	1	0	0	0	1	6	7	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Taricha rivularis red-bellied newt	G4 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	800 1,000	136 S:3	0	0	0	0	0	3	3	0	3	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	20 2,200	592 S:3	1	0	0	0	0	2	2	1	3	0	0

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

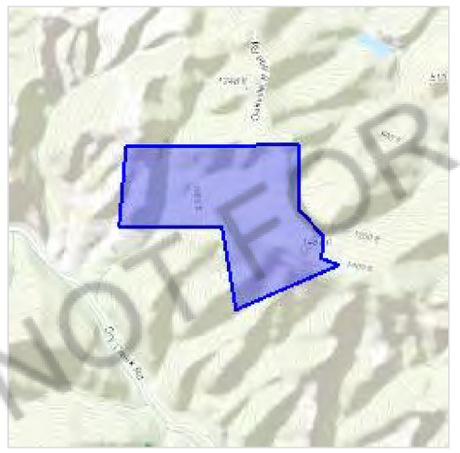
This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Napa County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS

NOT FOR CONSULTATION

Northern Spotted Owl Strix occidentalis caurina There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle Chelonia mydas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Crustaceans

NAME	STATUS
California Freshwater Shrimp Syncaris pacifica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7903	Endangered

Flowering Plants

NAME	STATUS
Clara Hunt's Milk-vetch Astragalus clarianus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3300	Endangered

Critical habitats

NOT FOR CONSULTATION

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects,

and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

NOT FOR CONSULTATION

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

NOT FOR CONSULTATION

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

PFOA

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

APPENDIX C

SITE PHOTOGRAPHS

Photo 1. Story poles for residential property on January 21, 2020.

Photo 2. Story poles for residential property on January 21, 2020.

Photo 3. Story poles for residential property on January 21, 2020.

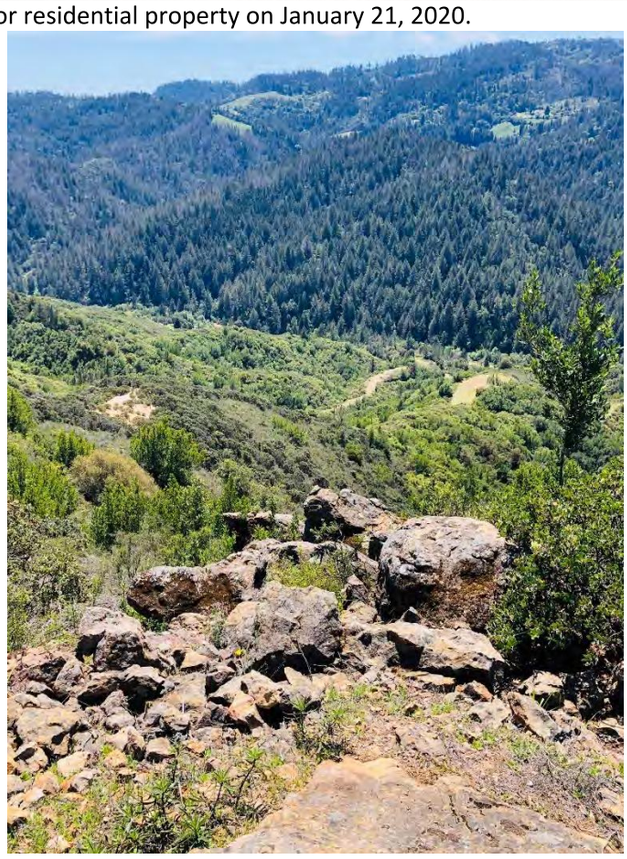


Photo 4. Rock outcrops provide potential habitat for bats adjacent to the Project Study Area.

Photo 5. Trees located along paved driveway provide potential habitat for bats and birds.

Photo 6. Trees located along unpaved driveway provide potential habitat for bats and birds.

APPENDIX D

OBSERVED PLANT SPECIES TABLE

Scientific Name	Common Name	Family	CAL IPC
Acacia dealbata	silver wattle	Fabaceae	moderate
Achillea millefolium	common yarrow	Asteraceae	native
Acmispon glaber	deerweed	Fabaceae	native
Adenostoma fasciculatum	chamise	Rosaceae	native
Adiantum jordanii	California maidenhair	Pteridaceae	native
Agoseris sp.	dandelion	Asteraceae	
Aira caryophyllea	silver hair grass	Poaceae	non-native; no ranking
Anemone oregana var. oregana	blue windflower	Ranunculaceae	native
Anthemis cotula	mayweed	Asteraceae	not native
Arbutus menziesii	Pacific madrone	Ericaceae	native
Arctostaphylos canescens subsp. canescens	hoary manzanita	Ericaceae	native
Arctostaphylos manzanita subsp. manzanita	common manzanita	Ericaceae	native
Avena fatua	wild oat	Poaceae	moderate
Baccharis pilularis	coyote brush	Asteraceae	native
Briza maxima	rattlesnake grass	Poaceae	limited
Bromus cartharticus	rescue grass	Poaceae	not native
Bromus diandrus	ripgut grass	Poaceae	moderate
Bromus hordeaceus	soft chess	Poaceae	limited
Calandrinia menziesii	red maids	Montiaceae	native
Calochortus amabilis	Diogene's lantern	Liliaceae	native
Carduus pycnocephalus subsp. pycnocephalus	Italian thistle	Asteraceae	moderate
Ceanothus foliosus var. foliosus	waxyleaf ceanothus	Rhamnaceae	native
Chlorogalum pomeridianum	soap plant	Agavaceae	native
Cirsium vulgare	bull thistle	Asteraceae	Moderate
Clinopodium douglasii	yerba buena	Lamiaceae	native
Convolvulus arvensis	bindweed	Convolvulaceae	not native
Corylus cornuta subsp. californica	California hazel	Betulaceae	native
Crocanthemum scoparium	peak rush-rose	Cistaceae	native
Cynoglossum grande	grand hound's tongue	Boraginaceae	native
Cynosurus echinatus	bristly dogtail grass	Poaceae	moderate
Cytisus scoparius	scotch broom	Fabaceae	high

Dactylis glomerata	orchard grass	Poaceae	limited
Dendromecon rigida	bush poppy	Papaveraceae	native
Diplacus aurantiacus	orange bush monkeyflower	Phrymaceae	native
Dipterostemon capitatus	blue dicks	Themidaceae	native
Elymus glaucus	blue wild-rye	Poaceae	native
Erigeron sp.	fleabane daisy	Asteraceae	
Eriodictyon californicum	yerba santa	Boraginaceae	native
Eriogonum nudum var. nudum	naked wild buckwheat	Polygonaceae	native
Eriophyllum lanatum	common woolly sunflower	Asteraceae	native
Erodium cicutarium	redstem filaree	Geraniaceae	limited
Eschscholzia californica	California poppy	Papaveraceae	native
Eucalyptus globulus	blue gum	Myrtaceae	limited
Festuca myuros	rattail sixweeks grass	Poaceae	non-native; no ranking
Festuca perennis	rye grass	Poaceae	moderate
Frangula californica	California coffee berry	Rhamnaceae	native
Galium aparine	goose grass	Rubiaceae	native
Gastridium phleoides	nit grass	Poaceae	non-native; no ranking
Genista monspessulana	French broom	Fabaceae	high
Helminthotheca echioides	bristly ox-tongue	Asteraceae	limited
Heteromeles arbutifolia	toyon	Rosaceae	native
Hieracium albiflorum	white hawkweed	Asteraceae	native
Hordeum murinum	wall barley	Poaceae	moderate
Hypericum concinnum	gold-wire	Hypericaceae	native
Hypochaeris glabra	smooth cat's-ear	Asteraceae	limited
Iris sp.	Iris	Iridaceae	
Lathyrus latifolius	perennial sweet pea	Fabaceae	not native
Logfia gallica	daggerleaf cottonrose	Asteraceae	non-native; no ranking
Lonicera sp.	honeysuckle	Caprifoliaceae	native
Lupinus latifolius	bigleaf lupine	Fabaceae	native
Madia sp.	tarweed	Asteraceae	native
Medicago sativa	alfalfa	Fabaceae	not native
Melica californica	California melic	Poaceae	native
Melilotus albus	white sweetclover	Fabaceae	not native
Navarretia squarrosa	skunkweed	Polemoniaceae	native
Osmorhiza occidentalis	mountain sweet-cicely	Apiaceae	native
Pedicularis densiflora	warrior's plume	Orobanchaceae	native
Pellaea andromedifolia	coffee fern	Pteridaceae	native

Penstemon heterophyllus	foothill penstemon	Plantaginaceae	native
Pentagramma triangularis	goldback fern	Pteridaceae	native
Pinus attenuata	knobcone pine	Pinaceae	native
Plagiobothrys cusickii	Cusick's popcornflower	Boraginaceae	native
Plantago lanceolata	English plantain	Plantaginaceae	limited
Polygala californica	California milkwort	Polygalaceae	native
Pseudognaphalium beneolens	cudweed	Asteraceae	native
Pseudognaphalium californicum	Ladies' tobacco	Asteraceae	native
Pseudotsuga menziesii var. menziesii	Douglas-fir	Pinaceae	native
Pteridium aquilinum var. pubescens	western brackenfern	Dennstaedtiaceae	native
Quercus agrifolia	coast live oak	Fagaceae	native
Quercus kelloggii	California black oak	Fagaceae	native
Quercus wislizeni	interior live oak	Fagaceae	native
Rosa californica	California rose	Rosaceae	native
Salvia columbariae	chia	Lamiaceae	native
Sonchus oleraceus	common sow thistle	Asteraceae	non-native; no ranking
Stachys stricta	hedge-nettle	Lamiaceae	native
Symphoricarpos albus var. laevigata	snowberry	Caprifoliaceae	native
Torilis arvensis	tall sock-destroyer	Apiaceae	moderate
Toxicodendron diversilobum	western poison oak	Anacardiaceae	native
Toxicoscordian fremontii	Fremont's death camas	Melanthiaceae	native
Trifolium hirtum	rose clover	Fabaceae	limited
Umbellularia californica	California bay	Lauraceae	native
Vicia sp.	vetch	Fabaceae	
Wyethia angustifolia	mule's ears	Asteraceae	native
Xerophyllum tenax	bear-grass	Melanthiaceae	native

APPENDIX E

FIELD SURVEYOR QUALIFIICATIONS

Dana Riggs, Principal Biologist for Sol Ecology received her Bachelor of Science degree in Earth Systems, Science and Policy at California State University of Monterey Bay in 2001. Prior to founding Sol Ecology, she was a principal biologist and head of the Wildlife and Fisheries Department at WRA, a mid-size environmental consulting firm in San Rafael, California. She has 20 years of experience directing a broad range of resource studies from planning level to post-construction including: biological habitat assessments and mapping, special status species surveys, corridor studies, site restoration and monitoring, federal and state regulatory permitting, local permitting, mitigation and restoration planning for aquatic species, and NEPA and CEQA documentation for a variety of public and private sector clients. Dana has extensive experience working with species including California red-legged frog and California tiger salamander and has been approved by USFWS and CDFW to monitor for these species on projects throughout the state.

Andrew Georgeades, Senior Ecologist for Sol Ecology received his Bachelor of Science degree in Natural Resource Management and Conservation at San Francisco State University in 2005. Prior to co-founding Sol Ecology, Andrew worked as a natural resources' specialist for the Golden Gate National Recreation Area where he was responsible for monitoring native and rare plant populations and planning and supervising revegetation projects within the park. Andrew also previously worked for the California Native Plant Society as a vegetation project lead on the "Manual of California Vegetation, 2nd Ed." Publication. As a lead, he performed plant surveys, identified vegetation habitat types, landforms, environmental conditions, and plant species following the project protocol. Andrew currently is responsible for overseeing all floristic and focused plant surveys at Sol Ecology and maintains a CDFW scientific collecting permit.

Amy May, Associate Biologist for Sol Ecology received a Bachelor of Science degree in Biological Sciences at Virginia Tech in 2006 and a dual Master of Public Affairs and Master of Science in Environmental Science at Indiana University-Bloomington in 2010. She has worked as a biologist in the public and private industry for over 9 years and specializes in special status plant and wildlife surveys, floristic inventories, wetland delineation, and vegetation community mapping with experience in the Bay Area, Mojave Desert, Shasta Cascade Region, Great Basin, and Snake River Plain.