



High Valley Ranch Project

Clearlake Oaks, Lake County, California

Biological Resources Report

October 2020



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1 INTRODUCTION

Sequoia Ecological Consulting, Inc. (Sequoia) has prepared this Biological Resources Report for the proposed High Valley Ranch Project site (hereafter referred to as “the Project site”) located at 11650 High Valley Road in Clearlake Oaks, Lake County, California (Figures 1 and 2). Our analysis provides a description of existing biological resources on the Project site and identifies potentially significant impacts that could occur to sensitive biological resources resulting from construction of the proposed Project.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the US Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations, including the California Native Plant Society (CNPS). Biological resources also include waters of the United States and State of California, as regulated by the US Army Corps of Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and CDFW. Please note that this analysis assesses the potential for impacts to regulated waters but does not provide the level of detail required for a formal delineation of “waters of the United States” suitable for submittal to the USACE, the regulatory agency that defines waters of the United States.

In accordance with the California Environmental Quality Act (CEQA) checklist, this Biological Resources Report also provides mitigation measures for “potentially significant” impacts that could occur to biological resources pursuant to CEQA (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). The prescribed mitigation measures would reduce impacts to levels considered “less than significant” pursuant to CEQA. Accordingly, this Biological Resources Report is suitable for review or inclusion in a review by Lake County for the proposed Project pursuant to CEQA.

2 LOCATION AND SETTING

The approximately 1,630-acre Project site is located at 11650 High Valley Road, roughly 2 miles northwest of Clearlake Oaks, a census-designated place in Lake County, California (Figures 1 and 2). The Project site is bordered to the west and south by Hill Valley Road, to the east by Valley Oak Drive, and to the north by Fire Trail at Sulphur Canyon. The Project site currently consists of two residential buildings with associated outbuildings, a community center, two farm buildings, and a barn. The Project site consists of seven parcels: Assessor’s Parcel Numbers (APNs) 006-004-07, 006-004-25, 006-004-24, 006-002-04, 006-002-09, 006-004-06, and 006-009-36 (Figure 3). Cannabis cultivation would occur on one of these seven parcels (APN 006-004-07); see Preliminary Site Plan provided as Attachment A. The remaining six parcels exist to meet Lake County requirements to provide 20 acres of land for every 1 acre of cannabis cultivation.

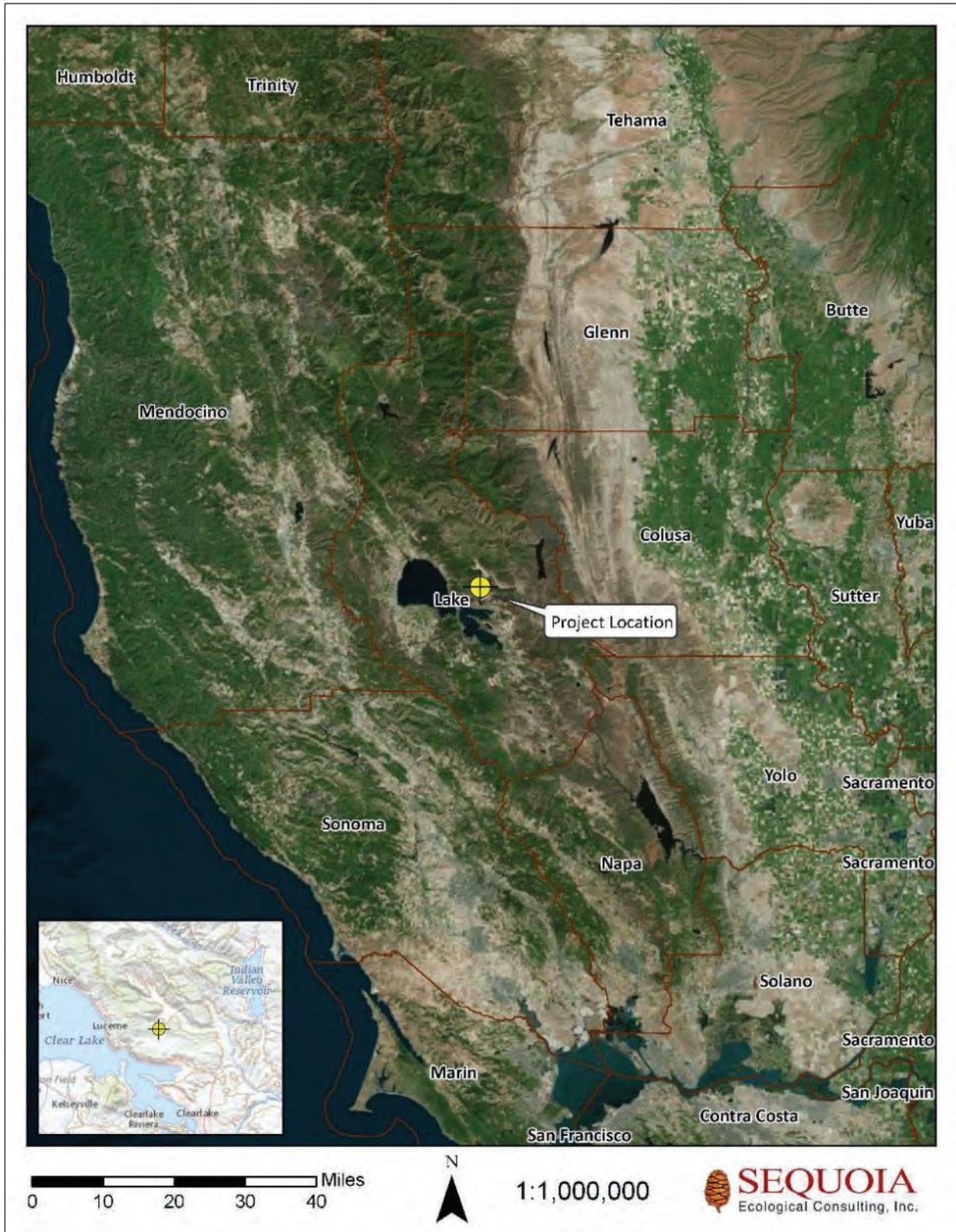


Figure 1. Regional Map of the High Valley Ranch Project Site.

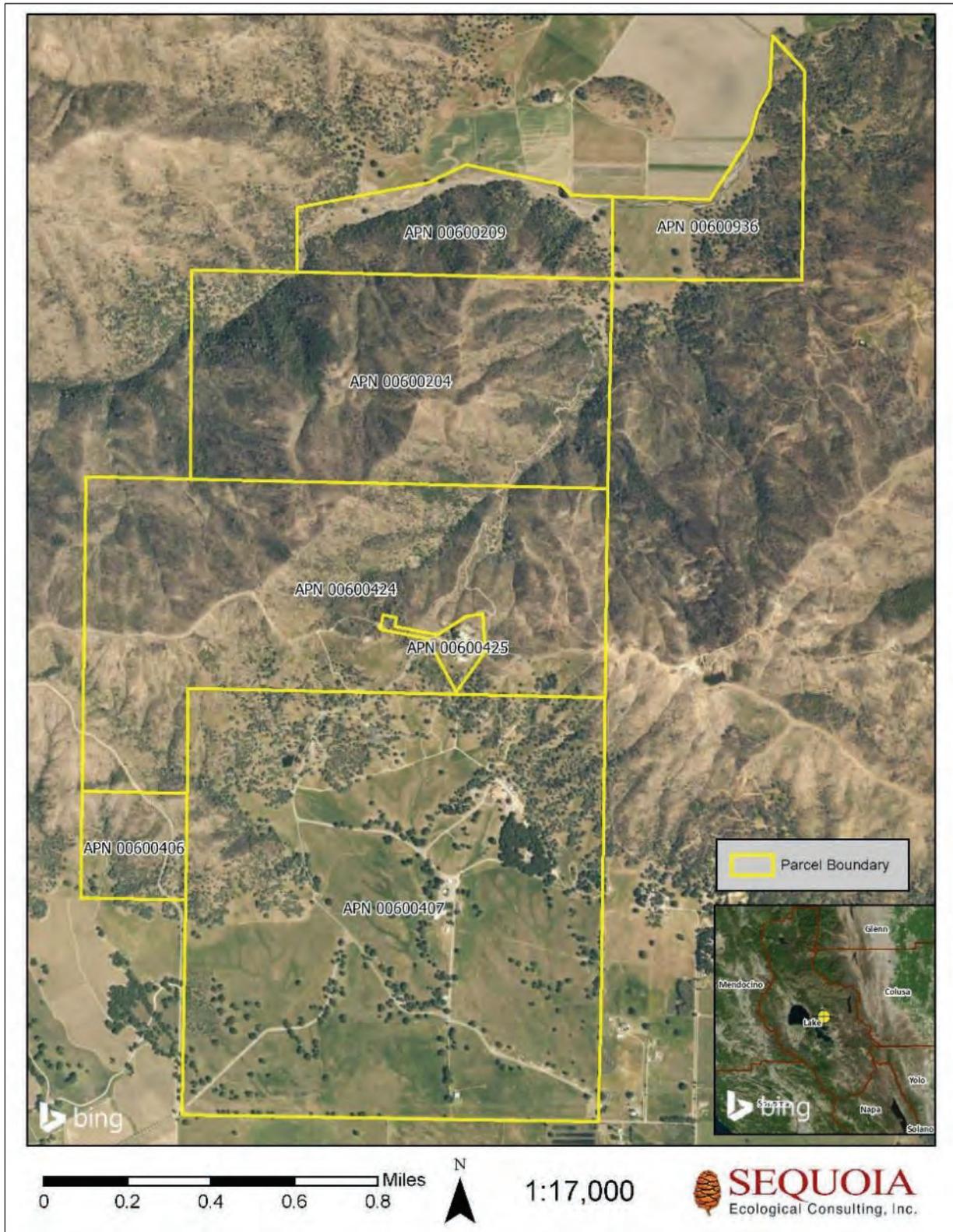


Figure 3. Assessor's Parcel Number Map of the High Valley Ranch Project Site.



3 PROJECT DESCRIPTION

The proposed Project is a cannabis cultivation operation that involves cannabis production areas occurring on APN 006-004-07, including cannabis canopy areas, associated walkways and aisles for access, and a processing facility for trimming, drying, and curing of cannabis plants (Attachment A). The Project would include approximately 80 acres of cannabis canopy in up to six cultivation areas on the southernmost parcel on the Project site. For this analysis, the Study Area is defined as the entire 1,630-acre Property; however, the Preliminary Hydrological Analysis component of the survey focused on the proposed impact areas within APN 006-004-07, as well as a 200-foot buffer around these areas.

Access to the interior of the Project site is provided by existing paved and gravel private roads.

4 REGULATORY SETTING

Regulatory authority over biological resources is shared by federal, state, and local agencies under a variety of laws, ordinances, regulations, and statutes. Primary authority for biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, Lake County). Below we provide a summary of these regulatory authorities and a brief discussion on applicability to the proposed Project. More in-depth analyses are provided in Section 6 (Results) and Section 7 (Discussion and Impacts Assessment).

4.1 Federal

4.1.1 *Federal Endangered Species Act*

The Federal Endangered Species Act (FESA) provides protection for federally listed threatened and endangered species and their habitats. A Project may obtain permission to take federally listed species in one of two ways: a Section 10 Habitat Conservation Plan (HCP) issued to a non-federal entity, or a Section 7 Biological Opinion from the USFWS and/or the National Oceanic and Atmospheric Administration (NOAA) issued to another federal agency that funds or permits an action (e.g., the USACE). Under either Section of the FESA, adverse impacts to protected species are avoided, minimized, and mitigated. Both cases require consultation with the USFWS and/or NMFS, which ultimately issues a Biological Opinion determining whether the federally listed species may be incidentally taken pursuant to the proposed action and authorizing incidental take.

Section 7 of FESA requires that federal agencies develop a conservation program for listed species and that they avoid actions that will jeopardize the continued existence of the species or result in the destruction or adverse modification of the species' designated critical habitat (FESA 7(a)(2)). FESA Section 9 prohibits all persons and agencies from take of threatened and endangered species (though the prohibition on taking listed plants only applies to plants taken from "areas under Federal jurisdiction" or plants taken "in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law"). Those who violate this mandate face civil and criminal



penalties, including civil fines of up to \$25,000 per violation, as well as criminal penalties of up to \$50,000 and imprisonment for one year.

Section 10 of FESA regulates a wide range of activities affecting fish and wildlife designated as endangered or threatened and the habitats on which they rely. Section 10 prohibits activities affecting these protected fish and wildlife species and their habitats unless authorized by a permit from USFWS or NMFS. These permits may include incidental take permits, enhancement of survival permits, or recovery and interstate commerce permits. HCPs under Section 10(a)(1)(B) provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend.

HCPs are required as part of an application for an incidental take permit under Section 10. They describe the anticipated effects of the proposed take, how those impacts will be minimized or mitigated, and how the HCP will be funded.

4.1.1.1 Applicability to the Proposed Project

FESA gives regulatory authority to USFWS for federally listed terrestrial species and non-anadromous fish. NMFS has regulatory authority over federally listed marine mammals and anadromous fish.

There are no species listed under the FESA that occur on or have the potential to occur on the Project site. Furthermore, the Project site does not fall within USFWS designated critical habitat for any listed species (Figure 4). Therefore, it is anticipated that the proposed Project will not result in any impacts to federally listed species or their habitat protected under the FESA.

4.1.2 Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) (16 USC §§ 703–711), as administered by the USFWS, makes it unlawful to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export at any time, or in any manner, any migratory bird, or any part, nest, or egg of any such bird.” This includes direct and indirect acts, except for harassment and habitat modification, which are not included unless they result in direct loss of birds, nests, or eggs.

4.1.2.1 Applicability to the Proposed Project

The Project site provides suitable nesting habitat for common passerine (songbirds) and raptors (birds of prey) species. These birds are protected pursuant to MBTA. Prior to commencement of Project-related activities, a pre-construction survey would be performed, and active nests detected would be provided with an appropriately sized non-disturbance buffer. See Impacts Analysis section below.



4.1.3 US Army Corps of Engineers – Clean Water Act – Section 404

The USACE regulates activities within "waters of the United States" pursuant to congressional acts: Section 404 of the Clean Water Act (CWA; 1977, as amended) and Section 10 of the Rivers and Harbors Act of 1899. Section 404 of the CWA (1977, as amended) requires a permit for discharge of dredged or fill material into waters of the United States. Under Section 404, waters of the United States are defined as all waters that are used currently, or were used in the past, or may be used in the future for interstate or foreign commerce, including waters subject to the ebb and flow of the tide up to the high tide line. Additionally, areas such as wetlands, rivers, and streams (including intermittent streams and tributaries) are considered waters of the United States. The extent of wetlands is determined by examining the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances, all three of these parameters must be satisfied for an area to be considered a jurisdictional wetland under Section 404 of the CWA. Fill within wetlands is regulated under the CWA through a Nationwide Permit Program and an Individual Permit Program.

4.1.3.1 Applicability to the Proposed Project

The ephemeral features and artificial pond—which is used for water storage, and farm irrigation, stock watering—on the Project site likely do not fall under USACE jurisdiction pursuant to Section 404 of the CWA (Figures 5 and 6); however, the intermittent creek on the northern property boundary would likely be subject to regulation by USACE. As currently designed, all aquatic features will be avoided and therefore not impacted by proposed Project activities. Accordingly, prior authorization from USACE pursuant to Section 404 of the CWA will not be required for the proposed Project.

4.2 State

4.2.1 California Environmental Quality Act

CEQA requires public agencies in California to analyze and disclose potential environmental impacts associated with a proposed discretionary Project that the agency will carry out, fund, or approve. Any significant impact must be mitigated to the extent feasible, below the threshold of significance.

4.2.1.1 Applicability to the Proposed Project

This document is suitable for use by the CEQA lead agency (Lake County) for preparation of any CEQA review document prepared for the proposed Project. This report has been prepared as a Biology Section suitable for incorporation into an Initial Study or the Biology Section of a Mitigated Negative Declaration or Environmental Impact Report.



4.2.2 California Endangered Species Act

The CDFW is responsible for administering the California Endangered Species Act (CESA). Section 2080 of the California Fish and Wildlife Code prohibits take of any species that the Fish and Wildlife Commission determines to be an endangered species or a threatened species. However, CESA does allow for take that is incidental to otherwise lawful development Projects. Sections 2081(b) and (c) of CESA allow the CDFW to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met (i.e., the effects of the authorized take are minimized and fully mitigated). The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species. Where various measures are available to meet this obligation, the measures required shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation.

4.2.2.1 Applicability to the Proposed Project

No state listed plant species would likely be impacted by the proposed Project (Table 1). As such, the proposed Project should not be required to obtain authorization under CESA.

4.2.3 California Fish and Game Code – Section 1600 – Lake or Streambed Alteration Agreement

The CDFW regulates activities within watercourses, lakes, and in-stream reservoirs. Under Section 1602 of the California Fish and Game Code (CFGF)—often referred to as the Lake or Streambed Alteration Agreement (LSAA)—the CDFW regulates activities that would alter the flow or change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, or lake. Each of these activities requires a Section 1602 permit. Section 1602 requires CDFW to be notified of any activity that might affect lakes and streams. It also identifies the process through which an applicant can come to an agreement with the state regarding the protection of these resources, both during and following construction.

4.2.3.1 Applicability to the Proposed Project

Impacts to the bed, bank, and/or channel, or associated riparian vegetation of the ephemeral drainages and intermittent creek may be regulated by the CDFW pursuant to Section 1602 of the CFGF. However, as currently designed, these features will be avoided and therefore not impacted by proposed Project activities. Accordingly, a Section 1602 agreement (i.e., LSAA) from CDFW would not be required for the proposed Project.

It should be noted, CDFW requires that cannabis cultivators applying for an Annual License from the California Department of Food and Agriculture have a LSAA or written verification that one is not needed. Alternatively, some cannabis cultivation projects may qualify for a CDFW General Agreement by meeting the following specific requirements:



- The Project needs to involve a stream crossing or water diversion specific to cannabis cultivation.
- The Project must meet the administrative measures, measures to protect fish and wildlife, and reporting requirements highlighted in the General Agreement, Sections H-K.
- The Project cannot be on or in a finfish-bearing stream or lake.
- The Project cannot result in take of a listed or fully protected species.
- The Project cannot be the subject of a complaint by a city attorney, District Attorney, or Attorney General, or an order by a court.

Cannabis cultivation projects that are not eligible for the General Agreement may apply for a Standard LSAA.

4.2.4 California Fish and Game Code – Section 3500 – Nesting Bird Protection

CFGC Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by the CFGC or any regulation made pursuant thereto. CFGC Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that elements of a Project (specifically vegetation removal or construction near nest trees) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, which may be subject to approval by the CDFW and/or USFWS.

4.2.5 California Fish and Game Code – Fully Protected Species

CFGC Sections 3505, 3511, 4700, 5050, and 5515 afford full protection to several specific wildlife species. Fully protected species cannot be taken or possessed under state law, even if federal take authorization is issued, except in connection with a Natural Communities Conservation Plan (NCCP) or for the purpose of scientific research and relocation of bird species for the protection of livestock.

4.2.5.1 Applicability to the Proposed Project

The Project site provides suitable habitat for wildlife protected pursuant to CFGC Section 3500 and the MBTA. As such, pre-construction surveys for these species would need to be conducted prior to Project commencement to ensure no direct mortality of these species occurs as a result of the proposed Project.



4.2.6 Regional Water Quality Control Board – Clean Water Act – Section 401 and Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and RWQCB regulate activities in "waters of the State" (which includes wetlands) through two sources of legal authority: Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (Wat. Code, Div. 7, § 13000 et seq.). The Section 401 water quality certification program allows the state to ensure that activities requiring a federal permit or license comply with state water quality standards. Though similar to Section 404 and 401 requirements, the Porter-Cologne Act applies to all waters of the State rather than to the portions thereof below ordinary high-water mark. "Waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code § 13050(e)).

The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the waters of the State to file a report of waste discharge. Pursuant to the Porter-Cologne Act, the RWQCB also regulates "isolated wetlands." Functionally, the RWQCB typically evaluates whether an additional waste discharge requirement is necessary for the balance between federal and state jurisdictional boundaries during the 401 certification process. The RWQCB issues a permit or waiver that includes implementing water quality control plans that reflect the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features.

On April 2, 2019, the SWRCB adopted Resolution 2019-0015, thereby adopting a document entitled, "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" ("Procedures") for inclusion in the Water Quality Control Plans for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

In taking this action, the SWRCB noted that under the Porter-Cologne Act, discharges of dredged or fill material to waters of the State are subject to waste discharge requirements or waivers thereof. The SWRCB further explained that "although the state has historically relied primarily on requirements in the CWA to protect wetlands, US Supreme Court rulings reducing the jurisdiction of the CWA over wetland areas by limiting the definition of 'waters of the United States' have necessitated the use of California's independent authorities under the Porter-Cologne Act to protect these vital resources."

The Office of Administrative Law (OAL) approved the Procedures on August 28, 2019. Pursuant to the Procedures, the effective date is nine months upon OAL approval. Accordingly, the Procedures became effective May 28, 2020.

By adopting the Procedures, the SWRCB mandated and standardized the evaluation of impacts and protection of waters of the State from impacts due to dredge and fill activities. The Procedures include: 1) a wetland definition; 2) a jurisdictional framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for application submittal, and the review and approval of dredge or fill activities.



The Procedures define an area as a wetland if it meets three criteria: wetland hydrology, wetland soils, and (if vegetated) wetland plants. An area is a wetland if: (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Waters of the State, by definition, includes more aquatic features than waters of the US, which defines the jurisdiction of the federal government. Waters of the State are not so limited. In addition, the federal definition of a wetland requires a prevalence of wetland vegetation under normal circumstances. To account for wetlands in arid portions of the state, the SWRCB's definition differs from the federal definition in that an area may be a wetland even if it does not support vegetation. If vegetation is present, however, the SWRCB's definition requires that the vegetation be wetland vegetation. The SWRCB's definition clarifies that vegetated and unvegetated wetlands will be regulated in the same manner.

The Procedures also include a jurisdictional framework that applies to aquatic features that meet the wetland definition. The jurisdictional framework will guide applicants and staff in determining whether an aquatic feature that meets the wetland definition will be regulated as a water of the state. The jurisdictional framework is intended to exclude from regulation any artificially-created, temporary features, such as tire ruts or other transient depressions caused by human activity, while still capturing small, naturally-occurring features, such as seasonal wetlands and small vernal pools that may be outside of federal jurisdiction. The Procedures do not expand the SWRCB's jurisdiction beyond areas already under SWRCB's jurisdiction.

The Procedures exclude the following agricultural features from the protections accorded to wetlands: (1) ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state; (2) ditches with intermittent flow that are not a relocated water of the state or excavated in a water of the state, or that do not drain wetlands other than any wetlands described in (4) or (5) below; (3) ditches that do not flow, either directly or through another water, into another water of the state; (4) artificially irrigated areas that would revert to dry land should application of waters to that area cease; or (5) artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, and settling basins.

The Procedures clarify what information and analysis the applicant needs to submit to have a complete application. The Procedures standardize when an alternative analysis needs to be conducted and set a minimum mitigation ratio for any permanent impacts to waters of the State resulting from dredge and fill activities.

When an alternatives analysis is required, the applicant must demonstrate that the proposed alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA). The term practicable means available and capable of being done after taking into consideration cost, existing technology, and other logistics in light of the overall Project purpose.



4.2.6.1 Applicability to the Proposed Project

The ephemeral drainages, pond, and intermittent creek on the Project site likely fall under the RWQCB/SWRCB's jurisdiction pursuant to Section 401 of the CWA (Figures 5 and 6). However, as currently designed, all aquatic features will be avoided and therefore not impacted by proposed Project activities. Accordingly, prior authorization from RWQCB/SWRCB pursuant to Section 401 of the CWA will not be required for the proposed Project.

It should be noted that additional ephemeral features likely considered waters of the State may be present on the Project site, specifically within the agricultural field communities. These communities are routinely disturbed and had been recently disked prior to the September 2020 surveys. Accordingly, due to the absence of vegetation (hydrophytic or otherwise), wetland hydrology, and disturbance of upper soil layers, no potentially jurisdictional waters of the US/state were detected within these areas during the preliminary hydrological analysis performed by Sequoia in September 2020.

To comply with the Porter-Cologne Act, adequate pre- and post-construction Best Management Practices (BMPs) would be planned and incorporated into Project implementation plans to protect downstream waterways. In addition, the Project would develop a Storm Water Pollution Prevention Plan (SWPPP) for submittal to Lake County as a condition of Project approval, demonstrating BMPs that would be installed/implemented prior to Project commencement. Stormwater protection and treatment measures would be implemented to ensure that the proposed Project remains in compliance with the Porter-Cologne Act.

Additionally, the SWQCB requires riparian setbacks for cannabis cultivation projects. Setback distances are determined based on watercourse type and class and are typically implemented from top-of-bank. The SWQCB states that intermittent (Class II) watercourses should have a setback distance of 100 feet, and ephemeral (Class III) watercourses should have a 50-foot setback. In accordance with the SWQCB, any impacts as a result of the proposed Project should not occur within watercourse setback areas.

With implementation of these setbacks and the mitigation measures discussed in Section 3 and listed in the "Impacts Analysis" section below, impacts to waterways can be mitigated to a level considered less than significant pursuant to CEQA.



4.3 Local

4.3.1 Lake County Code of Ordinances

4.3.1.1 Grading Ordinance (Chapter 30)

Chapter 30 (Grading Ordinance) Section 9 (Watercourses and Drainage) of the Lake County Code of Ordinances discusses watercourses and associated setbacks based upon erosion hazard rating, as defined in Appendix A.

Watercourse corridors (Class I-IV) are determined as a function of Erosion Hazard Rating and the watercourse classification outlined in the table below. Lakes that provide fish habitat shall be treated as Class I watercourses for the purposes of this section. Lakes, vernal pools, and wetlands that do not provide fish habitat but do provide habitat for aquatic non-vertebrates or macro-invertebrates shall be treated as Class II watercourses. Lakes, wetlands, and vernal pools providing no habitat for aquatic life shall be treated as Class III watercourses. Corridors are measured outward from the top-of-bank of a watercourse or the high-water mark of a lake, wetland, or vernal pool.

Table A. Lake County Code of Ordinances Watercourse Setbacks.

Watercourse Setbacks (Chapter 30, Section 9, LCCO)				
Erosion Hazard Rating	Class I	Class II	Class III	Class IV
Slight	50 ft	50 ft	20 ft	0 ft
Moderate	75 ft	50 ft	35 ft	0 ft
Severe	100 ft	100 ft	50 ft	0 ft

4.3.1.1.1 Applicability to the Proposed Project

In accordance with the Lake County Code of Ordinances, any impacts resulting from the proposed Project should not occur within watercourse setback areas.

4.3.1.2 Cannabis Ordinance 3084 – Tree Protection

Lake County does not have a tree protection ordinance; however, Cannabis Ordinance 3084, Section 4, Subsection iii) Prohibited Activities (a) Tree Removal, Lake County restricts tree removal as follows:

“The removal of any commercial tree species as defined by the California Code of Regulations Section 895.1, Commercial Species for the Coast Forest District and Northern Forest District, and the removal of any true oak (*Quercus*) species or tan oak (*Notholithocarpus*) species for the purpose of developing a cannabis cultivation site should be avoided and minimized. This shall not include the pruning of any such tree



species for the health of the tree or the removal of such trees, if necessary, for safety or disease concerns.”

4.3.1.2.1 *Applicability to the Proposed Project*

In accordance with the Lake County Code of Ordinances, if any trees are proposed for removal, a tree survey should be conducted, and an arborist report prepared. Lake County may require mitigation for the removal of protected trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1.

5 METHODS

Sequoia performed a range of desktop and in-field assessments. Using those results, Sequoia employed various site assessments to evaluate the presence of and/or likelihood of occurrence of sensitive resources on the Project site.

5.1 Definitions

5.1.1 *Special-Status Species*

For the purposes of this document, special-status species include:

- Plant, fish, and wildlife species listed as Threatened or Endangered under FESA (50 CFR 17), and candidates for listing under the statute;
- Species protected by the CFGC, including nesting birds and Fully Protected species;
- Plant, fish, and wildlife species listed as Threatened or Endangered under CESA; and the laws and regulations for implementing CESA as defined in CFGC §2050 et seq. and the California Code of Regulations (CCR) 14 CCR §670.1 et seq., and candidates for listing under the statute (CFGC §2068);
- Species meeting the definition of ‘Rare’ or ‘Endangered’ under CEQA Guidelines 14 CCR §15125 (c) and/or 14 CCR §15380, including plants listed on CNPS Lists 1A, 1B, 2A, 2B, 3, and 4 (2001);
- USFWS Birds of Conservation Concern;
- Species of Special Concern, as designated by the CDFW and required by 14 CCR §15380; and/or
- Avian species protected under the MBTA of 1918.

5.2 Desktop Review

Sequoia reviewed relevant databases and literature for baseline information regarding biological resources occurring and potentially occurring on the Project site and the immediate vicinity, including:

- USFWS Information for Planning and Consultation (IPaC) search (USFWS 2020a), and Critical Habitat Portal (USFWS 2020b; Attachment B);



- CNPS Online Inventory of Rare and Endangered Plants of California for the Clearlake Oaks, California and eight surrounding USGS 7.5-minute quadrangles (CNPS 2020);
- NMFS Online Species List Query (NMFS 2020, Attachment C);
- USFWS National Wetlands Inventory (NWI; 2020c; Figure 5);
- CDFW California Natural Diversity Database (CNDDB) for the Project polygon and a 5-mile buffer (CDFW 2020; Figure 10); and,
- Aerial photographs (Google Earth 2020).

5.3 Site Assessment

Sequoia biologists, Mr. Jesse Reeb, Ms. Ari Rogers, and Mr. Andrew Ford, conducted surveys on the Project site on September 28 and 29, 2020, to record biological resources and to assess the limits of areas potentially regulated by resource agencies. Surveys involved searching all habitats on the site and recording all plant and wildlife species observed. Sequoia cross-referenced the habitats occurring on the Project site with the habitat requirements of regional special-status species to determine if the proposed Project could directly or indirectly impact these species. Any special-status species or suitable habitat was documented. Tables 1 and 2 present the potential for occurrence of special-status plant and wildlife species known to occur in the vicinity of the Project site, along with their habitat requirements, occurrence classification, and basis for occurrence classification.

Sequoia's site assessment included a preliminary hydrological analysis to determine if there could be potential areas within the Project site impact areas and within a 200-foot buffer that would be regulated as waters of the United States and/or state (Figures 5 and 6). This analysis was primarily based on the presence of hydrology, wetland soils, and/or wetland plant indicators. The level of analysis does not conform to the level of detail typically required for a formal wetland delineation suitable for submittal to the USACE. The results of our literature research and field reconnaissance are provided in the sections below.

5.4 Habitat Assessments

Consecutive transects were traversed at approximately 30-foot intervals throughout the Project site. During the surveys, biologists scanned for special-status species and/or suitable habitat for these species, including for foothill yellow-legged frog (*Rana boylei*) and western pond turtle (*Emys marmorata*), among others. Any special-status species or suitable habitat was documented. In addition, Sequoia biologists mapped limits of potential jurisdictional features (Figures 5 and 6) and boundaries of plant communities (Figure 7).

Potential to Occur

Following the site assessment, potential for special-status species to occur in the Study Area was evaluated according to the following criteria:

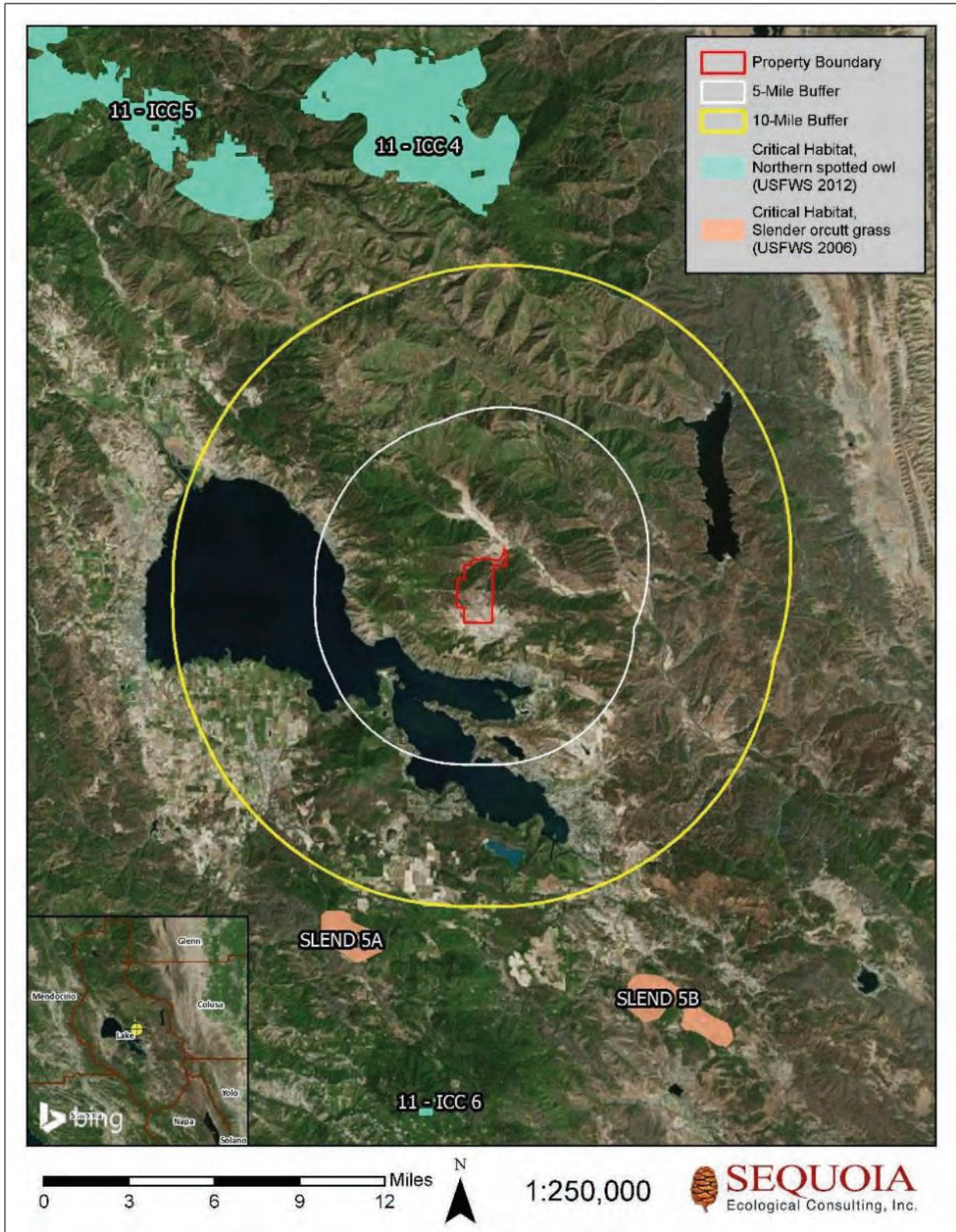


Figure 4. USFWS Critical Habitat in the Vicinity of the High Valley Ranch Project Site.

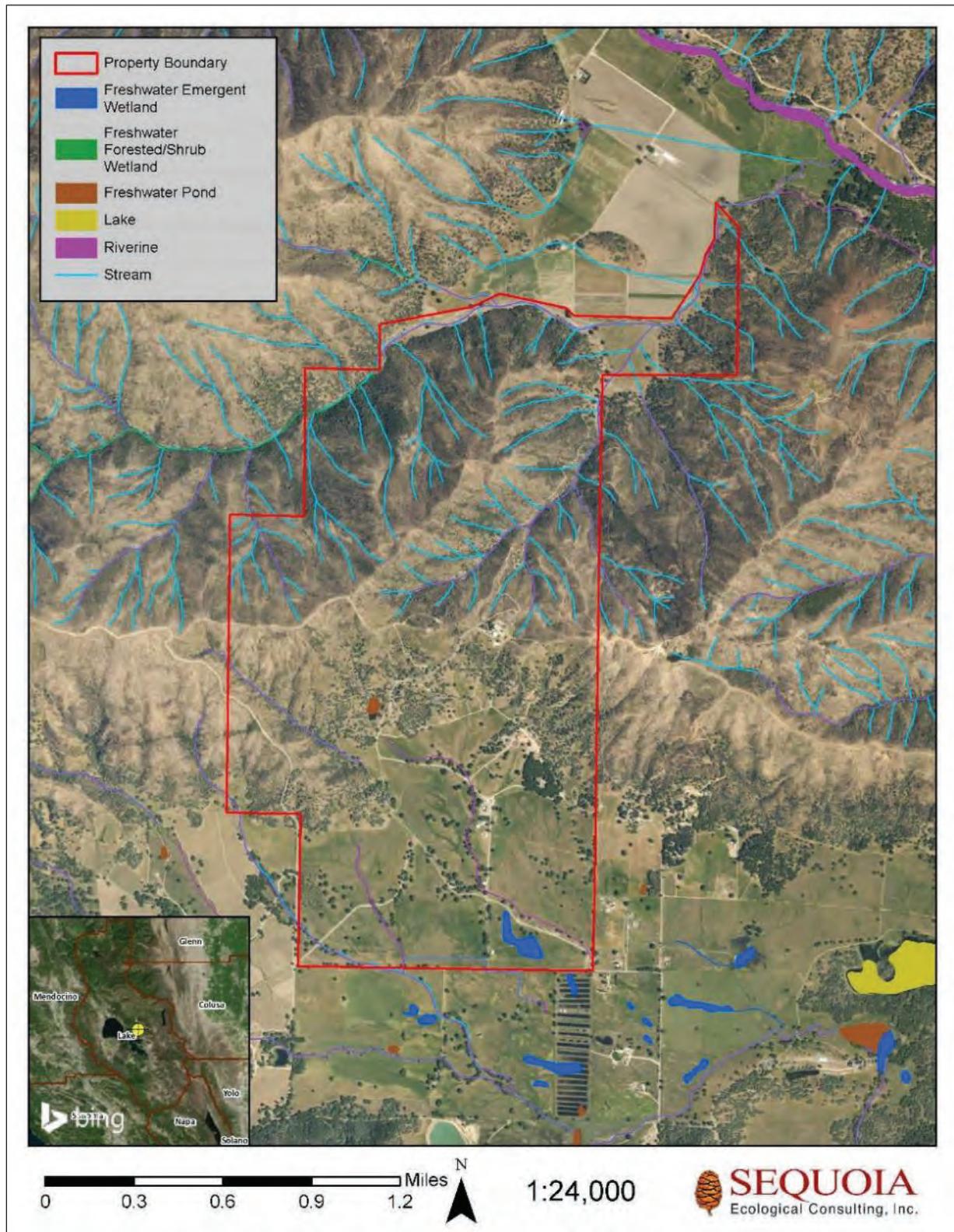


Figure 5. USFWS NWI Results on the High Valley Ranch Project Site.



- *No Potential.* Habitat on and adjacent to the site is clearly unsuitable for the species' requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- *Unlikely.* Few of the habitat components meeting the species' requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- *Moderate Potential.* Some of the habitat components meeting the species' requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- *High Potential.* All of the habitat components meeting the species' requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- *Present.* Species is observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently.

6 RESULTS

The results of the desktop review and site assessment conducted on September 28 and 29, 2020, are presented below.

6.1 Topography and Hydrology

The Project site is located within a complex of valleys and foothills in the northern Coast Ranges above Clear Lake. The central portion of the Project site is bisected by the foothills and peaks of the High Valley Ridge, which runs generally in an east-to-west direction. Two main peaks influence the topography of the Property, one on the western half of the Property that ranges between 2,000 and 2,400 feet in elevation, and another that begins on the eastern half of the Property and extends offsite where it peaks at approximately 2,600 feet above sea level. A canyon-like gap or pass is created where the two peaks converge along the center axis of the Property. The southern slopes of the High Valley Ridge lead down into High Valley which occupies the majority of the southern portion of the Project site. The northern slopes and consequent gap lead into a separate, unnamed valley that partially encompasses the northernmost portion of the Project site. Numerous small drainages and tributaries, classified as Class III watercourses, flow down the northern slopes of the foothills within the Project site before reaching a larger intermittent creek, a Class II watercourse per the Lake County Code of Ordinances, the California Forest Practice Rules (FPR), and the RWQCB. This aquatic feature occupies 9.17 acres and is characterized by a wide, heavily incised channel lined with rocky alluvium. This intermittent creek flows in a west-to-east direction across the northernmost boundary of the Project site, eventually flowing offsite and into Long Valley Creek. Long Valley Creek continues to flow eastward through the unnamed valley before reaching a confluence with Cache Creek.

Sheet flow is directed down the southern side of the peaks within the Project site, becoming



channelized to form several ephemeral (Class III) drainages. These drainages, totaling 20.38 acres, convey water throughout the southern portion of the Project site and are culverted below road crossings in several instances (Figures 5 and 6). The natural dimensions of the ephemeral drainages in the southern portion of the Project site varied in degree, ranging between swale-like features characterized by evidence of scour and deeply channelized features with steep banks and eroded slopes. These drainages generally flow in a northwest to southeast direction before exiting the Project site via culverts on the southern and southeastern Property boundaries. Based on a review of aerial imagery and the NWI database map, these features are tributary to Schindler Creek, which flows through the southern edge of the High Valley area before draining into Clear Lake.

A small, 0.35-acre stock pond is present in the central portion of the Project site (Figures 5 and 6). This pond contained water during the September 2020 surveys, indicating it is perennial and therefore categorized as a Class I watercourse.

The climate of the Project site is Mediterranean (i.e., subtropical), with warm, dry summers with average highs of 80 - 90 degrees Fahrenheit, and cool, wet winters with average highs in the 60s and average lows of 30 - 40 degrees Fahrenheit. The average annual precipitation is approximately 31.42 inches, falling primarily between October and May (US Climate Data 2020).

During the preliminary hydrology analysis component of the September 28 and 29, 2020 surveys, Sequoia mapped the locations of culverts, drainages, and other features potentially jurisdictional under the USACE and the RWQCB.

6.2 Soils

The Project site is primarily underlain by Manzanita loam, Maymen-Etsel, Snook complex, Maymen-Hopland-Etsel association, Maymen-Hopland-Mayacama association, Maymen-Mellsholm-Bressa complex, Millsholm-Bressa loam, Millsholm-Bressa-Hopland association, Talmage very gravelly sandy loam, Wappo loam, and Wolfcreek gravelly loam (Figure 8) (USDA Natural Resources Conservation Service [NRCS] 2020).

The Manzanita soils are comprised of very deep, well drained soils on terraces. The Maymen soils are typically shallow and somewhat excessively drained and permeability is moderate with surface runoff very rapid, and the hazard of erosion is severe. The Millsholm soils consist of shallow, well-drained soils with moderate permeability, rapid surface runoff, and the hazard of erosion is severe. The Talmage soil is a deep, somewhat excessively drained soil on alluvial fans and flood plains and in areas adjacent to drainageways. Permeability is moderately rapid, surface runoff is slow, and the hazard of erosion is slight. The Wappo soil is very deep with moderately rapid drainage on terraces. Permeability is very slow, surface runoff is rapid, and the hazard of erosion is moderate. The Wolfcreek soil is very deep, well-drained soil on flood plains. Permeability is moderately slow, surface runoff is very slow, and the hazard of erosion is slight.

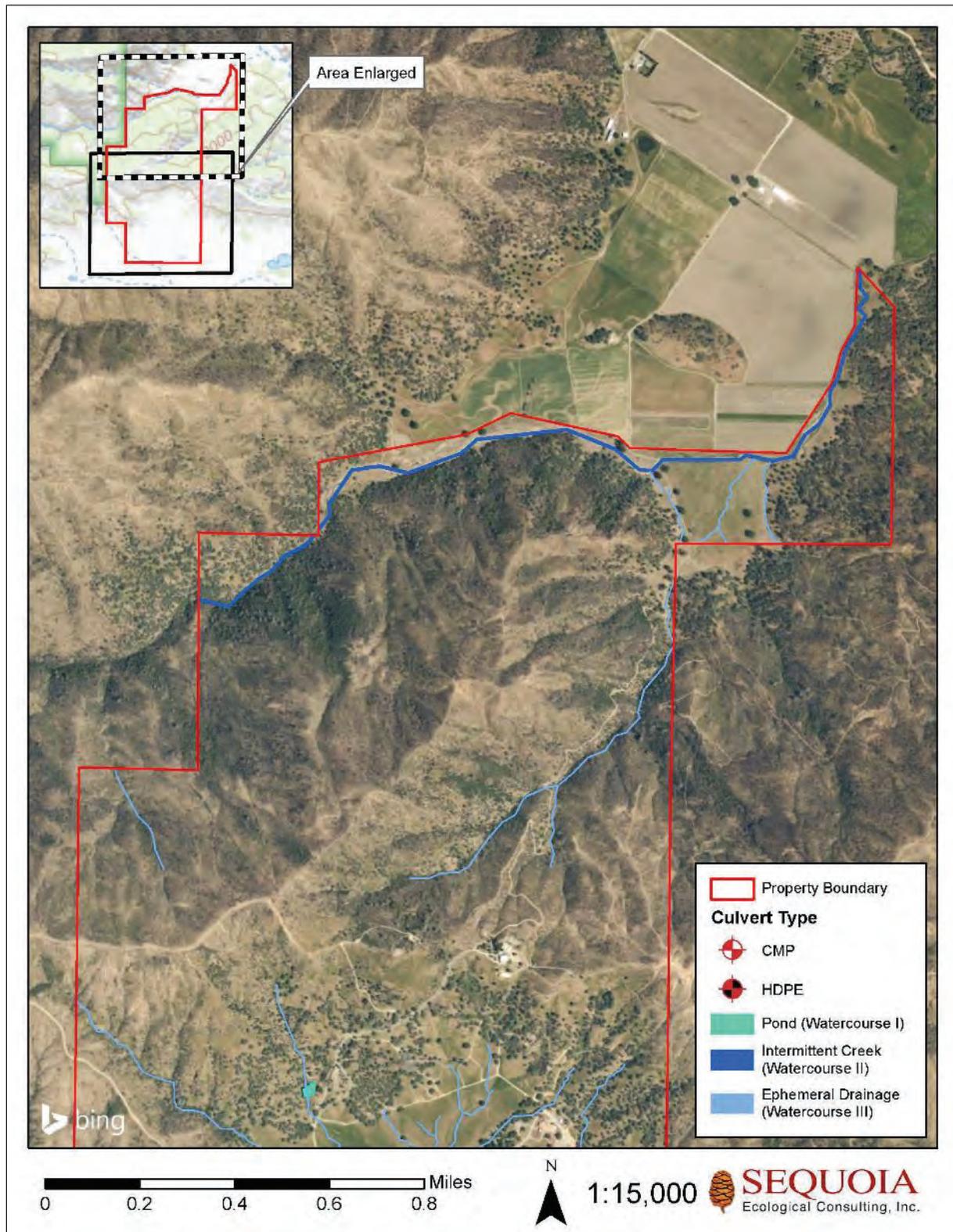


Figure 6. Potentially Jurisdictional Aquatic Features on the High Valley Ranch Project Site – Northern Portion of Property.

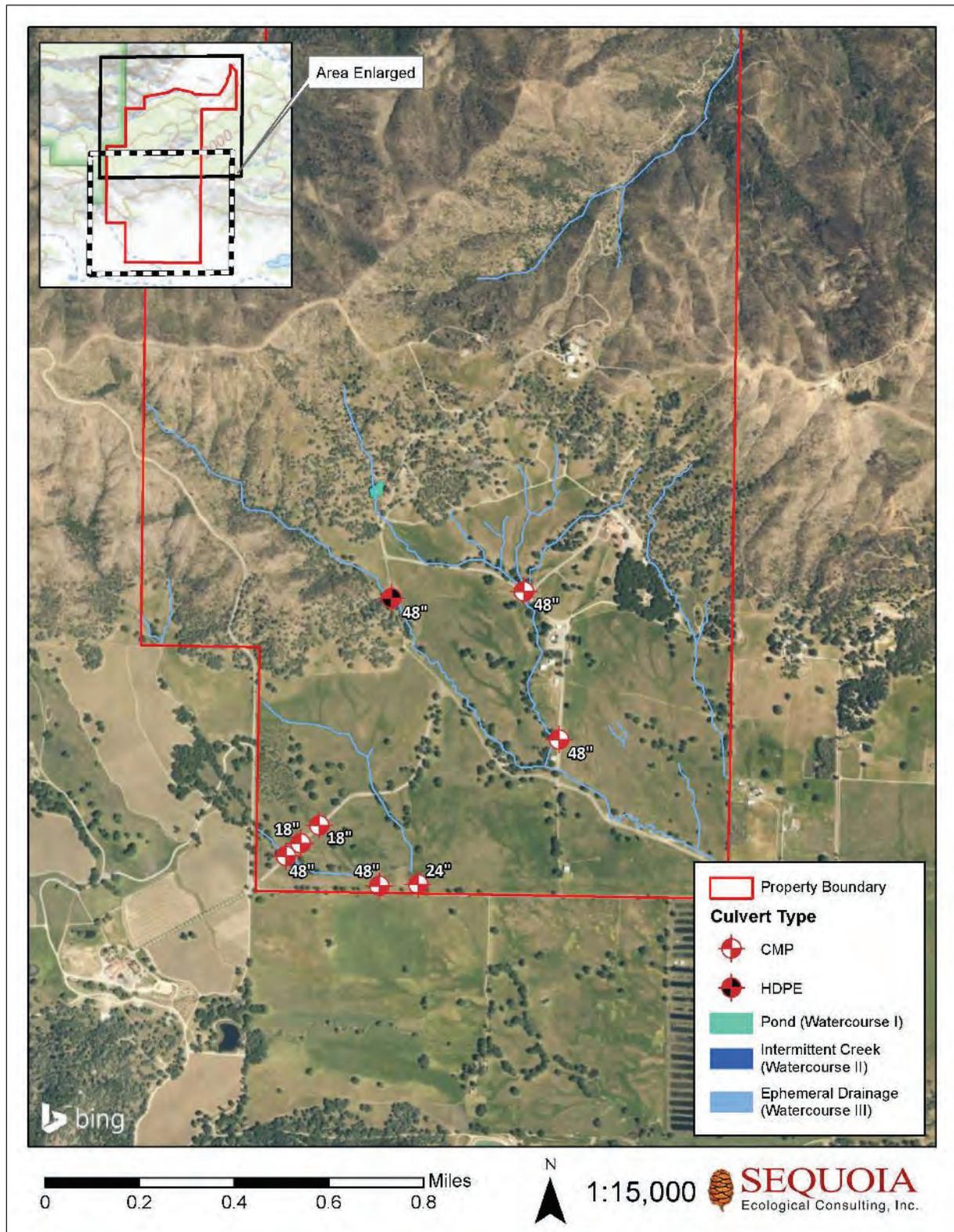


Figure 7. Potentially Jurisdictional Aquatic Features on the High Valley Ranch Project Site – Southern Portion of Property.

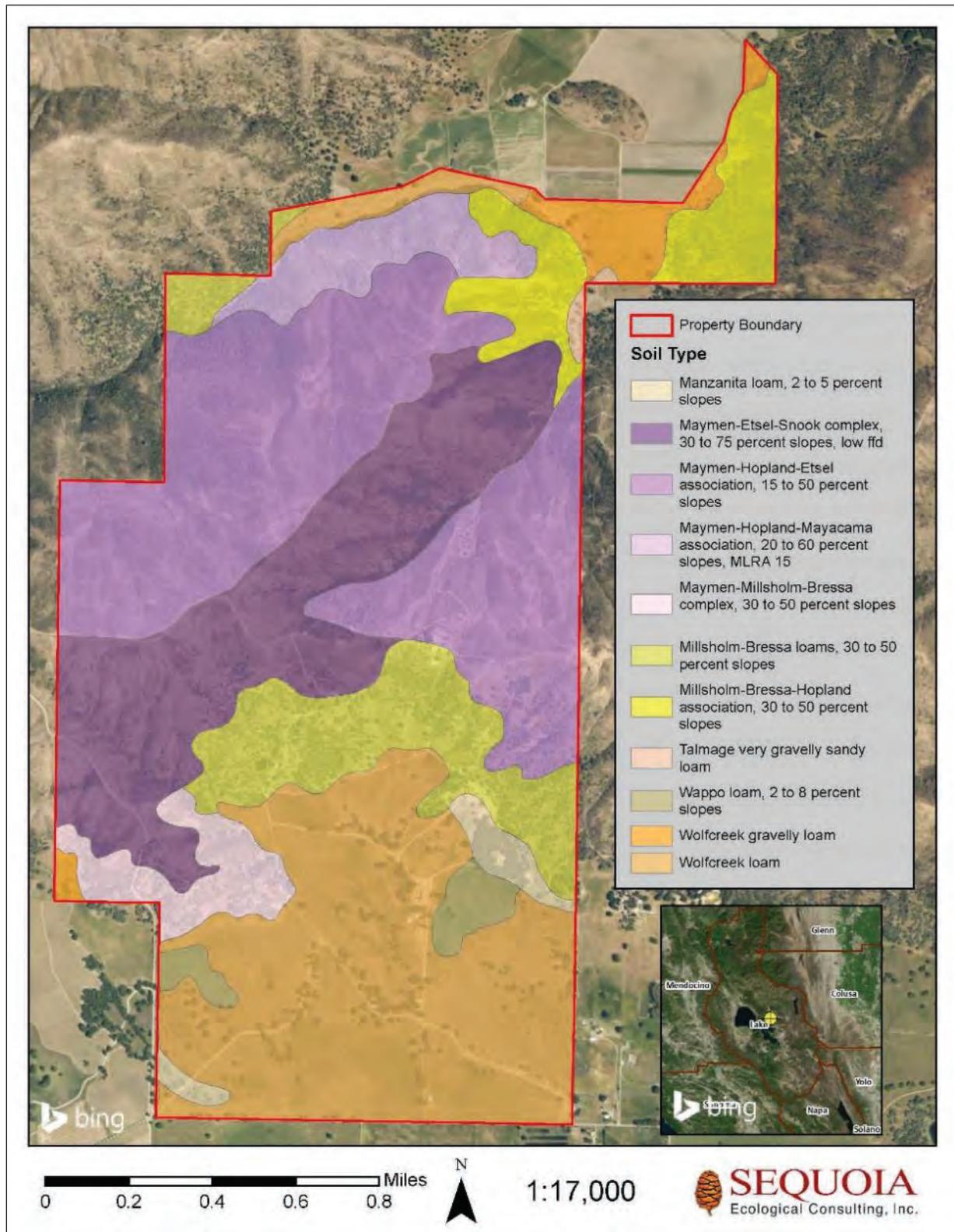


Figure 8. Soil Types on the High Valley Ranch Project Site.



6.3 Plant Communities and Wildlife Habitats

On September 28 and 29, 2020, Sequoia staff conducted a survey of the Project site and characterized vegetation present. During the survey, the biologists also documented plant and wildlife species observed on the Project site. Nomenclature used for plant names follows The Jepson Manual, Second Edition (Baldwin et al. 2012), while nomenclature used for wildlife follows CDFW's Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (2016). As shown on Figure 7, plant communities were mapped on the Project site (Sawyer and Keeler-Wolf 2009), and are described below.

6.3.1.1 Agricultural Field

The agricultural fields on the Project site are regularly disked and were observed to be completely devoid of vegetation during the September 28-29, 2020 site surveys. As a result of routine manipulation of soils, no small mammal burrows or other suitable plant or wildlife habitat were present within the agricultural fields. These fields are regularly used for livestock grazing during the growing season. Dominant species along the outer edges of the agricultural fields are comprised of ruderal and non-native species, such as wild oat (*Avena* spp.), European heliotrope (*Heliotropium europaeum*), yellow star thistle (*Centaurea solstitialis*), turkey mullein (*Croton setiger*), stinking goosefoot (*Chenopodium vulvaria*), vinegarweed (*Trichostemma lanceolata*), ribwort plantain (*Plantago lanceolata*), and Harding grass (*Phalaris aquatica*).

Common wildlife species observed within agricultural fields on the Project site include European starling (*Sturnus vulgaris*), western meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), lesser goldfinch (*Spinus psaltria*), house finch (*Carpodacus mexicanus*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), and western fence lizard (*Sceloporus occidentalis*).

The agricultural fields account for approximately 269.04 acres on the Project site (Figure 7).

6.3.1.2 Anthropogenic

Anthropogenic communities are communities dominated by plants introduced by humans or maintained by human disturbance. These communities are often around residential, commercial, and industrial developments. On the Project site, the areas surrounding the residences and agricultural buildings are vegetated by ruderal species, including Canada horseweed (*Erigeron canadensis*), chicory (*Chicorium intybus*), yellow star thistle, turkey mullein, and fluellin (*Kickxia elatine*).

Common wildlife species observed within the anthropogenic communities on the Project site are consistent with those seen in other habitat types, and include house finch, Say's phoebe (*Sayornis saya*), western bluebird (*Sialia mexicana*), western fence lizard, and lesser goldfinch.

Anthropogenic communities account for approximately 5.69 acres on the Project site (Figure 7).



6.3.1.3 Non-native Annual Grassland

Non-native annual grassland is comprised primarily of plant species that mature in spring and early summer, before spreading seed and dying in late summer and fall. Non-native annual grassland is found in several areas across the Project site, but primarily within the southern third of the Property. Dominant grass and forb species observed within non-native annual grassland communities on the Project site include slender wild oat, medusa head grass (*Elymus caput-medusae*), Harding grass, yellow star thistle, brome grasses (*Bromus* spp.), field bindweed (*Convolvulus arvensis*), Indian milkweed (*Aesclepias eriocarpa*), and common willowherb (*Epilobium ciliatum*).

Wildlife species observed in the non-native annual grassland communities were consistent with those found in the agricultural fields, but also included savanna sparrow (*Passerculus sandwichensis*), Brewer's blackbird (*Euphagus cyanocephalus*), Say's phoebe, and western bluebird. Several raptor species, including red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus hudsonius*), and American kestrel (*Falco sparverius*), were observed utilizing non-native annual grassland as foraging habitat. Other wildlife species observed in the non-native grassland communities included Botta's pocket gopher (*Thomomys bottae*), meadow vole (*Microtus californicus*), pacific gopher snake (*Pituophis catenifer catenifer*), and California ground squirrel (*Otospermophilus beecheyi*).

The non-native annual grassland community accounts for approximately 138.75 acres on the Project site (Figure 7).

6.3.1.4 Chaparral

Chaparral is a one- to two-layer community characterized by a dominance of drought-adapted sclerophyllous (having thick, leathery leaves), evergreen shrubs approximately 6-13 feet tall (Holland 1986). Dominant shrub and forb species observed within chaparral communities on the Project site include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* spp.), toyon (*Heteromeles arbutifolia*), yerba santa (*Eriodycton californicum*), sticky monkeyflower (*Diplacus aurantiacus*), naked-stem buckwheat (*Eriogonum nudum*), and Pacific stonecrop (*Sedum spathulifolium*). Woody species observed in the chaparral communities include western redbud (*Cercis occidentalis*), California buckeye (*Aesculus californica*), mountain mahogany (*Cercocarpus betuloides*), and leather oak (*Quercus durata*).

Common wildlife species observed within the chaparral community on the Project site include California scrub jay (*Aphelocoma californica*), acorn woodpecker (*Melanerpes formicivorus*), California quail (*Callipepla californica*), and mourning dove.

The chaparral community accounts for approximately 755.77 acres on the Project site (Figure 7).



6.3.1.5 Orchard

In many areas of California, plantations of trees (i.e., orchards) have been established for various purposes. Many are planted for agricultural purposes while others are planted for use as windbreaks. Numerous English walnut trees (*Juglans regia*) are planted in the southwestern corner of the Project site.

Wildlife species observed within the orchard community on the Project site were consistent with those seen in the mixed oak woodland and agricultural habitats.

The orchard community accounts for approximately 8.08 acres on the Project site (Figure 7).

6.3.1.6 Valley Foothill Woodland

The northern portion of the Property is dominated by valley foothill woodland, a habitat type characterized by a combination of deciduous and coniferous trees generally found in areas of higher elevation. This community is primarily comprised of gray pine (*Pinus sabiniana*), interior live oak (*Quercus chrysolepis*), and valley oak (*Quercus lobata*).

Wildlife species observed within the valley foothill woodland community on the Property include chestnut-backed chickadee (*Poecile rufescens*), acorn woodpecker, red-breasted nuthatch (*Sitta canadensis*), turkey vulture (*Cathartes aura*), and red-tailed hawk.

The valley foothill woodland community accounts for approximately 358.66 acres on the Project site (Figure 7).

6.3.1.7 Mixed Oak Woodland

Mixed oak woodland is a community found throughout California and is dominated by multiple species of oak trees (*Quercus* spp.). This habitat is present in several areas across the Property and is comprised of interior live oak, valley oak, and blue oak (*Quercus douglasii*) trees. Understory composition varies between grassland and ruderal communities, and grasses such as bristly dogtail grass (*Cynocurus echinatus*), wild oats, yellow star thistle, red brome (*Bromus madritensis*), and ripgut brome (*Bromus diandrus*) were common.

Wildlife species observed within the oak woodland communities on the Project site include acorn woodpecker, Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), chestnut-backed chickadee, yellow warbler (*Setophaga petechia*), black-throated gray warbler (*Setophaga nigrescens*), yellow-rumped warbler (*Setophaga coronata*), northern flicker (*Colaptes auratus*), Cooper's hawk (*Accipiter cooperii*), and tree swallow (*Tachycineta bicolor*).

The oak woodland community accounts for approximately 44.10 acres on the Project site (Figure 7).



6.3.1.8 Ephemeral Drainages

Ephemeral drainages flow following precipitation events during the wet season. These features convey water from vertical precipitation and as topographic depressions within valley systems, and gather water from upland areas via sheet flow. On the Project site, ephemeral drainages located in the northern half of the Property generally flow south-to-north before entering a west-to-east intermittent creek (Watercourse II) that makes up the northern Project boundary. Ephemeral drainages in the southern half of the Property generally flow north-to-south before entering culverts beneath High Valley Road (Figure 6). These features would likely be categorized as Watercourse III per the Lake County Code of Ordinances, the California FPR and the RWQCB, as discussed in more detail above in Section 4.

Due to the ephemeral nature and seasonality of the drainages on the Property, the plant species composition within these features was comprised of a mix of hydrophytic and upland species consistent with the surrounding non-native annual grassland communities. During the dry summer months, upland species such as Indian milkweed and wild oat inhabit the drainages, while emergent and hydrophytic species are dominant during the wet season. Several wetland plant species were still present or identifiable in the drainages during the September 2020 surveys, including rushes (*Juncus* spp.), Italian ryegrass (*Festuca perennis*), purple sand spurrey (*Spergularia rubra*), and willowherb (*Epilobium ciliatum*). Additionally, many of the ephemeral drainages within the Property were altered by erosion and cattle, allowing for species characteristic of disturbed areas, such as Fitch's tarplant (*Centromadia fitchii*) and yellow star thistle, to become established.

Wildlife species observed within the ephemeral drainages on the Project site were consistent with those seen in the surrounding upland habitats. Ground squirrels and their burrows were noted along the banks of many of the drainages and were providing refuge habitat for other wildlife species, such as western fence lizard and pacific gopher snake, which were both observed.

Ephemeral drainages occupy a total of 20.38 acres on the Project site (Figures 5 and 6).

6.3.1.9 Intermittent Creek

Intermittent creeks flow more often than just after a single precipitation event and only cease to flow during very dry periods. The flow may occur when the water-table is seasonally high; however, no flow will occur when the water-table is significantly below the river-channel bed level.

One intermittent creek feature occurs along the northern Property boundary flowing west-to-east (Figure 5). This feature was dry and mostly devoid of vegetation during the September 2020 surveys. Species occurring within this feature included yerba santa, woolly mullein (*Verbascum thapsus*), and Indian milkweed.



The intermittent creek, which would likely be classified as a Class II Watercourse, occupies a total of 9.17 acres (Figure 5).

6.3.1.10 Pond

One perennial, freshwater 0.35-acre pond is present in the central portion of the Property (Figure 5 and 6). This feature would most likely be defined as a Class I Watercourse, per the aforementioned ordinances and described in more detail in Section 4 above. The pond contained water during the September 2020 surveys and supported dense stands of hydrophytic and emergent vegetation, such as cattails (*Typha latifolia*), rushes, spikerush (*Eleocharis macrostachya*), rabbit's-foot grass (*Polypogon monspeliensis*), and cocklebur (*Xanthium strumarium*), along its edge.

Common wildlife species observed within the pond on the Project site include American bullfrog (*Lithobates americanus*), meadow vole (*Microtus californicus*), black phoebe (*Sayornis nigricans*), lesser goldfinch, and Bewick's wren (*Thyromanes bewickii*).

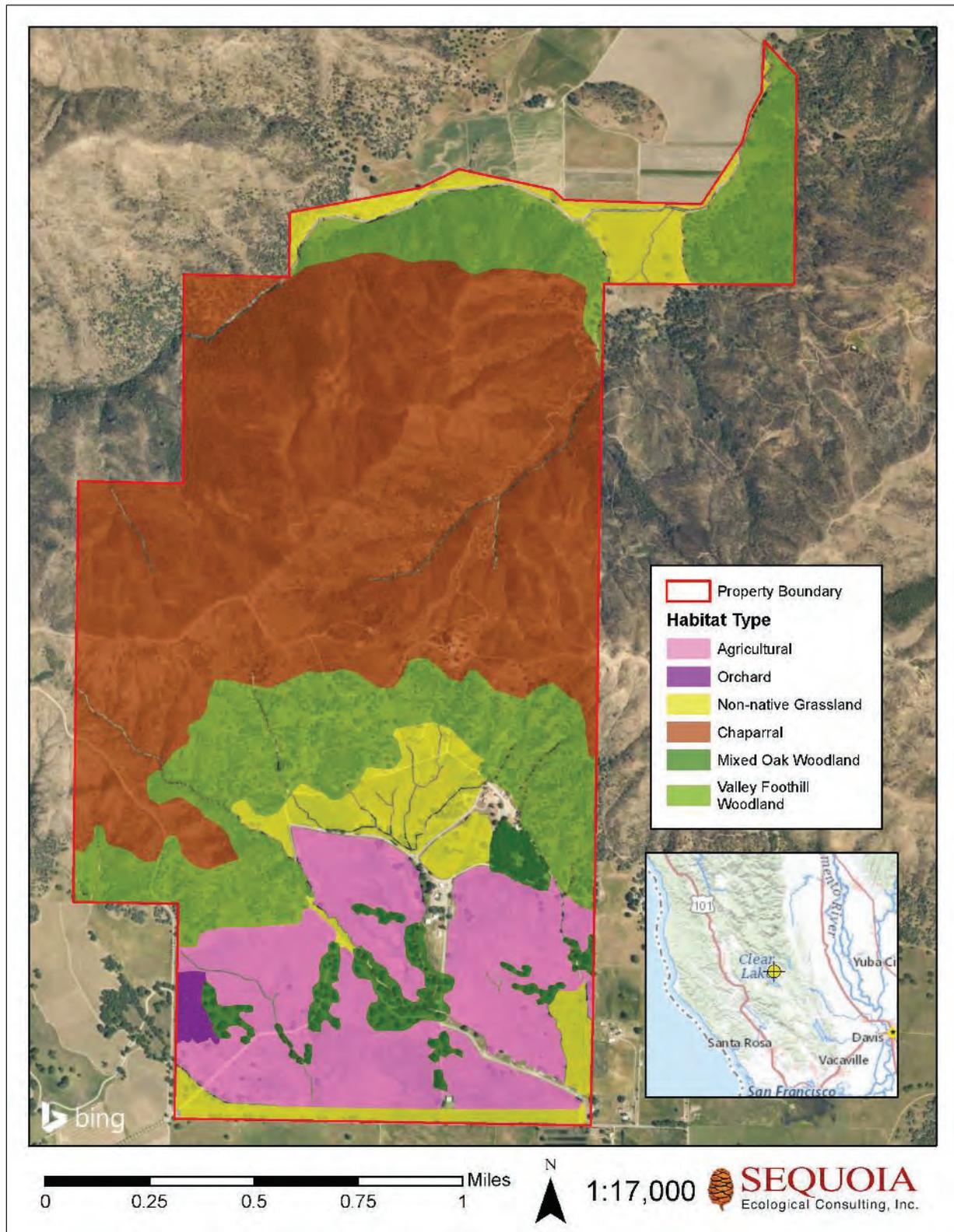


Figure 9. Plant Communities on the High Valley Ranch Project Site.



6.3.2 Wildlife Corridors

Wildlife corridors are habitats that provide connectivity between natural communities otherwise separated by urbanization and other development. Wildlife corridors provide access for animals to travel between these communities for seasonal migration, access to overwintering/summering habitat, breeding, etc. They also allow animals a route to move away from natural disasters and other forms of habitat loss, as well as to recolonize habitats previously extirpated. Wildlife corridors provide opportunities to breed, forage, migrate/emigrate, disperse, and forage (Beier and Loe 1992).

The proposed Project will not interfere with the movement of native wildlife. This Project is a cannabis cultivation operation and development of this Project site is limited to the cannabis production and canopy areas, which are currently proposed to be located within agricultural areas on the southernmost parcel that have been routinely disturbed due to regular disking practices. Fencing and other cannabis-related infrastructure, while possibly impeding movement, will not alter the potential for wildlife migration and dispersal across the site as a whole; wildlife will still be able to navigate through the open space surrounding the production areas and infrastructure. Therefore, the Project should not impact wildlife movement as the majority of the Property will remain undeveloped. In addition, as currently planned, the proposed Project will have no adverse effects on fish movement along the watercourses as these features will be avoided.

6.3.3 Special-Status Plants

Figure 10 provides a graphical illustration of special-status plant species occurrences within 5 miles of the Project site. Table 1 provides an assessment of potential to occur of special-status plant species on the Project site. Eight special-status plants have been previously documented within 5 miles of the Project site; however, no special-status plants have been observed or mapped on the Property itself. Sequoia analyzed the potential to occur for these plant species, as well as species included in CNPS and IPaC resource lists during the desktop review (Table 1). All of these species require specialized habitats such as playas, vernal pools, seeps, and serpentinite or volcanic soils that are not found on the Project site. Due to lack of suitable habitat and/or lack of known/recent occurrences in the Project vicinity, these eight special-status plant species are not expected to occur and are therefore not discussed further in this analysis. These species are: Anthony peak lupine (*Lupinus antoninus*), bent-flowered fiddleneck (*Amsinckia lunaris*), Colusa layia (*Layia septentrionalis*), eel-grass pondweed (*Potamogeton zosteriformis*), Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*), Rincon Ridge ceanothus (*Ceanothus confusus*), small-flowered calycadenia (*Calycadenia micrantha*), and watershield (*Brasenia schreberi*) (Table 1, Figure 10).



Table 1. Special-Status Plant Species with Potential to Occur on the High Valley Ranch Project Site.

Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	1B.2	Occurs in chaparral, cismontane woodland, and valley and foothill grassland, at elevations of 5 to 1,640 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Arctostaphylos manzanita</i> ssp. <i>elegans</i>	Konocti manzanita	1B.3	Occurs in volcanic soils in chaparral, cismontane woodland, and lower montane coniferous forest, at elevations of 1,295 to 5,300 feet.	None. No suitable habitat occurs on the Project site. Project site outside of elevational range of species.
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i>	Raiche's manzanita	1B.1	Occurs in rocky, serpentinite soils within chaparral and lower montane coniferous forest openings, at elevations of 1,476 to 3,396 feet.	None. No suitable habitat occurs on the Project site. Project site outside of elevational range of species.
<i>Astragalus rattanii</i> var. <i>jepsonianus</i>	Jepson's milkvetch	1B.2	Occurs in serpentine soils in chaparral, cismontane woodland, and valley and foothill grassland at elevations of 965 to 2,295 feet.	None. There is no suitable serpentine habitat on the Project site. The Project site is outside the elevation range of this species. There are no occurrences within 5 miles of the Project site.
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	1B.2	Occurs in serpentine soils in chaparral, cismontane woodland, and valley and foothill grasslands at elevations of 145 to 5,100 feet.	None. No suitable serpentine habitat occurs on the Project site. There are no recent occurrences of this species in southern Lake County.
<i>Brasenia schreberi</i>	watershield	2B.3	Occurs in marshes and freshwater swamps, at elevations of 95 to 7,720 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Calycadenia micrantha</i>	small-flowered calycadenia	1B.2	Occurs in sparsely vegetated areas (roadsides, rocky, talus, scree) and sometimes serpentine habitats in chaparral, volcanic meadows and seeps, and valley and foothill grasslands at elevations of 16 to 4,920 feet.	Low. Some habitat present in the northern foothill and volcanically influenced scree and seeps in the north of the Project site. No serpentine soils present on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Calystegia collina</i> ssp. <i>tridactylosa</i>	three-fingered morning-glory	1B.2	Occurs in serpentinite, rocky or gravelly openings in chaparral and cismontane woodland at elevations of 0 to 1,968 feet.	Low. No serpentine habitat located on the Project site. Suitable gravelly scree openings in the chaparral north of the Project site. There is one recent occurrence in southeastern Lake County.
<i>Carex hystericina</i>	porcupine sedge	2B.1	Occurs in coastal prairies, marshes and swamps (lake margins), as well as valley and foothill grassland, at elevations less than 2,050 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Carex klamathensis</i>	Klamath sedge	1B.2	Occurs in serpentine soils in chaparral, cismontane woodland, meadows, and seeps at elevations of 3,280 to 3,740 feet.	None. There are no suitable serpentine soils on the Project site. The Project site is located outside of the elevational range.
<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	pink creamsacs	1B.2	Occurs in serpentine soils in chaparral openings, cismontane woodland, meadows and seeps, and valley and foothill grasslands at elevations of 65 to 2,985 feet.	None. There are no suitable serpentine soils present on the Project site.
<i>Ceanothus confusus</i>	Rincon Ridge ceanothus	1B.1	Occurs in volcanic or serpentinite soils in closed-cone coniferous forest, chaparral, and cismontane woodland, at elevations of 245 to 3,495 feet.	None. No suitable habitat occurs on the Project site.
<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	dwarf soaproot	1B.2	Occurs in serpentine soils in chaparral at elevations of 1,000 to 3,280 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Cryptantha dissita</i>	serpentine cryptantha	1B.2	Occurs in serpentinite soils within chaparral, at elevations of 1,295 to 1,905 feet.	None. No suitable habitat occurs on the Project site. Project site outside of elevational range of species.
<i>Eriastrum brandegeae</i>	Brandegee's erisatrum	1B.1	Occurs in volcanic and sandy soils in chaparral and cismontane	Low. Marginal habitat is found in the north of the site but no recent



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
			woodland at elevations of 1,394 to 2,755 feet.	occurrences in Lake County.
<i>Erigeron greenei</i>	Greene's narrow-leaved daisy	1B.2	Occurs in serpentinite or volcanic soils in chaparral at elevations of 262 to 3,297 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Eriogonum nervulosum</i>	Snow Mountain buckwheat	1B.2	Occurs in serpentine soils in chaparral at elevations of 984 to 6,906 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Eryngium constancei</i>	Loch Lomond button-celery	1B.1	Occurs in vernal pools at elevations of 1,509 to 2,805 feet.	None. There are no vernal pools on the Project site.
<i>Fritillaria pluriflora</i>	adobe-lily	1B.2	Occurs often in adobe soils in chaparral, cismontane woodland, and valley and foothill grassland at elevations of 196 to 2,312 feet.	None. There are no adobe soils located on the Project site.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	CE, 1B.2	Occurs in clay on marshes and swamps (lake margins), at elevations of 30 to 7,790 feet.	None. No suitable habitat occurs on the Project site.
<i>Harmonia hallii</i>	Hall's harmonia	1B.2	Occurs in serpentine soils in chaparral at elevations of 1,000 to 3,198 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Hesperolinon adenophyllum</i>	glandular western flax	1B.2	Occurs on serpentine soils in chaparral, cismotane woodland and valley and foothill grassland at elevations of 490 to 4,315 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Hesperolinon bicarpellatum</i>	two-carpellate western flax	1B.2	Occurs on serpentine soils in chaparral at elevations of 195 to 3,295 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Hesperolinon didymocarpum</i>	Lake County western flax	1B.2	Occurs on serpentine soils in chaparral, cismontane woodland and valley and foothill grassland at elevations of 1,080 to 1,230 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Hesperolinon drymarioides</i>	Drymaria-like western flax	1B.2	Occurs on serpentine soils in closed-cone coniferous forest, cismontane woodland, chaparral and valley and foothill grassland at elevations of 325 to 3,705 feet.	None. There is no suitable serpentine habitat on the Project site.
<i>Hesperolinon sharsmithiae</i>	Sharsmith's western flax	1B.2	Occurs on serpentine soils in chaparral at elevations of 885 to 995 feet.	None. There is no suitable serpentine habitat on the Project site.



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
<i>Horkelia bolanderi</i>	Bolander's horkelia	1B.2	Occurs on serpentine soils in chaparral, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland, normally in vernal mesic areas at elevations of 1,475 to 3,610 feet.	None. There is no suitable serpentine habitat or vernal mesic areas on the Project site.
<i>Imperata brevifolia</i>	California satintail	2B.1	Occurs in mesic soils in chaparral, coastal scrub, alkali seeps and meadows, Mojavean desert scrub and riparian scrub in elevations of 0 to 3,985 feet.	None. Marginal habitat is present on-site but there are no recent occurrences of the species in Lake County.
<i>Lasthenia burkei</i>	Burke's goldfields	1B.1	Occurs in mesic soils of meadows and seeps and vernal pools at elevations of 45 to 1,975 feet.	None. There are no mesic soils or vernal pools located on the Project site.
<i>Layia septentrionalis</i>	Colusa layia	1B.2	Occurs in sandy and serpentinite soils in chaparral, cismontane woodland, and valley and foothill grassland, at elevations of 325 to 3,595 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Legenere limosa</i>	legenere	1B.1	Occurs in vernal pools at elevations of 0 to 2,885 feet.	None. There are no vernal pools located on the Project site and no recent occurrences in Lake County.
<i>Lupinus antoninus</i>	Anthony Peak lupine	1B.2	Occurs in rocky soils in lower montane coniferous forest and upper montane coniferous forest at elevations of 4,000 to 7,495 feet.	Low. Marginal rocky soils found in the north of the site, but limited coniferous forest located on the Project site. The Project site is located outside the elevational range.
<i>Lupinus sericatus</i>	Cobb Mountain lupine	1B.2	Occurs in broadleaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest, at elevations of 900 to 5,005 feet.	None. Project site outside of elevational range of species.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	1B.1	Occurs in vernal pools with volcanic ash flow influence at elevations of 1,310 to 2,805 feet.	None. There are no vernal pools on the Project site



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
				and no evidence of volcanic ash flows.
<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i>	few flowered navarretia	1B.1	Occurs in vernal pools with volcanic ash flow influence at elevations of 1,310 to 2,805 feet.	None. There are no vernal pools on the Project site and no evidence of volcanic ash flows.
<i>Navarretia leucocephala</i> ssp. <i>pliantha</i>	many-flowered navarretia	1B.2	Occurs in vernal pools with volcanic ash flow influence at elevations of 95 to 3,110 feet.	None. There are no vernal pools on the Project site and no evidence of volcanic ash flows.
<i>Orcuttia tenuis</i>	slender grass	1B.2	Occurs in vernal pools with gravelly soils at elevations of 110 to 5,775 feet.	None. There are no vernal pools on the Project site.
<i>Potamogeton zoteriformis</i>	eel-grass pondweed	2B.2	Occurs in assorted varieties of freshwater marches, swamps, and open water at elevations of 0 to 6,100 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Sedella leiocarpa</i>	Lake County stonecrop	1B.1	Occurs in vernal mesic depressions in volcanic outcrops in cismontane woodland, valley and foothill grassland, and vernal pools at elevations of 1,195 to 2,590 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Sidalcea oregana</i> ssp. <i>Hydrophila</i>	marsh checkerbloom	1B.2	Occurs in mesic soils of meadows and seeps and riparian forest at elevations of 3,605 to 7,545 feet.	None. There are no mesic seeps or meadows suitable for this species within the elevational range.
<i>Streptanthus hesperidis</i>	green jewelflower	1B.2	Occurs in rocky, serpentinite soils within chaparral openings and cismontane woodland, at elevations of 425 to 2,495 feet.	None. Marginal suitable habitat occurs on the Project site.
<i>Trichostema ruygtii</i>	Napa bluecurls	1B.2	Occurs in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and vernal pools at elevations of 95 to 2,230 feet.	None. No suitable habitat occurs on the Project site. Project site outside of elevational range of species.
<i>Viburnum ellipticum</i>	oval-leaved viburnum	2B.3	Occurs in chaparral, cismontane woodland, and lower montane	None. There are no recent confirmed occurrences of



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrence
			coniferous forest at elevations of 705 to 4,595 feet.	this species in Lake County.

Key to status:

FT=Federally listed as threatened species

CT=California listed as threatened species

CE=California listed as endangered species

CNPS Rare Plant Rank

1A=Plants presumed extirpated in California, and either rare or extinct elsewhere

1B=Plants rare, threatened, or endangered in California, or elsewhere

2A=Plants presumed extirpated in California but common elsewhere

2B=Plants rare, threatened, or endangered in California but more common elsewhere

Note: CNPS ranks below 2B were excluded from this analysis.

6.3.4 Special-Status Wildlife

Figure 10 provides a graphical illustration of special-status wildlife species occurrences within 5 miles of the Project site. Table 2 provides an assessment of potential to occur for special-status wildlife species on the Project site. Seven special-status wildlife species have been previously documented (CNDDDB occurrences) within 5 miles. Sequoia analyzed the potential to occur for these wildlife species, as well as species included in Calfish (2020), NMFS, and IPaC resource lists during the desktop review (Table 2). A number of these species require specialized habitat such as cobble-lined streams or large freshwater lakes that are not found on the Project site. Due to lack of suitable habitat and/or lack of recent occurrences in the Project vicinity, five special-status wildlife species are not expected to occur and are therefore not discussed further in this analysis. These five species are: foothill yellow-legged frog, Clear Lake hitch (*Lavinia exilicauda chi*), Clear Lake tule perch (*Hysteroecarpus traskii lagunae*), Sacramento perch (*Archoplites interruptus*), and osprey (*Pandion haliaetus*). Descriptions and potential for occurrence of the remaining three special-status wildlife species are provided in more detail below (Table 2, Figure 10).

6.3.4.1 Western Pond Turtle

The western pond turtle, a California Species of Special Concern, is the only freshwater turtle native to greater California and is distributed along much of the western coast, from the Puget Sound in Washington south to the Baja Peninsula, Mexico (Storer 1930). Overall, western pond turtles are habitat generalists, and have been observed in slow-moving rivers and streams (e.g., in oxbows), lakes, reservoirs, permanent and ephemeral wetlands, stock ponds, and sewage treatment plants. They prefer aquatic habitat with refugia, such as undercut banks and submerged vegetation (Holland 1994), and require emergent basking sites, such as mud banks, rocks, logs, and root wads to thermoregulate their body temperature (Holland 1994, Bash 1999). Pond turtles are omnivorous and feed on a variety of aquatic and terrestrial invertebrates, fish, amphibians, and aquatic plants.



Western pond turtles regularly utilize upland terrestrial habitats, most often during the summer and winter, especially for oviposition (females), overwintering, seasonal terrestrial habitat use, and overland dispersal (Reese 1996, Holland 1994). Females have been reported ranging as far as 1,640 feet from a watercourse to find suitable nesting habitat (Reese and Welsh 1997). Nest sites are most often situated on south- or west-facing slopes, are sparsely vegetated with short grasses or forbs, and are scraped in sands or hard-packed, dry silt or clay soils (Holland 1994, Rathbun et al. 1992, Holte 1998, Reese and Welsh 1997). Western pond turtles exhibit high site fidelity, returning in sequential years to the same terrestrial site to nest or overwinter (Reese 1996).

Females in southern and central California lay their clutch as early as late April to late July, although they predominantly lay in June and July. In the early morning or late afternoon, gravid females leave the water and move upland to nest (Holland 1994). Natural incubation times vary, ranging from 80 to 100+ days in California. In northern California and Oregon, hatchlings remain in the nest after hatching and overwinter, emerging in the spring. In southern and central California, those that do not overwinter emerge from the nest in the early fall (Holland 1994).

The western pond turtle is known from two CNDDDB occurrences within 5 miles of the Project site (CNDDDB Occurrence No. 601 and 579; Figure 10). The freshwater pond on the Project site provides somewhat suitable basking, foraging, and breeding habitat, with adequate upland nesting habitat present within the adjacent grassland and woodland. Western pond turtle was not observed in the pond habitat or surrounding uplands during the September 2020 surveys. The pond is not located in an area where cultivation and development are proposed. **Therefore, the proposed Project as designed will avoid impacts to breeding and dispersal habitat, as well as wintering and upland nesting habitat. Thus, no impacts to this species pursuant to CEQA are expected to occur. Mitigation will likely not be required.**

6.3.4.2 Townsend's Big-eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii*) is designated as a California Species of Special Concern and High Priority species by the Western Bat Working Group (CDFW 2019). The Townsend's big-eared bat is an uncommon resident throughout California, inhabiting mesic environments. The species is a moth specialist and typically roosts in cavities measuring 16 inches in diameter or greater in caves, mines, bridges, building, rock crevices, tree hollows in coastal lowlands, and cultivated valleys and nearby hills characterized by mixed vegetation below 11,000 (Sherwin and Rambaldini 2017b). Townsend's big-eared bats exhibit a high site fidelity and are highly sensitive to disturbance. They forage by gleaning insects from trees and shrubs along edge habitats near water. Foraging bouts peak in late evening and may span long distances. Winter hibernacula are used from October to April.

The closest known record for Townsend's big-eared bat is located immediately north of the Project site; however, the date of this occurrence is approximately 70 years old making it historical (CNDDDB Occurrence No. 631; Figure 10). Regardless, the mature oak trees and man-



made structures on the Project site provide suitable roosting habitat; however, as currently designed, the proposed Project will not impact trees or structures. **Regardless, until pre-construction surveys are conducted that confirm or negate this species' presence on the Project site, impacts (i.e., noise disturbance) to Townsend's big-eared bat would be potentially significant pursuant to the CEQA.** If Townsend's big-eared bats are identified roosting on or immediately adjacent to the Project site, mitigation measures will be implemented (see Impacts Analysis section).

6.3.4.3 Pallid Bat

The pallid bat (*Antrozous pallidus*) is designated as a California Species of Special Concern by CDFW and a Medium Priority species by the Western Bat Working Group (CDFW 2019). The pallid bat is a relatively large, light-colored bat ranging throughout the southwestern United States from interior British Columbia to Mexico (Hermanson and O'Shea 1983, Sherwin and Rambaldini 2017a). They inhabit foothills and lowlands near water throughout California below 6,560 feet in elevation, but are most abundant in arid deserts and grasslands, particularly in areas with rock outcrops near water (Hermanson and O'Shea 1983). Pallid bats typically roost in small groups in a variety of roosts, including bridges, buildings, tree hollows in coast redwoods, bole cavities in oaks, exfoliating bark, rock crevices in outcrops and cliffs, caves, and mines, as both day and night roosts (Sherwin and Rambaldini 2017a). Roost sites may change seasonally and are typically reused for a few days to weeks. Pallid bats primarily feed on a variety of arthropods by capturing prey on the ground or gleaning them from surfaces near the ground. Parturition varies with latitude, but generally occurs from late-April to August; maternal colonies disperse by October (Hermanson and O'Shea 1983). Overwintering is common along the California coast, but individuals may migrate short distances between winter and summer roosts (Sherwin and Rambaldini 2017a).

The only known record for pallid bat within 5 miles of the Property is located approximately 3.5 miles southeast of the Project site. This occurrence is dated to 1945 making it historical (CNDDB Occurrence No. 183; Figure 10). Regardless, the mature oak trees and man-made structures on the Project site provide suitable roosting habitat; however, as currently designed, the proposed Project will not impact trees or structures.. **Regardless, until pre-construction surveys are conducted that confirm or negate this species' presence on the Project site, impacts (i.e., noise disturbance) to pallid bat would be potentially significant pursuant to the CEQA.** If pallid bats are identified roosting on or immediately adjacent to the Project site, mitigation measures will be implemented (see Impacts Analysis section).



Table 2. Special-Status Animal Species with Potential to Occur on the High Valley Ranch Project Site.

Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrences
Mammals				
<i>Antrozous pallidus</i>	pallid bat	SSC	Have been found in diverse habitat communities ranging from evergreen forests, mixed oak and oak-bay woodlands, agricultural areas, and desert habitats. The distribution of the species is correlated with distance to rocky crevices in tree bark, under eaves and shingles of houses, and rock cavities and caves.	Moderate. Ample foraging habitat on-site and large oaks and structures allow for roosting.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC	Have been found in a diverse array of communities, including but not limited to, evergreen forests, mixed riparian forests, agricultural areas, and coastal habitats. Distribution is most strongly correlated with proximity to roosting habitats in rock cavities and caves.	Low. Some potential to roost in large oaks and structures on the Project site, moderate potential to forage within Project site. Marginal roosting habitat and suitable foraging habitat occur on the Project site.
Amphibians/Reptiles				
<i>Rana boylei</i>	foothill yellow-legged frog – Northwest/North Coast clade	SSC	Occurs in rocky streams, rivers containing rocky substrate and sometimes vegetated backwaters and shaded pools. Prefers open, sunny banks near water and adequate cover.	Unlikely. No suitable breeding, rearing, and dispersal habitat present adjacent to or on the Project site.
<i>Emys marmorata</i>	western pond turtle	SSC	Occurs in rivers, ponds, and freshwater marshes, and nests in upland areas (sandy banks or grassy open fields) up to 1,640 feet from water.	Moderate. Somewhat suitable habitat for basking, foraging, and breeding occurs on the Project site. Known from two CNDDB occurrences within 3 miles.
Fish				
<i>Archoplites interruptus</i>	Sacramento perch	SSC	Found in slow moving rivers, sloughs, and large lakes. This species prefers cool and freshwater habitats but can	Unlikely. Possible to occur adjacent to the Project site in Clear Lake, but unlikely on the Project site. Suitable



Scientific Name	Common Name	Listed Status	Habitat Requirements	Potential for Occurrences
			survive in low oxygen, warm or alkaline waters (pH 8-10). There is no preferred substrate.	habitat is found in Clear Lake and adjacent stagnant sloughs.
<i>Hysteroecarpus traskii lagunae</i>	Clear Lake tule perch	SSC	The main population of this species occurs in Clear Lake (summer temperatures ranging from 75-79 °F) with sandy bottom substrate in fairly turbid water. Occupy deep pools and riffles with ample vegetative cover.	Unlikely. There are no water bodies large enough for the survival and reproduction of this species. Populations are likely in adjacent Clear Lake.
<i>Lavinia exilicauda chi*</i>	Clear Lake hitch	SSC, CT	Prefer slow moving warm water environments (can withstand temperatures greater than 86 °F) such as stagnant portions of rivers and lakes. May also be present in brackish water with salinity levels up to 9 ppt. Spawning occurs when eggs are released into water and settle into gravel substrate.	Unlikely. Known from watershed, suitable habitat present in Clear Lake.
Birds				
<i>Pandion haliaeetus</i>	osprey	WL	Nests and winters along lake shores and water bodies in tall conifers and hardwood trees. Will utilize man-made towers, such as electrical poles and buildings.	Unlikely. There are no bodies of water that support fish for this species but birds may utilize tall conifers and oaks for nesting or roosting before foraging in adjacent bodies of water.

Key to status:

- FE=Federally listed as endangered species
- FT=Federally listed as threatened species
- FC=Federally listed as a candidate species for listing
- CE=California listed as endangered species
- CT=California listed as threatened species
- FP=California listed as fully protected
- SSC=California species of special concern
- WL=Watchlist species

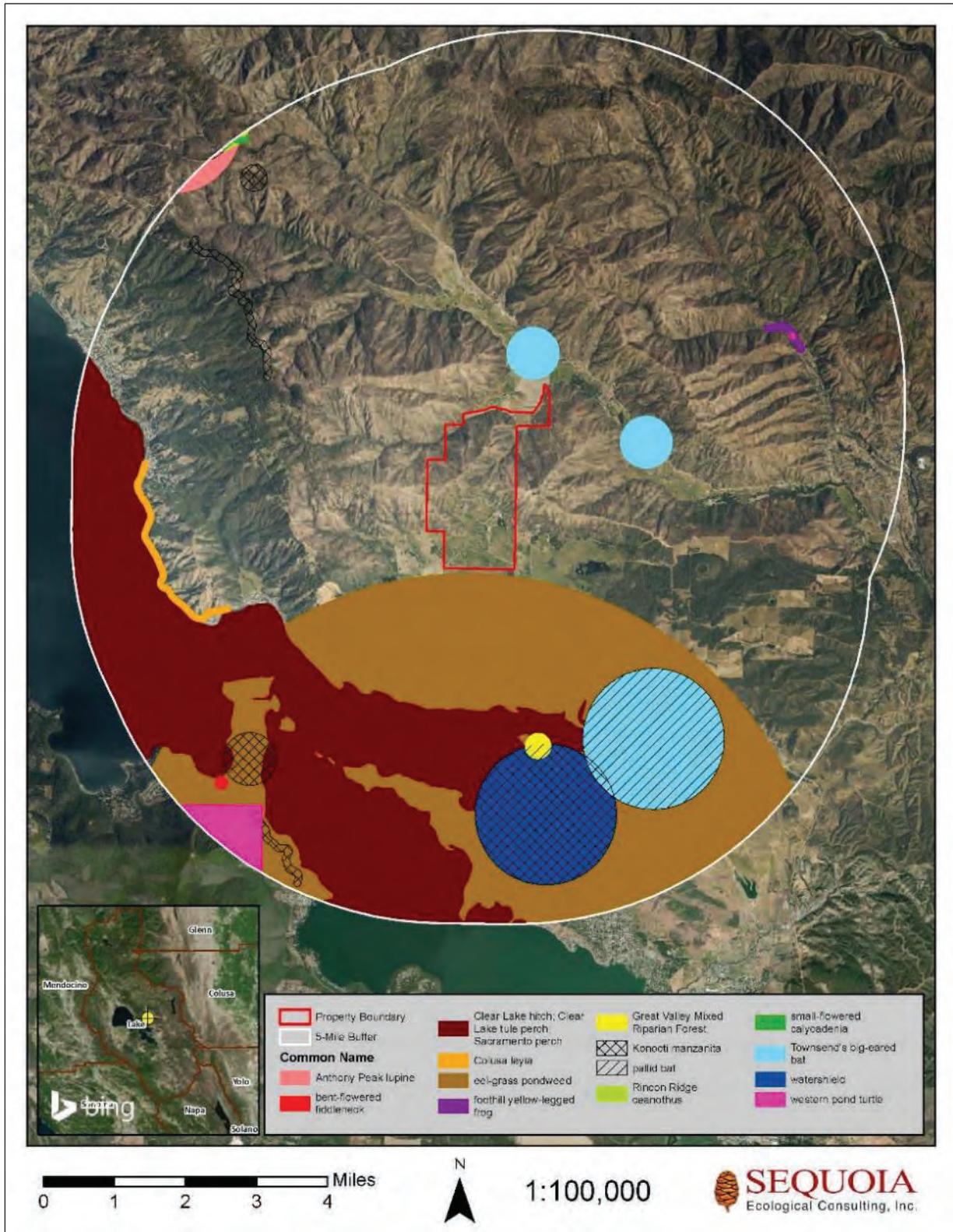


Figure 10. Closest Known Records for Special-Status Species Within 5 Miles of the High Valley Ranch Project Site.



7 DISCUSSION AND IMPACT ASSESSMENT

7.1 CEQA Checklist

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:				
a. 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 CDFW or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



7.2 Impacts Analysis

- a. *Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?*

No special-status plant species were determined to have a potential to occur on the Project site due to the absence of suitable habitat types and specialized substrates, namely serpentine. Furthermore, surveys were conducted on September 28 and 29, 2020, to assess the composition of plant communities within the Project site and no special-status plants were detected.

Level of Significance before Mitigation: No Impact

7.2.1 *Impact BIO-1. Nesting Birds and Special-Status Wildlife – Western Pond Turtle, Townsend’s Big-eared Bat, and Western Red Bat*

Based on the database and literature review conducted during the desktop review for the proposed Project, eight special-status wildlife species have been previously documented in the vicinity of the Project site (Table 2, Figure 10). Due to lack of suitable habitat and/or lack of recent occurrences in the vicinity of the Project site, five special-status wildlife species are not expected to occur and are not discussed further in this Biological Resources Report. These five species are: Clear Lake hitch, Clear Lake tule perch, Sacramento perch, foothill-yellow legged frog, and osprey.

Potential constraints associated with each remaining resource with potential to occur on-site are provided below.

Level of Significance before Mitigation: Potentially Significant

Mitigation Measures:

BIO-1a: Migratory Birds and Raptors/Nest Avoidance

Tree and vegetation clearing (removal, pruning, trimming, and mowing) shall be scheduled to occur outside the migratory bird nesting season (February 1 through August 31). However, if clearing and/or construction activities will occur during the migratory bird nesting season, then pre-construction surveys to identify active migratory bird and/or raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation on the Project site and within 300 feet (i.e., zone of influence) of Project-related activities. The zone of influence includes areas outside the Project site where birds could be disturbed by construction-related noise or earth-moving vibrations.

If active nest, roost, or burrow sites are identified within the Project site, a no-disturbance buffer shall be established for all active nest sites prior to commencement of any proposed



Project-related activities to avoid construction or access-related disturbances to migratory bird nesting activities. A no-disturbance buffer constitutes a zone in which proposed Project-related activities (e.g., vegetation removal, earth moving, and construction) cannot occur. A minimum buffer size of 50 feet for passerines and 300 feet for raptors will be implemented; sizes of the buffers shall be determined by a qualified biologist based on the species, activities proposed near the nest, and topographic and other visual barriers. Buffers shall remain in place until the young have departed the area or fledged and/or the nest is inactive, as determined by the qualified biologist. If work is required within a buffer zone of an active bird nest, work may occur under the supervision of a qualified avian biologist. The qualified avian biologist monitoring the construction work will have the authority to stop work and adjust buffers if any disturbance to nesting activity is observed.

BIO-1b: Roosting Bats

A qualified biologist shall be hired to conduct surveys for special-status bats (Townsend's big-eared bat and pallid bat) no more than two weeks prior to planned commencement of construction activities that have the potential to disturb bat day roosts or maternity roosts through elevated noise levels or removal of trees. If a visual survey is not sufficient to determine the presence/absence of bats, acoustic equipment (e.g., AnaBat) shall be used to determine potential occupancy type of species present. If an active maternity roost is detected, a qualified biologist shall determine an appropriate avoidance buffer to be maintained from April 1 until young are flying (typically through August). If an active day roost is detected in a tree or structure planned for removal, or within a zone of influence (i.e., area subject to noise, vibration) that could result in roost abandonment, as determined by a qualified biologist, the bats shall be safely evicted under the guidance of a qualified biologist. Day roosts shall not be removed unless the daytime temperature is at least 50 °F and there is no precipitation. Mitigation for day roosts impacted by the Project will be achieved through the installation of bat houses on-site to replace lost roosts at a 1:1 ratio. Replacement roosts will be placed at the discretion of the qualified biologist.

Level of Significance after Mitigation: Less than Significant

- b. *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?*

While there are numerous watercourses on the Project site of varying classification, none contain adjacent riparian habitat. Furthermore, site surveys conducted in September 2020 determined that no sensitive communities occur within the Project site. Therefore, Project activities will not impact riparian habitat or other sensitive natural communities.

Level of Significance before Mitigation: No Impact



- c. *Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

7.2.2 Impact BIO-2. Riparian Habitat and Waters of the United States/State

The bed, bank, and channel of the ephemeral and intermittent drainages within the Property are subject to CDFW jurisdiction under Section 1600 of CFGC; while riparian habitat was not observed on the Property, the extent of riparian vegetation surrounding these features would also be subject to CDFW jurisdiction if found. These features may also be considered waters of the State by the RWQCB/SWQCB, pursuant to the CWA. There are several ephemeral drainage features located within the parcel slated for cannabis production; however, all watercourses within the Project site will be avoided completely. As discussed above, the SWQCB requires watercourse setbacks to be implemented for cannabis production projects.

Level of Significance before Mitigation: Potentially Significant

Mitigation Measures:

BIO-2a: Implement County and State Ordinances for Riparian/Creek Setbacks

The Project proponent should implement the required creek and riparian setbacks as described in the Lake County Code of Ordinances and SWQCB General Order for Cannabis Activities. Chapter 30, Section 9 of the Lake County Code of Ordinances requires a watercourse corridor setback to ensure potentially significant effects to the channel are avoided. The setback distance is based on the watercourse classification and on the severity of the erosion hazard rating, which is determined by soil type. Soil types within the Project site vary between slight, moderate, and severe erosion hazard, and therefore a setback of 50 to 100 feet for Class II watercourses (ephemeral drainages) and 20 to 50 feet for Class III watercourses (intermittent stream) will be required. Additionally, SWQCB designates a 100-foot setback for Class II watercourses and 50-foot setback for Class III watercourses impacted by cannabis projects.

BIO-2b: Implement Best Management Practices

Sediment migration and discharge from the work site into the on-site ephemeral drainages or intermittent stream, and consequently the off-site creeks they are tributary to, shall be mitigated by implementation of BMPs. Standard BMPs include, but are not limited to, the placement of silt fence or straw wattles between active work areas or materials stockpiles and active waterways, covering all materials stockpiles with visqueen or similar materials during windy conditions (winds greater than 15 mph) or when a greater than 50% chance of rainfall is predicted within a 72-hour period.

Level of Significance after Mitigation: Less than Significant



- d. *Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Active construction may temporarily interfere with the movement of native wildlife within adjacent wildlife corridors; however, no permanent dispersal or migration barriers will occur as a result of the proposed Project. Cannabis cultivation and related disturbances are limited to the canopy areas, therefore leaving most of the Project site as open space available for wildlife movement. In addition, the proposed Project will have no adverse effects to fish movement in ephemeral and intermittent drainages, as these features do not provide suitable habitat to support fish.

Level of Significance before Mitigation: Less than Significant

- e. *Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

7.2.3 Impact BIO-3. Lake County Cannabis Ordinance 3084

Lake County Cannabis Ordinance 3084, Section 4, Subsection iii) Prohibited Activities (a) Tree Removal, described in detail in Section 4.3.1.2 above, restricts the removal of commercial tree species and any true oak species for the purpose of developing a cannabis cultivation site. If tree removal is expected to take place, the Project may conflict with this ordinance.

Level of Significance before Mitigation: Potentially Significant

Mitigation Measures:

BIO-3a: Implement Tree Protection/Mitigation

Avoid impacting or removing protected trees and true oak species. If any protected or true oak trees are proposed for removal, the Project proponent should procure a tree survey and arborist report. Lake County requires mitigation for the removal of protected trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1.

- f. *Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Project does not conflict with any Habitat Conservation Plans, Natural Community Conservation Plans, or the Lake County General Plan. The Project site does not fall within the coverage area of any adopted HCPs or NCCPs.

Level of Significance before Mitigation: No Impact



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Table 3. Complete List of Observed Plant Species on the High Valley Ranch Project Site.

Scientific Name	Common Name	Family	Native
<i>Achillea millefolium</i>	yarrow	Asteraceae	Y
<i>Acmispon americanus</i> var. <i>americanus</i>	Spanish lotus	Fabaceae	Y
<i>Adenostoma fasciculatum</i> var. <i>fasciculatum</i>	chamise	Roasaceae	Y
<i>Aesculus californica</i>	California buckeye	Sapindaceae	Y
<i>Agoseris grandiflora</i>	giant mountain dandelion	Asteraceae	Y
<i>Allium</i> spp.	onion	Alliaceae	Y
<i>Amarathus blitoides</i>	prostrate amaranth	Amaranthaceae	Y
<i>Arbutus menziesii</i>	madrone	Ericaceae	Y
<i>Arctostaphylos glauca</i>	bigberry manzanita	Ericaceae	Y
<i>Arctostaphylos manzanita</i>	common manzanita	Ericaceae	Y
<i>Artemesia douglasiana</i>	Douglas' mugwort	Asteraceae	Y
<i>Asclepias eriocarpa</i>	Indian milkweed	Apocynaceae	Y
<i>Asclepias fascicularis</i>	narrowleaf milkweed	Apocynaceae	Y
<i>Avena fatua</i>	wild oats	Poaceae	N
<i>Baccharis pilularis</i>	coyote brush	Asteraceae	Y
<i>Brodiaea</i> spp.	brodiaea	Themidaceae	Y
<i>Bromus diandrus</i>	ripgut brome	Poaceae	N
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	Poaceae	N
<i>Carduus pycnocephalus</i>	Italian thistle	Asteraceae	N
<i>Centaurea solstitialis</i>	yellow star thistle	Asteraceae	N
<i>Centromadia fitchii</i>	spikeweed	Asteraceae	Y
<i>Centromadia pungens</i>	common spikeweed	Asteraceae	Y
<i>Cercis occidentalis</i>	western redbud	Fabaceae	Y
<i>Cercocarpus betuloides</i>	birchleaf mountain mahogany	Rosaceae	Y
<i>Chenopodium vulvaria</i>	stinking goosefoot	Amaranthaceae	N
<i>Chicorium intybus</i>	chicory	Asteraceae	N
<i>Cirsium vulgare</i>	bull thistle	Asteraceae	N
<i>Clarkia</i> spp.	clarkia	Onagraceae	Y
<i>Clematis lasiantha</i>	pipestems	Ranunculaceae	Y
<i>Convolvulus arvensis</i>	field bindweed	Convolvulaceae	N
<i>Croton setiger</i>	turkey mullein	Euphorbiaceae	Y
<i>Crypsis schoenoides</i>	swamp picklegrass	Poaceae	N



Scientific Name	Common Name	Family	Native
<i>Cynodon dactylon</i>	common bermudagrass	Poaceae	N
<i>Cynosurus echinatus</i>	dogstail grass	Poaceae	N
<i>Daucus carota</i>	Queen Anne's lace	Apiaceae	N
<i>Digitaria sanguinalis</i>	crabgrass	Poaceae	N
<i>Diplacus aurantiacus</i>	sticky bush monkeyflower	Phrymaceae	Y
<i>Dysphania pumilio</i>	clammy goosefoot	Amaranthaceae	N
<i>Eleocharis macrostachya</i>	common spikerush	Juncaceae	Y
<i>Elymus caput-medusae</i>	medusahead	Poaceae	N
<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	fringed willowherb	Onagraceae	Y
<i>Erigeron canadensis</i>	Canada horseweed	Asteraceae	Y
<i>Erigeron petrophilus</i> var. <i>petrophilus</i>	cliff fleabane	Asteraceae	Y
<i>Eriodictyon californica</i>	California yerba santa	Boraginaceae	Y
<i>Eriogonum nudum</i>	naked buckwheat	Polygonaceae	Y
<i>Eriogonum</i> spp.	buckwheat	Polygonaceae	Y
<i>Eriophyllum lanatum</i>	wooly sunflower	Asteraceae	Y
<i>Eschscholzia californica</i>	California poppy	Papavercaea	Y
<i>Festuca perennis</i>	Italian ryegrass	Poaceae	N
<i>Festuca</i> spp.	fescue	Poaceae	-
<i>Frangula californica</i>	California coffeeberry	Rhamnaceae	Y
<i>Gastridium phleoides</i>	nit grass	Poaceae	N
<i>Grindelia hirsutula</i>	gumweed	Asteraceae	Y
<i>Heliotropium europaeum</i>	European heliotrope	Boraginaceae	N
<i>Hemizonia congesta</i> ssp. <i>luzulifolia</i>	hayfield tarweed	Asteraceae	Y
<i>Heteromeles arbutifolia</i>	toyon	Rosaceae	Y
<i>Hirschfeldia incana</i>	shortpod mustard	Brassicaceae	N
<i>Hypochaeris glabra</i>	smooth cat's-ear	Asteraceae	N
<i>Hypochaeris radicata</i>	rough cat's-ear	Asteraceae	N
<i>Juglans regia</i>	English walnut	Juglandaceae	N*
<i>Juncus balticus</i>	Baltic rush	Juncaceae	Y
<i>Juncus bufonius</i>	toad rush	Juncaceae	Y
<i>Juncus effusus</i>	common bog rush	Juncaceae	Y
<i>Kickxia elatine</i>	fluellin	Plantaginaceae	N
<i>Lactuca serriola</i>	prickly lettuce	Asteraceae	N



Scientific Name	Common Name	Family	Native
<i>Lactuca saligna</i>	willow lettuce	Asteraceae	N
<i>Lactuca virosa</i>	poison lettuce	Asteraceae	N
<i>Mentha pulegium</i>	pennyroyal	Lamiaceae	N
<i>Micropus californicus</i>	Q-tips	Asteraceae	Y
<i>Panicum</i> spp.	panicgrass	Poaceae	N
<i>Phalaris aquatica</i>	Harding grass	Poaceae	N
<i>Pinus sabiniana</i>	California foothill pine	Pinaceae	Y
<i>Plantago lanceolata</i>	lanceleaf plantain	Plantaginaceae	N
<i>Polygonum aviculare</i>	common knotweed	Polygonaceae	N
<i>Populus fremontii</i>	Fremont's cottonwood	Salicaceae	Y
<i>Quercus agrifolia</i>	coast live oak	Fagaceae	Y
<i>Quercus chrysolepis</i>	canyon live oak	Fagaceae	Y
<i>Quercus douglasii</i>	blue oak	Fagaceae	Y
<i>Quercus lobata</i>	valley oak	Fagaceae	Y
<i>Quercus wislizeni</i>	interior live oak	Fagaceae	Y
<i>Rhamnus ilicifolia</i>	evergreen buckthorn	Rhamnaceae	Y
<i>Rumex crispus</i>	curly dock	Polygonaceae	N
<i>Rumex pulcher</i>	clustered dock	Polygonaceae	N
<i>Salix laevigata</i>	red willow	Salicaceae	Y
<i>Sedum spathulifolium</i>	broadleaf stonecrop	Crassulaceae	Y
<i>Sisymbrium</i> spp.	hedge mustard	Brassicaceae	N
<i>Spergularia rubra</i>	red sandspurry	Caryophyllaceae	N
<i>Stachys</i> spp.	hedgenettle	Lamiaceae	N
<i>Stephanomaria virgata</i>	wireweed	Asteraceae	Y
<i>Stipa pulchra</i>	purple needlegrass	Poaceae	Y
<i>Toxicodendron diversilobum</i>	poison oak	Anacardiaceae	Y
<i>Trichostema laceolatum</i>	vinegarweed	Lamiaceae	Y
<i>Trichostema laxum</i>	turpentine weed	Lamiaceae	Y
<i>Trifolium glomeratum</i>	clustered clover	Fabaceae	N
<i>Trifolium fragiferum</i>	strawberry clover	Fabaceae	N
<i>Trifolium hirtum</i>	rose clover	Fabaceae	N
<i>Triteleia laxa</i>	Ithuriel's spear	Themidaceae	Y
<i>Typha latifolia</i>	broadleaf cattail	Typhaceae	N



Scientific Name	Common Name	Family	Native
<i>Urtica dioica</i>	stinging nettle	Urticaceae	Y
<i>Verbascum blatteria</i>	moth mullein	Scrophulariaceae	N
<i>Verbascum thapsus</i>	wooly mullein	Scrophulariaceae	N
<i>Verbena lasiostachys</i>	western vervain	Verbanaceae	Y
<i>Vicia villosa</i>	hairy vetch	Fabaceae	N
<i>Wyethia mollis</i>	mule's ears	Asteraceae	Y
<i>Xanthium strumarium</i>	rough cocklebur	Asteraceae	Y
<i>Zeltnera muehlenbergii</i>	Muehlenberg's centaury	Gentianaceae	Y



Table 4. Complete List of Observed Wildlife Species on the High Valley Ranch Project Site.

Scientific Name	Common Name	Family	Native
Mammals			
<i>Canis latrans</i>	coyote	Canidae	Y
<i>Didelphis virginiana</i>	Virginia opossum	Didelphidae	Y
<i>Mephitis mephitis</i>	striped skunk	Mephitidae	Y
<i>Microtus</i> spp.	vole	Muridae	Y
<i>Odocoileus hemionus</i>	black-tailed deer	Cervidae	Y
<i>Urocyon cinereoargenteus</i>	gray fox	Canidae	Y
Birds			
<i>Accipiter cooperi</i>	Cooper's hawk	Accipitridae	Y
<i>Apelocoma californica</i>	California scrub-jay	Corvidae	Y
<i>Anthus rubescens</i>	American pipit	Motacillidae	Y
<i>Baeolophus inornatus</i>	oak titmouse	Paridae	Y
<i>Branta canadensis</i>	Canada goose	Anatidae	Y
<i>Bubo virginianus</i>	great horned owl	Strigidae	Y
<i>Buteo jamaicensis</i>	red-tailed hawk	Accipitridae	Y
<i>Callipepla californica</i>	California quail	Odontophoridae	Y
<i>Calypte anna</i>	Anna's hummingbird	Trochilidae	Y
<i>Cardellina pusilla</i>	Wilson's warbler	Parulidae	Y
<i>Cathartes aura</i>	turkey vulture	Cathartidae	Y
<i>Circus hudsonius</i>	northern harrier	Accipitridae	Y
<i>Colaptes auratus</i>	northern flicker	Picidae	Y
<i>Corvus brachyrhynchos</i>	American crow	Corvidae	Y
<i>Corvus corax</i>	common raven	Corvidae	Y
<i>Dryobates nuttallii</i>	Nuttall's woodpecker	Picidae	Y
<i>Euphagus cyanocephalus</i>	Brewer's blackbird	Icteridae	Y
<i>Falco sparverius</i>	American kestrel	Falconidae	Y
<i>Haemorhous mexicanus</i>	house finch	Fringillidae	Y
<i>Meleagris gallopavo</i>	wild turkey	Phasianidae	Y
<i>Melanerpes formicivorus</i>	acorn woodpecker	Picidae	Y
<i>Melospiza crissalis</i>	California towhee	Passerellidae	Y
<i>Passer domesticus</i>	house sparrow	Passeridae	N
<i>Passerculus sandwichensis</i>	savannah sparrow	Passerellidae	Y



Scientific Name	Common Name	Family	Native
<i>Pipilo maculatus</i>	spotted towhee	Passerellidae	Y
<i>Psaltriparus minimus</i>	bushtit	Aegithalidae	Y
<i>Sayornis nigricans</i>	black phoebe	Tyrannidae	Y
<i>Sayornis sayi</i>	Say's phoebe	Tyrannidae	Y
<i>Setophaga coronata</i>	yellow-rumped warbler	Parulidae	Y
<i>Setophaga nigrescens</i>	black-throated gray warbler	Parulidae	Y
<i>Setophaga petechia</i>	yellow warbler	Parulidae	Y
<i>Setophaga townsendi</i>	Townsend's warbler	Parulidae	Y
<i>Sialia mexicana</i>	western bluebird	Turdidae	Y
<i>Sitta canadensis</i>	red-breasted nuthatch	Sittidae	Y
<i>Sitta carolinensis</i>	white-breasted nuthatch	Sittidae	Y
<i>Spinus psaltria</i>	lesser goldfinch	Fringillidae	Y
<i>Sturnella neglecta</i>	western meadowlark	Icteridae	Y
<i>Sturnis vulgaris</i>	European starling	Sturnidae	N
<i>Tachycineta bicolor</i>	tree swallow	Hirudinidae	Y
<i>Turdus migratorius</i>	American robin	Turdidae	Y
<i>Tyto alba</i>	barn owl	Tytonidae	Y
<i>Zenaida macroura</i>	mourning dove	Columbidae	Y
<i>Zonotrichia atricapilla</i>	golden-crowned sparrow	Passerellidae	Y
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	Passerellidae	Y
Reptiles and Amphibians			
<i>Lithobates catesbeianus</i>	American bullfrog	Ranidae	N
<i>Sceloporus occidentalis</i>	western fence lizard	Phrynosomatidae	Y

Attachment A.
Preliminary Site Plan

PROJECT TEAM

CLIENT
 CLEARLAKE OAKS
 11650 HIGH VALLEY ROAD
 CLEARLAKE OAKS, CA 95423

OWNER
 ADE MUTUAL, INC.
 11315 TREYBURN WAY
 SAN DIEGO, CA 92131

DESIGNER
 KIMLEY-HORN AND ASSOCIATES, INC.
 505 CAPITAL BLVD. SUITE 200
 SACRAMENTO, CA 95814
 (916) 481-7400
 WWW.KIMLEY-HORN.COM

LEGEND

- PROPERTY LINE
- PROJECT BOUNDARY
- 100' WATERWAY SETBACK
- WATERWAY (CLASS TYPE PER PLAN)
- SECURITY FENCE
- CULTIVATION CANOPY AREA NOT TO EXCEED 80 ACRES
- PROPOSED NURSERY AREAS APPROXIMATELY 25.5 ACRES
- EXISTING WELL LOCATION WITH 100' SETBACK
- PROPOSED ACTV. RESERVING. PLEASE SEE SHEET C4.0 FOR MORE INFORMATION

ABBREVIATIONS

APN - ASSESSOR PARCEL NUMBER
 AC - ACRE
 P/L - PROPERTY LINE
 R/O/W - RIGHT-OF-WAY

SITE INFORMATION

SITE ADDRESS:
 11650 HIGH VALLEY ROAD
 CLEARLAKE OAKS, CA 95423

APN(S):
 006-002-040
 006-004-240, 006-002-040,
 006-004-070, 006-009-360,
 006-004-080, 006-004-240

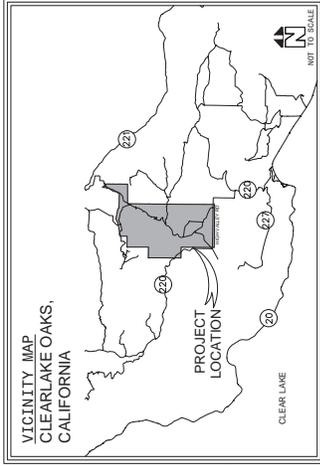
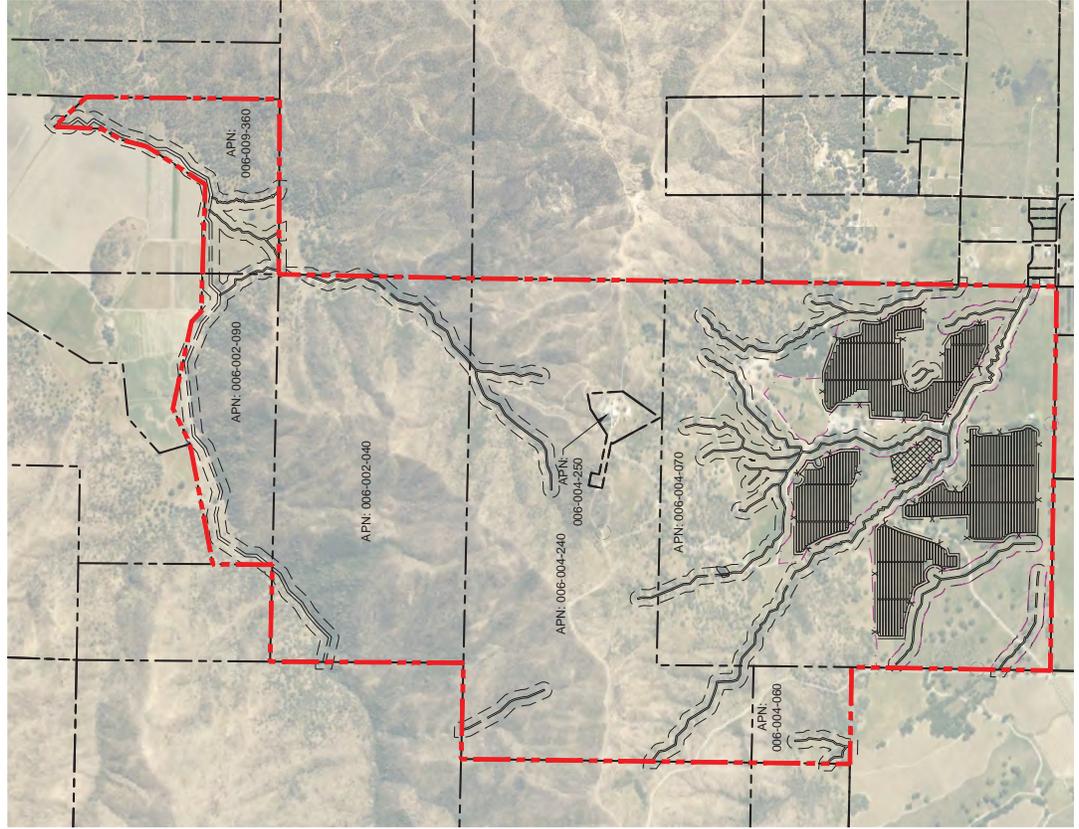
TOTAL SITE AREA:
 86 ACRES

PROPOSED PLANTING BED AREA:
 86 ACRES

PROPOSED PARKING SPACES:
 62

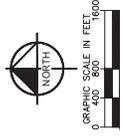
HIGH VALLEY RANCH - CANNABIS CULTIVATION FACILITY

11650 HIGH VALLEY ROAD
 CLEARLAKE OAKS, CA 95423



SHEET INDEX

SHEET NUMBER	SHEET TITLE
C1.0	COVER SHEET
C2.0	EXISTING CONDITION PLAN
C3.0	PROPOSED SITE PLAN
C4.0	SECURITY PLAN



811
 Know what's Below.
 Call before you dig.

COVER SHEET	HIGH VALLEY RANCH LAKE COUNTY, CA	SHEET NUMBER C1.0
 2020 KIMLEY-HORN AND ASSOCIATES, INC. 505 CAPITAL BLVD. SUITE 200 SACRAMENTO, CA 95814 (916) 481-7400 WWW.KIMLEY-HORN.COM	PREPARED BY: _____ CHECKED: _____ DESIGNED: _____ SCALE AS SHOWN DATE: 10/13/2020 KHA PROJECT: 197400001	REVISIONS NO. _____ DATE _____

NO.	REVISIONS	DATE

11115 TEBERON AVE
SAN DIEGO, CA 92131

ADE MUTUAL, INC.

2020 KIMLEY-HORN AND ASSOCIATES, INC.
505 OFFICE WAY, SUITE 200
SACRAMENTO, CA 95811
PHONE: 916-486-8000
WWW.KIMLEY-HORN.COM

PROFESSIONAL SEAL
STATE OF CALIFORNIA
CIVIL ENGINEER
No. 009662
EXPIRES 12/31/2023

KHA PROJECT
191740001
DATE
10/13/2020
SCALE AS SHOWN
DESIGNED
SM
BRANN
CHECKED
FP

HIGH VALLEY RANCH
LAKE COUNTY, CA

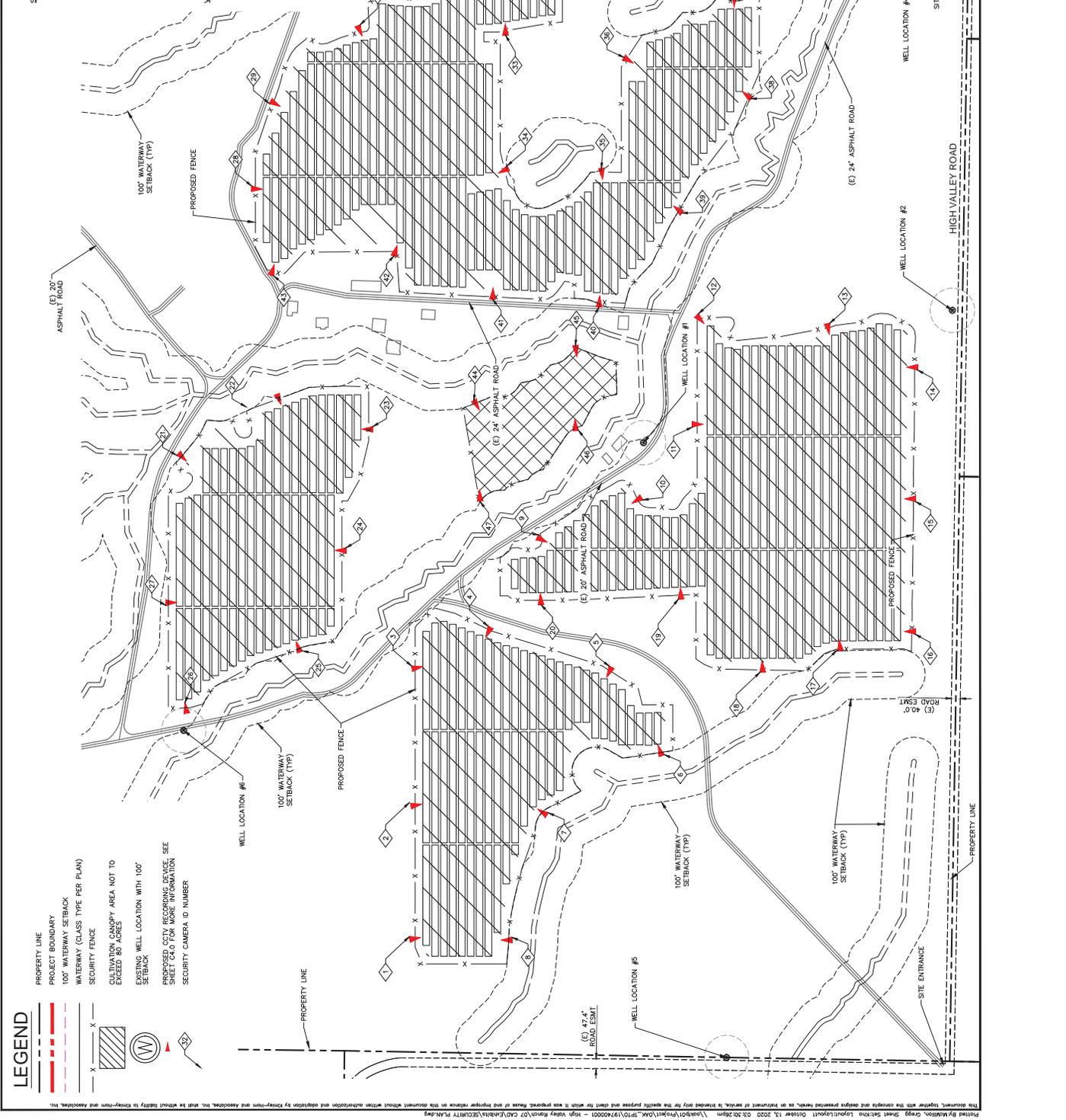
SECURITY PLAN

SHEET NUMBER
C4.0

NOTES

- SECURITY GATES WILL BE CLOSED AND LOCKED OUTSIDE OF OPERATING HOURS.
- SECURED ENTRY AND ACCESS TO THE CULTIVATION AREAS(S) WILL BE CONTROLLED VIA LOCKING GATES LOCATED ON THE WEST SIDE OF THE PROPOSED CULTIVATION AREAS(S).
- GRADE PADLOCKS ONLY THE ANTI-TAMPER AND APPROVED MANAGERIAL STAFF WILL BE ABLE TO UNLOCK THE GATES ON THE PROJECT PROPERTY.
- A 100-FOOT DEFENDABLE SPACE (VEGETATION MANAGEMENT) SHALL BE MAINTAINED FOR FIRE PROTECTION AND TO PROVIDE FOR VISIBILITY AND ESCAPE ROUTING.
- SECURITY SIGNALS SHALL BE INSTALLED AT THE MAIN ENTRANCE TO THE PROJECT PARCEL TO ALERT PERSONNEL WHEN SOMEONE/SOMETHING HAS ENTERED ONTO THE PREMISES.
- MONITORING SECURITY SIGNALS WILL BE MONITORED ON ALL EXTERNAL ENTRIES TO THE PROJECT PARCEL. ALL LIGHTING WILL BE FULLY SHIELDED TO PREVENT LIGHT POLLUTION AND WILL NOT SPILL OVER ONTO OTHER PROPERTIES OR INTO THE NIGHT SKY.

- VIDEO SURVEILLANCE (USE A CLASS 1 CCTV TELEVISION SYSTEM WITH A MINIMUM CAMERA RESOLUTION OF 1080P) TO RECORD ACTIVITY AT ALL PERIMETER AND INTERIOR CAMERA LOCATIONS. 24 HOURS A DAY AND AT A MINIMUM OF 30 SECONDS PER SECOND.**
- THE CCTV SYSTEM WILL FEED INTO A MONITORING AND RECORDING STATION IN THE ON-SITE RESIDENTIAL OFFICE BUILDING. THE CCTV SYSTEM WILL BE MONITORED BY THE ON-SITE MANAGERIAL STAFF. IMMEDIATELY UPON FAILURE OF ANY INTERROPS OR FAILURES, THE CCTV SYSTEM WILL SEND A FAILURE NOTIFICATION SYSTEM THAT IMMEDIATELY NOTIFIES MANAGERIAL STAFF OF ANY INTERROPS OR FAILURES.
 - ANY CORRESPONDING REPORTED INCIDENTS TO THE POLICE AND 7 YEARS FOR PERMITS THAT WILL BE COVERED BY CCTV SYSTEM INCLUDE:
 - ENTRY WAYS TO THE PROPERTY, CULTIVATION AREAS(S), AND PERIMETER OF THE CULTIVATION AREA
 - THE MONITORING AND RECORDING STATION
 - INTERIOR OF THE PROCESSING FACILITY



LEGEND

- PROPERTY LINE
- PROJECT BOUNDARY
- 100' WATERWAY SETBACK
- WATERWAY (CLASS TYPE PER PLAN)
- SECURITY FENCE
- CULTIVATION CANOPY AREA NOT TO EXCEED 80 ACRES
- EXISTING WELL LOCATION WITH 100' SETBACK
- PROPOSED CCTV RECORDING DESIGNS. SEE SHEET C4.0 FOR MORE INFORMATION.
- SECURITY CAMERA ID NUMBER

Printed By: Madsen, Chagel Sheet: Security Plan (191740001) 10/13/2020 03:20:25pm \\snp01\proj\191740001\191740001 - High Valley Ranch\07_CAD\Layouts\SECURITY PLAN.dwg

Attachment B.

USFWS Draft Information for Planning and Consultation System Report

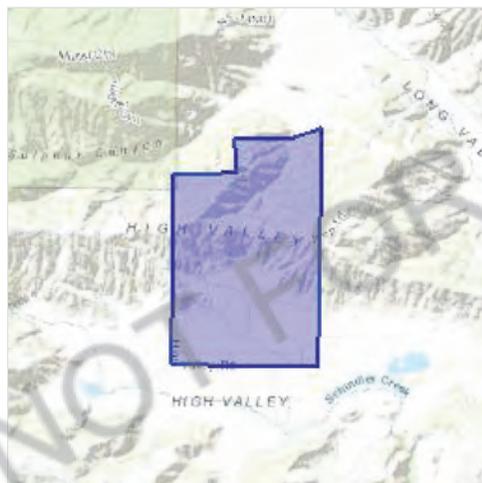
IPaC resource list

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

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

Location

Lake County, California



Local offices

Arcata Fish And Wildlife Office

☎ (707) 822-7201

📠 (707) 822-8411

1655 Heindon Road
Arcata, CA 95521-4573

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

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

NOT FOR CONSULTATION

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 species¹ 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 Fisheries²).

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

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

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

Birds

NAME

STATUS

Northern Spotted Owl *Strix occidentalis caurina*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/1123>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Flowering Plants

NAME

STATUS

Burke's Goldfields *Lasthenia burkei*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4338>

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

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

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, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

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/1626>

Breeds Jan 1 to Aug 31

<p>Golden Eagle <i>Aquila chrysaetos</i> 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</p>	Breeds Jan 1 to Aug 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i> 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</p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15
<p>Spotted Towhee <i>Pipilo maculatus clementae</i> 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/4243</p>	Breeds Apr 15 to Jul 20
<p>Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 10
<p>Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726</p>	Breeds Apr 1 to Jul 31

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 and understand the FAQ "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 (—)

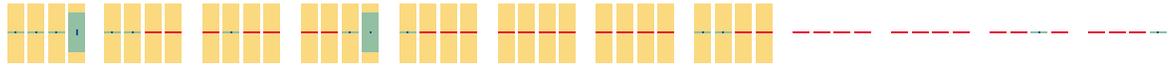
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

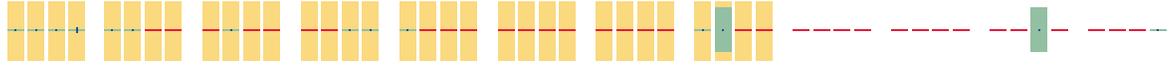
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald Eagle
 Non-BCC Vulnerable
 (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.)



Golden Eagle
 Non-BCC Vulnerable
 (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.)



Lawrence's Goldfinch
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



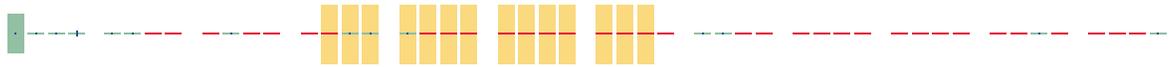
Nuttall's Woodpecker
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



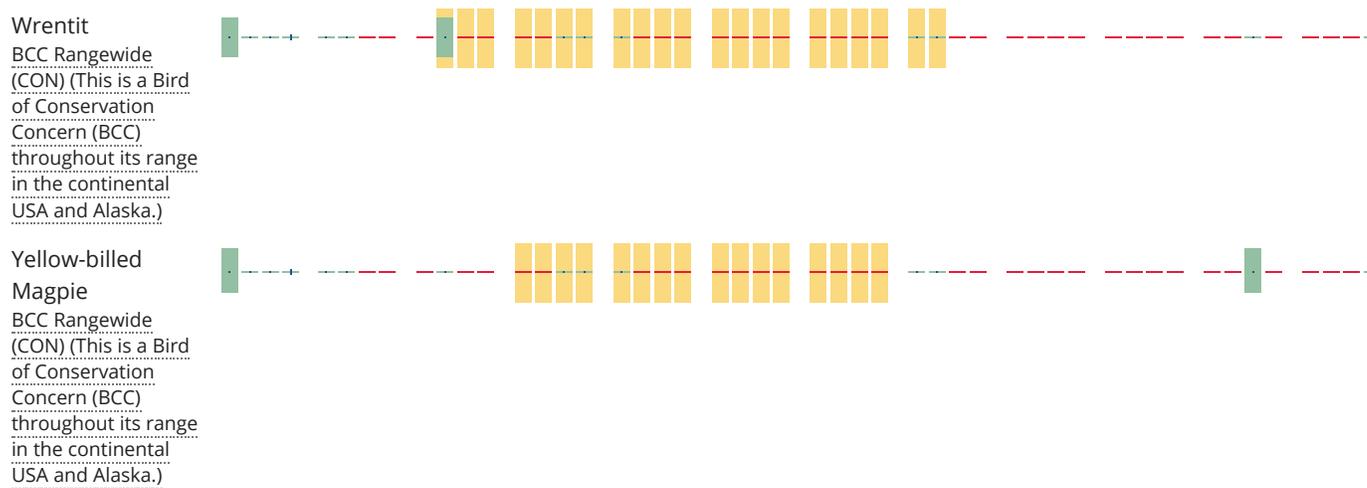
Oak Titmouse
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Spotted Towhee
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



NOT FOR CONSULTATION



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

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

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

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

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1A](#)

FRESHWATER POND

[PUSC](#)

[PUBK](#)

RIVERINE

[R4SBC](#)

[R4SBA](#)

[R5UBF](#)
[R5UBFx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid 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.

Attachment C.

NMFS Online Species List Query Report

Quad Name **Clearlake Oaks**

Quad Number **39122-A6**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -



JACOBSZOOM & ASSOCIATES, INC.

natural resource planning & management

April 27, 2021

Department of Community Development
255 N. Forbes Street
Lakeport, CA 95453

Re: Nesting Bird and Roosting Bat Surveys for High Valley Ranch

To Whom it may concern,

Nesting bird and roosting bat surveys were conducted for High Valley Ranch on April 16, 23, and 27 within anticipated construction work areas including an additional 100 foot buffer. Below are the survey results:

16 April 2021

Survey Start: 0744; Survey End: 1145

Surveyors: Becca Cosmero & Lucas Lochner-Bravo

A nesting bird survey was conducted on six locations across High Valley Ranch within anticipated construction work areas. A total of eight (8) active nests were discovered. A wild turkey nest was found amongst the *Brassica spp.* in a shallow depression containing eight eggs within a section slated for construction work at the northern end of the property. A European starling cavity nest was observed along the access road approximately 400 feet southwest of the turkey nest. Six (6) red-winged blackbird nests were discovered adjacent to the access road leading north within the *Brassica spp.*. Red-wing blackbird nests were typically found under the drip line of oak trees. Several woodpecker granaries were observed among the oaks located along the margins of each anticipated construction area. No roosting bats were observed.

A total of nineteen (19) avian species were detected, via audible and visual encounter, during our survey. These comprise:

- American crow (*Corvus brachyrhynchos*)
- Acorn woodpecker (*Melanerpes formicivorus*)
- Barn Swallows (*Hirundo rustica*)
- Brewer's blackbird (*Euphagus cyanocephalus*)
- Bullock's oriole (*Icterus bullockii*)
- California scrub jay (*Aphelocoma californica*)
- Canada goose (*Branta canadensis*)
- European starling (*Sturnus vulgaris*)
- House finch (*Haemorhous mexicanus*)
- Mourning Dove (*Zenaida macroura*)

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- Northern Flicker (*Colaptes auratus*)
- Raven (*Corvus corax*)
- Red-tail hawk (*Buteo lineatus*)
- Red-winged blackbird (*Agelaius phoeniceus*)
- Turkey (*Meleagris gallopavo*)
- Western Kingbird (*Tyrannus verticalis*)
- Western Meadowlark (*Sturnella neglecta*)
- White-crowned sparrow (*Sitta carolinensis*)
- Yellow-rumped warbler (*Setophaga coronate*)

Other observation from the survey include:

- 2 partially built cup nests
- Woodpecker granary
- Roost trees

23 April 2021

Survey Start: 0919; Survey End: 1100

Surveyors: Becca Cosmero & Evan Carlson

A nesting bird survey was conducted on six locations across High Valley Ranch within anticipated construction work areas. Previously observed nests were revisited for signs of activity. All previously observed nests remained active, except for one red-winged blackbird nest located at (39.052644, -122.692043). There were no signs of predation on this nest. No roosting bats were observed. One new red-wing blackbird nest was observed at (39.053541, -122.692008).

A total of twelve (12) avian species were detected, via audible and visual encounter, during our survey. These comprise:

- Acorn woodpecker (*Hirundo rustica*)
- Barn Swallows (*Hirundo rustica*)
- Brewer's blackbird (*Euphagus cyanocephalus*)
- California scrub jay (*Aphelocoma californica*)
- Canada goose (*Branta canadensis*)
- European starling (*Sturnus vulgaris*)
- Mourning Dove (*Zenaida macroura*)
- Red-winged blackbird (*Agelaius phoeniceus*)
- Turkey (*Meleagris gallopavo*)
- Western Kingbird (*Tyrannus verticalis*)
- Western Meadowlark (*Sturnella neglecta*)
- White-crowned sparrow (*Sitta carolinensis*)



27 April 2021

Survey Start: 0820; Survey End: 1005

Surveyors: Becca Cosmero

A nesting bird survey was conducted on six locations across High Valley Ranch within anticipated construction work areas. Several previously noted active red-wing blackbird nests were found to be empty while two of the nests remain active with one containing nestlings. One new nest was observed at (39.055519, -122.691404). this nest contained one egg. A failed nesting attempt was observed at (39.053824, -122.692048) with signs of predation. The nest was observed to be hanging from the *Brassica spp.* at an angle with several cracked eggs surrounding the nest. The nest located on 23 April 2021 at (39.053541, -122.692008) was observed to be empty. There was no evidence of eggshells or signs of predation. The active nest located at (39.053281, -122.692143) was observed with nestlings. The active nest observed on 23 April 2021 at (39.051349, -122.692815) was observed to be empty. There were no signs of predation. Brewer's blackbirds were observed collecting nesting material and bringing this to a barn located at (39.055010, -122.692330) outside of construction work areas but within 150 feet. The wild turkey nest remains active. The European starling nest remains active with nestlings. No roosting bats were observed.

A total of thirteen (13) avian species were detected, via audible and visual encounter, during the survey. These comprise:

- Acorn woodpecker (*Hirundo rustica*)
- Barn Swallows (*Hirundo rustica*)
- Brewer's blackbird (*Euphagus cyanocephalus*)
- California scrub jay (*Aphelocoma californica*)
- Canada goose (*Branta canadensis*)
- European starling (*Sturnus vulgaris*)
- Mourning Dove (*Zenaida macroura*)
- Red-tail hawk (*Buteo lineatus*)
- Red-winged blackbird (*Agelaius phoeniceus*)
- Turkey (*Meleagris gallopavo*)
- Western Kingbird (*Tyrannus verticalis*)
- Western Meadowlark (*Sturnella neglecta*)
- White-crowned sparrow (*Sitta carolinensis*)

Other observation from the survey include:

- House cat hunting birds



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Monitoring surveys will continue until all nests have fledged.

Sincerely,

 Type text here

Becca Cosmero

Environmental Technician

becca@jeforestry.com





Photo 1:

Red-winged blackbird
nest among *Brassica*
spp.

April 27, 2021





Photo 2:

Turkey ground nest
containing eight eggs.

April 23, 2021





Photo 3:

Oak tree with various cavities suitable for roosting and an acorn granary.

April 23, 2021



High Valley Ranch: Nesting Birds

High Valley Ranch
 11650 High Valley Road
 Clearlake Oaks, CA 95423
 APN(s): 006-002-060, 006-004-250,
 006-004-240, 006-002-040,
 006-002-090, 006-009-360, 006-004-070
 1643.53 Acres



0 265 530 Feet
 1 inch equals 530 feet



Wild Turkey Nest
 (39.057701, -122.694719)

European Starling Nest
 (39.057393, -122.693292)

(39.055372, -122.691888)

(39.055637, -122.691224)

(39.053986, -122.691972)

(39.053541, -122.692008)

(39.052635, -122.692047)

(39.051349, -122.692815)

- Red-Wing Blackbird Nest
- European Starling Nest
- Wild Turkey Nest
- Watercourse
- Roads
- 50 foot Buffer
- 100 foot Buffer
- Proposed Buildings
- Proposed Nursery
- Proposed Cultivation Areas
- Parcel Boundaries

Updated as of 4/17/2021

High Valley Ranch: Nesting Birds

High Valley Ranch
 11650 High Valley Road
 Clearlake Oaks, CA 95423
 APN(s): 006-002-060, 006-004-250,
 006-004-240, 006-002-040,
 006-002-090, 006-009-360, 006-004-070
 1643.53 Acres



0 265 530 Feet
 1 inch equals 530 feet



Wild Turkey Nest
 (39.057701, -122.694719)

European Starling Nest
 (39.057393, -122.693292)

(39.055637, -122.691224)

(39.055637, -122.691224)

(39.055519, -122.691404)

(39.054019, -122.692184)

(39.053541, -122.692008)

(39.053481, -122.692040)

(39.053281, -122.692143)

(39.051349, -122.692815)

European Starling Nest	100 foot Buffer
Wild Turkey Nest	Proposed Buildings
Red-Winged Blackbird Nest	Proposed Nursery
Watercourse	Proposed Cultivation Areas
Roads	Parcel Boundaries
50 foot Buffer	

Updated as of 4/27/2021