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Biological Studies

Special-Status Plant Review
Darms Lane Winery
1150 Darms Lane
APN 034-190-034 and -035
Napa County

KJELDSEN BIOLOGICAL CONSULTING
923 St. Helena Ave.
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May 2017

Special-Status Plant Review
Darms Lane Winery
1150 Darms Lane

EXECUTIVE SUMMARY

This study was conducted at the request of Donna B. Oldford, Plans4Wine on behalf of Darms Lane, LLC., as background information for permits from the Napa County Planning, Building and Environmental Services Department.

The application proposes a winery, offices, tasting room, and wine caves. The proposed project includes temporary staging and storage areas, a primary septic disposal field, visitor parking, two bio-retention detention basins, HMA driveway, septic replacement area, employee parking area, process wastewater treatment system, and water storage tanks (Bartelt Engineering Proposed Site Plan).

The project site is located at (APN 034-190-034, and 035) with access from Darms Lane. The property is within the USGS Napa Quadrangle. The findings presented are the result of field study conducted on March 28, 2017, by Kjeldsen Biological Consulting.

- The proposed project will be within existing disturbed areas, vineyards and Oak woodlands;
- No sensitive plant habitat, or special-status plant species were identified or would be expected within the footprint of the survey area. It is unlikely that the proposed project would impact any of the special-status plant species known for the Quadrangle or the region based on the habitat present and historic agricultural use;
- There are no known records in the CDFW CNDDB for the project site or the immediate vicinity:
- The proposed project footprint will not significantly reduce the habitat for any State or Federally listed plants;
- The project will not impact any Sensitive Natural Communities regulated by the California Department of Fish and Wildlife or listed by the County of Napa;
- The habitat associated with the proposed project site is such that there is no need for seasonal floristic surveys;
- The footprint of the project will not significantly contribute to habitat loss or habitat fragmentation; and
- The flora observed on and near the proposed project is included as an Appendix.

Based on our site visit and available information, no State or Federal permits are required and the project will be in compliance with the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA).

Recommendations

There are no recommendations to reduce the projects impact on special-status plant species.

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INTRODUCTION

This study was conducted at the request of Donna B. Oldford, Plans4Wine on behalf of Darms Lane, LLC., as background information for permits from the Napa County Planning, Building and Environmental Services Department.

The application proposes a winery, offices, tasting room, and wine caves. The proposed project includes temporary staging and storage areas, a primary septic disposal field, visitor parking, two bio-retention detention basins, HMA driveway, septic replacement area, employee parking area, process wastewater treatment system, and water storage tanks (Bartelt Engineering Proposed Site Plan).

The project site (APN 034-190-034 and -035) with is located at 1150 Darms Lane. The property is within the USGS Napa Quadrangle. The findings presented are the result of field study conducted on March 28, 2017, by Kjeldsen Biological Consulting.

PURPOSE

The purpose of our survey is to review the project site, with emphasis on potential habitat for special-status plants or unique plant populations associated with the proposed project.

Our study also addresses the presence of, or potential for sensitive plant communities listed by the California Department of Fish and Wildlife (CDFW), Napa County Base Line Data Report, Critical Habitat listed by the U.S. Fish and Wildlife Service (USFWS), within or adjacent to the proposed project footprint.

This review provides general information on the potential presence of sensitive plant species and habitats. This is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. This assessment is based on information available at the time of the study and on site conditions that were observed on the date of the site visit.

METHODS

Our study was conducted by walking the site while recording field notes and photographing the existing conditions. Our fieldwork searched for potential habitat, which would support local or regional special-status species. Plants unidentifiable in the field were collected for identification with reference sources and a binocular microscope. Plant materials collected and identified in the laboratory are noted in the attached appendix. The open nature of the site, historic agricultural practices, on-going maintenance practices, and size of the project footprint facilitated our field studies.

Typically, blooming examples are required for identification however it is not the only method for identifying the presence of or excluding the possibility of rare plants. Vegetative morphology and dried flower or fruit morphology, which may persist long after the blooming period, may also be used. Skeletal remains from previous season's growth can also be used for identification. For some plants unique features such as the aromatic oils present are key indicator. For some trees and shrubs with unique vegetative characteristics flowering is not needed for proper identification. The vegetative evaluation as a function of field experience can be used to identify species outside of the blooming period to verify or exclude the possibility of special-status plants in a study area.

Habitat is also a key characteristic for consideration of special-status species in a study area. Many special-status species are rare in nature because of their specific and often very narrow habitat or environmental requirements. Their presence is limited by specific environmental conditions such as: hydrology, microclimate, soils, nutrients, interspecific and intraspecific competition, and aspect or exposure. In some situations special-status species particularly annuals may not be present each year and in this case one has to rely on skeletal material from previous years. A site evaluation based on habitat or environmental conditions is therefore a reliable method for including or excluding the possibility of special-status species in an area.

Special-status Species

Special-status organisms are plants that have been designated by Federal or State agencies as rare, endangered, or threatened. Section 15380 of the California Environmental Quality Act [CEQA (September, 1983)] has a discussion regarding non-listed (State) taxa. This section states that a plant must be treated as Rare or Endangered even if it is not officially listed as such. If a person (or organization) provides information showing that a taxa meets the State's definitions and criteria, then the taxa should be treated as such.

Sensitive Communities

CDFW CNDDB identifies environmentally sensitive plant communities that are rare or threatened in nature. Sensitive habitat is defined as any area which meets one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Wildlife Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.

The Napa County Baseline Data Report as well as the California Department of Fish and Game Natural Diversity Data Base (DFG CNDDB) lists recognized Sensitive Biotic Communities. The Napa County Baseline Data Report lists twenty-three communities which are considered sensitive by DFG due to their rarity, high biological diversity, and/or susceptibility to disturbance or destruction. The CNDDB communities in Napa County are the following: Serpentine bunchgrass grassland, Wildflower field (located within native grassland), Creeping ryegrass grassland, Purple Needlegrass grassland, One-sided bluegrass grassland, Mixed serpentine chaparral, McNab cypress woodland, Oregon white oak woodland, California bay forests and woodlands, Fremont cottonwood riparian forests, Arroyo willow riparian forests, Black willow riparian forests, Pacific willow riparian forests, Red willow riparian forests, Narrow willow riparian forests, Mixed willow riparian forests, Sargent cypress woodland, Douglas fir-ponderosa pine forest (old-growth), Redwood forest, Coastal and valley freshwater marsh, Coastal brackish marsh, Northern coastal salt marsh, and Northern vernal pool.

Napa County biotic communities of limited distribution that are sensitive include: Native grassland; Tanbark oak alliance; Brewer willow alliance; Ponderosa pine alliance; Riverine, lacustrine, and tidal mudflats; and Wet meadow grasses super alliance.

Critical Habitat

Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery.

The Endangered Species Act

The federal Endangered Species Act provides for the protection and conservation of various species of fish, wildlife, and plants that have been federally listed as threatened or endangered. Section 9 of the ESA prohibits the "take" of any fish or wildlife species that is listed as endangered under the ESA unless such take is otherwise specifically authorized pursuant to either Section 7 or Section 10(a)(l)(B) of the Act.

SCOPING

The scoping for the study area considered location and type of habitat and or vegetation types present on the property or associated with potential special-status plant species known for the Quadrangle, surrounding Quadrangles, the County or the region. Our scoping also considered records in the most recent version of the Department of Fish and Wildlife California Natural Diversity Data Base (CDFW CNDDB Rare Find), and U.S. Fish and Wildlife species list for the property. “Target” special-status species are those listed by the State or Federal government as endangered or threatened in the region. Our scoping is also a function of our familiarity with the local flora and fauna as well as previous projects on other properties in the area.

FINDINGS

The property is located above the Napa Valley within the inner North Coast Range Mountains, a geographic subdivision of the larger California Floristic Province (Hickman, 1993). The property and surrounding region is strongly influenced by storms and fog from the Pacific Ocean. The region is in climate Zone 14 "Ocean influenced Northern and Central California" characterized as an inland area with ocean or cold air influence. The climate of the region is characterized by hot, dry summers and cool, wet winters, with precipitation that varies regionally from less than 30 to more than 60 inches per year. This climate regime is referred to as a "Mediterranean Climate." The average annual temperature ranges from 45 to 90 degrees Fahrenheit. The variations of abiotic conditions including geology results in a high level of biological diversity per unit area in the region.

The project footprint will impact existing agricultural lands (vineyard) and a relatively small area of Oak Woodland.

Habitat

A portion of the proposed project is within a developed landscape (Vineyards, residence, and roads). Habitats to be impacted include ruderal habitat and Oak woodlands.

Ruderal vegetation within the footprint of the project can be termed weeds, aliens, exotics or invasive plants. The natural habitat impacted by the project includes the cave portals, and a portion of the footprint of is within fringing Oak Woodlands.

The Habitat Type for the project site would be considered Agricultural, and Oak Woodlands

Forest Alliance Mixed Oak Woodlands *Quercus* (*agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni*) Forest Alliance Mixed Oak Forest; *Quercus agrifolia, Q. douglasii, Q, garryana, Q. kelloggii, Q. lobata* and/or *Q. wislizeni* are co-dominant in the tree canopy with *Aesculus californica, Arbutus menziesii, Pinus sabiniana, Pseudotsuga menziesii,* and *Umbellularia californica*. Trees > 30 m. The canopy is intermittent to continuous. Shrubs are infrequent or common, herbaceous layer is sparse or abundant, may be grassy. This Alliance is found in valley and on gentle to steep slopes. The membership rules require three or more *Quercus* species present at >30% constancy and they are co-dominant in the tree canopy.

The following photos illustrate existing conditions and habitat found on site.

Photo 1. View of the area proposed for offices, guest parking, and tasting room.

Photo 2. View the proposed winery site and caves.

Photo 3. View to the south of the proposed project site.

Special Status Species

A map from the CDFW CNDDB Rare Find shows known special-status species in the proximity of the project as shown on Plate II. These taxa as well as Special-status Species known for the Quadrangle and Surrounding Quadrangles were considered and reviewed as part of our scoping for the project site and property. Reference sites were reviewed as part of our scoping for some of the species.

Table I below provides a list of species that are known to occur (CDFW CNDDB Rare Find search). The table includes an analysis of habitat and potential for presence or absence on the project site.

Table I. Analysis of CDFW CNDDB and USFWS special-status plant species from the region. Columns are arranged alphabetically by scientific name.

Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence.**
Agrostis hendersonii Henderson's Bent Grass	Vernal Pools	No	May-July	No	Lack of mesic habitat.

Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence.**
Amorpha californica var. *napensis* Napa False Indigo	Cismontane Woodland	Yes	April-July	No	Known for areas east of project site.
Allium peninsulare var. *franciscanum* Franciscan Onion	Cismontane woodland, Valley and Foothill Grassland/Clay often Serpentinite	No	May-June	No	Absence of requisite edaphic conditions.
Arctostaphylos stanfordiana ssp. *decumbans* Rincon Manzanita	Chaparral, Lower Montane Coniferous Forest (openings), Rocky, often Serpentinite	No	Feb.-April	No	Absence of requisite habitat and vegetation associates on the site or in the immediate vicinity.
Astragalus claranus Clara Hunt's Milk-vetch	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	Yes	March-May	No	Absence of requisite micro-habitat and vegetation associates.
Astragalus tener var. tener Alkali Milk-vetch	Valley and Foothill Grassland, Vernal Pools /Alkaline	No	March -June	No	Absence of requisite mesic habitat or substrate on project site precludes presence.
Balsamorhiza macrolepis var. *macrolepis* Big-scale Balsamroot	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	No	March-June	No	Historic use of site precludes presence.
Blennosperma bakeri Sonoma Sunshine	Valley and Foothill Grassland, Vernal Pools	No	March-May	No	Absence of requisite mesic habitat.
Brodiaea leptandra (= B. californica var. *leptandra)* Narrow-anthered California Brodiaea	Open Cismontane Woodland, Mixed-evergreen Forest or Chaparral Gravely Soil	Yes	May-June	No	Absence of typical vegetation associates and soils.
Castilleja ambigua var. *meadii* Mead's Owls-clover	Vernally wet meadows with volcanic substrate	No	April-June	No	Lack of habitat.

Scientific Name Common Name	Species Habitat Association or Plant Community	Habitat present on Project Site	Bloom Time	Obs. on or Near Site	Analysis of habitat on project site for presence or absence.
Ceanothus confusus Rincon Ridge Ceanothus	Closed Cone Conifer Forests, Chaparral	No	Feb.-April	No	Absence of typical habitat and vegetation associates.
Ceanothus divergens Calistoga Ceanothus	Chaparral, Serpentinite or Volcanic-Rocky.	No	May-Sep.	No	Lack of mesic habitat.
Ceanothus purpureus Holly-leaved Ceanothus	Chaparral	No	March-May	No	Absence of typical habitat and vegetation associates.
Ceanothus sonomensis Sonoma Ceanothus	Chaparral, Serpentinite or Rocky Volcanic.	No	Feb.-March	No	Absence of typical habitat and vegetation associates.
Centromadia parryi ssp. *parryi* Pappose Tarplant	Grassland salt or alkaline Marshes	No	March-June	No	Requisite mesic conditions absent.
Downingia pusilla Dwarf Downingia	Wetlands	No	March May	No	Requisite aquatic habitat absent on the site or in the immediate vicinity.
Erigeron greenei Green's Narrow-leaved Daisy	Chaparral, (Serpentinite)	No	May-Sept.	No	Absence of edaphic conditions required for presence.
Eryngium jepsonii Jepson's Coyote Thistle	Moist Clay Soils	No	April-Aug.	No	Absence of mesic conditions required for presence.
Extriplex joaquiniana (=Atriplex) San Joaquin Spearscale	Valley and Foothill Grassland, Alkali	No	April-Oct.	No	Absence of requisite edaphic habitat on the site or in the immediate vicinity precludes presence.
Hemizonia congesta ssp. *congesta* Congested Headed Tarplant	Coastal Grassland	No	April Oct.	No	Absence of requisite habitat.
Hesperolinon breweri Brewer's Western Flax	Cismontane Woodland, Valley and Foothill Serpentinite	No	May-July	No	Absence of requisite edaphic habitat on the site or in the immediate vicinity precludes presence.

Scientific Name Common Name	Species Habitat Association or Plant Community	Habitat present on Project Site	Bloom Time	Obs. on or Near Site	Analysis of habitat on project site for presence or absence.
Horkelia tenuiloba Thin-lobed (=Santa Rosa) Horkelia	Broadleaved Upland Forest, Chaparral, Valley and Foothill Grassland	No	May-July	No	Absence of typical habitat and vegetation associates. Present on adjacent parcels.
Isocoma arguta Carquinez Goldenbush	Valley and Foothill Grassland, Alkali	No	Aug-Dec.	No	Absence of requisite edaphic habitat on the site or in the immediate vicinity precludes presence.
Juglands hindsii California Black Walnut	Riparian Woodland	No	April-May	No	Absence of requisite habitat or substrate on the project site
Lasthenia conjugens Contra Costa Goldfields	Wet Meadows, Vernal Pools	No	May-June	No	Lack of suitable mesic habitat.
Leptosiphon jepsonii Jepson's Leptosiphon	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	Yes	April-May	No	Requisite habitat absent on the site or in the immediate vicinity.
Limnanthes vinculans Sebastopol Meadowfoam	Meadows and Seeps, Valley and Foothill Grassland, Vernal Pools	No	April-May	No	Requisite mesic habitat absent on the site or in the immediate vicinity.
Lupinus sericatus Cobb Mountain Lupine	Broadleaved Upland Forest, Chaparral, Cismontane Woodland	No	March -June	No	Absence of requisite vegetation associates as well as historical use of project site precludes presence.
Navarretia leucocephala ssp. *pauciflora* Few-flowered Navarretia	Vernal Pools	No	May-June	No	Absence of typical habitat and vegetation associates.
Penstemon newberryi var. *sonomensis* Sonoma Beardtongue	Cismontane Woodland	No	April-Aug.	No	Absence of typical habitat and vegetation associates.

Scientific Name Common Name	Species Habitat Association or Plant Community	Habitat present on Project Site	Bloom Time	Obs. on or Near Site	Analysis of habitat on project site for presence or absence.
Sidalcea keckii Keck's Checkerbloom	Grassy Slopes	No	April May	No	Lack of habitat
Strepthanthus hisperidis Green Jewel-flower	Rocky Chaparral, Grassland	No	April-July	No	Lack of edaphic habitat and historic use of project site precludes presence.
Trichostema ruygtii Napa Bluecurls, Vinegar Weed	Open areas with thin clay soils seasonally saturated	No	June-Oct.	No	Requisite habitat absent on the site.
Trifolium amoenum, Two-fork Clover	Coastal Bluff Scrub, Valley and Foothill Grassland (Sometimes Serpentinite)	No	April-June	No	Historical use of the site precludes presence. This species is vulnerable to disturbance and livestock grazing.
Trifolium hydrophilum Saline Clover	Marshes and Swamps Grassland	No	April-June	No	Absence of mesic habitat required for presence.
Viburnum ellipticum Oval-leaved Viburnum	Chaparral, Cismontane Woodland, Lower Coniferous Forest	No	May-June	No	Requisite habitat absent on the site or in the immediate vicinity.

The historic use of the site and the absence of wetlands, vernal pools and serpentinite reasonably preclude presence of any of the local or regional special-status species of plants.

Sensitive Communities

The sensitive habitat types in the region consist of vernal pools, fresh water marshes, serpentinite, riparian corridors and native grasslands. There was no evidence within the proposed project footprint for the presence of any of these sensitive habitat types.

The grasslands within the footprint of the project do not consist of any of the sensitive grassland communities listed by the County Baseline Data Report.

There is no Critical Habitat associated with the project site.

Native Grassland

The grasslands within the footprint of the project do not consist of any of the sensitive grassland communities listed by the County Baseline Data Report or CDFW. Native grasses on the project site do not meet the definition of Native Grass Grassland and would not be considered a species with limited distribution or a sensitive natural plant communities for the following reasons: Lack of

typical native grassland species and diversity. The grasses present are within an understory and not associated with historic grasslands. The project will not impact any native grassland.

Unique Species that are Endemic, Rare or Atypical for the Area
Unique populations of organisms are associated with microclimates or specific habitats which are part of the diversity of the California landscape. This includes fringing populations of organisms at their limits geographically or associated with particular soils or geologic features. No unique or unusual populations of plants were present on the property or the project site.

POTENTIAL BOTANICAL IMPACTS

The project's effect to onsite or regional botanical resources is considered to be significant if the project results in:

- Alteration of unique characteristics of the area, such as sensitive plant communities and habitats (i.e. serpentine habitat, wetlands, riparian habitat);
- Adverse impacts to special-status plant species;
- Adverse impacts to important or vulnerable resources as determined by scientific opinion or resource agency concerns (i.e. sensitive biotic communities, special-status habitats);

The habitat impacted by the proposed project is such that there is little reason to expect impacts to special-status species. We found no evidence for the presence of any special-status species on or in the vicinity of the proposed project. The habitat present and historic use of the property reasonably precludes presence on or associated with the proposed project.

The CNDDB five-mile search does not show any records of special-status species on the property. There is no reason to expect any negative impacts to special-status species or locally significant biological resources by the proposed project, provided Best Management are followed.

The sensitive botanical habitat types identified in the CDFW CNDDB and known for the region are not present within the proposed project site.

Recommendations

There are no recommendations to reduce the projects impact on special-status plant species.

SUMMARY

This botanical review is provided as background information necessary for evaluating potential impacts on local botanical resources specifically special-status plant species that could be impacted by the proposed project.

The conditions on the project site, historical land use, lack of any findings during our studies, soils present, site topography, lack of any historical records for the site, and the habitat and plant associates present would reasonably preclude the presence of special-status species;

An analysis, based on our fieldwork, for each of the target species listed above and potential species associated with the habitat on the project site is presented and justification for concluding absence defined.

We find that it is unlikely that any of the "target" special-status species known for the Quadrangle and surrounding Quadrangles or region would occur on the site.

No sensitive habitat or unique plant populations were present.

All plant species observed during our seasonal surveys of the property are included in Appendix A.

Should you have any questions, please do not hesitate to contact us at, (707) 544-3091, Fax (707) 575-8030, or by email at (kjeldsen@sonic.net).

Kjeldsen Biological Consulting

ATTACHMENTS

Plate I. Location Map
Plate II. CDFW CNDDB Map
Plate III. Aerial Photo / Survey Area

APPENDIX A Plants Observed Associated With The Project Site

APPENDIX B CDFW CNDDB Rare Find 5 State and Federal Listed Species for the Quadrangle and Surrounding Quadrangles

U.S. Fish & Wildlife Service IPaC Trust Resources
Federal Endangered and Threatened Species that Occur in or may be Affected by the Project

Names of and Qualifications of Field Investigators

Daniel T. Kjeldsen, B.S., Natural Resource Management, California Polytechnic State University, San Luis Obispo, California. He spent l994 to l996 in the Peace Corps managing natural resources in Honduras, Central America. His work for the Peace Corps in Central America focused on watershed inventory, mapping and the development and implementation of a protection plan. He has over fifteen years of experience in conducting Biological Assessments, CDFW Habitat Assessments, ACOE wetland delineations, wetland rehabilitation, and development of and implementation of mitigation projects and mitigation monitoring. He has received 3.2 continuing education units MCLE 27 hours in Determining Federal Wetlands Jurisdiction from the University of California Berkeley Extension. A full resume is available upon request.

Chris K. Kjeldsen, Ph.D., Botany, Oregon State University, Corvallis, Oregon. He has over thirty-five years of professional experience in the study of California flora. He was a member of the Sonoma County Planning Commission and Board of Zoning (1972 to 1976). He has over thirty years of experience in managing and conducting environmental projects involving impact assessment and preparation of compliance documents, Biological Assessments, CDFW Habitat Assessments, CDFW SB 34 Mitigation projects, ACOE Mitigation projects and State Parks and Recreation Biological Resource Studies. Experience includes conducting special-status species surveys, jurisdictional wetland delineations, general biological surveys, 404 and 1600 permitting, and consulting on various projects. He taught Plant Taxonomy at Oregon State University (three years) and numerous botanical science and aquatic botany courses (thirty-five years) at Sonoma State University including sections on wetlands and wetland delineation techniques. He has supervised numerous graduate theses, NSF, DOE and local agency grants and served as a university administrator. A full resume is available upon request. He has a valid CDFW collecting permit.

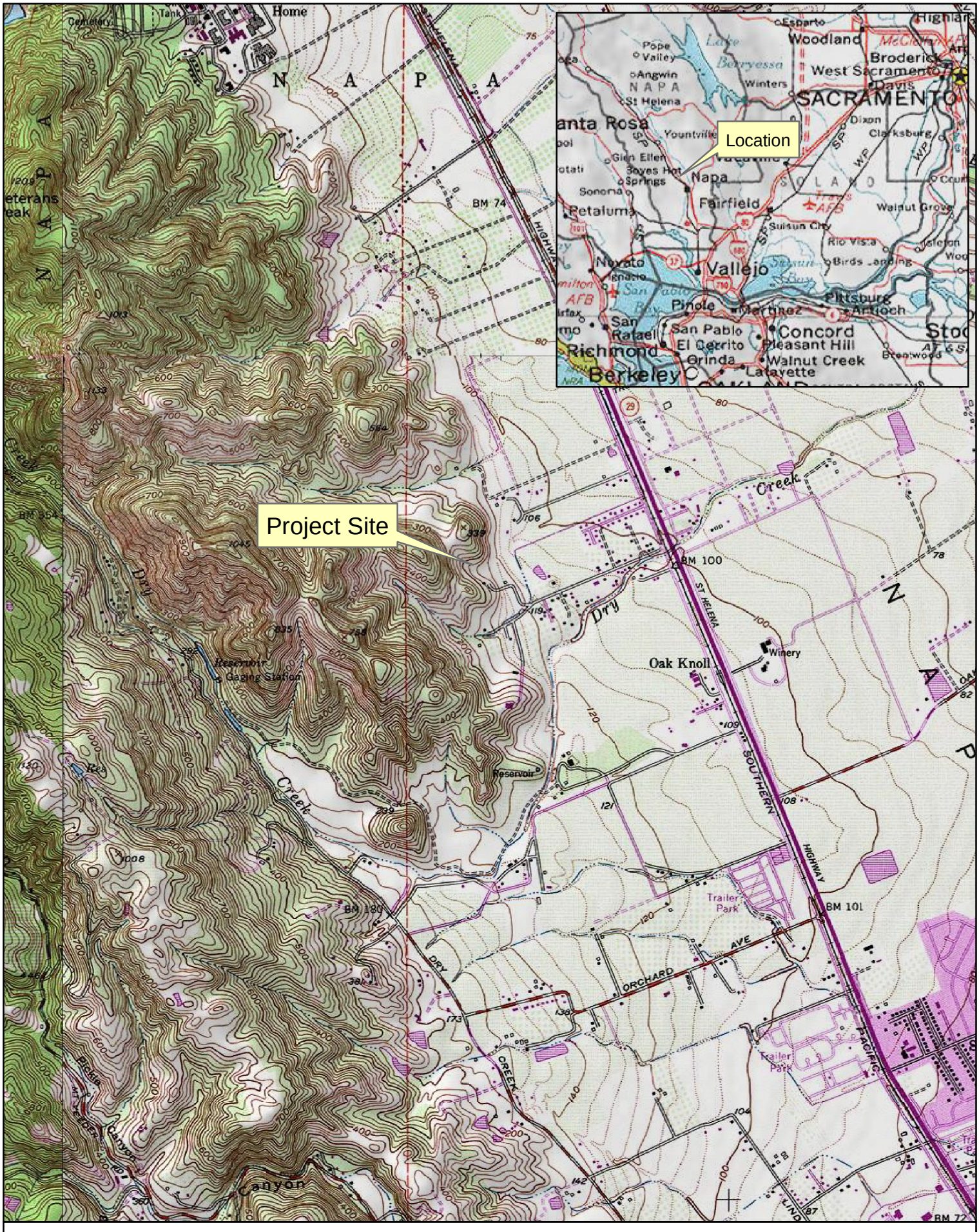


Plate I. Location and Site Map (Napa USGS Quadrangle)

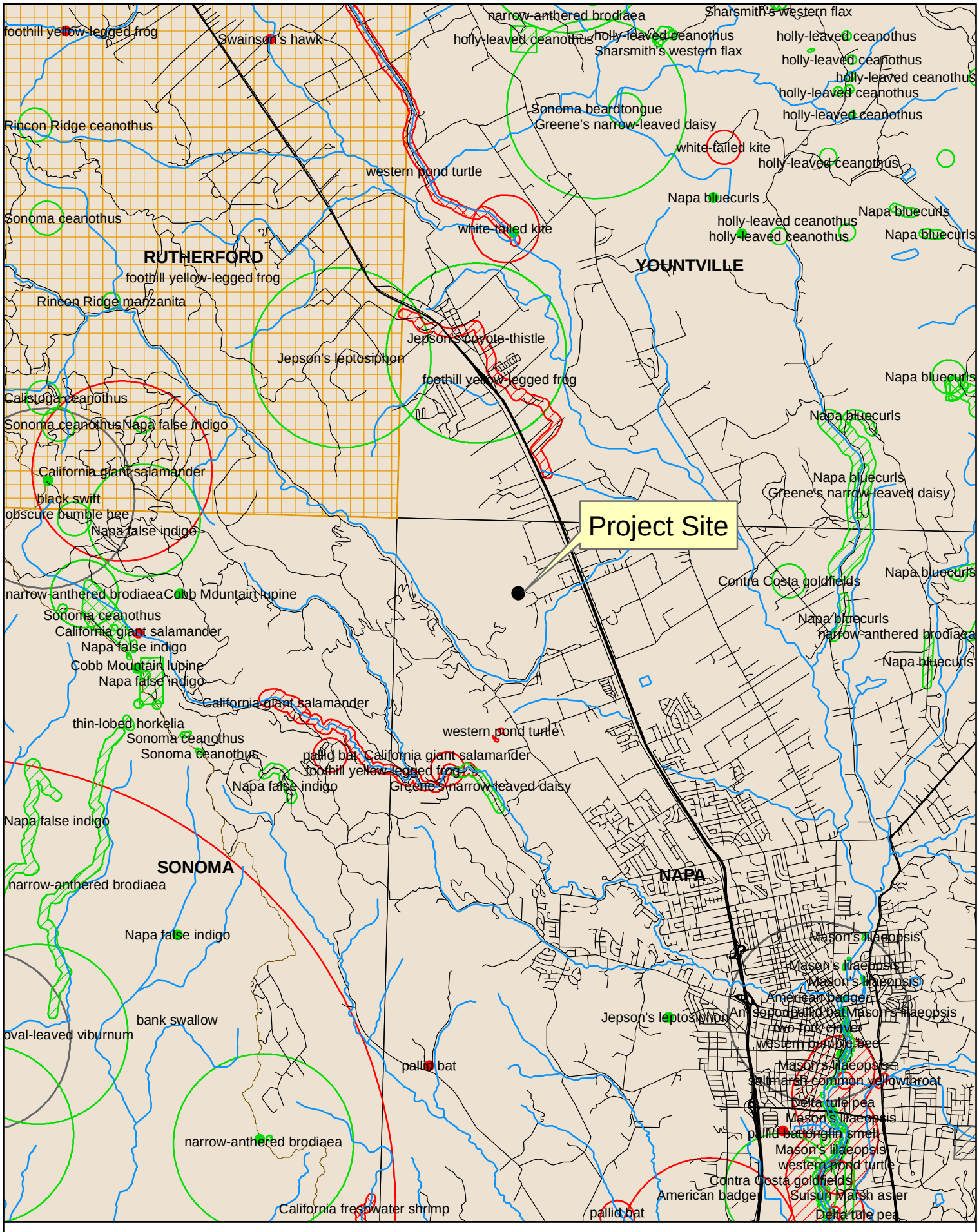


Plate II. CDFW CNDDB Rare Find Data

(Data Date May 2017)

Plate III. Aerial Photo / Survey Area

APPENDIX A
Plants Observed Associated With The Project Site

PLANTS

The nomenclature for the list of plants found on the project site and the immediate vicinity follows: Brodo, Irwin M., Sylvia Duran Sharnoff and Stephen Sharnoff, 2001, for the lichens; Arora -l985, for the fungi; S Norris and Shevrock - 2004, for the mosses; and Baldwin, Goldman, Keil, Patterson, Rosati, and Wilkens, editors, 2012 - for the vascular plants. The plant list is organized by major plant group.

Habitat type indicates the general associated occurrence of the taxon on the project site or in nature. **Abundance** refers to the relative number of individuals on the project site or in the region.

MAJOR PLANT GROUP **Family** **Genus** **Common Name**	**Habitat Type**	**Abundance**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

MOSSES

MINACEAE

Dendroalsia abietina (Hook.) Brit. NCN	Woodlands	Common
Homalothecium nuttallii (Wilson) Jaeger NCN	Epiphytic on Trees Near Coast-Inland	Common
Orthotrichum lyellii Hook & Tayl. NCN	Woodlands, Upper Canopy	Common
Scleropodium touretii (Brid.) L Koch. NCN	Woodlands	Common

LIVERWORTS: "COMPLEX THALLOID"

AYTONIACEAE

Astrella californica (Hampe) Underw. NCN	On Soil or Cut Banks	Occasional

LIVERWORTS: "LEAFY"

FOSOMBRONIACEAE

@*Fossombronia longiseta* (Austin) Austin	On Soil of Hillsides quick to Dry	Occasional

SPHEROCARPACEAE

@*Sphaerocarpos texanus* Austin Bottle Liverwort	On Bare Soil, Pioneer, Paths	Common

MAJOR PLANT GROUP
Family
Genus **Habitat Type** **Abundance**
Common Name

NCN = No Common Name, * = Non-native, @= Voucher Specimen

LICHENS

FOLIOSE

Flavoparmelia caperata (L.) Hale Common Green Shield	On Oaks	Common
Flavopunctilia flaventor (Stirt.) Hale Speckled Green Shield	On Oaks, Occasional on Rocks	Common
Parmelia sulcata Taylor Hamered Shield Lichen	On Bark	Common
Xanthoparmelia mexicana (Gyeln.) Hale NCN	On Rocks	Common
Xanthoria polycarpa (Hoffm.) Rieber Pin-cushion Sunburst Lichen	On Oaks Young Twigs	Common

FRUTICOSE

Evernia prunastri (L.) Ach. NCN	On Oaks	Common
Ramalina farinacea (L.) Ach. NCN	On Oaks	Common
Teloschistes chrysophthalmus (L.) Th. Fr. NCN	On Oaks	Common
Usnea intermedia=U. arizonica NCN	On Oaks	Common

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE- TREES

EUDICOTS

ERICACEAE Heath Family

Arbutus menziesii Pursh Madrone	Woodlands	Common

FAGACEAE Oak Family

Quercus agrifolia Nee Live Oak	Woodlands	Common
Quercus lobata Nee. Valley Oak	Valley Grasslands	Common

OLEACEAE Olive Family

**Olea europaea* L. Olive	Domestic Ruderal	Occasional

SALICACEAE Willow Family

Populus fremontii S.Watson ssp. *fremontii* Fremont Cottonwood	Planted	Occasional

MAJOR PLANT GROUP
Family
Genus **Habitat Type** **Abundance**
Common Name

NCN = No Common Name, * = Non-native, @= Voucher Specimen

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE-SHRUBS AND WOODY VINES
EUDICOTS
ANACARDIACEAE Sumac Family
Toxicodendron diversilobum (Torry&Gray) E.Green Woodlands Common
Poison Oak
ASTERACEAE (Compositae) Sunflower Family
Baccharis pilularis deCandolle Woodlands, Grasslands Common
Coyote Brush
CACTACEAE Cactus Family
**Opuntia ficus-indica* (L.) Miller Escape Common
Mission Prickly-Pear, Indian-Fig Burbank's Spineless Prickly Pear
CAPRIFOLIACEAE Honeysuckle Family
Symphoricarpos albus (L.) SF Blake *var. laevigatus* Riparian, Shrub/Scrub Common
Snowberry Woodlands
ROSACEAE Rose Family
Heteromeles arbutifolia (Lind.) M. Rome. Shrub/Scrub Common
Christmas Berry, Toyon

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE-HERBS
EUDICOTS
APIACEAE (Umbelliferae) Carrot Family
**Dacus carota* L. Ruderal Grasslands Common
Wild Carrot, Queen Anne's Lace
**Torilis arvensis* (Huds.) Link Grasslands Woodlands Common
Hedge-parsley
ASTERACEAE (Compositae) Sunflower Family
**Anthemis cotula* L. Ruderal Common
Mayweed, Stinkweed, Dog-fennel
**Calendula arvensis* L. Ruderal Occasional
Field Marigold
**Carduus pycnocephalus* L.subsp.*pycnocephalus* Woodlands Common
Italian Thistle
**Cichorium intybus* L. Ruderal Occasional
Chicory
**Circium vulgare* (Savi) Ten. Grasslands, Ruderal Common
Bull Thistle
**Erigeron canadensis* L. Ruderal Occasional

Horseweed (=*Conyza Canadensis)*

MAJOR PLANT GROUP **Family** **Genus** **Common Name**	**Habitat Type**	**Abundance**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

**Helminthotheca echioides* (L.) Holub Ox-tongue (=*Picris echioides)*	Ruderal	Common
**Lactuca serriola* L. Prickly Lettuce	Ruderal	Occasional
Senecio aronicoides DC. Rayless Ragwort, California Butterweed	Foothill Woodlands	Occasional
**Senecio vulgaris* L. NCN	Ruderal	Occasional
**Sonchus asper* (L.) Hill var. *asper* Prickly Sow Thistle	Ruderal	Common
**Sonchus oleraceus* L. Common Sow Thistle*)*	Ruderal	Common
**Taraxacum officinale* F.H.Wigg Dandelion	Ruderal	Common
Wyethia glabra A.Gray Coast Mules Ears	Edge of Woodlands	Common
BORAGINACEAE Borage or Waterleaf Family		
Amsinckia menziesii (Lehm) Nelson&Macbr. Rancher's Fireweed	Grasslands	Occasional
Phacelia ciliata Benth. NCN	Grasslands	Occasional
Plagiobothrys nothofulvus (A.Gray)A. Gray Popcorn Flower	Grasslands, Woodlands	Common
BRASSICACEAE Mustard Family		
**Brassica rapa* L. Field Mustard	Grasslands, Ruderal	Common
**Capsella bursa-pastoris* L. Shepherd's Purse	Ruderal	Common
Cardamine oligosperma Nutt. Bitter-cress	Ruderal	Common
**Lepidium virginicum* L. subsp *virginicum* Pepper-grass	Ruderal	Common
**Raphanus sativus* L. Wild Radish	Ruderal	Common
CARYOPHYLLACEAE Pink Family		
**Cerastium arvense* L. subsp *strictum* Spury, Stickey Sand-Spury	Ruderal	Common
**Cerastium fontanum* Baumg. subsp.*vulgare* Mouse-ear-chickweed	Ruderal	Common

MAJOR PLANT GROUP
Family

Genus	**Habitat Type**	**Abundance**
Common Name		

NCN = No Common Name, * = Non-native, @= Voucher Specimen

FABACEAE (Leguminosae) Legume Family		
**Lotus corniculatus* L.	Grasslands, Ruderal	Common
Bird's-foot Trefoil		
Lupinus nanus Benth.	Grasslands	Common
Sky Lupine		
**Medicago polymorpha* L.	Ruderal, Grasslands	Common
Bur Clover		
**Trifolium hirtum* All.	Ruderal	Common
Rose Clover		
**Trifolium repens* L.	Ruderal	Common
White Clover		
**Vicia sativa* L. subsp. *nigra*	Grasslands, Ruderal	Common
Narrow Leaved-vetch		
**Vicia villosa* Roth. subsp. *villosa*	Ruderal	Common
Hairy Vetch, Winter Vetch		
GERANIACEAE Geranium Family		
**Erodium botrys* (Cav.) Bertol.	Grasslands	Common
Broadleaf Filaree, Long-beaked Filaree		
**Geranium dissectum* L.	Grasslands	Common
Common Geranium		
**Geranium molle* L.	Grasslands	Common
Dove's Foot Geranium		
**Geranium robertianum* L.	Canyons Oak Woodland, Shady	Common
Red Robin		
LAMIACEAE (Labiatae) Mint Family		
Stachys ajugoides Benth.	Moist Open Places	Occasional
Hedge-nettle		
MALVACEAE Mallow Family		
**Malva parviflora* L.	Ruderal	Common
Cheeseweed, Mallow		
PLANTAGINACEAE Plantain Family		
**Plantago lanceolata* L.	Ruderal	Common
English Plantain		
POLYGONACEAE Buckwheat Family		
**Rumex crispus* L.	Ruderal	Common
Curly Dock		
RANUNCULACEAE Buttercup Family		
**Ranunculus muricatus* L.	Grasslands, Ruderal	Occasional
Pickle-fruited Buttercup		

MAJOR PLANT GROUP
Family
Genus **Habitat Type** **Abundance**
Common Name

NCN = No Common Name, * = Non-native, @= Voucher Specimen

RUBIACEAE Madder Family

Galium aparine L.	Woodlands, Riparian, Ruderal	Common
Goose Grass		

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--MONOCOTYLEDONAE-GRASSES

POACEAE Grass Family

**Avena barbata* Link.	Grasslands	Common
Slender Wild Oat		
**Bromus diandrus* Roth	Ruderal, Grasslands	Common
Ripgut Grass		
**Bromus hordeaceus* L.	Grasslands	Common
Soft Chess, Blando Brome (*B.mollis*)		
**Cynosurus echinatus* L.	Ruderal	Common
Hedgehog, Dogtail		
Festuca microstachys Nutt.	Grasslands, Ruderal	Common
NCN (=*Vulpia microstachys)*		
**Festuca myuros* L.	Grasslands	Common
Rattail Fescue,Zorro Annual Fescue (=*Vulpia myuros)*		
Festuca occidentalis Hook.	Open Forests, Woodlands	Occasional
Western Fescue		
**Festuca perennis* (L.) Columubus & Sm.	Grasslands	Common
Perennial Rye Grass (=*Lolium multiflorum, L. perenne)*		
**Poa annua* L.	Grasslands	Common
Annual Bluegrass		

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--MONOCOTYLEDONAE-HERBS

AGAVACEAE Centuray Plant Family

Chlorogalum pomeridianum (DC.) Kunth var. *pomeridianum*	Woodlands, Grasslands	
Soap Plant		Common

IRIDACEAE Iris Family

Sisyrinchium bellum Watson	Grasslands	Common
Blue-eyed Grass		

APPENDIX B

CDFW CNDDB Rare Find 5 State and Federal Listed Species for the Quadrangle and Surrounding Quadrangles

U.S. Fish & Wildlife Service IPaC Trust Resources Federal Endangered and Threatened Species that Occur in or may be Affected by the Project

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)
 AND Quad IS (Capell Valley (3812242) OR Cordelia (3812222) OR Cuttings Wharf (3812223) OR Mt. George (3812232) OR Napa (3812233) OR Rutherford (3812244) OR Sears Point (3812224) OR Sonoma (3812234) OR Yountville (3812243))
 AND Habitat IS (Cismontane woodland OR Valley & foothill grassland)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agrostis hendersonii Henderson's bent grass	PMPOA040K0	None	None	G2Q	S2	3.2
Allium peninsulare var. franciscanum Franciscan onion	PMLIL021R1	None	None	G5T1	S1	1B.2
Amorpha californica var. napensis Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
Arctostaphylos stanfordiana ssp. decumbens Rincon Ridge manzanita	PDERI041G4	None	None	G3T1	S1	1B.1
Astragalus claranus Clara Hunt's milk-vetch	PDFAB0F240	Endangered	Threatened	G1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Blennosperma bakeri Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
Brodiaea leptandra narrow-anthered brodiaea	PMLIL0C022	None	None	G3?	S3?	1B.2
Castilleja affinis var. neglecta Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
Ceanothus confusus Rincon Ridge ceanothus	PDRHA04220	None	None	G1	S1	1B.1
Ceanothus divergens Calistoga ceanothus	PDRHA04240	None	None	G2	S2	1B.2
Ceanothus purpureus holly-leaved ceanothus	PDRHA04160	None	None	G2	S2	1B.2
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Eryngium jepsonii Jepson's coyote-thistle	PDAPI0Z130	None	None	G2	S2	1B.2
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	PDAST4R065	None	None	G5T1T2	S1S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Hesperolinon breweri Brewer's western flax	PDLIN01030	None	None	G2?	S2?	1B.2
Horkelia tenuiloba thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2
Isocoma arguta Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Leptosiphon jepsonii Jepson's leptosiphon	PDPLM09140	None	None	G3	S3	1B.2
Limnanthes vinculans Sebastopol meadowfoam	PDLIM02090	Endangered	Endangered	G1	S1	1B.1
Lupinus sericatus Cobb Mountain lupine	PDFAB2B3J0	None	None	G2	S2	1B.2
Sidalcea keckii Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
Streptanthus hesperidis green jewelflower	PDBRA2G510	None	None	G2	S2	1B.2
Trichostema ruygtii Napa bluecurls	PDLAM220H0	None	None	G1G2	S1S2	1B.2
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 31

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

Query Summary:
Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes) AND Quad IS (Capell Valley (3812242) OR Cordelia (3812222) OR Cuttings Wharf (3812223) OR Mt. George (3812232) OR Napa (3812233) OR Rutherford (3812244) OR Sears Point (3812224) OR Sonoma (3812234) OR Yountville (3812243))
AND Habitat IS (Cismontane woodland OR Valley & foothill grassland)

CNDDB Element Query Results

Scientific Name	Common Name	Federal Status	State Status	State Rank	CA Rare Plant Rank	Habitats
Agrostis hendersonii	Henderson's bent grass	None	None	S2	3.2	Valley & foothill grassland, Vernal pool, Wetland
Allium peninsulare var. franciscanum	Franciscan onion	None	None	S1	1B.2	Cismontane woodland, Ultramafic, Valley & foothill grassland
Amorpha californica var. napensis	Napa false indigo	None	None	S2	1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	None	None	S1	1B.1	Chaparral, Cismontane woodland
Astragalus claranus	Clara Hunt's milk-vetch	Endangered	Threatened	S1	1B.1	Chaparral, Cismontane woodland, Valley & foothill grassland
Astragalus tener var. tener	alkali milk-vetch	None	None	S2	1B.2	Alkali playa, Valley & foothill grassland, Vernal pool, Wetland
Balsamorhiza macrolepis	big-scale balsamroot	None	None	S2	1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Blennosperma bakeri	Sonoma sunshine	Endangered	Endangered	S1	1B.1	Valley & foothill grassland, Vernal pool, Wetland
Brodiaea leptandra	narrow-anthered brodiaea	None	None	S3?	1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland

Castilleja affinis var. neglecta	Tiburon paintbrush	Endangered	Threatened	S1S2	1B.2	Ultramafic, Valley & foothill grassland
Ceanothus confusus	Rincon Ridge ceanothus	None	None	S1	1B.1	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Ultramafic
Ceanothus divergens	Calistoga ceanothus	None	None	S2	1B.2	Chaparral, Cismontane woodland, Ultramafic
Ceanothus purpureus	holly-leaved ceanothus	None	None	S2	1B.2	Chaparral, Cismontane woodland
Centromadia parryi ssp. parryi	pappose tarplant	None	None	S2	1B.2	Chaparral, Coastal prairie, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Downingia pusilla	dwarf downingia	None	None	S2	2B.2	Valley & foothill grassland, Vernal pool, Wetland
Eryngium jepsonii	Jepson's coyote-thistle	None	None	S2	1B.2	Valley & foothill grassland, Vernal pool
Extriplex joaquinana	San Joaquin spearscale	None	None	S2	1B.2	Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	None	None	S1S2	1B.2	Valley & foothill grassland
Hesperolinon breweri	Brewer's western flax	None	None	S2?	1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Horkelia tenuiloba	thin-lobed horkelia	None	None	S2	1B.2	Broadleaved upland forest, Chaparral, Valley & foothill grassland
Isocoma arguta	Carquinez goldenbush	None	None	S1	1B.1	Valley & foothill grassland
Lasthenia conjugens	Contra Costa goldfields	Endangered	None	S1	1B.1	Alkali playa, Cismontane woodland, Valley & foothill grassland, Vernal pool, Wetland
Leptosiphon jepsonii	Jepson's leptosiphon	None	None	S3	1B.2	Chaparral, Cismontane woodland, Ultramafic
Limnanthes vinculans	Sebastopol meadowfoam	Endangered	Endangered	S1	1B.1	Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Lupinus sericatus	Cobb Mountain lupine	None	None	S2	1B.2	Broadleaved upland forest, Chaparral,

						Cismontane woodland, Lower montane coniferous forest, Ultramafic
Sidalcea keckii	Keck's checkerbloom	Endangered	None	S2	1B.1	Cismontane woodland, Ultramafic, Valley & foothill grassland
Streptanthus hesperidis	green jewelflower	None	None	S2	1B.2	Chaparral, Cismontane woodland, Ultramafic
Trichostema ruygtii	Napa bluecurls	None	None	S1S2	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland, Vernal pool, Wetland
Trifolium amoenum	two-fork clover	Endangered	None	S1	1B.1	Coastal bluff scrub, Ultramafic, Valley & foothill grassland
Trifolium hydrophilum	saline clover	None	None	S2	1B.2	Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland
Viburnum ellipticum	oval-leaved viburnum	None	None	S3?	2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest

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.

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] are managed by the Endangered Species Program of the U.S. Fish and Wildlife Service.

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.

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

Amphibians

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

Birds

NAME	STATUS
California Least Tern Sterna antillarum browni No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Northern Spotted Owl Strix occidentalis caurina There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1123	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

Conservancy Fairy Shrimp Branchinecta conservatio — Endangered
There is a **final** critical habitat designated for this species.
Your location is outside the designated critical habitat.
https://ecos.fws.gov/ecp/species/8246

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened
Steelhead Oncorhynchus (=Salmo) mykiss There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1007	Threatened

Flowering Plants

NAME	STATUS
Contra Costa Goldfields Lasthenia conjugens There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/7058	Endangered
Showy Indian Clover Trifolium amoenum No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6459	Endangered

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Critical habitats

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 activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service

[3]. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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
- Conservation measures for birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Allen's Hummingbird Selasphorus sasin https://ecos.fws.gov/ecp/species/9637	Migrating
Bald Eagle Haliaeetus leucocephalus https://ecos.fws.gov/ecp/species/1626	Year-round
Bell's Sparrow Amphispiza belli https://ecos.fws.gov/ecp/species/9303	Year-round
Black Oystercatcher Haematopus bachmani https://ecos.fws.gov/ecp/species/9591	Year-round
Black Rail Laterallus jamaicensis https://ecos.fws.gov/ecp/species/7717	Breeding
Burrowing Owl Athene cunicularia https://ecos.fws.gov/ecp/species/9737	Year-round
Common Yellowthroat Geothlypis trichas sinuosa https://ecos.fws.gov/ecp/species/2084	Breeding
Costa's Hummingbird Calypte costae https://ecos.fws.gov/ecp/species/9470	Year-round
Fox Sparrow Passerella iliaca	Wintering

Least Bittern Ixobrychus exilis — Breeding
https://ecos.fws.gov/ecp/species/6175

Lesser Yellowlegs Tringa flavipes — Wintering
https://ecos.fws.gov/ecp/species/9679

Lewis's Woodpecker Melanerpes lewis — Wintering
https://ecos.fws.gov/ecp/species/9408

Long-billed Curlew Numenius americanus — Wintering
https://ecos.fws.gov/ecp/species/5511

Mountain Plover Charadrius montanus — Wintering
https://ecos.fws.gov/ecp/species/3638

Nuttall's Woodpecker Picoides nuttallii — Year-round
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Year-round
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeding
https://ecos.fws.gov/ecp/species/3914

Peregrine Falcon Falco peregrinus — Year-round
https://ecos.fws.gov/ecp/species/8831

Rufous Hummingbird selasphorus rufus — Migrating
https://ecos.fws.gov/ecp/species/8002

Short-billed Dowitcher Limnodromus griseus — Wintering
https://ecos.fws.gov/ecp/species/9480

Short-eared Owl Asio flammeus — Wintering
https://ecos.fws.gov/ecp/species/9295

Swainson's Hawk Buteo swainsoni https://ecos.fws.gov/ecp/species/1098	Breeding
Tricolored Blackbird Agelaius tricolor https://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe aechmophorus occidentalis https://ecos.fws.gov/ecp/species/6743	Year-round

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the Northeast Ocean Data Portal. The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAANCCOS models: the models were developed as part of the NOAANCCOS project: Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf. The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-

making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the Northeast Ocean Data Portal, which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The Avian Knowledge Network (AKN) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest,survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the Migratory Bird Programs AKN Histogram Tools webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

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 NOAANCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Facilities

Wildlife refuges

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

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

PEM1B

RIVERINE

R4SBAx

A full description for each wetland code can be found at the National Wetlands Inventory website: https://ecos.fws.gov/ipac/wetlands/decoder

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.

Forest Ecosystem Management, PLLC
PO Box 455 * Potomac, MT 59823
(406) 490-7427 * cptown@blackfoot.net

January 21, 2016

Scott Butler, RPF
Environmental Resource Management
889 Highway 20-26
Ontario, OR 97914
scott.butler@sbcglobal.net

RE: Darms Lane Winery Permit
Section 18 T6N, R4W, MDB&M - Napa County

Scott,

This is an assessment for northern spotted owls (*strix occidentalis caurinia*), or NSOs, for the Darms Lane Winery Project located at 1150 Darms Lane, south of Yountville, California. The Project proposes to remove 1 or 2 hardwoods (oaks) and build a winery and tasting room. No conifer trees will be removed.

Known Northern Spotted Owl Territories:

On 21JAN16, I ran a California Department of Fish & Wildlife's spotted owl viewer for the above listed project (Attachment #1). An assessment area of 1.3 miles from the project area was used. 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 and there are no redwoods on the property; therefore, the 1.3 mile assessment area was used for this Project (Attachment #2). A summary of the report includes:

Owls Sites Found:

- There are no known northern spotted owl territories within 1.3 miles of the Proposed Project. The closest known NSO territory is NAP016 and is located 1.4 miles southwest of the Proposed Project.

Northern Spotted Owl Habitat:

The attributes for northern spotted owl habitat includes a forest with:

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

USFWS more specifically defines northern spotted owl habitat within the California Interior as follows:

- High Quality Nesting/Roosting Habitat: Mixed tree species with basal area of 210+ ft2 and ≥ 15" quadratic mean diameter, and ≥ 8 trees per acre of trees ≥ 26" in diameter at breast height, and ≥ 60% canopy closure.
- Suitable Nesting/Roosting Habitat: Mixed tree species with basal area ranging from 150 - 180+ ft2 and ≥ 15" quadratic mean diameter, and ≥ 8 trees per acre of trees ≥ 26" in diameter at breast height, and ≥ 60% canopy closure.
- Suitable Forging Habitat: Mixed tree species with basal area ranging from 120 - 180+ ft2 and ≥ 13" quadratic mean diameter, and ≥ 5 trees per acre of trees ≥ 26" in diameter at breast height, and a mix of ≥ 40% to 100% canopy closure.
- Low Quality Foraging Habitat: Mixed tree species with basal area ranging from 80 - 120+ ft2 and ≥ 11" quadratic mean diameter, and ≥ 40% canopy closure.

Project Area:

The Project Area is within a larger agricultural area (vineyards, grass production, and open areas) (Attachment #3). The trees to be removed are hardwoods and the building construction will be close to existing vineyards and structures (Attachment #4).

The location of the Project Area is within unsuitable northern spotted owl habitat due to lack of mixed forest type, open landscape, agricultural production, and presence of actively-used structures. Potential suitable northern spotted owl habitat exists further than 1 mile from the Project Area.

Conclusions for Darms Lane Winery Project:

The closest known northern spotted owl territory is located 1.4 miles from the Project Area. The Project is located and surrounded by unsuitable NSO habitat due to lack of mixed forest, open areas, existing vineyards, and residential houses/businesses.

There will be no change in northern spotted owl habitat due to this project; therefore, no mitigation measures for northern spotted owls are proposed at this time for this Project.

This is a general assessment of northern spotted owls for the above listed project area. This is not a complete Biological Assessment for all listed species for an EIR/EIA, nor can it be used in place of USFWS Protocol Surveys.

If you have questions regarding this information, please feel free to contact me.

Pamela Town
Consulting Wildlife Biologist

Attachments:

1: CA Fish & Wildlife Report #1 – NSO Database
2: Topographical Map of NSOs within 1.3 Miles of Darms Lane Winery Project (1 page)
3: Aerial Photo of Landscape around Darms Lane Winery Project (1 page)
4: Aerial Photo of Darms Lane Winery Project – Close up of area impacted (1 page)

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.

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

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

Data Version Date:
01/04/2016

Report Generation Date:
1/21/2016

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

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

M_06N_04W Sections(04,05,06,07,08,09,16,17,18,19,20,21);

M_06N_05W Sections(01,02,11,12,13,14,23,24);

Masterowl	*Subspecies*	*LatDD NAD83*	*LonDD NAD83*	*MTRS*	*AC Coordinate Source*
NAP0016	NORTHERN	38.347983	-122.365383	M 06N 05W 24	Contributor
NAP0031	NORTHERN	38.377688	-122.398209	M 06N 05W 10	Contributor
NAP0038	NORTHERN	38.355946	-122.405716	M 06N 05W 22	Contributor

Project in Sec 18 - T6N, R4W

Distance to Project

NAP016 = 1.4 Miles

NAP031 = 2.79 Miles

NAP038 = 3.09 Miles

Owls within 1.3 miles

NONE

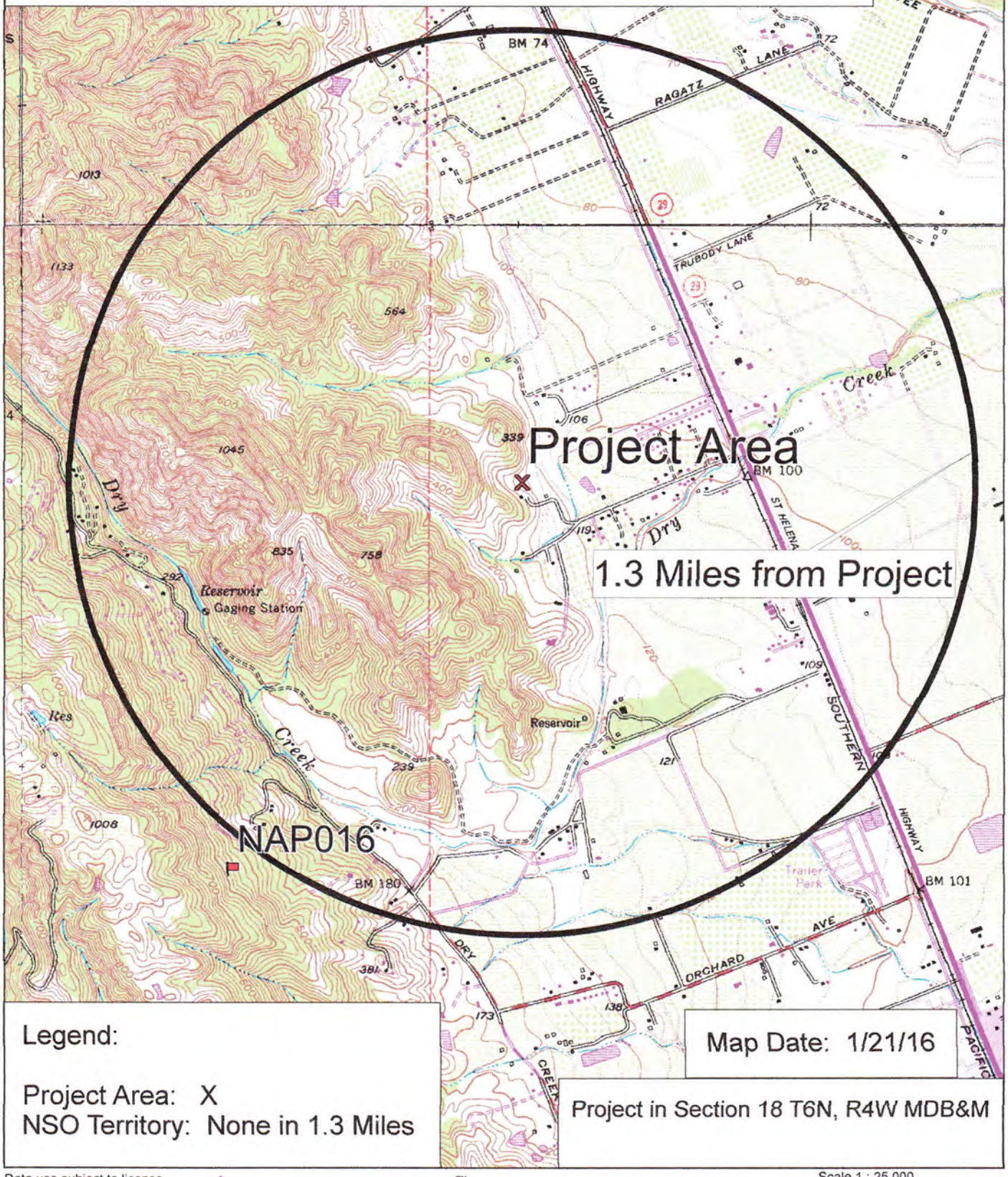
No Report on observations as no owls

Attachment #2

DeLORME

Topo USA® 6.0

Northern Spotted Owls within 1.3 Miles of Darms Lane Winery Permit



Legend:

Project Area: X
NSO Territory: None in 1.3 Miles

Map Date: 1/21/16

Project in Section 18 T6N, R4W MDB&M

TN
MN (13.6°E)

Scale 1 : 25,000

1" = 2,083.3 ft

Data Zoom 13-0


Darms Lane Winery Project
Section 18 T16N, R4W MDB&M
Attachment #3
Legend
Darms Lane Winery Project
Trubody Ln
29
Hillview Ln
Carrell Ln
Darms Lane Winery Project
Vineyard Ln
Darms Ln
Solano Ave
Dry Creek Rd
Google Earth
© 2017 Google
N
3000 ft

Attachment #4

PROPOSED 10,000 GALLON DOMESTIC WATER STORAGE TANK

PROPOSED 50,000 GALLON IRRIGATION WATER STORAGE TANK

PROPOSED 75,000 GALLON FIRE WATER STORAGE TANK

PROPOSED WINE CAVES
(SEE CAVE PLANS FOR LAYOUT AND DESIGN)

985'±

880'±

VINEYARD

035

PROPOSED AB 2004 PICNIC AREA

VINEYARD

VINEYARD

PROPOSED WINERY

1030'±

BARN

PROPOSED AB 2004 PICNIC AREA

VINEYARD

980'±

950'±

PROPOSED AB 2004 PICNIC AREA

PROPOSED OFFICES AND TASTING ROOM

1060'±

OPERTY LINE

970'±

PROPOSED HMA DRIVEWAY

APN 034-190-0

-037

ERTY LINE