Biological Resource Reconnaissance Survey

Ponderosa One, LLC
80 Clear Creek Road
Napa County, CA



Prepared
For

Ponderosa One, LLC

By
Kjeldsen Biological Consulting

May 2024

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PROPERTY APPLICANT: Ponderosa One, LLC
80 Clear Creek Road
Oakville, CA 94562

APN 027-310-032-048

SITE ADDRESS: 80 Clear Creek Road
Oakville, CA 94562

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Executive Summary

This study was conducted at the request of Summit Engineering on behalf of Ponderosa One, as background information for project permits from the Napa County Planning, Building and Environmental Services Department.

The property consists of a residence with infrastructure, landscape plantings, Mixed Chaparral, Cismontane Woodlands, and disturbed Ruderal habitat. The property is located on the west side of the Napa Valley at 80 Clear Creek Road. The property is within the USGS Rutherford Quadrangle.

The project proposed improvements that will occur in three phases. The first phase is to develop a +/- 3,830 sf. area of underground storage below the tennis court parking lot and a +/- 6,240 sf. tennis pavilion adjacent to the tennis courts. The second phase is to develop a ground mounted solar panel system. The third phase will develop an underground +/- 2,700 sf spa and +/- 4,350 sf. Wine and Art storage area. Project spoils will be placed down slope on a previously cleared site.

The purpose of this report is to identify biological resources that may be affected by the proposed project. The findings presented below are the results of fieldwork conducted on March 21st, April 1st, May 19th 2024 by Kjeldsen Biological Consulting:

- The proposed Phase 1 Underground Storage and Tennis Pavilion is adjacent to an existing developed and landscaped area. Grading will impact a small number of native trees. Adjacent understory vegetation has been cleared;
- The proposed Phase 2 ground mounted solar panel system is sited on a west facing slope with native trees; The footprint will removal a small number of Bay and Oak trees. This area burned in 2017 and understory has been cleared;
- The proposed Phase 3 Underground Spa, Wine, and Art Storage is within a developed landscaped area. The footprint will impact a small number of trees and shrubs. Adjacent understory vegetation has been cleared;
- The proposed Spoils Placement Area is within a developed previously cleared and leveled area. The spoils footprint will not impact any native trees or shrubs;
- No habitat for special-status plants or animals was identified within the proposed project footprint or in the immediate vicinity (along the edges) of the project;
- The project footprint will not impact any Federal or State protected wetlands or "Waters

of the U.S." as defined by Section 404 of the Clean Water Act; There are no perennial or intermittent streams adjacent to the proposed project sites;

- The project footprint does not contain any Sensitive Natural Communities, Critical Habitat or Biotic Communities of Limited Distribution listed by Napa County, California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife (USFWS);
- The project will remove approximately 0.13-Acres of Tree Canopy;
- The trees and chaparral that would be removal by the proposed project meet the Napa County Defensible Space Guidelines definition as Pyrophytic Species;
- No wildlife corridors, and or native wildlife nursery sites were identified within the proposed of the project. The project will not impact any riparian habitat or fisheries;
- The proposed project will not significantly contribute to habitat loss or habitat fragmentation; and
- A complete list of all plants and animals encountered on and near the proposed project site is included in Appendix A.

Potential impacts of the project include the following:

- Runoff from the project sites into local drainages has the potential to result in negative impacts to special-status species known or expected to occur downstream in the watershed.

- The project will remove 15 Native Oak trees >6" DBH, and approximately 0.13-acres of Tree Canopy.

Recommendations

The following measures are recommended to reduce potential biological impacts by the proposed project to a less than significant level pursuant to the California Environmental Quality Act (CEQA).

All project construction activities must be limited to the project footprint. Best Management Practices including silt and erosion control measures must be implemented to protect off-site movement of sediment and dust during and post construction. Best Management Practices must be implemented throughout the construction period such as retaining ground cover litter, monitoring for invasive species, providing mulch for bare ground and standard erosion and dust control.

The project must comply with Napa County General Plan Policy CON-24 Paragraph (c) stating that a project should "provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio." Napa County 18.108.020 - General provisions state that Vegetation Removal Mitigation in the AW zoning district, that removal of any vegetation canopy cover shall be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio.

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A. PROJECT DESCRIPTION

This study was conducted at the request of Summit Engineering on behalf of Ponderosa One, as background information for project permits from the Napa County Planning, Building and Environmental Services Department. Plate I provides a site and location map of the property. Plate III provides an aerial photograph illustrating the location of the proposed projects, areas of disturbance.

The property consists of a residence with infrastructure, landscape plantings, Mixed Chaparral, Cismontane Woodlands and Ruderal habitat. The property is located on the west side of the Napa Valley at 80 Clear Creek Road. Vegetation on the west side of the project site burned in 2017 and understory vegetation has been cleared. The property is within the USGS Rutherford Quadrangle.

The proposed project will occur in three phases. The first phase is to develop a +/- 3,830 sf. underground storage below the tennis court parking lot and a +/- 6,240 sf. tennis pavilion. The second phase is to develop a ground mounted solar panel system. The third phase will develop an underground +/- 2,700 square foot spa and +/- 4,350 sf. wine and art storage area. Project spoils will be placed down slope on a previously cleared designated site.

A.1 Introduction

This survey provides general information on the potential presence of sensitive species and habitats, and 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.

A.2 Purpose

The purpose of this report is to identify biological resources that may be affected by the proposed project as listed below:

- To determine the presence or potential for special-status plant and animal species that would be impacted by the proposed project, including habitat types that may have the potential for supporting special-status species (target species that are known for the region, habitat, the Quadrangle and surrounding Quadrangles);
- To identify if the project will have a substantial adverse effect on Sensitive Habitats or Communities regulated by the California Department of Fish and Wildlife;
- To identify and assess potential impacts to Federal or State protected Wetlands and Waters of the U.S. as defined by Section 404 of the Clean Water Act;

- To determine if the project will substantially interfere with native wildlife species, wildlife corridors, and or native wildlife nursery sites;
- Identify any State or Federal biological permits required by the proposed project; and
- Recommend measures to reduce biological impacts to a less than significant level pursuant to the California Environmental Quality Act (CEQA).

B. SURVEY METHODOLOGY

Our survey follows Napa County's Attachment B Guidelines for Preparing Biological Resources Reconnaissance Surveys. Field work focused on the proposed project clearing limits and surrounding environment. Clearing limits and project maps were provided by Summit Engineering. The proposed project disturbance area is shown on Plate III and the photographs below show the existing conditions on the site.

B.1 Project Scoping

Scoping for the project considered the location of the project, 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-5) and the California Native Plant Society (CNPS) Rare Plant Inventory. "Target" special-status species are those listed by the CDFW, U.S.FWS or the California Native Plant Society or considered 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.

Tables I and II present CDFW CNDDB Rare Find species 5-Mile search, U.S. Fish and Wildlife Service listed species for the Quadrangle and surrounding Quadrangles, and CDFW species listed for the quadrangle and surrounding quadrangles based on habitats on the property.

B.2 Field Survey Methodology

Our studies were made by walking the proposed project area. Our fieldwork focused on locating suitable habitat for organisms or indications that such habitat exists within the projects clearing limits Digital photographs were taken during our studies to document conditions and selected photographs are included within this report. Fieldwork was conducted on March-May 2024.

Plants Field surveys were conducted identifying and recording all species on the site and in the near proximity. Transects through the proposed project were made methodically by foot. Transects were established to cover topographic and vegetation variations within the study area. The Intuitive Controlled approach calls for the qualified surveyor to conduct a survey of the area by walking through it and around its perimeters, and closely examining portions where target species are especially likely to occur. The open nature of the site, historic and ongoing management practices, and the relatively small size of the proposed development footprint facilitated our field studies. All plant life was recorded in field notes and is presented in Appendix A.

The fieldwork for identifying special-status plant species is based on our knowledge and many years of experience in conducting special-status plant species surveys in the region. Plants were identified in the field or reference material was collected, when necessary, for verification using laboratory examination with a binocular microscope and reference materials. Herbarium specimens from plants collected on the project site were made when relevant. Voucher material for selected individuals is in the possession of the authors. All plants observed (living and/or remains from last season's growth) were recorded in field notes.

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. Some species do not flower each year or only flower at maturity and therefore must be identified from vegetative characteristics. Algae, fungi, mosses, lichens, ferns, Lycophyta and Sphenophyta have no flowers and there are representatives from these groups that are now considered to be special-status species, which require non-blooming 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.

Animals

Animals were identified in the field by their sight, sign, or call. Our field techniques consisted of surveying the area with binoculars and walking the perimeter of the project site. Existing site conditions were used to identify habitat, which could potentially support special-status animal species. All animal life was recorded in field notes and is presented in Appendix A.

Trees were surveyed to determine whether occupied raptor nests were present within the proximity of the project site (i.e., within a minimum 500 feet of the areas to be disturbed). Surveys consisted of scanning the trees on the property (500 ft +) with binoculars searching for nests or bird activity. Our search was conducted from the property and by walking under existing trees looking for droppings or nest scatter from nests that may be present that were not observable by binoculars.

Wildlife Movement

Aerial photos were reviewed to evaluate the habitat surrounding the site and the potential for wildlife movement, or wildlife corridors from adjoining properties onto or through the property. Our field methodology for identifying corridors for movement searched for game trails or habitat that would favor movement of wildlife or potential gene flow. We also looked for barriers that would prevent movement or direct movement to particular areas. No game cameras, track plates, or other field equipment were used.

These four functions were used to evaluate potential wildlife corridors on the property. Corridors are considered suitable for wildlife movements if they provide avenues along which:

1. Wide-ranging animals can travel, migrate and meet mates;
2. Genetic interchange can occur;

3. Populations can move in response to environmental changes and natural disasters; and
4. Individuals can re-colonize habitats from which populations have been locally extirpated.

Wetlands

The project site was reviewed to determine from existing environmental conditions with a combination of vegetation, soils, and hydrologic information if seasonal wetlands were present. Wetlands were evaluated using the Army Corps of Engineers (ACOE) three-parameter approach: Vegetation, Hydrology, and Soils.

Tributaries to Waters of the U.S. & Waters of the State

Waters of the State and the U.S. are determined by the evaluation of continuity and "ordinary high-water mark." The ordinary high water mark is determined based on the top of scour marks and high flow impacts on vegetation. Waters of the U.S. (WOTUS) are defined as wetlands, ponds, lakes, creeks, streams, rivers, ephemeral drainages, ditches and seasonally ponded areas. Seasonal stream channels with a definable bed and bank fall within the jurisdiction of EPA, ACOE and CDFW. Tributaries to Waters of the U.S. as well as Waters of the State are determined by the presence of a definable bed and bank, evidence of or ability to transport sediment and/or a blue line on the USGS Quadrangle Map.

Streams /Drainages

There are two types of streams or drainages; 1) perennial flowing waters and 2) seasonal ephemeral creeks or drainages that convey water during and shortly after rainfall. USGS 7.5 Minute Quadrangle maps for the site were analyzed for the presence of "blue line" creeks. On-site topography and evidence of bed and bank was used for evaluating ephemeral drainages. Drainages were walked and visually evaluated for continuity of bed and bank as well as signs of aquatic life. The streambeds were evaluated for flow, pools, substrate, bank and quality of habitat recorded in field notes. Vegetation in the streambeds was recorded if present and quality and quantity of riparian conditions as distinct from surrounding vegetation noted.

"Ephemeral" or "intermittent stream"

Ephemeral or Intermittent water courses are distinguished by a natural channel with defined bed and banks containing seasonal flowing water or showing evidence of having contained flowing water, such as deposit of rock, sand, gravel, or soil, that does not meet the definition of "stream."

Stream Classification

Class I - Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.

Class II - Fish always or seasonally present, aquatic habitat for non-fish aquatic species.

Class III - No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high-water flow conditions.

Class IV - Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.

The Migratory Bird Treaty Act

The Migratory Bird Act of 1918 makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in CFR Part 10, including feathers or other parts, nests, eggs, or products, except

as allowed by implementing regulations (50 CFR 21). The MBTA also prohibits disturbance or harassment of nesting migratory birds at any time during their breeding season.

Special-status Species or Listed Species

Special-status Species are Listed Species are plants or animals that have been designated by Federal or State agencies and California Native Plant Society as rare, threatened or endangered.

"Take" is defined in the Endangered Species Act (ESA) as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Federal regulation 50 CFR 17.3 further defines the term "harm" in the "take" definition to mean any act that actually kills or injures a federally listed species, including significant habitat modification or degradation.

Plant Communities or Alliances

The classification of plant communities in this report is based on *A Manual of California Vegetation (*Sawyer 2009). Plant Communities are vegetation types that are recognizable by the dominant species present with identifiable boundaries. They are a result of site specific edaphic conditions, hydrology, topography, aspect, natural disturbance and elevation.

Sensitive Communities

CDFW CNDDB identifies environmentally sensitive plant communities that are rare or threatened in nature. Sensitive habitat is defined as any area that 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.

Critical Habitat

Critical Habitat is defined as 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.

Pyrophytic Species

Is defined as fire-prone vegetation that is adapted to or that contributes to rapid burning, high heat output, and ember creation. This includes brush species that are highly flammable and burn with an oily heat and any vegetation that has a strong odor when crushed, has a resinous, gummy sap, or has oils that volatize and burn readily. These species include, but are not limited to, the following:

Shrubs: Chamise, Greasewood, Manzanita, Sagebrush, Coyote Brush, Giant Chinquapin, California Buckwheat, Chaparral Pea, Scrub Oak, Black Sage, Huckleberry.

Trees: Sargent Cypress, Tan Oak, Coulter Pine, Knobcone Pine, Monterey Pine, Douglas Fir, California Bay.

C. RESULTS / FINDINGS

C.1 Site Description and Biological Resources Evaluation Area

The study site is located on a ridge at approximately 1300 feet elevation, in Napa County west of the city of Oakville. The project is located next to an existing residence on a hill top. There is an existing paved driveway to the project site. Vegetation on the west side of the residence burned in 2017. Understory vegetation has been cleared around the structures. Vegetation associated with Phase 1 and 3 consists of landscaped nursery stock and small oaks. Vegetation associated with the proposed ground mounted solar panel system consists mostly of re-sprouting California Bay. The project site drains by direct infiltration or sheet flow into ephemeral drainages downslope thence Dry Creek.

The property is within the inner North Coast Range Mountains, a geographic subdivision of the larger California Floristic Province. The property and surrounding region are 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.

Pyrophytic Species defined as fire-prone vegetation that are highly flammable are present within the proposed clearing limits and surrounding environment. These species include; Manzanita, Coyote Brush, Chamise, Scrub Oak, Douglas Fir, and California Bay.

C.2 Habitat Types Present

The vegetation of California has been considered to be a mosaic with major changes present from one area to another often with distinct vegetation changes within short distances. It is generally convenient to refer to the vegetation associates on a site as a plant community or alliance. Typically plant communities or vegetation alliances are identified or characterized by the dominant vegetation form or plant species present. There have been numerous community classification schemes proposed by different authors using different systems for the classification of vegetation. A basic premise for the designation of plant communities, associations or alliances is that in nature there are distinct plant populations occupying a site that are stable at any one time (climax community is a biotic association, that in the absence of disturbance maintains a stable assemblage over long periods of time).

The Napa County Baseline Data Report defines Biotic Communities as the characteristic assemblages of plants and animals that are found in a given range of soil, climate, and topographic conditions across a region. The following Napa County vegetation types are mapped on the project site Chamise, Northern Mixed Chaparral, and Mixed Hardwoods.

In the sections below the habitat types present within the footprint of the proposed project is described and further categorized by *A Manual of California Vegetation Second Edition* (Sawyer et al 2009). The habitat types or vegetation alliances fringing or surrounding the project are the following:

Grassland Semi-Natural Herbaceous Stands with Herbaceous Layer (Annual Grasslands)
Semi-Natural Herbaceous Grasslands are a result of decades of agriculture and the introduction of non-native grasses and herbs. Sawyer uses the term "Semi-natural Stands to refer to non-native introduced plants that have become established and coexist with native species. This includes what can be termed weeds, aliens, exotics or invasive plants in agricultural and nonagricultural settings.

The Shrubland/Chaparral Alliance is a structurally homogeneous brushland type dominated by shrubs with thick, stiff, heavily cutinized evergreen leaves. Shrub height and crown cover vary considerably with age since last burn, precipitation regime aspect, and soil type. At maturity, the structure is typically is a dense, nearly impenetrable thicket with greater than 80 percent absolute shrub cover. Canopy height ranges from 1 to 4 m, occasionally to 6 m. Considerable leaf litter and standing dead material may accumulate in stands that have not burned for several decades.

Chamise chaparral (Adenostoma fasciculatum) Shrubland Alliance
Adenostoma fasciculatum is dominant in the shrub canopy with Adenostoma sparsifolium, Arctostaphylos glandulosa, Arctostaphylos manzanita, Arctostaphylos viscida, Ceanothus spp., Diplacus aurantiacus, Eriodictyon californicum, Eriogonum fasciculatum, Hesperoyucca whipplei, Heteromeles arbutifolia, Quercus berberidifolia, Quercus wislizeni, Salvia apiana, Salvia leucophylla, Salvia melliferaand Toxicodendron diversilobum. Emergent trees may be present at low cover.

Woodland Alliances are characterized by a dominant tree overstory and different degrees of understory development. Fire management, canopy age and degree of closure, windfalls, historic use, grazing, substrate base, aspect and rainfall are variables that control the degree of understory shrubs, herbs and tree recruitment.

Coast Live Oak (Quercus agrifolia) Forest and Woodland Alliance
Quercus agrifolia is dominant or co-dominant in the upland tree canopy with Acer macrophyllum, Arbutus menziesii, Juglans californica, Quercus douglasii, Quercus engelmannii, Quercus kelloggii, Quercus lobata and Umbellularia californica.

Douglas fir (Pseudotsuga menziesii) - (Notholithocarpus densiflorus – Arbutus menziesii) Forest & Woodland Alliance
Pseudotsuga menziesiiis dominant to co-dominant with evergreen hardwoods such as Notholithocarpus densiflorus and Arbutus menziesii. Other hardwoods that may co-dominate include Chrysolepis chrysophylla, Quercus chrysolepis, Quercus kelloggii and Umbellularia californica. Other trees in the canopy may include Acer macrophyllum, Calocedrus decurrens, Chamaecyparis lawsoniana, Pinus lambertiana, Pinus ponderosa and Taxus brevifolia.

California Bay (*Umbellularia californica*) Forest and Woodland Alliance

Umbellularia californicais dominant or co-dominant in the tree or tall shrub canopy with Acer macrophyllum, Aesculus californica, Alnus rhombifolia, Alnus rubra, Arbutus menziesii, Corylus cornuta, Juglans californica, Notholithocarpus densiflorus, Pinus sabiniana, Platanus racemosa, Pseudotsuga menziesii, Quercus agrifolia, Quercus chrysolepis, Quercus wislizeni and Sequoia sempervirens.

A complete list of all plants encountered on the study area and immediate vicinity is included in Appendix A. The following photographs show the existing conditions and vegetation within the proposed project.



Figure 1. Location of Tennis Pavilion.



Figure 2. Location of clearing limits for Spa Area.



Figure 3. Entrance to Wine Storage Area.



Figure 4. Underground storage area adjacent to existing tennis court.



Figure 5. Location of Tennis Pavilion adjacent to existing tennis court.



Figure 6. Location of ground mounted solar panel system.



Figure 7. Soil spoils area below residence. Area has been previously leveled and cleared.

The aerial photograph Plate III illustrates the site and the surrounding environment. The environmental setting adjacent to the proposed project site consists of:

- North of the project – Mixed Chaparral;
- East of the project – Cismontane Woodlands, Mixed Chaparral
- South of the project – Mixed Chaparral; and
- West of the project – Mixed Chaparral.

C.3 Special-Status Species

Special-status organisms are plants or animals that have been designated by Federal or State agencies as rare, threatened or endangered. 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 (or animal) must be treated as Rare, Threatened, or Endangered even if it is not officially listed as such. If a person (or organization) provides information showing that a taxon meets the State's definitions and criteria, then the taxa should be treated as such.

A map from the CDFW CNDDB Rare Find shows known special-status species in the proximity of the project as displayed on Plate II. These taxa as well as those listed in Appendix B 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.

Table I below provides a list of plant species that are known to occur within the region of the proposed project (CDFW CNDDB, CNPS, and U.S. Fish and Wildlife Service). The table includes a brief analysis of habitat for presence or absence on the project site. The status of each species is shown in Appendix B.

Table I. Analysis of CDFW CNDDB, CNPS 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**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on study area for presence or absence**
Allium peninsulare var. *franciscanum* Franciscan Onion	Cismontane Woodland, Valley and Foothill Grassland (clay often Serpentinite)	No	May-June	No	Absence of requisite edaphic conditions.
Amorpha californica var. *napensis* Napa False Indigo	Cismontane Woodland, Chaparral	No	April-July	No	Absence of requisite habitat and vegetation associates.
Amsinckia lunaris Bent-flowered Fiddleneck	Cismontane Woodland, Valley and Foothill Grassland	No	March-June	No	Absence of requisite habitat and vegetation associates.

Scientific Name Common Name	Species Habitat Association or Plant Community	Habitat present	Bloom Time	Obs. on or Near Site	Analysis of habitat on study area for presence or absence
Arctostaphylos stanfordiana ssp. *decumbens* Rincon Ridge Manzanita	Chaparral, Cismontane Woodland	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	Cismontane Woodland, Valley and Foothill Grassland, Chaparral, (clay, rocky serpentinite)	No	March-May	No	Absence of requisite micro-habitat and vegetation associates.
Balsamorhiza macrolepis var. *macrolepis* Big-scale Balsamroot	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	No	March-June	No	Site exposure, edaphic and moisture requirements lacking..
Brodiaea leptandra Narrow-anthered California Brodiaea	Cismontane Woodland, Valley and Foothill Grassland, Chaparral	No	May-July	No	Absence of typical habitat and vegetation associates.
Ceanothus confusus Rincon Ridge Ceanothus	Closed Cone Conifer Forests, Chaparral, Cismontane Woodland	No	Feb.-June	No	Absence of typical habitat and vegetation associates.
Ceanothus purpureus Holly-leaved Ceanothus	Chaparral, Valley Foothill Grassland, Cismontane Woodland	No	Feb.-June	No	Absence of typical habitat and vegetation associates.
Ceanothus divergens Calistoga Ceanothus	Chaparral, Serpentinite or volcanic-rocky	No	Feb.-April	No	Absence of typical habitat and vegetation associates.
Ceanothus sonomensis Sonoma Ceanothus	Chaparral, serpentinite or rocky volcanic	No	Feb.-April	No	Absence of typical habitat and vegetation associates.
Centromadia parryi ssp. *parryi* Pappose Tarplant	Valley and foothill grasslands, Marshes, and Swamps	No	March-June	No	Requisite mesic conditions absent.
Clarkia breweri Brewer's Clarkia	Chaparral, Cismontane Woodland, Coastal scrub	No	April-June	No	Absence of typical habitat and vegetation associates.
Erigeron greenei Green's Narrow-leaved Daisy	Chaparral, (serpentinite volcanic)	No	May-Sept.	No	Absence of edaphic conditions required for presence.

Scientific Name Common Name	Species Habitat Association or Plant Community	Habitat present	Bloom Time	Obs. on or Near Site	Analysis of habitat on study area for presence or absence
Fritillaria liliacea Fragrant Fritillary	Cismontane Woodland, Coastal scrub, Valley and foothill grasslands	No	Feb.-April	No	Absence of edaphic conditions required for presence.
Hesperolinon sharsmithiae Sharsmith's Western Flax	Chaparral, (serpentinite)	No	May-July	No	Requisite edaphic habitat absent on the site or in the immediate vicinity.
Horkelia tenuiloba Thin-lobed Horkelia	Broadleaf Upland Forest, Chaparral, Valley and Foothill Grassland, (mesic openings, sandy soils)	No	May-July	No	Absence of typical habitat and vegetation associates.
Harmonia nutans Nodding Harmonia	Cismontane Woodlands, Chaparral, (gravelly, rocky, volcanic)	No	March-May	No	Absence of typical habitat and vegetation associates.
Lasthenia conjugens Contra Costa Goldfields	Cismontane Woodland, Valley and Foothill Grassland, Vernal Pools, Playas	No	March-June	No	Lack of suitable mesic habitat.
Layia septentrionalis Colusa Layia	Cismontane Woodland, Valley and Foothill Grassland, Chaparral, sandy soils	No	April-May	No	Requisite edaphic habitat absent on the site or in the immediate vicinity.
Leptosiphon jepsonii Jepson's Leptosiphon	Cismontane Woodland, Valley and Foothill Grassland, Chaparral, (volcanic)	No	March-May	No	Absence of typical habitat and vegetation associates.
Lomatium repostum Napa Lomatium	Broadleaf Upland Forest, Cismontane Woodland, Chaparral, (serpentinite, volcanic, openings)	No	March-June	No	Lack of suitable habitat.
Lupinus sericatus Cobb Mountain Lupine	Broadleaf Upland Forest, Chaparral, Cismontane Woodland, Lower Montane Coniferous	No	March-June	No	Absence of requisite vegetation associates.

Scientific Name Common Name	Species Habitat Association or Plant Community	Habitat present	Bloom Time	Obs. on or Near Site	Analysis of habitat on study area for presence or absence
Navarretia leucocephala ssp. *bakeri* Baker's Navarretia	Lower Montane Coniferous Forest, Meadows and Seeps, Cismontane Woodland, Valley and Foothill Grassland, Vernal Pools, (mesic)	No	April-July	No	Absence of typical habitat and vegetation associates.
Navarretia rosulata Marin County Navarretia	Closed Cone Coniferous Forest, Chaparral, (rocky, serpentinite)	No	May-July	No	Requisite edaphic conditions absent on the site or in the immediate vicinity.
Penstemon newberryi var. *sonomensis* Sonoma Beardtongue	Chaparral (rocky)	No	April-Aug.	No	Absence of typical habitat and vegetation associates.
Sidalcea hickmanii ssp. *napensis* Napa Checkerbloom	Chaparral, (rhyolitic)	No	April-June	No	Lack of edaphic conditions.
Streptanthus hesperidis Green Jewelflower	Chaparral (openings), Cismontane Woodland, (rocky, serpentinite)	No	May-July	No	Edaphic habitat not present.
Trichostema ruygtii Napa Bluecurls	Valley and Foothill Grassland, Vernal Pools, Chaparral, Lower Montane Coniferous Forest, Cismontane Woodland	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	Absence of typical habitat and vegetation associates.
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 proposed project site does not contain habitat which would support special-status plant species. The absence of serpentine or serpentinite soils, lack of vernal pools, wetlands, and vegetation associates reasonably precludes the presence of special-status plant species within the proposed project area. It is unlikely that the proposed project will have a substantial impact or result in the take of any special-status plant species.

Table II below provides a list of animal species that are known to occur within the region of the proposed project (CDFW CNDDB and U.S. Fish and Wildlife Service). The table includes an analysis of presence or absence. The status of each species is shown in Appendix B.

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

Scientific Name Common Name	**Habitat**	**Potential for Study area**	**Obs. on or Near Study area**	**Analysis of Habitat on study area for presence or absence**
Accipiter striatus Sharp-Shinned Hawk	Nests in conifers, near water, inconspicuous	No	No	Unlikely due to close proximity to residence.
Antrozous pallidus Pallid Bat	Roosts in buildings, overhangs, crevices, hollow trees	No	No	Project site does not contain potential roosting.
Aquila chrysaetos Golden Eagle	Nests near water on steep cliffs or large trees	No	No	Lack of habitat and potential nesting sites.
Buteo swainsoni Swainson's Hawk	Open areas with riparian influence	No	No	Unlikely due to close proximity to residence.
Corynorhinus townsendii Townsend's Big-eared Bat	Caves, also in buildings. Trees min 24"DBH with basal hollow of 2 sq ft.	May fly over	No	No roosting habitat on site.
Cypseloides niger Black Swift	Nest in crevices on vertical cliffs near waterfalls.	No	No	No lack of habitat.
Danaus plexippus Monarch Butterfly	Host plant is Milkweed, Migrates along Coast	No	No	Habitat on project does not contain food sources or migration habitat.
Elanus leucurus White-tailed Kite	Nests in dense or isolated oaks and willows	No	No	Unlikely nesting habitat on project site.

Scientific Name Common Name	Habitat	Potential for Study area	Obs. on or Near Study area	Analysis of Habitat on study area for presence or absence
Erethizon dorsatum North American Porcupine	Cismontane conifer woodlands	No	No	Lack of suitable habitat.
Emys marmorata (CDFW) Western Pond Turtle	Slow moving water or ponds	No	No	Property does not contain habitat to support species.
Actinemys marmorata (USFWS) Northwestern Pond Turtle	Slow moving water or ponds	No	No	Property does not contain habitat to support species.
Rana boylii Foothill Yellow-legged Frog	Streams with pools	No	No	Lack of aquatic habitat precludes presence.
Rana draytonii California Red-legged Frog	Creeks, Rivers, permanent flowing water	No	No	Lack of aquatic habitat in the area. No potential breeding habitat on site.
Strix occidentalis caurina Northern Spotted Owl	Old Growth Forests	No	No	Lack of roosting and foraging habitat.
Taxidea taxus American Badger	Hillsides with suitable food sources	No	No	Lack of suitable soils and disturbance precludes presence.

CDFW CNDDB RareFind lists the quadrangle as a Sensitive EO or Element Occurrence for the Foothill Yellow Legged Frog. There is no habitat for this species associated with the proposed project site.

The study area conditions are such that there is no reason to expect any impacts to special-status animal species on-site or off-site provided recommended measures in this report and standard best management practices are utilized and erosion control is implemented.

Our fieldwork did not find any special-status plant or animal species known for the Quadrangle, surrounding Quadrangles or for the region. The present conditions of the study area and historic use is such that there is little reason to expect the occurrence of any special-status animal species within the study area.

C.4 Discussion of Sensitive Habitat Types

The Napa County Baseline Data Report defines Biotic communities as the characteristic assemblages of plants and animals that are found in a given range of soil, climate, and topographic conditions across a region.

The Napa County Baseline Data Report as well as the California Department of Fish and Wildlife Natural Diversity Data Base (CDFW CNDDB) lists recognized Sensitive Biotic Communities. The Napa County Baseline Data Report lists twenty-three communities that are considered sensitive by CDFW due to their rarity, high biological diversity, and/or susceptibility to disturbance or destruction.

Napa County Biotic Communities of limited distribution that are sensitive include: Native Gassland, Tanbark Oak alliance, Brewer Willow alliance, Ponderosa Pine alliance, Riverine, Lacustrine, and Tidal Mudflats, and Wet Meadow Grasses Super alliance.

The California Department of Fish and Wildlife Natural Diversity lists the following Sensitive habitat types: Northern Vernal Pool, Serpentine Bunchgrass, Valley Needlegrass Grassland and Wildflower Grassland. Sensitive habitat types listed are not present on the property. There are no vernal pools, marshes or wetlands associated with the project footprint. Grassland onsite does not include native grasses.

Stream Analysis

Drainage from the project area is by direct infiltration or by sheet flow into an off-site unnamed drainage of Dry Creek.

Napa County Definition for a Defined Drainage is a watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United States Geological Survey maps most recently published, or any replacement to that symbol, and or any watercourse that has a well-defined channel with a depth greater that four feet and banks steeper than 2:1 and contains hydrophilic vegetation, riparian vegetation or woody-vegetation including tree species greater that ten feet in height.

There are no ephemeral drainage or Waters of the State associated with the project site. There are no Napa County Definition for a Defined Drainage adjacent to the proposed project site.

D. POTENTIAL BIOLOGICAL IMPACTS

The sections below provide a discussion of potential impacts from the project on the biological resources. The project's effect to on-site or regional biological 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 and animal 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 and wetlands);
- Loss of critical breeding, feeding or roosting habitat; and
- Interference with migratory routes or habitat connectivity.

D.1 Analysis of Potential Impacts to Special-status Species

Our fieldwork did not find any special-status plant or animal species known for the Quadrangle, surrounding Quadrangles or for the region that would be impacted by the proposed project.

A map from the CDFW CNDDB Rare Find shows known special-status species in the proximity of the study area as displays on Plate II. The CDFW CNDDB does not record any special-status plants for the property. California Department of Fish and Wildlife CNDDB lists the Sonoma ceanothus, Rincon Ridge Manzanita and Jepson's leptosiphon in close proximity of the property.

Sonoma ceanothus (*Ceanothus sonomensis*) is a shrub that is native to California, and endemic (limited) to California. California Rare Plant Rank: 1B.2 (rare, threatened, or endangered in CA and elsewhere). **Sonoma ceanothus** is a rare species of shrub in the buckthorn family Rhamnaceae. It is endemic to northern California. It is known only from the Hood Mountain Range. Most of its 10 or so occurrences are located in Sonoma County, and one remains in Napa County. It is a member of the chaparral plant community in the California montane chaparral and woodlands sub-ecoregion. This species was not observed within the project clearing limits.

Rincon Ridge Manzanita (*Arctostaphylos stanfordiana ssp. decumbens*) is a shrub that is native to California, and endemic (limited) to California. California Rare Plant Rank: 1B.1 (rare, threatened, or endangered in CA and elsewhere). Rincon Manzanita is a rare native shrub that grows in Central California, primarily in the North Coast and North Coast Range regions. It tends to grow in slopes and ridges and, at elevations from 300-4300 feet. This species was not observed within the project clearing limits.

Jepson's leptosiphon *(Leptosiphon jepsonii)* This plant is listed by the CNPS Rare Plant Inventory as a 1B.2 (rare, threatened, or endangered in CA and elsewhere). This species is unlikely within or adjacent to the project site. This plant is sensitive to disturbance and non-native plant competition. This species was not observed within the project clearing limits.

Disturbed and open habitat within the proposed project site is such that there is little reason to expect the occurrence of any special-status plant or animal species within the footprint of the project. The special-status plant species known for the region are reasonably precluded from presence based on lack of habitat and findings during our surveys, the history of the property use, the absence of any records for the site, the absence of hydrologic conditions, lack of serpentinite, and the vegetation associates.

There is no reason to expect any impacts to special-status species on-site or off-site provided recommended measures and standard best management practices are utilized and the erosion control plan is implemented. Habitat impacted by the proposed project is such that it will not substantially reduce or restrict the range of listed animals.

D.2 Analysis of Potential Impacts on Sensitive Habitat

Our field work did not identify any Sensitive Biotic Communities and or Biotic Communities of Limited Distribution as defined in the County Baseline Data Report or listed by CDFW on the property.

Sensitive Communities
The CDFW CNDDB lists Serpentine Bunchgrass, Valley Needlegrass Grassland and Wildflower Field as Sensitive Communities in the region. There are no CDFW Sensitive Communities or Napa County Sensitive Biotic Communities present on the proposed 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. No native grasses were observed within the proposed project site. The project will not impact any populations of native grasslands.

Seasonal Wetland
Seasonal wetland generally denotes areas where the soil is seasonally saturated and/or inundated by fresh water for a significant portion of the wet season, and then seasonally dry during the dry season. To be classified as "Wetland," the duration of saturation and/or inundation must be long enough to cause the soils and vegetation to become altered and adapted to the wetland conditions. Varying degrees of pooling or ponding, and saturation will produce different edaphic and vegetative responses. These soil and vegetative clues, as well as hydrological features, are used to define the wetland type. Seasonal wetlands typically take the form of shallow depressions and swales that may be intermixed with a variety of upland habitat types. Seasonal wetlands fall under the jurisdiction of the U.S. Army Corps of Engineers. There are no seasonal wetlands or vernal pools associated with the project footprint.

Waters of the State / Waters of the U.S.
Waters of the State include drainages that are characterized by the presence of definable bed and bank that meet ACOE, and RWQCB definitions and or jurisdiction. There are no Waters of the State or Waters of the U.S. within or adjacent to the proposed project site.

Riparian Vegetation
Riparian vegetation is by all standards considered sensitive. Riparian Vegetation functions to control water temperature, regulate nutrient supply (biofilters), bank stabilization, rate of runoff, wildlife habitat (shelter and food), release of allochthonous material, release of woody debris which function as habitat and provide slow nutrient release as well as protection for aquatic organisms. Riparian vegetation is also a moderator of water temperature has a cascade effect in that it relates to oxygen availability. The project will not impact any riparian vegetation.

Trees
The project must comply with Napa County General Plan Policy CON-24 Paragraph (c) stating that a project should "provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio."

Napa County 18.108.020 - General provisions. Vegetation Removal Mitigation. In the AW zoning district, the removal of any vegetation canopy cover shall be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio unless otherwise set forth below. The property is zoned AW.

Trees within the proposed clearing limits consist of small >10" DBH trees. Trees within clearing limits consists of 6-Coast Live Oak, 7-Scurb Oak, 1-Valley Oaks, 1-Blue Oaks, 23-California Bay, and 1-Doug Fir. The project will remove 15 Native Oaks >6" DBH see Plate V, and approximately 0.13-acres of Tree Canopy See Plate VI.

Wildlife Habitat and Wildlife Corridors
Wildlife corridors are natural areas interspersed with developed areas that are important for animal movement, increasing genetic variation in plant and animal populations, reduction of population fluctuations, and retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridors also preserve watershed connectivity. Corridor users can be grouped into two types: passage species and corridor dwellers. The data from various studies indicate that corridors should be at least 100 feet wide to provide adequate movement for passage species and corridor dwellers in the landscape. There are no identifiable wildlife corridors on the project site, or unique wildlife habitat that will be impacted by the project.

The project site is located with an area of Critical Linkages by the California Bay Area Linkage Network. The primary objective of this effort is to identify lands essential to maintain or restore functional connectivity among wildlands for all species or ecological processes of interest in the California bay area. The project is adjacent to an existing development and will not significantly impact this linkage corridor.

Raptor Nests, Bird Rookeries, Bat Roosts, Wildlife Dens or Burrows
No raptor nests were identified during our survey. We found no indications of nesting raptors on the property or in the near vicinity of the project sites. We did not observe any nests, whitewash or nest droppings, or perching associated with the proposed project site. No bird rookeries were present on the property or within the project footprint. No raptor nests, whitewash from nests was observed associated with the proposed project site.

Bat Seasonal Roosts and Maternal Roosts
The majority of trees within the proposed project site are small and unlikely to contain potential roosting habitat for bats. Foliage and bark with small cavities in any tree could provide suitable temporary habitat for solitary tree-roosting bat species. Trees within the proposed project site are small and do not contain cavities which would support bat roosting habitat.

Very few burrows were observed, but small mammals and songbirds likely utilize habitats on the proposed project site for foraging and cover. No significant wildlife dens or burrows were observed.

Unique Species that are Endemic, Rare or Atypical for the Area
The flora and fauna present are typical for the vegetation and habitat of the region. There were no unique species, endemic populations of plants or animals or species that are rare or atypical for the area present on the proposed project site. No unique or unusual populations of plants or animals were present within the proposed project site.

Habitat Fragmentation
Habitat fragmentation can result in a net-loss in overall habitat, an increase in edge habitat, and isolation effects, including genetic isolation. Due to these and other factors, small and isolated patches of habitat generally support lower species diversity than do large undeveloped areas. As a consequence of habitat fragmentation, abundance and diversity of species originally present often decline, and losses are most noticeable in small fragments. Loss of habitat, including habitat fragmentation, is the single most important factor affecting the long-term survival of rare, threatened and endangered species.

Habitat fragmentation is a local and global concern. The project will incrementally reduce a small amount of habitat in the area. The proposed change in land use will result in less than significant changes in avifauna and rodent utilization in the area. The proposed project will not change or lead to significant impacts to habitat fragmentation in the region, significant species exclusion, or significant change in species composition in the region.

Mosses, Liverworts and Hornworts (Bryophytes)
Rare bryophytes are now included as organisms that are of concern. The communities or habitat for Mosses, Liverworts and Hornworts on the project site are very limited. The project site does not contain typical habitat i.e. moisture regime, rock outcrops, fieldstones, rock walls, road cuts or decaying logs for species that are of concern.

Lichens
Lichens are symbiotic associations of a fugus and photosynthic alga or cyanobacteria. The symbiosis is a sensitive balance between the two or more partners and as such is vulnerable to air pollution or disturbance. Undisturbed areas with suitable moisture often have a rich assemblage of lichens living on soil, rocks or as epiphytes on vascular plants.

The literature indicates that there are no records of occurrence of target special-status bryophytes, or lichens species. The special-status species of non-vascular plants which were the focus of the study are those listed by the California Native Plant Society. No special-status bryophytes, or lichens were

found on the property. Suitable habitat for the special-status species of lichens and bryophytes known for northern California is not present.

D.3 Potential Off-site Impacts of the Project

The project has the potential to impact aquatic species downstream by sediment loss. There are no expected significant impacts to off-site or local biological resources by the proposed project provided Recommendations in this report, Standard Erosion Control and Best Management Practices are implemented during the development of the site.

D.4 Potential Cumulative Impacts

Cumulative biological effects are the result of incremental losses of biological resources within a region. Removal of vegetation can reduce the abundance and diversity of species in an area. Loss of habitat can also be an important factor affecting the long-term survival of rare, threatened and endangered species.

Factors that were considered in the evaluation of cumulative biological impacts include:

1. Any known rare, threatened, or endangered species or sensitive species that may be directly or indirectly affected by project activities. Including any significant cumulative effects on listed species may be expected from the results of activities over time that combine to have a substantial effect on the species or on the habitat of the species.

2. Any significant, known wildlife or fisheries resource concerns within the immediate project area and the biological assessment area (e.g. loss of oaks creating forage problems for a local deer herd, species requiring special elements, sensitive species, and significant natural areas). Including any significant cumulative effects may be expected where there is a substantial reduction in required habitat or the project will result in substantial interference with the movement of resident or migratory species. The significance of cumulative impacts on non-listed species viability was determined relative to the benefits to other non-listed species.

3. The aquatic and near-water habitat conditions on the site and immediate surrounding area. Habitat conditions of major concern are: Pools and riffles, large woody material in the stream, and near-water vegetation.

No cumulative impacts to wildlife populations are expected by the proposed project provided that the recommendations are implemented.

There are no significant change or potential impacts to migratory corridors or wildlife nursery site associated with the proposed project. The potential biological impacts of the project include the incremental loss of a small amount of native vegetation. The impact to local wildlife will be undetectable on a regional scale.

A potential impact by the project is the movement of silt, dust and the creation of noise during site construction. This can be mitigated for by implementation of the erosion control plan and best management construction practices.

D.5 State and Federal Permits

No State or Federal biological permits are required and that the proposed project will following proper erosion control will be in compliance with the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA).

E. RECOMMENDATIONS TO AVOID IMPACTS

E.1 Significance

The significance of potential impacts is a function of the scope and scale of the proposed project within the existing Federal, State and Local regulations and management practices. The determination of significance of impacts to biological resources consists of an understanding of the project as proposed and an evaluation of the context in which the impact may occur. The extent and degree of any impact on-site or off-site must be evaluated consistent with known or expected site conditions. Therefore, the significance of potential impacts is assessed relevant to a site-specific scale and the larger regional context.

E.2 Recommendations

The project must comply with Napa County SWPPP requirements to ensure that best management practices are adopted in order to minimize the amount of sediment and other pollutants leaving the site during construction activities.

Recommendation – All project construction activities must be limited to the project footprint. Best Management Practices including silt and erosion control measures must be implemented to protect off-site movement of sediment and dust during and post construction. Best Management Practices must be implemented throughout the construction period such as retaining ground cover litter, monitoring for invasive species, providing mulch for bare ground and standard erosion and dust control.

Recommendation – The project must comply with Napa County General Plan Policy CON-24 Paragraph (c) stating that a project should "provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio." Napa County 18.108.020 - General provisions state that Vegetation Removal Mitigation in the AW zoning district, that removal of any vegetation canopy cover shall be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio.

F. SUMMARY

This study is provided as background information necessary for evaluating potential impacts of the project on local Biological Resources.

The proposed project is adjacent to the existing residential house. Habitat within the project site consists of developed landscape, fringing woodlands and chaparral. The existing developed areas, understory clearing for fire control, absence of serpentinite, and lack of seasonal wetlands reasonably preclude the presence of special-status plant or animal species known in the area on the proposed project site.

We find that the proposed project following erosion control and standard BMPs will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

We find that the project as proposed will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

We find that the project as proposed will not have a substantial adverse effect on federally protected wetlands and "Waters of the State" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No wetlands or vernal pools are within the proposed project footprint.

We find that the proposed project will not interfere substantially with the movement of any native resident wildlife species or migratory fish. The project as proposed will not impart any migratory wildlife corridors, or impede the use of native wildlife nursery sites.

We conclude that the proposed project with the implementation of Best Management Practices, recommendations included in this report, and compliance with the Erosion Control Plan the project will not result in any significant adverse biological impacts to the environment.

G. LITERATURE CITED / REFERENCES

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G.2 Qualifications of Field Investigators

Chris K. Kjeldsen, Ph.D., Botany, Oregon State University, Corvallis, Oregon. He has over fifty years of professional experience in the study of California flora. He was a member of the Sonoma County Planning Commission and Board of Zoning (4-years). 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 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 and numerous botanical science and aquatic botany courses at Sonoma State University (35-years) 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.

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 twenty five 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. Attended Wildlife Society Workshop Falconiformes of Northern California Natural History and Management California Tiger Salamander 2003, Natural History and Management of Bats Symposium 2005, Western Pond Turtle Workshop 2007, Laguna Foundation & The Wildlife Project Rare Pond Species Survey Techniques 2009, and Western Section Bat Workshop 2011. A full resume is available upon request.

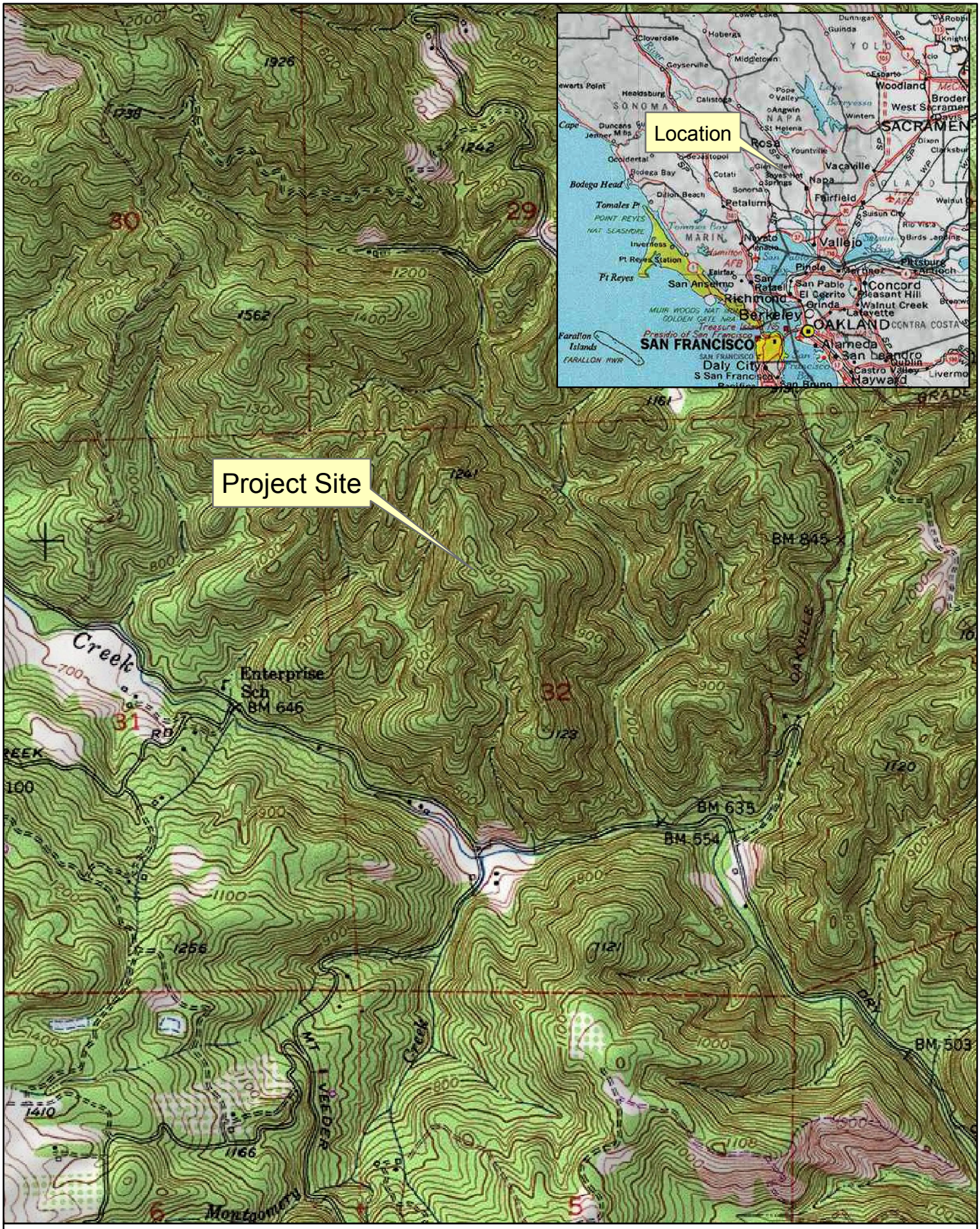


Plate I. Location and Site Map (Rutherford Quadrangle)

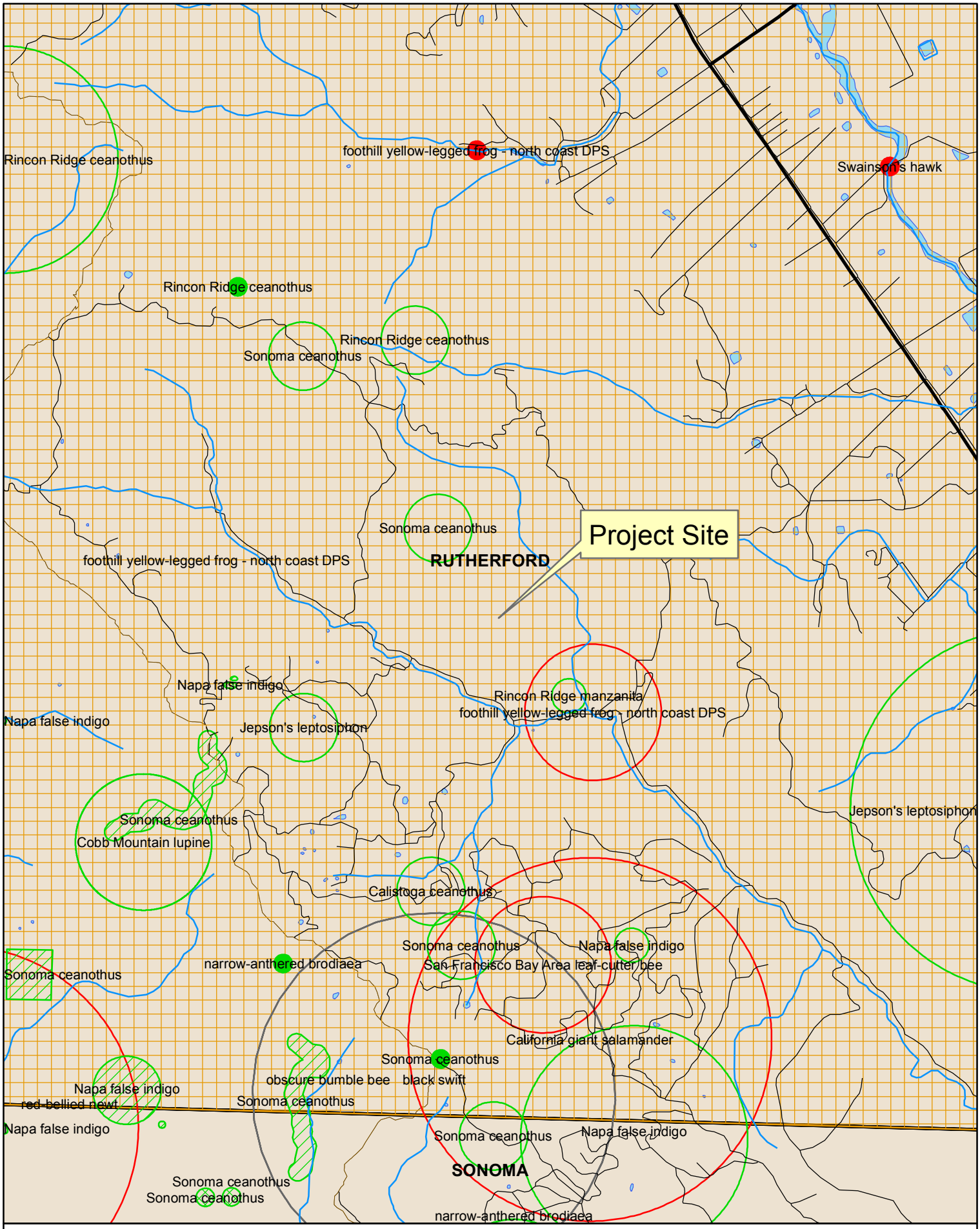


Plate II. CDFW CNDDB Rare Find Data

(Data Date April 2024)

N



Plate III. Aerial Photo / Area of Disturbance

N

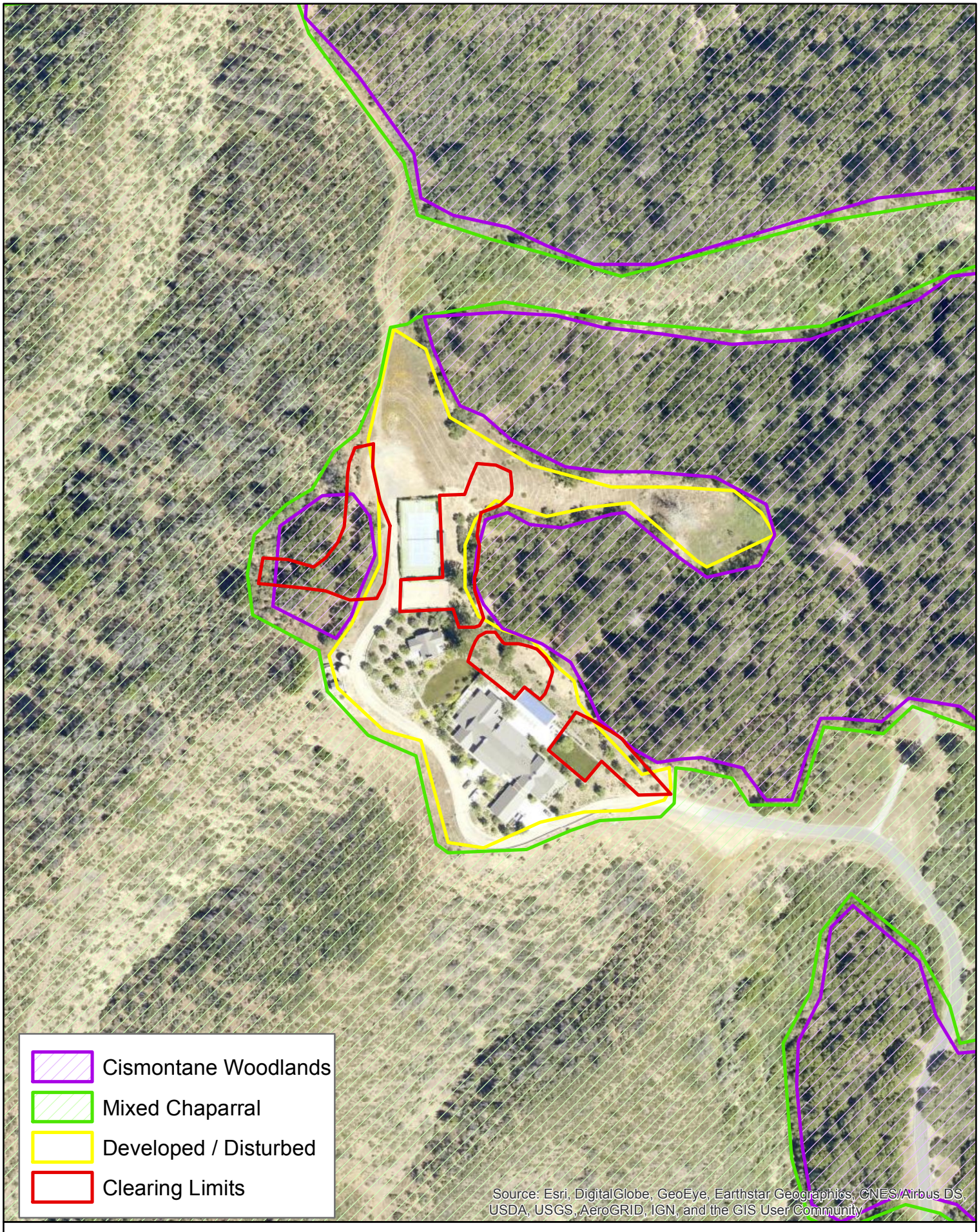


Plate IV. Aerial Photo / Vegetation Map (2021) Aerial Photo

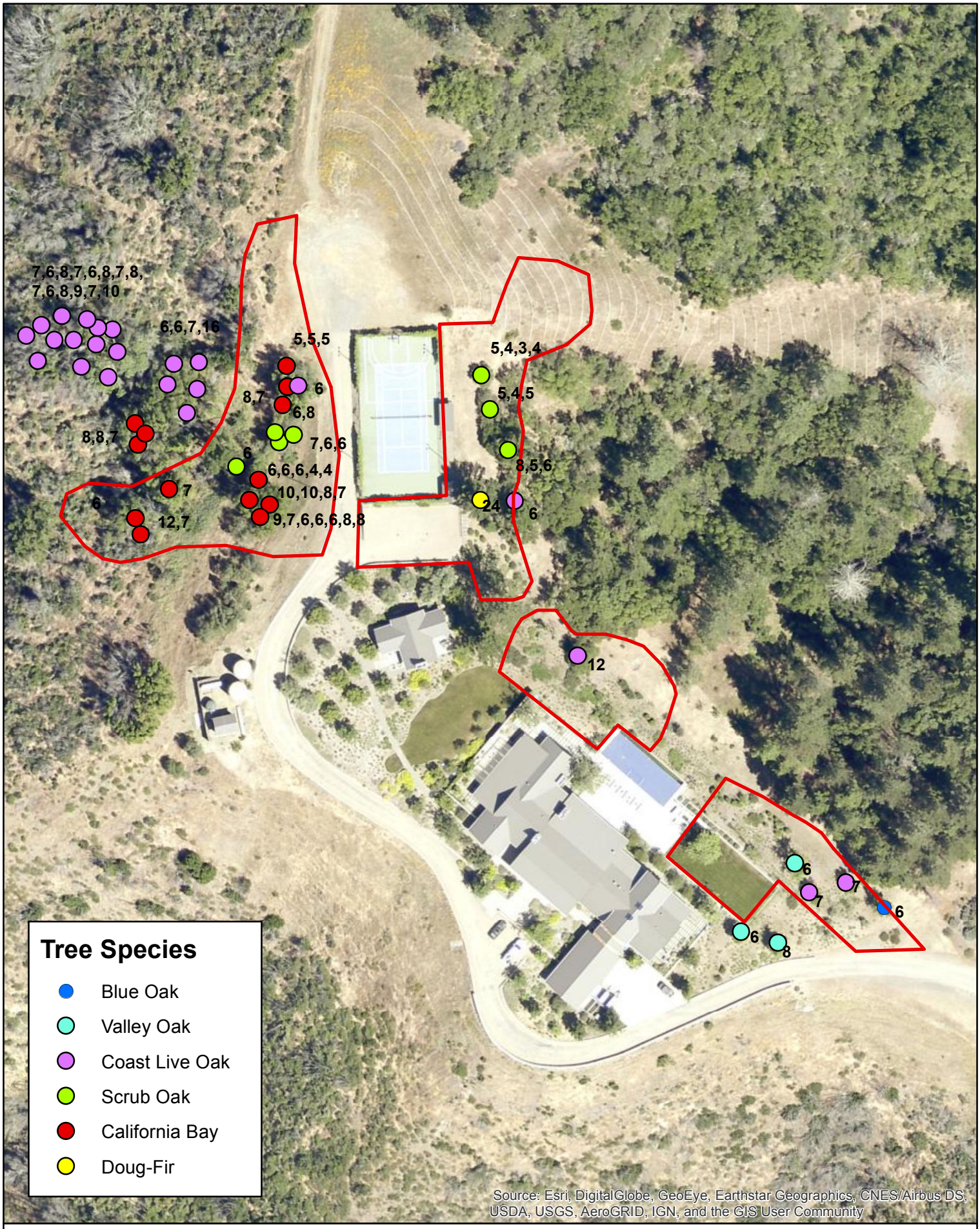


Plate V. Tree Count Aerial Photo 2021



Plate VI. Aerial Photo / Canopy Caculation (2018 Aerial)

N

APPENDIX A
Plants and Animals Observed Associated With The Project Site

nomenclature for the list of plants found on the project study areas and the immediate vicinity follows: Brodo, Irwin, Sylvia Duran Sharnoff and Stephen Sharnoff, 2001, for the lichens; and Baldwin, Goldman, Keil, Patterson, Rosati, and Wilkens, editors, 2012 with updated nomenclature changes from Jake A. Ruygt, 2020- for the vascular plants.

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

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
Physcia biziana (A. Massal.) Zahlbr. NCN	On Oaks	Common
Physcia caesia NCN (Sorideate form of *P. phaea)*	On Rocks and Bark	Common
Xanthoria polycarpa (Hoffm.) Rieber Pin-cushion Sunburst Lichen	On Oaks Young Twigs	Common
FRUTICOSE		
Evernia prunastri (L.) Ach. Evernia, Perfume Lichen	On Oaks	Common
Ramalina farinacea (L.) Ach. NCN	On Oaks	Common
Teloschistes chrysophthalmus (L.) Th. Fr. Gold Eye Lichen	On Oak or Shrub Limbs	Common
Usnea intermedia=U. arizonica Western Bushy Beard	On Oaks	Common

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

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

Pseudotsuga menziesii (Vassey) Mayr var. *menziesii* Douglas-fir, N, M, S	Woodlands	Common
VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS		
CLASS--DICOTYLEDONAE- TREES		
MAGNOLIIDS		
LAURACEAE		
Umbellularia californica (Hook.&Arn.) Nutt. California Laurel, Sweet Bay, Pepperwood, California Bay, N, M, S	Conifer&Oak Woodlands	Occasional
EUDICOTS		
ERICACEAE Heath Family		
Arbutus menziesii Pursh Madrone N, M, S	Woodlands	Common
**Arubtus congestus* NCN	Landscape Planting	Occasional
FAGACEAE Oak Family		
Quercus lobata Nee. Valley Oak N, M, S	Valley Grasslands	Common
Quercus wislizenii A.D.C. Interior Live Oak, N, S, M	Woodlands	Occasional
OLEACEAE Olive Family		
**Olea europaea* L. Olive, N, S, M	Domestic Ruderal	Occasional
PLATANACEAE Sycamore Family		
**Platanus acerifolia* Wild London Plane Tree, Sycamore, N	Domestic Introduction	Occasional
VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS		
CLASS--DICOTYLEDONAE-SHRUBS AND WOODY VINES		
EUDICOTS		
ANACARDIACEAE Sumac Family		
Toxicodendron diversilobum (Torry&Gray) E.Green Poison Oak, N, S, M	Woodlands	Common
ASTERACEAE (Compositae) Sunflower Family		
Baccharis pilularis deCandolle Coyote Brush, N, S, M	Woodlands, Grasslands	Common
BETULACEAE Birch Family		
Corylus cornuta Marshall var. *californica* Hazelnut, N, S, M	Riparian, Woodlands	Occasional

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

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

BORAGINACEAE Borage or Waterleaf Family		
Eriodictyon californicum (Hook.&Arn.) Torr. Yerba Santa, N, S,M	Chaparral	Common
CAPRIFOLIACEAE Honeysuckle Family		
Lonicera interrupta Bentham Chaparral Honeysuckle, N, S,M	Woodlands	Occasional
*Symphoricarpos albu*s (L.) SF Blake *var. laevigatus* Snowberry, N, S, M	Riparian, Shrub/Scrub Woodlands	Common
ERICACEAE Heath Family		
Arctostaphylos manzanita Parry ssp. *glaucesens* Common Manzanita, S	Woodlands	Common
Arctostaphylos manzanita Parry ssp. *manzanita* Common Manzanita, N, S, M	Woodlands	Common
Arctostapylos stanfordiana C. Parry ssp. *stanfordiana* Stanford Manzanita, N, S, M	Chaparral	Common
FABACEAE (Leguminosae) Legume Family		
A*cmiosiphon glaber* (Vogel) Brouiller var. *glaber* Deerweed, California Broom (*Lotus scoparius*), N	Chaparral, Woodlans	Common
FAGACEAE Oak Family		
Quercus berberidifolia Liebm. California Scrub Oak, N, S	Chaparral	Common
GARRAYACEAE Silk Tassel Family		
Garrya congdonii Eastwood Congdon's Silk-tassel, N, S	Chaparral, Woodlands	Occasional
Garrya fremontii Torry Fremont's Silk Tassel, N, S	Chaparral .Woodlands	Occasional
PHRYMACEAE Lopseed Family		
Diplacus aurantiacus (Curtis) Jeps. Bush Monkey Flower (*Mimulus aurantiacus)*, N, S, M	Woodlands, Chapartal	Common
RHAMNACEAE Buckthorn Family		
Ceanothus cuneatus Nutt.var. *cuneatus* Buckbrush, N, M	Chaparral	Common
ROSACEAE Rose Family		
Adenostoma fasciculatum Hooker&Arn. Chamise, N, S, M	Shrub/Scrub	Common
Cercocarpus betuloides Nutt. var.*betuloides* Mountain-mahogany, N, S, M	Shrub/Scrub,Chaparral	Common
Heteromeles arbutifolia (Lind.) M. Rome. Christmas Berry, Toyon, N, S. M	Shrub/Scrub	Common

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

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

VITACEAE Grape Family		
**Vitis vinifera* L. Grape, N	Domestic Introduction	Occasional
VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS CLASS--DICOTYLEDONAE-HERBS		
EUDICOTS		
APIACEAE (Umbelliferae) Carrot Family		
**Dacus carota* L. Wild Carrot, Queen Anne's Lace, N, S, M	Ruderal Grasslands	Common
**Torilis arvensis* (Huds.) Link Hedge-parsley, N, S, M	Grasslands Woodlands	Common
ASTERACEAE (Compositae) Sunflower Family		
Blennosperma nana (Hook.)S.F.Blake var.*nana* Common Blennosperma, Sunshine, N, S, M	Grasslands	Occasional
**Carduus pycnocephalus* L.subsp.*pycnocephalus* Italian Thistle, N. S, M	Woodlands	Common
**Centaurea solstitalis* L. Yellow Star Thistle, N, S, M	Grasslands, Ruderal	Common
**Circium vulgare* (Savi) Ten. Bull Thistle , S, M	Grasslands, Ruderal	Common
**Erigeron canadensis* L. Horseweed (*Conyza canadensis*), N, S	Ruderal	Occasional
**Helminthotheca echioides* (L.) Holub Ox-tongue (*Picris echioides)*, N, S, M	Ruderal	Common
**Heterothecia grandiflora* Nutt. Telegraph Weed, N, S	Ruderal,	Occasional
**Hypochaeris glabra* L. Cat's Ear, N, S, M	Ruderal	Common
**Hypochaeris radicata* L. Harry Cat's Ear, N, S, M	Ruderal	Common
**Lactuca serriola* L.S Prickly Lettuce, N, S, M	Ruderal	Occasional
**Senecio vulgaris* L. Common Grounsel, N, S, M	Ruderal	Occasional
**Silybum marianum* (L.) Gaertn. Milk Thistle, N, S, M	Ruderal	Common
**Sonchus asper* (L.) Hill var. *asper* Prickly Sow Thistle, N, S, M	Ruderal	Common

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

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

**Sonchus oleraceus* L. Common Sow Thistle, N, S, M	Ruderal	Common
BORAGINACEAE Borage or Waterleaf Family		
Adellnia grandis Lehm. Hound's Tongue (*Cyanoglossum grande*), N, S, M	Woodlands	Common
Amsinckia menziesii (Lehm) Nelson&Macbr. Rancher's Fireweed, N, S, M	Grasslands, Woodlands	Occasional
BRASSICACEAE Mustard Family		
**Capsella bursa-pastoris* L. Shepherd's Purse, N, S	Ruderal	Common
**Hirschfeldia incana* (L.) Lagr.-Fossat Summer Mustard. N, S	Ruderal	Common
CARYOPHYLLACEAE Pink Family		
**Cerastium glomeratum* Trill Mouse-ear-chickweed, N, S, M	Ruderal	Common
**Silene gallica* L. Small Flower Catchfly Windmill Pink, N, S, M	Ruderal/Grasslands/oakWoodlands	Common
**Stellaria media* (L.) Vill. Chickweed, N, S, M	Ruderal	Common
CRASSULACEAE Stoncrop Family		
Crassula connata (Ruiz.& Pav.) A Berg. Sand Pygmy Weed(*Tillia erecta.)*, N, S, M	Grassland, Chaparral Open Areas	Common
EUPHORBIACEAE Spurge Family		
**Euphorbia oblongata* Grseb. Oblong Spurge, N, S	Ruderal, Invasive Noxious Weed	Common
FABACEAE (Leguminosae) Legume Family		
Lathyrus vestitus Nutt. var. *vestitus* Hillside Pea, N, S,M	Woodlands	Occasional
Lupinus nanus Benth. Sky Lupine, N, S	Grasslands	Common
**Medicago polymorpha* L. Bur Clover, N, S, M	Ruderal, Grasslands	Common
**Trifolium hirtum* All. Rose Clover, N, S, M	Ruderal	Common
Vicia sativa L. subsp. *nigra* Narrow Leaved-vetchn (*V. angustifolia* var. *segetalis)*, N, S, M	Grasslands, Ruderal	Common
**Vicia sativa* L. subsp. *sativa* Spring Vetch, N, S, M	Grasslands	Common

MAJOR PLANT GROUP
Family

Genus	Habitat Type	Abundance
Common Name		

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

GERANIACEAE Geranium Family		
**Erodium botrys* (Cav.) Bertol.	Grasslands	Common
Broadleaf Filaree, Long-beaked Filaree, N, S, M		
**Geranium dissectum* L.	Grasslands	Common
Common Geranium, N, S, M		
**Geranium molle* L.	Grasslands	Common
Dove's Foot Geranium, N. S, M		
**Geranium robertianum* L.	Oak Woodland, Shady	Common
Red Robin, N, S, M		
LAMIACEAE (Labiatae) Mint Family		
Stachys ajugoides Benth.	Moist Open Places	Occasional
Hedge-nettle. N, S, M		
MALVACEAE Mallow Family		
**Malva neglecta* Wallr.	Ruderal	Common
Common Mallow, N, S, M		
MONTIACEAE Miner's lettuce Family		
Claytonia perfoliate Willd. ssp. *perfoliata*	Woodlands, Riparian	Common
Miners Lettuce (*Montia)*, N, S, M		
ONAGRACEAE Evening-primrose Family		
Epilobium ciliatum Raf. Subsp. *ciliatum*	Ruderal, Woodlands	Common
Northern Willow Herb, N, S, M		
PAPAVERACEAE Poppy Family		
Eschscholzia californica Cahm.	Grasslands	Common
California Poppy, N, S, M		
PLANTAGINACEAE Plantain Family		
**Kickxia elantine* (L.) Dumort.	Ruderal	Occasional
Sharp-leaved Fluellin, N, S,M		
Plantago erecta E.Morris	Grassland, Open Woodland	Common
California Plantain, N, S		
POLYGONACEAE Buckwheat Family		
**Polygonum aviculare* L. subsp. *depressum*	Ruderal	Common
Common Prostrate Knotweed (*P. arenastrum*), N		
**Rumex crispus* L.	Ruderal, Moist Areas, Seasonal Wet	Common
Curly Dock, N, S, M		
RUBIACEAE Madder Family		
Galium aparine L.	Woodlands, Riparian, Ruderal	Common
Goose Grass Bedstraw, N. S, M		

MAJOR PLANT GROUP Family Genus Common Name	Habitat Type	Abundance

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

SCROPHULARIACEAE Figwort Family

**Verbascum virgatum* Stokes Wand Mullein. N. S, M	Ruderal,, Roads,Grassland	Occasional

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

POACEAE Grass Family

**Avena barbata* Link. Slender Wild Oat, N, S, M	Grasslands	Common
**Bromus diandrus* Roth Ripgut Grass, N, S, M	Ruderal, Grasslands	Common
**Bromus hordeaceus* L. Soft Chess, Blando Brome (*B.mollis*), N, S, M	Grasslands, Woodlands, Chaparral	Common
**Cynosurus echinatus* L. Hedgehog, Dogtail Grass, N, S, M	Ruderal, Grassands, Oak Woodland	Common
**Festuca bromoides* L. Six-weeks Fescue *(Vulpia bromoides),* N, S, M	Ruderal, Moist Flats become Dry	Common
**Festuca myuros* L. Rattail Fescue,Zorro Annual Fescue (*Vulpia myuros)*, N, S, M	Ruderal, Woodlands, Chaparral	Common
**Festuca perennis* (L.) Columubus & Sm. Perennial Rye Grass (*Lolium multiflorum, L. perenne*), S, M	Grasslands	Common
**Penuisetum setaceum* (Forsskal) Choiv Common Fountain Grass, N, S	Ruderal, Landscape,Noxious Weed	Common
Stipa pulchra Hitchc. Purple Needle Grass (=*Nassella pulchra)*, N, S	Oak Woodland, Chaparral	Common

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

AGAVACEAE Centuray Plant Family

Chlorogalum pomeridianum (DC.) Kunth var. *pomeridianum* Soap Plant, N, S, M	Woodlands,	Common

IRIDACEAE Iris Family

Sisyrinchium bellum Watson Blue-eyed Grass, N, S, M	Grasslands	Common

MELANTHIACEAE False-hellebore Family

Toxicoscordion fremontii (Torr) Rydb. Fremont's Star Lily (= *Zigadenus fremontii)*, N, S, M	Chaparral, Woodlands, Grtassland	Common

THEMIDACEAE Brodiaea Family

Dichelostemma capitatum (Benth.) Blue Dicks (*Brodiaea pucherla)*, N, S, M	Open Woodlands	Occasional

Fauna Species Observed in the Vicinity of the Project Site

The nomenclature for the animals found on the project site and in the immediate vicinity follows: Mc Ginnis–1984, for the fresh water fishes; Stebbins-l985, for the reptiles and amphibians; Udvardy and Farrand–1998, for the birds; and Jameson and Peeters -l988 for the mammals.

AMPHIBIA AND REPTILIA		
ORDER		
Common Name	**Genus**	**Observed**
SQUAMATA		
Western Fence Lizard	*Sceloporus occidentalis*	X

AVES		
ORDER		
Common Name	**Genus**	**Observed**
AVES		
Acorn Woodpecker	Melanerpes fomicivorus	X
Common Crow	*Corvus brachyrhynchos*	X
Red-tailed Hawk	Cathartes aura	X
Turkey Vulture	*Cathartes aura*	X

MAMMALS		
ORDER		
Common Name	**Genus**	**Observed**
CERVIDAE		
Black-tailed Deer	Odocoileus hemionus	Sight
INSECTIVORA		
Broad-footed Mole	Scapanus latimanus	Workings
RODENTIA		
Pocket Gopher	Thomomys bottae	Workings

APPENDIX B

U.S. Fish and Wildlife Service Trust Resources List-Listed Species for the Quadrangle

CNPS Special Status-species Listed for the Project Quadrangle and Surrounding Quadrangles

California Department of Fish and Wildlife Rare Find 5 Species List for the Quadrangle and Surrounding Quadrangles

Search Results

15 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3812244**], Habitat is one of [**Chprl**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Amorpha californica var. *napensis*	Napa false indigo	Fabaceae	perennial deciduous shrub	Apr-Jul	None	None	G4T2	S2	1B.2	Yes	2001-01-01	 © 2016 John Doyen
Arctostaphylos stanfordiana ssp. *decumbens*	Rincon Ridge manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr(May)	None	None	G3T1	S1	1B.1	Yes	1984-01-01	No Photo Available
Astragalus claranus	Clara Hunt's milk-vetch	Fabaceae	annual herb	Mar-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Brodiaea leptandra	narrow-anthered brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	None	None	G3?	S3?	1B.2	Yes	2001-01-01	 © 2018 Zoya Akulova
Ceanothus confusus	Rincon Ridge ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Jun	None	None	G1	S1	1B.1	Yes	1980-01-01	 © 2012 Jake Ruygt
Ceanothus divergens	Calistoga ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Ceanothus sonomensis	Sonoma ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Clarkia breweri	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	None	None	G4	S4	4.2	Yes	1974-01-01	No Photo Available
Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	perennial herb	May-Sep	None	None	G3	S3	1B.2	Yes	1994-01-01	No Photo Available
Harmonia nutans	nodding harmonia	Asteraceae	annual herb	Mar-May	None	None	G3	S3	4.3	Yes	1984-01-01	 © 2008 Neal Kramer
Leptosiphon	bristly	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	Yes	1994-	

aureus	leptosiphon										01-01	 © 2007 Len Blumin
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	 © 2012 Aaron Arthur
Lomatium repostum	Napa lomatium	Apiaceae	perennial herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1974-01-01	No Photo Available
Lupinus sericatus	Cobb Mountain lupine	Fabaceae	perennial herb	Mar-Jun	None	None	G2?	S2?	1B.2	Yes	1974-01-01	No Photo Available
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	None	None	G2G3	S2S3	1B.2	Yes	2001-01-01	No Photo Available

Showing 1 to 15 of 15 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 24 April 2024].

California Department of Fish and Wildlife
RardFind CNDDB

Query Summary:
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 Habitat IS (Chaparral OR Cismontane woodland)

CNDDB Element Query Results

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats
Accipiter striatus	sharp-shinned hawk	None	None	G5	S4	null	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland
Allium peninsulare var. franciscanum	Franciscan onion	None	None	G4G5T2	S2	1B.2	Cismontane woodland, Ultramafic, Valley & foothill grassland
Ambystoma californiense pop. 3	California tiger salamander - Sonoma County DPS	Endangered	Threatened	G2G3T2	S2	null	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland
Amorpha californica var. napensis	Napa false indigo	None	None	G4T2	S2	1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland
Amsinckia lunaris	bent-flowered fiddleneck	None	None	G3	S3	1B.2	Cismontane woodland, Coastal bluff scrub, Valley & foothill grassland
Antrozous pallidus	pallid bat	None	None	G4	S3	null	Chaparral, Coastal scrub, Desert wash, Upper montane coniferous forest, Valley & foothill grassland

Aquila chrysaetos	golden eagle	None	None	G5	S3	null	Broadleaved upland forest, Cismontane woodland, , Valley & foothill grassland
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	None	None	G3T1	S1	1B.1	Chaparral, Cismontane woodland
Astragalus claranus	Clara Hunt's milk-vetch	Endangered	Endangered	G1	S1	1B.1	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Brodiaea leptandra	narrow-anthered brodiaea	None	None	G3?	S3?	1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland
Ceanothus confusus	Rincon Ridge ceanothus	None	None	G1	S1	1B.1	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Ultramafic
Ceanothus divergens	Calistoga ceanothus	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Ultramafic
Ceanothus purpureus	holly-leaved ceanothus	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland
Ceanothus sonomensis	Sonoma ceanothus	None	None	G2	S2	1B.2	Chaparral, Ultramafic
Centromadia parryi ssp. parryi	pappose tarplant	None	None	G3T2	S2	1B.2	Chaparral, Coastal prairie, Marsh & swamp, Meadow & seep,

							Valley & foothill grassland
Corynorhinus townsendii	Townsend's big-eared bat	None	None	G4	S2	null	Broadleaved upland forest, Chaparral, , Valley & foothill grassland
Elanus leucurus	white-tailed kite	None	None	G5	S3S4	null	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Erethizon dorsatum	North American porcupine	None	None	G5	S3	null	Broadleaved upland forest, Cismontane woodland, North coast coniferous forest, Upper montane coniferous forest
Erigeron greenei	Greene's narrow-leaved daisy	None	None	G3	S3	1B.2	Chaparral, Ultramafic
Fritillaria liliacea	fragrant fritillary	None	None	G2	S2	1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland
Hesperolinon sharsmithiae	Sharsmith's western flax	None	None	G2Q	S2	1B.2	Chaparral, Ultramafic
Horkelia tenuiloba	thin-lobed horkelia	None	None	G2	S2	1B.2	Broadleaved upland forest, Chaparral, Valley & foothill grassland
Lasthenia conjugens	Contra Costa goldfields	Endangered	None	G1	S1	1B.1	Alkali playa, Cismontane woodland, Valley & foothill grassland, Vernal pool, Wetland
Layia septentrionalis	Colusa layia	None	None	G2	S2	1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley

							& foothill grassland
Leptosiphon jepsonii	Jepson's leptosiphon	None	None	G2G3	S2S3	1B.2	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Lupinus sericatus	Cobb Mountain lupine	None	None	G2?	S2?	1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic
Navarretia leucocephala ssp. bakeri	Baker's navarretia	None	None	G4T2	S2	1B.1	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Navarretia rosulata	Marin County navarretia	None	None	G2	S2	1B.2	Chaparral, Closed-cone coniferous forest, Ultramafic
Penstemon newberryi var. sonomensis	Sonoma beardtongue	None	None	G4T3	S3	1B.3	Chaparral
Sidalcea hickmanii ssp. napensis	Napa checkerbloom	None	None	G2T1	S1	1B.1	Chaparral
Streptanthus hesperidis	green jewelflower	None	None	G2G3	S2S3	1B.2	Chaparral, Cismontane woodland, Ultramafic
Taxidea taxus	American badger	None	None	G5	S3	null	Broadleaved upland forest, Chaparral, , Valley & foothill grassland
Trichostema ruygtii	Napa bluecurls	None	None	G1G2	S2	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill

							grassland, Vernal pool, Wetland
Viburnum ellipticum	oval-leaved viburnum	None	None	G4G5	S3	2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest

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

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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.

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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
Northern Spotted Owl Strix occidentalis caurina Wherever found There is final critical habitat for this species. Your location does not overlap 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
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

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Flowering Plants

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

You are still required to determine if your project(s) may have effects on all above listed species.

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Bald & Golden Eagles

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

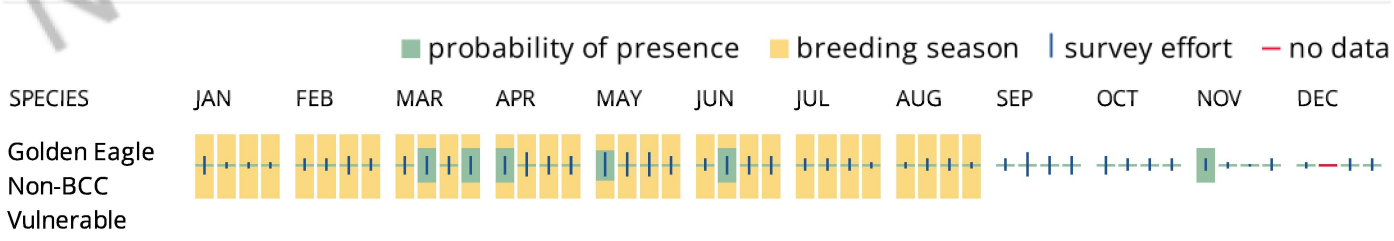
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

NOT FOR CONSULTATION

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[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-

migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

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NAME	BREEDING SEASON
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Nuttall's Woodpecker Dryobates nuttallii — Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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Santa Barbara Song Sparrow Melospiza melodia graminea This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5513	Breeds Mar 1 to Sep 5
Western Screech-owl Megascops kennicottii cardonensis This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jun 30
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence

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at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

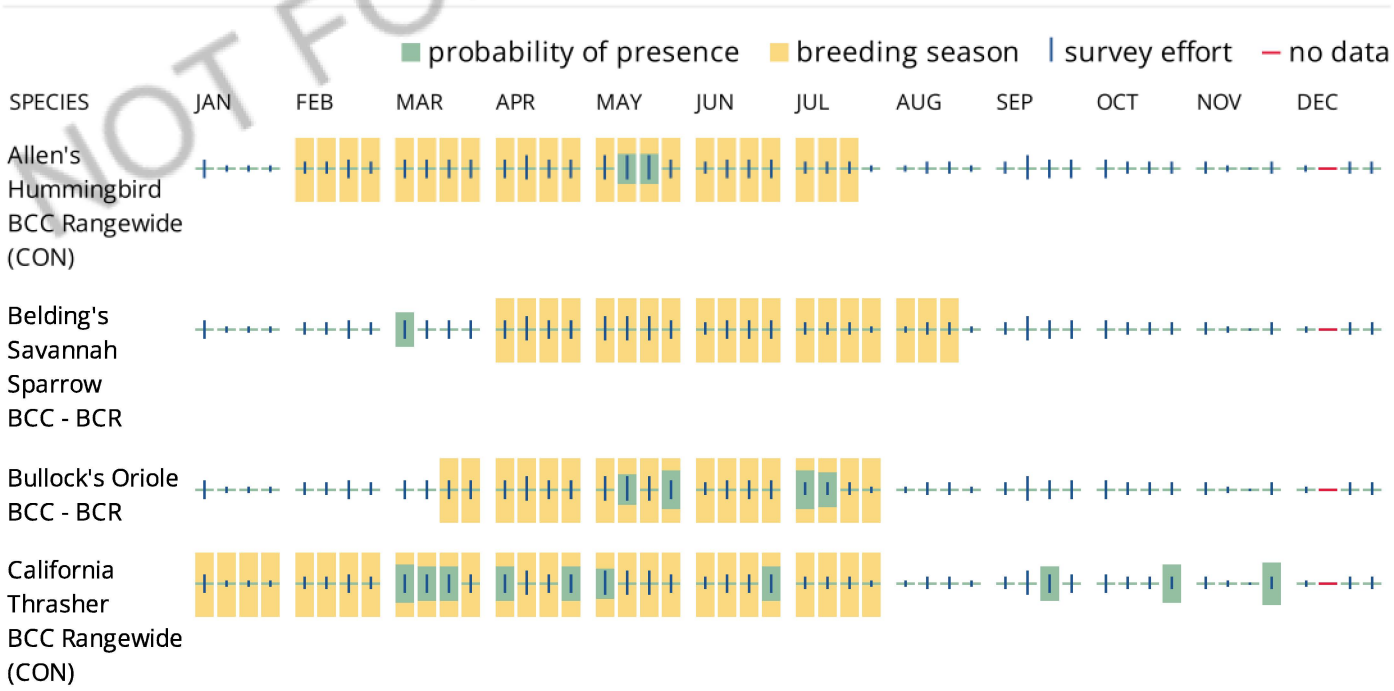
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

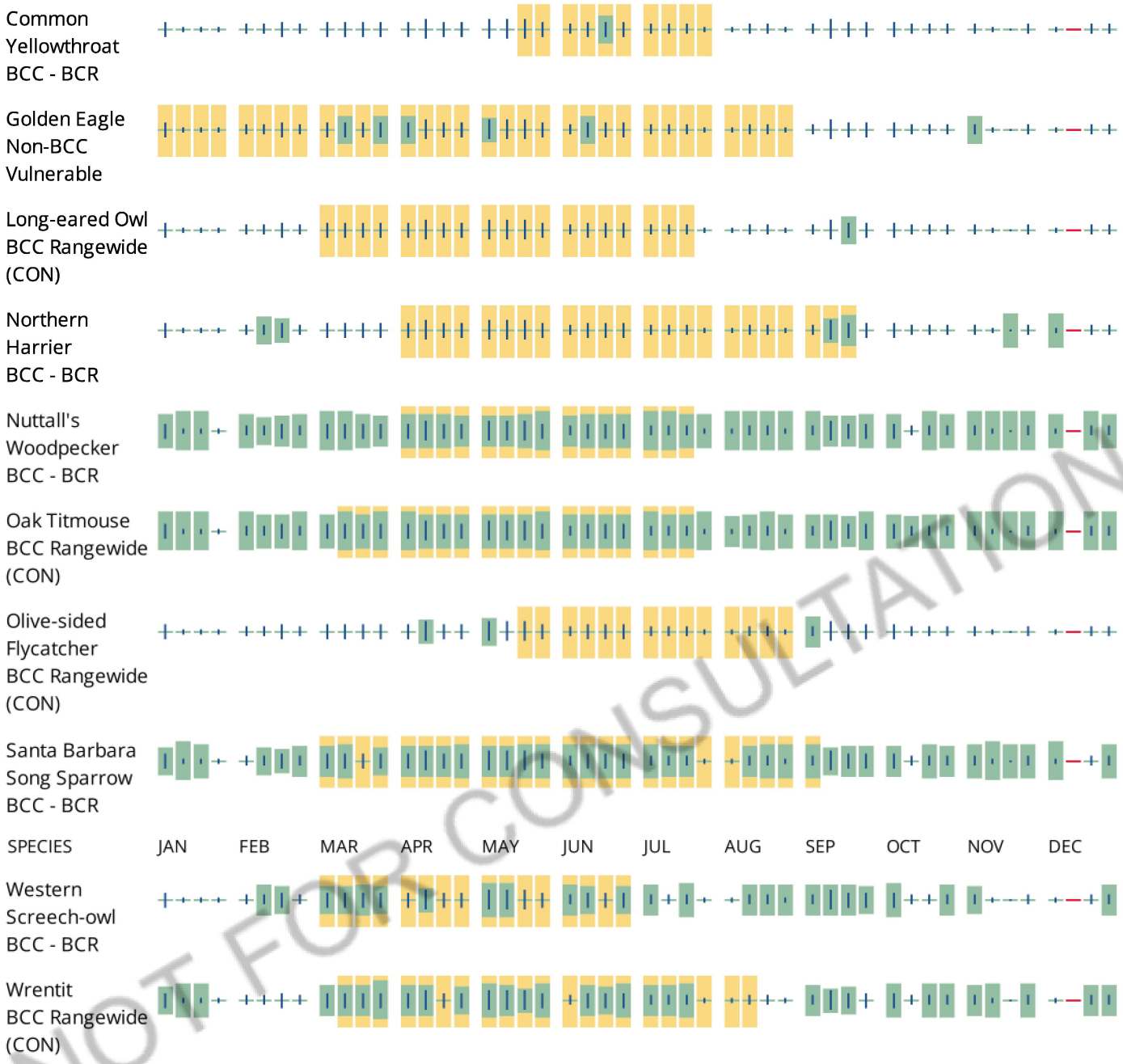
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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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 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 list of migratory birds that potentially occur 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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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).

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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.

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.

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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 (NWI)

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.

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This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does not replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.

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APPENDIX C

Tree Count

KJELDSEN BIOLOGICAL CONSULTING
Chris K. Kjeldsen Ph.D., Botany
Daniel T. Kjeldsen B.S., Natural Resource Management
923 St. Helena Ave.
Santa Rosa, CA 95404

Date: May 19, 2024

Subject **Tree Count (Proposed Clearing Limits)**
Ponderosa One, LLC
80 Clear Creek Road
Oakville, CA 94562

INTRODUCTION

This study was conducted at the request of Summit Engineering on behalf of Ponderosa One, to identify the anticipated number of trees, including species and diameter at breast height (DBH), of trees proposed to be removed by the proposed project.

The property is located on the west side of the Napa Valley at 80 Clear Creek Road. The property is within the USGS Rutherford Quadrangle.

The project proposes development in three phases: The first phase is to develop a +/- 3,830 sf. underground storage below the tennis court parking lot and a +/- 6,240 sf. tennis pavilion adjacent to the tennis courts. The second phase is to develop a microgrid and ground mounted solar panel system. The third phase will develop an underground +/- 2,700 sf. spa and +/- 4,350 sf. wine and art storage area. Project spoils will be placed down slope on a previously cleared site.

METHODOLOGY

Our survey was conducted by walking throughout of the proposed clearing limits. Notes were taken recording the location of each tree measuring 6-inches or greater diameter at breast height 4.5-feet above grade (DBH) within the proposed clearing limits. The site map and aerial photos were used to locate the extent of clearing limits.

Trees which are proposed to be trimmed and not removed were also recorded on the map and are shown outside of the proposed clearing limit. Species and DBH of all trees were recorded. Trees which split at the ground were counted as individual trees. Non-native landscape trees were not recorded or mapped.

Trees Proposed to be Removed >6in DBH

Tennis Pavilion

DBH	Live Oak	Scrub Oak	Valley Oak	Bay	Doug-Fir
6-8”	**1**	**3**			
9-10”					
11-12”					
> 18”					**1 @ 24”**

Wine Storage Area

DBH	Live Oak	Scrub Oak	Valley Oak	Blue Oak	Doug-Fir
6-8”	**3**		**1**	**1**	
9-10”					
11-12”					
> 18”					

Spa Area

DBH	Live Oak	Scrub Oak	Valley Oak	Bay	Doug-Fir
6-8”					
9-10”					
11-12”	**1**				
> 18”					

Solar Array

DBH	Live Oak	Scrub Oak	Valley Oak	Bay	Doug-Fir
6-8”	**1**	**4**		**20**	
9-10”				**3**	
11-12”					
> 18”					

Area	**Tennis Pavilion**	**Wine Storage Area**	**Spa Area**	**Solar Array**
Oaks to be Removed >6” DBH	**4**	**5**	**1**	**5**

Total Trees

DBH	Live Oak	Scrub Oak	Valley Oak	Blue Oak	Bay	Doug-Fir
6-8”	**6**	**7**	**1**	**1**	**20**	
9-10”					**3**	
11-12”						
> 18”						**1**
Total	**6**	**7**	**1**	**1**	**23**	**1**

Total Native Oaks > 6in DBH = 15
Total California Bay > 6in DBH = 23

Sincerely,

Kjeldsen Biological Consulting

Attached **Plate I Tree Survey**

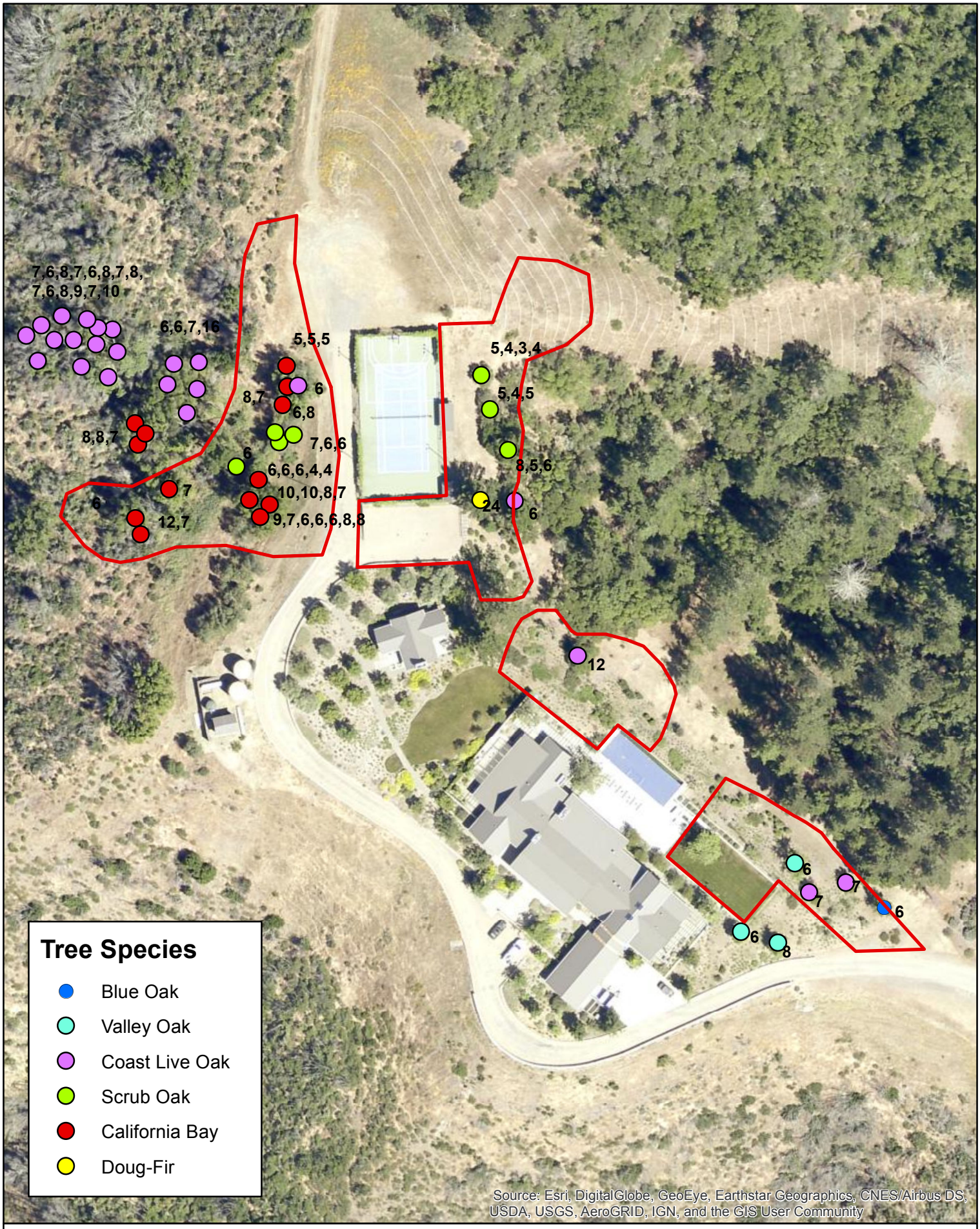


Plate I. Tree Count Aerial Photo 2021

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