Biological Resources Reconnaissance Survey

Eisele Vineyard Winery, 2155 Pickett Road

Napa County, California

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EXECUTIVE SUMMARY

This report details the regulatory background, methods, results, and recommendations of a Biological Resources Reconnaissance Survey by for a discrete portion (Study Area) of the greater property at 2155 Pickett Road (APN 020-340-030) in Napa County, California. The Study Area is approximately 5.4 acres in size and includes the limits of disturbance (Project Area) plus a 75-foot buffer. WRA, Inc. performed field surveys in June of 2024. The Study Area is composed of California black oak woodland, foothill pine woodland, and developed land covers, with a small reservoir (manmade pond) also present. The proposed project involves construction of a new winery facility and associated structures and servicing, as well as improvements to the existing access road (Project Area).

Of a total of greater than 82 acres of combined oak woodland and coniferous forest across the greater property (including in June 2018), only 0.6 acre of California black oak and foothill pine woodland (combined) will be impacted by the proposed project. The retained woodland acreage will vastly exceed the minimum 70 percent canopy retention and 75 percent (3:1) preservation ratios required by Napa County Code. The remainder of the Project Area is situated in (non-sensitive) developed areas.

The Project Area is sited to avoid the reservoir that is present nearby. A protocol-level botanical survey in June 2024 found that no special-status plant species. However, a subsequent spring botanical survey is recommended to cover one additional (federal and state listed) special-status species not covered during the June survey.

Additionally, two special-status bats, three special-status birds (including one, and one special-status reptile, as well as non-status birds with baseline legal protections, have the potential to occur in the Study Area as well as in or near the Project Area. Mitigation measures and best management practices have been developed and provided herein to avoid impacts to these resources.

Contents

1.0 INTRODUCTION....1
2.0 REGULATORY BACKGROUND....1
2.1 Federal and State Regulatory Setting....2
2.1.1 Sensitive Land Cover Types....2
2.1.2 Special-status Species....3
2.2 Napa County Regulatory Setting....4
3.0 ENVIRONMENTAL SETTING....9
3.1 Topography and Soils....9
3.2 Climate and Hydrology....10
3.3 Land Cover and Land Use....10
4.0 ASSESSMENT METHODS....11
4.1 Land Cover Types....12
4.1.1 Terrestrial Land Cover Types....12
4.1.2 Aquatic Resources....12
4.2 Special-status Species....13
4.2.1 General Assessment....13
4.2.2 Special-status Plants....13
4.2.3 Special-status Wildlife....14
4.2.4 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors....14
5.0 ASSESSMENT RESULTS....14
5.1 Land Cover Types....14
5.1.1 Terrestrial Land Cover Types....14
5.1.2 Aquatic Resources....16
5.2 Special-status Species....16
5.2.1 Special-status Plant Species....16
5.2.2 Special-status Wildlife Species....17
5.2.3 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors....19
6.0 PROJECT ANALYSIS AND RECOMMENDATIONS....20
6.1 Land Cover Types....20
6.1.1 Terrestrial Land Cover Types....20
6.1.2 Aquatic Resources....20
6.2 Special-status Species....20
6.2.1 Special-status Plants....20
6.2.2 Special-status Wildlife....21

6.2.3 Wildlife Movement 23
7.0 REFERENCES 23

List of Tables

Table 1. Napa County Stream Setbacks 7

List of Appendices

Appendix A – Figures
Appendix B – Species Observed in the Study Area
Appendix C – Potential for Special-status Species to Occur in the Study Area
Appendix D – Site Photographs
Appendix E – Statement of Qualifications

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Definitions

Study Area: The area throughout which the assessment was performed (within APN 020-340-030), i.e., the Project Area plus a surrounding buffer totaling approximately 5.4 acres.

Project Area: The area encompassing the proposed project (winery development, road improvements); the area evaluated for potential impacts to sensitive biological resources, totaling approximately 1.5 acres.

List of Abbreviations & Acronyms

BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
BRRS	Biological Resources Reconnaissance Survey
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CECP	California Essential Connectivity Project
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
County	County of Napa
Corps	U.S. Army Corps of Engineers
CSRL	California Soils Resources Lab
CWA	Clean Water Act
EFH	Essential Fish Habitat
ESA	(Federal) Endangered Species Act
MBTA	Migratory Bird Treaty Act
NCBDR	Napa County Baseline Data Report
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OHWM	Ordinary High Water Mark
Rank	California Rare Plant Ranks
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SFP	State Fully Protected Species
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

1.0 INTRODUCTION

On June 6, 2024, WRA, Inc. (WRA) performed an assessment of biological resources for a discrete portion (Study Area) of the greater property at 2155 Pickett Road (APN 020-340-030) near Calistoga in unincorporated Napa County, California (Figure A-1, Appendix A). The Study Area is approximately 5.4 acres in size and includes the proposed limits of disturbance (Project Area) plus a 75-foot buffer. The purpose of this study was to gather the information necessary to complete a review of biological resources under the California Environmental Quality Act (CEQA) to meet the guidelines outlined by Napa County in *Guidelines for Preparing Biological Resources Reconnaissance Surveys* (Napa County 2016a) and *Guidelines for Preparing Special-status Plant Studies* (Napa County 2016b).

A biological resources reconnaissance survey (BRRS) provides general information on the presence, or potential presence, of sensitive species and habitats. These survey(s) contain the results of a focused protocol-level survey for listed plant species in the Study Area; however, protocol-level surveys for wildlife were not included as part of the survey. This survey is not a formal wetland delineation; in instances where such a delineation may be required for project approval by local, state, or federal agencies, results would be reported herein, but may be presented elsewhere in separate reports. This survey is based on information available at the time of the study and on-site conditions that were observed on the date(s) the site was visited.

This report describes the results of the site visits, which assessed the Study Area for (1) the presence of sensitive land cover types, (2) the potential for land cover types on the site to support special-status plant and wildlife species, and (3) the presence of any other sensitive natural resources protected by local, state, or federal laws and regulations. Special-status species observed during the site assessment were documented and their presence is discussed herein. Specific findings on the habitat suitability or presence of special-status species or sensitive habitats may require that protocol-level surveys or other studies be conducted; recommendations for additional studies are provided, if necessary.

The proposed project (Project) involves the construction of a new winery production building and associated covered work area, a covered mechanical yard, and a wastewater control room (approximately 9,703 square feet in total). The new winery production building will be connected to the northern portal of the existing winery cave. Improvements will be made to an existing vineyard avenue to provide access to the winery production building. Site preparation (grading, installation of erosion control measures, and associated) will occur during the grading window of April 1 through October 15.

2.0 REGULATORY BACKGROUND

This report is intended to facilitate conformance of the Project with the standards outlined in the Napa County Code and General Plan. In addition to the requirements of Napa County, the Project may also be subject to several federal and state regulations designed to protect sensitive natural resources. Full analysis of these requirements in the context of the Project is addressed herein.

2.1 Federal and State Regulatory Setting

2.1.1 Sensitive Land Cover Types

Land cover types are herein defined as those areas of a particular vegetation type, soil or bedrock formation, aquatic features, and/or other distinct phenomena. Typically, land cover types have identifiable boundaries that can be delineated based on changes in plant assemblages, soil or rock types, soil surface or near-surface hydroperiod, anthropogenic or natural disturbance, topography, elevation, etc. Many land cover types are not considered sensitive or otherwise protected under the environmental regulations discussed here. However, these land cover types typically provide essential ecological and biological functions for plants and wildlife, including, frequently, special-status species. Those land cover types that are considered or protected under one or more environmental regulations are discussed below.

Waters of the United States: The United States Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the United States generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State: The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a project does not require a federal permit but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements. The San Francisco Bay RWQCB, which has jurisdiction over projects in the Napa River watershed, recently adopted the General Permit for Vineyard Properties in the Napa River and Sonoma Creek Watersheds to comply with the WDRs for sediment and nutrient discharge from vineyards.

Streams, Lakes, and Riparian Habitat: Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). "Riparian" is defined as "on, or pertaining to, the banks of a stream." Riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Sensitive Natural Communities: Sensitive natural communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (CDFG 2010, CDFW 2023b) and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2023a). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2018) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). The Napa County Baseline Data Report (NCBDR) identifies sensitive Napa County natural communities, discussed further in Section 2.2 below (Napa County 2005).

2.1.2 Special-status Species

Plants: Special-status plants include taxa that have been listed as endangered or threatened, or are formal candidates for such listing, under the federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA). The California Native Plant Protection Act (CNPPA) lists 64 "rare" or "endangered" and prevents "take", with few exceptions, of these species. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. A description of the CNPS Ranks is provided below in Appendices B and C. Additionally, any plant species listed as sensitive within the Napa County General Plan or NCBDR are likewise considered sensitive.

Wildlife: As with plants, special-status wildlife includes species/taxa that have been listed or are formal candidates for such under ESA and/or CESA. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald

[*Haliaeetus leucocephalus*] and golden eagle [*Aquila chrysaetos*)] that in some regards are similar to those provided by ESA. The CFGC designates some species as Fully Protected (SFP), which indicates that take of that species cannot be authorized through a state permit. Additionally, CDFW Species of Special Concern (species that face extirpation in California if current population and habitat trends continue) are given special consideration under CEQA and therefore considered special-status species. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 and CFGC, i.e., sections 3503, 3503.5 and 3513. Under these laws/codes, the intentional harm or collection of adult birds as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA. Finally, wildlife species/taxa named as "locally rare" in the NCBDR (Napa County 2005) are also treated as special-status for purposes of this assessment.

Critical Habitat, Essential Fish Habitat, and Wildlife Corridors: Critical habitat is a term defined in the ESA as a specific and formally designated geographic area that contains features essential for the conservation of a threatened or endangered species, and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. Note that designated critical habitat areas that are currently unoccupied by the species but which are deemed necessary for the species' recovery are also protected by the prohibition against adverse modification.

The Magnuson-Stevens Fishery Conservation and Management Act ("Magnuson-Stevens Act") provides for conservation and management of fishery resources in the U.S. This Act establishes a national program intended to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection through the establishment of Essential Fish Habitat (EFH). EFH consists of aquatic areas that contain habitat essential to the long-term survival and health of fisheries, which may include the water column, certain bottom types, vegetation (e.g. eelgrass (*Zostera* spp.)), or complex structures such as oyster beds. Any federal agency that authorizes, funds, or undertakes action that may adversely affect EFH is required to consult with NMFS.

Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA. Additionally, the NCBDR (Napa County 2005) outlines important corridor resources within the County and encourages protection of these resources via Policy CON-18 (see section 2.2 below).

2.2 Napa County Regulatory Setting

Napa County General Plan and Napa County Code: Natural resource use in Napa County is regulated by the Napa County General Plan (Napa County 2008). Below are relevant policies from the General Plan pertaining to wetlands and biological resources which may be applicable to the Project.

Napa County Baseline Data Report

Specific sensitive Land Cover Types are identified in the NCBDR (Napa County 2005). In addition to those Land Cover Types identified by CDFW, the NCBDR also identifies biotic communities of limited distribution that "encompass less than 500 acres of cover within the County and are considered by local biological experts to be worthy of conservation" (Napa County 2005).

Natural Resource Goals and Policies

Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreation, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to:

a) Maintain the following essentials for fish and wildlife resources:
    a. Sufficient dissolved oxygen in the water.
    b. Adequate amounts of proper food.
    c. Adequate amounts of feeding, escaping, and nesting habitat.
    d. Proper temperature through maintenance and enhancement of streamside vegetation volume flows, and velocity of water.
b) Employ supplemental planting and maintenance of grasses, shrubs and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially streams side areas, in good condition.
c) Provide protection for habitat supporting special-status species through buffering or other means.
d) Provide replacement habitat of like quantity and quality on- or off-site for special-status species to mitigate impacts to special-status species.
e) Enhance existing habitat values, particularly for special-status species, through restoration and replanting of native plant species as part of discretionary permit review and approval.
f) Require temporary or permanent buffers of adequate size (based on the requirements of the special-status species) to avoid nest abandonment of birds and raptors associated with construction and site development activities.
g) Demonstrate compliance with applicable provisions and regulations of recovery plans for listed species.

Policy CON-17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards:

a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.
b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.
c) Promote protection from overgrazing and other destructive activities.

d) Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species.
e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

Policy CON-18: To reduce impacts on habitat conservation and connectivity:

a) In sensitive domestic water supply drainages where new development is required to retain between 40 and 60 percent of the existing (as of June 16, 1993) vegetation onsite, the vegetation selected for retention should be in areas designed to maximize habitat value and connectivity.
b) Outside of sensitive domestic water supply drainages, streamlined permitting procedures should be instituted for new vineyard projects that voluntarily retain valuable habitat and connectivity, including generous setbacks from streams and buffers around ecologically sensitive areas.
c) Preservation of habitat and connectivity of adequate size, quality and configuration to support special-status species should be required within the project area. The size of habitat and connectivity to be preserved shall be determined based on the specific needs of the species.
d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat.
e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing installed on or after February 16, 2007 to offset the impact cause by the new vineyard development.

Policy CON-19: The County shall encourage the preservation of critical habitat areas and habitat connectivity through the use of conservation easements or other methods as well as through continued implementation of the Napa County Conservation Regulations associated with vegetation retention and setbacks from waterways.

Policy CON-24: Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:

a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agriculture projects.
b) Comply with the Oak Woodlands Preservation Act regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of the residential, commercial, and industrial approvals.

c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio [effectively 3:1 ratio[1]] when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.
d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil production be left standing.
e) Maintain, to the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black, canyon, live, and brewer oaks as well as blue, white, scrub and live oaks are common associations.

General Provisions – Stream and Wetland Setbacks

Napa County Code 18.108.025 requires stream setbacks for new land clearings for agricultural purposes. "Stream" is defined by Napa County (18.108.030) as: (1) a watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United State Geological Survey (USGS) maps most recently published, or any replacement to that symbol (i.e., USGS "blue-line"); (2) any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 and contains hydrophilic vegetation, riparian vegetation or woody-vegetation including tree species greater than ten feet in height; or (3) those watercourses listed in Resolution No. 94-19. No clearing of land for new agricultural uses as defined by Section 18.08.040 shall take place within the following setbacks from streams:

Table 1. Napa County Stream Setbacks

Slope (Percent)	Required Setback
< 1	35 feet
1--5	45 feet
5--15	55 feet
15--30	65 feet
30--40	85 feet
40--50	105 feet
50--60	125 feet
60--70	150 feet

In 2019, Napa County added to Code Section 18.108.025 the requirement of a 35-foot setback for ephemeral or intermittent streams not meeting Napa County's criteria for a stream. Likewise, 18.108.026 was added to the Napa County Code to include the requirement of a 50-foot setback from the delineated edge of wetland boundaries. Ordinance No. 1438 adopted by the Board of Supervisors allowed for a one-time exemption from the Ordinance (and therefore the updated

[1] *Amendments to Napa County Ordinance 18.108 require a 3:1 ratio for preservation/replacement; see "Water Quality and Tree Protection Ordinance" on page 8.*

stream and wetland setbacks) for projects that are less than 15 percent slope and less than 5 acres.

Vegetation Preservation and Replacement

Napa County Code 18.108.100 requires the following conditions when granting a discretionary permit for activities within an erosion hazard area (slopes greater than 5 percent):

Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the County's environmental sensitivity maps.

Existing trees six inches in diameter or larger, measured at diameter breast height (DBH), or tree stands of trees six inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized.

- Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriated methods to be placed and maintained at their outboard drip line during the construction phase. Where appropriate, the director may require an applicant to install and maintain construction fencing around the trees to ensure their protection during earthmoving activities. Where removal of vegetation is necessitated or authorized, the director or designee may require the planting of replacement vegetation of an equivalent kind, quality and quantity.

Water Quality and Tree Protection Ordinance

In 2019, the Napa County Board of Supervisors adopted the Water Quality and Tree Protection Ordinance (WQTPO) modifying Code Chapter 18.108 Conservation Regulations to provide additional protections to trees and water quality. As noted above, additional setbacks were added for ephemeral and intermittent drainages and wetlands (Chapters 18.108.025 and 18.108.026). In addition, the tree retention required by Chapter 18.108.027 in sensitive domestic water supply drainages was increased from 60 percent to 70 percent based on vegetation that existed within the parcel in 1993. For areas within the Agricultural Watershed zoning district (outside of sensitive water supply drainages), Chapter 18.108.020 subsections C and D were added that require a minimum of 70 percent canopy retention based on vegetation that existed within the parcel in 2016, and the preservation or mitigation of trees (within oak woodland/forest and/or coniferous forest land covers) at a minimum 3:1 ratio. Ordinance No. 1438 allowed for a one-time exemption from the Ordinance (and therefore the updated stream setbacks, wetland setbacks, and vegetation retention requirements) for projects that are less than 30 percent slope and less than 5 acres.

3.0 ENVIRONMENTAL SETTING

The approximately 5.4-acre Study Area is site within one larger parcel of the greater Eisele Vineyards property. It is located in northwestern Napa County, approximately two aerial miles east of downtown Calistoga and seven miles northwest of downtown Saint Helena. It is situated in the north end of Napa Valley on the southern flank of Mount Saint Helena and the Palisades. Detailed descriptions of the local setting are below.

3.1 Topography and Soils

The overall topography of the Study Area gently- to moderately-sloped, ranging from approximately 395 to 470 feet above sea level. According to the *Soil Survey of Napa County* (USDA 1978) and as shown in Figure A-2 (Appendix A), the Study Area is underlain by four soil mapping units: Bale clay loam, 2 to 5 percent slopes; Cortina very gravelly loam, 0 to 5 percent slopes; Forward-Kidd complex, 11 to 60 percent slopes; and Pleasanton loam, 0 to 2 percent slopes. The parent soil series of all the Study Area's mapping units are summarized below.

Bale Series: This series consists of very deep loam soils formed in stratified, gravelly and sandy alluvium from mixed rock sources situated on level to gently sloping alluvial fans and terraces at elevations ranging from 100 to 300 feet (CSRL 2024, USDA 1978). The soil pH is slightly acidic (pH 6.3) through the profile. These soils are considered hydric (Hydric Criteria 2[2]) if in depressions or alluvial fans and are somewhat poorly drained, with moderate permeability, and slow runoff (USDA 2014, USDA 1978). Native and naturalized vegetation is oak (*Quercus* spp.) savannah and riparian dominated by willows (*Salix* spp.) and blackberry (*Rubus* spp.), while predominant land uses are vineyards (USDA 1978).

Cortina Series: This series consists of very deep loamy soils that formed in alluvium derived from mixed rock sources, primarily sedimentary rock, situated on flood plains at elevations ranging from 25 to 2,400 feet (USDA 1978, CSRL 2024). The series is somewhat excessively drained, with negligible to low runoff, and rapid permeability (USDA 1972). Native and naturalized vegetation in uncultivated areas include annual grasses, forbs, valley oaks (*Quercus lobata*), sycamore (*Platanus racemosa*), and black walnuts (*Juglans californica*, *J. hindsii*). Predominant land uses on this series includes livestock grazing, irrigated pasture and alfalfa, vineyards, fruit orchards, citrus fruits, and olive orchards (USDA 1978).

Forward Series: This series consists of moderately deep sandy loam soils of residuum weathered from rhyolitic tuff on hillslopes at elevations ranging from 400 to 4,500 feet (CSRL 2024, USDA 1978). These soils are not considered hydric, and are well drained, with medium runoff and moderately rapid permeability above the tuff bedrock (USDA 2014, USDA 1978). Native vegetation consists of coniferous forest composed of ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), California black oak (*Quercus kelloggii*), manzanitas (*Arctostaphylos* spp.), and pine mat (*Ceanothus prostratus*), while typical land uses include timbering, watershed protection, and open space (USDA 1978).

[2] Map unit composition in Aquic suborder, great group, or subgroup (NRCS 2019)

Kidd Series: This series consists of very shallow gravelly loam soils formed from weathered rhyolitic tuff and rhyolite situated on upland hillslopes at elevations ranging from 500 to 4,300 feet (CSRL 2024, USDA 1978). These soils are not considered hydric and are well to excessively drained with medium to very rapid runoff, and moderately rapid to rapid permeability (USDA 2014, USDA 1978). Native and naturalized vegetation include hoary manzanita (*Arctostaphylos canescens*), chamise (*Adenostoma fasciculatum*), ceanothus (*Ceanothus* spp.), scrub oak (*Quercus berberidifolia*), knobcone pine (*Pinus attenuata*), ponderosa pine (*P. ponderosa*), and mixed herbs, while typical land use is for watershed, recreation, and limited grazing (USDA 1978).

Pleasanton Series: This series consists of moderately deep fine loam soils formed in alluvium derived from sedimentary rock situated on terraces and alluvial fans in river valleys at elevations of less than 2,400 feet (USDA 1978, CSRL 2024). This soil is not considered hydric, and is well drained, with moderately slow permeability, and slow to medium runoff (USDA 2014, USDA 1978). Native and naturalized vegetation is predominantly oak (*Quercus* spp.) savannah dominated by annual grasses and forbs, while land uses include dry farming for grain and hay, wine vineyards, tree fruits and nuts, and row crops (USDA 1978).

3.2 Climate and Hydrology

The Study Area is located within the valley fog zone of Napa County. The average monthly maximum temperature of Calistoga (Station ID: 041312) is 92.5 degrees Fahrenheit, while the average monthly minimum temperature is 36.2 degrees Fahrenheit. Precipitation falls as rain with an annual average of 37.55 inches. Precipitation-bearing weather systems are predominantly from the west and south with the majority of rain falling between November and March, with a combined average of 31.52 inches (USDA 2023).

The local watershed is Upper Napa Valley (HUC 12: 180500020201) and the regional watershed is Napa River (HUC 8: 18050002). The Study Area is situated in the Napa County Planning Watershed of Ritchie Creek and Simmons Canyon. There is one man-made pond mapped on the Calistoga 7.5-minute quadrangle (USGS 2015). Likewise, this pond is mapped as Freshwater Pond in the National Wetlands Inventory (NWI; USFWS 2024a) and Pond and Associated Vegetation in the California Aquatic Resources Inventory (CARI; SFEI 2024). Additionally, the CARI has a Fluvial feature running through this man-made pond. The primary hydrologic sources are direct precipitation and consequent surface sheet flow and subsurface flow into channels (streams). Precipitation in the majority of the Study Area infiltrates quickly due to rocky loam soils. Detailed descriptions of aquatic resources are in Section 5.1 below.

3.3 Land Cover and Land Use

The Study Area is a mix of developed and native/naturalized habitats. The developed areas include an agricultural barn, small outbuildings, cave entry, compacted gravel driveway and laydown area, and a portion of solar panels. Undeveloped areas include California black oak woodland, foothill pine woodland, and a reservoir. Detailed plant community descriptions are included in Section 5.1 below, and all observed plant and wildlife species are included in Appendix B. Regional land uses include rural residential, wineries, and vineyards (Google Earth 2024). Historically, land uses in the region were open rangeland of larger ranches, rural residential, row crops, vineyards, and orchards.

There is no history of intensive agriculture (except vineyards), quarrying, mining, or timbering in the Study Area (Historic Aerials 2024).

4.0 ASSESSMENT METHODS

Prior to the site visits, WRA biologists reviewed the following literature and performed database searches to assess the potential for sensitive natural communities (e.g., wetlands) and special-status species (e.g., endangered plants):

- *Soil Survey of Napa County, California* (USDA 1978)
- Calistoga 7.5-minute quadrangle (USGS 2015)
- Contemporary aerial photographs (Google Earth 2024)
- Historical aerial photographs (Historical Aerials 2024)
- National Wetlands Inventory (NWI; USFWS 2024a)
- California Aquatic Resources Inventory (CARI; SFEI 2024)
- California Natural Diversity Database (CNDDB; CDFW 2024a)
- California Native Plant Society Electronic Inventory (CNPS 2024a)
- Consortium of California Herbaria (CCH 2024)
- USFWS Information for Planning and Consultation (IPaC; USFWS 2024b)
- *eBird* Online Database (eBird 2024)
- CDFW Publication, *California Bird Species of Special Concern in California* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *Breeding Birds of Napa County, California* (Smith 2003)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)
- *A Manual of California Vegetation, 2nd Edition* (Sawyer et al. 2009)
- *A Manual of California Vegetation Online* (CNPS 2024b)
- *Preliminary Descriptions of the Terrestrial Natural Communities* (Holland 1986)
- Napa County Land Cover (NCLC) map (Thorne et al. 2004)
- *California Natural Community List* (CDFW 2024b)

For special-status plants, database searches (i.e., CNDDB, CNPS) focused on the Mount St. Helena, Detert Reservoir, Aetna Springs, Mark West Springs, Calistoga, St. Helena, Santa Rosa, Kenwood, and Rutherford USGS 7.5' quadrangles. The special-status wildlife evaluation was based on database searches for the entirety of Napa County.

Following the remote assessment, a botanist with 40-hour Corps wetland delineation and wildlife biologist training traversed the entire Study Area on foot to document: (1) land cover types (e.g., terrestrial communities, aquatic resources), (2) if and what type of aquatic natural communities (e.g., wetlands) are present, (3) existing conditions and to determine if such provide suitable

habitat for any special-status plant or wildlife species, and (4) if special-status species are present[3].

4.1 Land Cover Types

4.1.1 Terrestrial Land Cover Types

Terrestrial land cover types were mapped and evaluated across the entire Study Area. In most instances, communities are delineated based on distinct shifts in plant assemblage (vegetation) and follow the *California Natural Community List* (CDFW 2023b), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Manual of California Vegetation, Online Edition* (CNPS 2021b). In some cases, it may be necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature; should an undescribed variant be used, it will be noted in the description.

Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled (S1/G1), imperiled (S2/G2), or vulnerable (S3/G3), were evaluated as sensitive as part of this evaluation.[4] Additionally, any sensitive natural communities as described in the Napa County Baseline Data Report (NCBDR; Napa County 2005) or General Plan (Napa County 2008) were considered.

4.1.2 Aquatic Resources

Aquatic resources include Waters of the U.S., Waters of the State, and Streams, Lakes, and Riparian Habitat as defined in the CWA, Porter-Cologne Act, and CFGC, respectively. Napa County mandates setbacks from these aquatic resources, and therefore requires mapping of the outward extent of such features. This site assessment does not constitute a formal wetland delineation; however, the surveys looked for superficial indicators of wetlands such as hydrophytic vegetation (i.e., plant communities dominated by wetland species), evidence of inundation or flowing water, saturated soils and seepage, and topographic depressions/swales. If sample points were taken, WRA followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008).

If streams potentially jurisdictional under the CWA and/or the CFGC are noted on a site, they are delineated using a mix of surveyed topography data, high resolution aerial photographs, and a sub-meter GPS unit. The OHWM would be used to determine the extent of potential Section 404 jurisdiction, while the top-of-bank would be used to determine the extent of CFGC Section 1602 and 401. Streams with associated woody vegetation were assessed to determine if these areas would be considered riparian habitat by the CDFW following *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFG 1994). Finally, all streams were assessed to determine if they meet the Napa County definition of "stream" pursuant to Napa County Code 18.108.030.

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[3] *Due to the timing of the assessment, it may or may not constitute protocol-level species surveys; see Section 4.2 if the site assessment would constitute a formal or protocol-level species survey.*

[4] *Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2018).*

4.2 Special-status Species

4.2.1 General Assessment

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the greater vicinity through a literature and database review. Database searches for known occurrences of special-status species focused on the 7.5-minute USGS quadrangles mentioned above for special-status plants and the entirety of Napa County for special-status wildlife.

A site visit was made on June 6, 2024 to evaluate the presence of suitable habitat for special-status species. Suitable habitat conditions are based on physical and biological conditions of the site, as well as the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then determined according to the following criteria:

- 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 (i.e. CNDDB, other reports) on the site in the recent past.

If a more thorough assessment was warranted, a targeted or protocol-level assessment or survey was conducted or recommended as a future study. Methods for the assessments are described below. If a special-status species was observed during the site visit, its presence was recorded and discussed below in Section 5.2.

4.2.2 Special-status Plants

To determine the presence or absence of special-status plant species, focused surveys were conducted within the Study Area on June 6, 2024. The surveys correspond to the period sufficient to observe and identify most of the special-status plants determined to have the potential to occur. The field survey was conducted by botanists familiar with the flora of Napa and surrounding counties. The surveys were performed in accordance with those outlined by Napa County (2016b), which follow those described by resource experts and agencies (CNPS 2001, CDFW 2018, USFWS 1996). Plants were identified using *The Jepson Manual, 2nd Edition* (Baldwin et. al. 2012) and Jepson

Flora Project (eFlora 2024), to the taxonomic level necessary to determine if they were sensitive. Plant names follow those of Jepson Flora Project (eFlora 2024), unless otherwise noted.

4.2.3 Special-status Wildlife

A general wildlife assessment was performed during the site visits referenced above. This assessment consisted of traversing the entirety of the Study Area. Habitat elements required or associated with certain species (e.g., California red-legged frog [*Rana draytonii*]) or species groups (e.g., bats, anadromous fish) were searched for and noted. Such habitat elements include, but are not limited to: plant assemblages and vegetation structure; stream depth, width, hydro-period, slope, and bed-and-bank structure; rock outcrops, caves, cliffs, overhangs, and substrate texture and rock content; history of site alteration and contemporary disturbances; etc.

4.2.4 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

Prior to the site visit the USFWS Critical Habitat Mapper (USFWS 2024c) and the NMFS Essential Fish Habitat Mapper (NMFS 2024) were queried to determine if critical habitat for any species or EFH, respectively, occurs within the Study Area. To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CECP) by Caltrans (2010) and CDFW's Biogeographic Information and Observation System (BIOS) (CDFW 2024c), as well as the NCBDR (Napa County 2005). The CECP maps both 1) "Natural Landscape Blocks," or discrete areas of mostly natural land covers that support biodiversity, and 2) "Essential Connectivity Areas" that provide ecological connectivity between the former. Additionally, aerial imagery (Google Earth 2024) for the local area was referenced to assess if local core habitat areas were present within or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions.

5.0 ASSESSMENT RESULTS

5.1 Land Cover Types

Land cover types observed by WRA within the Study Area are shown in Figure A-3; land covers overlain with the Project's limits of disturbance are shown in Figure A-4 (Appendix A). Representative photographs of the site are shown in Appendix D. Four land cover types are present: developed, California black oak woodland, foothill pine woodland, and reservoir. The Project Area (facilities, road improvement footprint) has been intentionally sited to avoid all sensitive aquatic resources and limit impacts to the oak woodland canopy.

5.1.1 Terrestrial Land Cover Types

<u>Developed (no vegetation alliance). CDFW Rank: None</u>. Within the Study Area, the developed portion is composed of existing vineyard blocks, vineyard avenues and access (dirt) roads, and various outbuildings and viticultural facilities including the entrance to a maintained (regularly used) wine cave. The vegetation and soils are highly altered, consisting of native trees, landscape

species, and disturbance tolerant herbs. Species include over-hanging coast live oak (*Quercus agrifolia*), blue oak (*Quercus douglasii*), California bay (*Umbellularia californica*), olive (*Olea europaea*), Queen Anne's lace (*Daucus carota*), rough cat's-ear (*Hypochaeris radicata*), red sandspurry (*Spergularia rubra*), and foothill filaree (*Erodium brachycarpum*).

The developed area totals 2.7 acres within the Study Area, 0.9 acre of which is within the Project Area (approximately 33 percent of this total land cover in the Study Area). This community is synonymous with the Urban/Built-up biotic community in the NCLC (Thorne et al. 2004). This community is not considered sensitive by Napa County, CDFW, or any other regulatory entity.

<u>California Black Oak Woodland (*Quercus kelloggii* Woodland Alliance). Rank: G4 S4.</u> California black oak woodlands are known from the Coast Ranges, Transverse Range, Peninsular Ranges, Klamath Range, Cascade Range, west and east slopes of the Sierra Nevada, and Modoc Plateau (CNPS 2024b, Sawyer et al. 2009). These woodlands typically occur on all aspects and topographic gradients with sites underlain by moderately to excessively drained soils (Sawyer et al. 2009).

The canopy of this woodland is dominated by California black oak (*Quercus kelloggii*), with secondary cover of coast live oak (*Quercus agrifolia*), blue oak (*Quercus douglasii*), Pacific madrone (*Arbutus menziesii*). The understory is open with a mix of sparse shrubs and herbs including toyon (*Heteromeles arbutifolia*), poison oak (*Toxicodendron diversilobum*), common manzanita (*Arctostaphylos manzanita* ssp. *manzanita*), pink honeysuckle (*Lonicera hispidula*), Pacific pea (*Lathyrus vestitus*), Pacific sanicle (*Sanicula crassicaulis*), common madia (*Madia elegans*), common yarrow (*Achillea millefolium*), Pacific hound's tongue (*Adelinia grandis*), field hedge parsley (*Torilis arvensis*), wild oat (*Avena barbata*), dogtail grass (*Cynosurus echinatus*), and blue wild rye (*Elymus glaucus*).

California black oak woodland occupies 0.9 acre within the Study Area, 0.3 acre of which is within the Project Area (approximately 33 percent of this total land cover in the Study Area). This land cover type is synonymous with the California Black Oak Alliance biotic community in the NCLC (Thorne et al. 2004). These woodlands provide habitat for numerous common native plants and wildlife and have the potential to support special-status species associated with oak woodlands. California black oak woodland is considered sensitive in Napa County under both the General Plan Conservation Element Policy CON-24 (oak woodland retention) and County Code.

<u>Foothill Pine Woodland (*Pinus sabiniana* Woodland Alliance). CDFW Rank: G4 S4.</u> Foothill pine woodland typically occurs on streamside terraces, valleys, slopes, and ridges on shallow stony soils which are infertile and have moderate to excessive drainage (CNPS 2024b, Sawyer 2009). These woodlands occur on terraces, foothill valley bottoms, slopes, and ridges underlain by shallow, rocky soils which are moderately to excessively drained (CNPS 2024b).

The canopy of this woodland type is dominated by foothill (gray) pine (*Pinus sabiniana*), with secondary cover of blue oak (*Quercus douglasii*), California black oak (*Quercus kelloggii*), Pacific madrone (*Arbutus menziesii*), and California buckeye (*Aesculus californica*). The understory is a mix of shrubs and herbs including common manzanita (*Arctostaphylos manzanita* ssp. *manzanita*), Stanford's manzanita (*Arctostaphylos stanfordiana* ssp. *stanfordiana*), poison oak (*Toxicodendron diversilobum*), chaparral honeysuckle (*Lonicera interrupta*), California biscuitroot (*Lomatium californicum*), common soap plant (*Chlorogalum pomeridianum* var. *pomeridianum*), common

yarrow (*Achillea millefolium*), Indian warrior (*Pedicularis densflora*), blue dicks (*Dipterostemon capitatus*), wild oat (*Avena barbata*), false brome (*Brachypodium distachyon*), blue wild rye (*Elymus glaucus*), Torrey's melica (*Melica torreyana*), California melica (*Melica californica*), and purple needlegrass (*Stipa pulchra*).

There are 1.8 acres of foothill pine woodland within the Study Area, 0.3 acre of which is within the Project Area (approximately 17 percent of this land cover type within the Study Area). The Foothill Pine Alliance NCLC type is synonymous with the Foothill Pine Woodland CDFW Alliance (Thorne et al. 2004). Foothill pine woodland is named as a "coniferous forest" land cover in the General Plan and thus considered sensitive under Napa County Code.

5.1.2 Aquatic Resources

Reservoir. Porter-Cologne Act and CDFW Section 1602. Rank: None. The Study Area contains a portion of a reservoir (manmade pond), which exhibits a clear OHWM. The edge contains very little emergent wetland vegetation, which is neither contiguous nor wider than two or three feet. Species in this fringe and atop the water's surface include common spikerush (*Eleocharis macrostachya*), tall flat-sedge (*Cyperus eragrostis*), and mosquito fern (*Azolla fililculoides*). This feature is likely to be considered jurisdictional under the Porter Cologne Act and Section 1600 of the CFGC but may be exempt from the CWA due to it being hydrologically disconnected from a Traditionally Navigable Water. It is considered a sensitive aquatic resource. While less than 0.1 acre of the reservoir (measuring surface area) is within the Study Area, this feature is completely outside of the Project Area.

5.2 Special-status Species

5.2.1 Special-status Plant Species

Based upon a review of the resource databases listed in Section 4.0, 101 special-status plant species have been documented in the vicinity of the Study Area. As outlined in Appendix C, nine (9) of these plants have the potential to occur in the Study Area.[5] The remaining 92 special-status plants documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., tidal, riverine) necessary to support the special-status plant species are not present in the Study Area.
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the Study Area.
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the Study Area.
- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the Study Area.
- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the Study Area.

[5] *As per these databases, there are no documented occurrences of special-status mosses, bryophytes or lichens in Napa County.*

- The Study Area is geographically isolated (e.g., below elevation, coastal environ) from the documented range of the special-status plant species.
- Land use history and contemporary management (e.g., absence of mowing or grazing) has degraded the localized habitat necessary to support the special-status plant species.

WRA biologists conducted a site visit during a period sufficient to identify seven of the nine special-status plant species with the potential to occur within the Study Area. None of these seven special-status plants were observed during these surveys, and as such these species are considered absent at the site. The following is a list of those plants with the potential to occur within the Study Area but were not observed during surveys conducted in summer of 2024.

- Franciscan onion (*Allium peninsulare* var. *franciscanum*); CRPR 1B
- Bent-flowered fiddleneck (*Amsinckia lunaris*); CRPR 1B
- Streamside daisy (*Erigeron biolettii*); CRPR 3
- Nodding harmonia (*Harmonia nutans*); CRPR 4
- Bristly leptosiphon (*Leptosiphon aureus*); CRPR 4, LR
- Slender-leaved pondweed (*Stuckenia filiformis* ssp. *alpina*); CRPR 2B
- Oval-leaved viburnum (*Viburnum ellipticum*); CRPR 2B

The following special-status plants have the potential to occur within the Study Area and were not identifiable at the time of the site visit.

- Clara Hunt's milk-vetch (*Astragalus claranus*); FE, ST, CRPR 1B
- Lobb's buttercup (*Ranunculus lobbii*); CRPR 4

5.2.2 Special-status Wildlife Species

A total of 58 special-status wildlife species have been documented in Napa County (CDFW 2023a, Napa County 2005). As outlined in Appendix C, six of these species have the potential to occur there. The remaining 52 species are unlikely or have no potential to occur due to one or more of the following reasons:

- Extensive aquatic habitats (e.g., rivers, estuaries) necessary to support the special-status wildlife species are not present in the Study Area
- Vegetation habitats (e.g., coast redwood forest, coastal prairie, dense emergent marsh) that provide nesting and/or foraging resources necessary support the special-status wildlife species are not present in the Study Area
- Physical structures and vegetation (e.g., mines/derelict caves, riparian forest) necessary to provide nesting, cover, and/or foraging habitat to support the special-status wildlife species are not present in the Study Area
- Host plants (e.g., dog violet, harlequin lotus) necessary to provide larval and nectar resources for the special-status wildlife species are not present in the Study Area
- The Study Area is outside (e.g., north of, west of) of the special-status wildlife species documented local range (including breeding range for birds)

Special-status Wildlife with Potential to Occur

Pallid bat (*Antrozous pallidus*). CDFW Species of Special Concern, WBWG High Priority. Moderate Potential. The pallid bat occurs in a variety of habitats ranging from rocky arid deserts to grasslands, and coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG 2023). Trees within the Study Area (larger, more aged oaks) may contain cavities or snags suitable for roosting by this species, and there are multiple CNDDB occurrences within 5 miles (CDFW 2023a). A targeted bat habitat assessment was not performed under this biological assessment.

Fringed myotis (*Myotis thysanodes*). WBWG High Priority. Moderate Potential. The fringed myotis ranges throughout much of western North America. This species is found in desert scrubland, grassland, sage-grass steppe, old-growth forest, and subalpine coniferous and mixed deciduous forest. Oak and pinyon-juniper woodlands are most commonly used. The fringed myotis roosts in colonies from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree-roosting has also been documented in California (WBWG 2023). Trees within the Study Area (larger, more aged oaks) may contain cavities or exfoliating bark suitable for roosting, and there is as CNDDB occurrence within 5 miles (CDFW 2024a). A targeted bat habitat assessment was not performed under this biological assessment.

Olive-sided Flycatcher (*Contopus cooperi*), CDFW Species of Special Concern. Moderate Potential. The olive-sided flycatcher is a summer resident in California, wintering in Latin America. It breeds in a variety of forested habitats, typically coniferous forests at higher elevations, but also in mixed forest and woodlands at lower elevations. Breeding habitat is often associated with forest openings and edges, both natural (e.g., meadows, canyons) and man-made (e.g., logged areas) (Altman and Sallabanks 2012). Nests are usually in conifers, and placed at variable height on the outer portions of branches. This species forages for insects, usually from prominent tree snags. Woodland within and adjacent to the Study Area is of moderate quality for this species (including for nesting).

White-tailed kite (Elanus leucurus). CDFW Fully Protected Species. Moderate Potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals,

as well as other vertebrates and invertebrates. Trees within the Study Area are suitable for nesting, and there are open areas in the vicinity for foraging.

Purple martin (*Progne subis*). CDFW Species of Special Concern. Moderate Potential. The purple martin is an uncommon summer resident in California, breeding in forest and woodlands at low- to mid- elevations throughout much of the state. Nesting occurs primarily in tree cavities; trees selected are usually taller or isolated, with low canopy cover at the nest height, and situated on the upper portions of slopes and/or near bodies of water where large aerial insects (favored prey) are abundant (Shuford and Gardali 2008). Conifers are the most frequently used tree type in northern California. Man-made structures with suitable cavities such as bridges or utility poles are also used. Taller tree snags within the Study Area may provide suitable nesting substrates for this species; there are nesting occurrences in CNDDB within 4.5 miles of the Study Area (CDFW 2024a).

Western pond turtle (*Emys marmarota*). CDFW Species of Special Concern. Moderate Potential. The western pond turtle is the only freshwater turtle native to most of California. This species is highly aquatic, typically inhabiting perennial waters including lakes, ponds/reservoirs, rivers, streams, and canals that provide submerged cover and suitable exposed basking structures such as rocks, logs and mats of emergent vegetation. Nesting usually occurs in spring to early summer, with eggs hatching in the fall; nests are excavated in upland areas with friable soil, usually on unshaded slopes within 300 feet of water (Thomson et al. 2016). Hatchlings require shallow water with relatively dense emergent and aquatic vegetation to provide forage, usually aquatic invertebrates (Thomson et al. 2016).

The small reservoir partially within the Study Area's provides suitable aquatic habitat for this species. Uplands surrounding the reservoir have some potential to be used for nesting, dependent on conditions that may vary across years (vegetation extent, etc.). This species was looked for during site visits and not observed, though these results are not considered conclusive.

5.2.3 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

The Study Area does not contain any designated Critical Habitat (USFWS 2024c, NMFS 2024) or Essential Fish Habitat (NMFS 2024).

As per mapping by the CECP the Study Area is not within a Natural Landscape Block or an Essential Connectivity Area (Caltrans 2010, CDFW 2024c), and vineyard development in the vicinity limits any potential landscape-scale movement functions. At a localized scale the Study Area is bounded by vineyards and light residential development to the west and north, precluding corridor functions. While a largely undeveloped and wooded area is present to the south and east, the Study Area is situated on its periphery.

6.0 PROJECT ANALYSIS AND RECOMMENDATIONS

6.1 Land Cover Types

6.1.1 Terrestrial Land Cover Types

California Black Oak and Foothill Pine Woodland

California black oak woodlands are not explicitly considered sensitive by CDFW or included as sensitive in the NCBDR; however, the Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained and/or improved to the extent feasible and calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. Code Section 18.108.020(C) requires that 70 percent of canopy cover be retained based on the on-site canopy present in June 2018 (applicable to fire-damaged properties). Additionally, Code Section 18.108.020(D) requires that the removal of tree canopy on an acreage basis be mitigated at a 3:1 ratio (which is equivalent to 75 percent retention) for oak woodland and coniferous forest land covers (the latter including foothill pine woodland) where the areas to be preserved must generally occur on slopes less than 50 percent (preferably less than 30 percent) and outside of stream and wetland setbacks.

The Study Area contains 2.7 acres of oak and coniferous woodland (combined), of which 0.6 acre will be impacted by the Project and 2.1 acres retained; in this limited context alone the stipulated 3:1 retention ratio will be exceeded. Additionally, Napa County's canopy and woodland/forest landcover retention requirements are applicable to whole parcels. The Study Area is sited within a much larger parcel that hosts greater than 82 acres of combined oak woodland and coniferous forest land covers (also applicable to June 2018). At the parcel scale retention of these land covers will vastly exceed County requirements for both canopy overall, and oak woodland/coniferous forest specifically. Note that the County will presumably require preservation (in perpetuity) of at least 1.8 acres of on-site coast live oak woodland/forest (3:1 ratio) in compensation for the impacts; WRA recommends that this acreage of woodland be selected (as per slope and setback parameters outlined above) and shown in the Project's final development application.

6.1.2 Aquatic Resources

The Study Area contains one reservoir (pond). Code Section 18.108.026 stipulates a minimum setback of 50 feet from the outward edge of such features; at its nearest point, the Project Area is set back slightly less than this distance from the pond. However, the disturbance footprint in this area is restricted to an already developed area (graded), and subject to use. Additionally, the Project Area is situated downslope ("downstream") of the reservoir, substantially reducing the potential for incidental impacts (e.g., sediment discharges). For these reasons, no impacts to the reservoir are anticipated and no further actions are recommended for aquatic resources.

6.2 Special-status Species

6.2.1 Special-status Plants

Seven of the nine special-status plants with the potential to occur were not observed within the Study Area during a botanical survey in June 2024 (summer). Additionally, Lobb's buttercup

(*Ranunculus lobbii*) would only occur entirely within the reservoir and therefore would not be impacted the proposed project. Clara Hunt's milk-vetch (*Astragalus claranus*) has the potential to occur within the Study Area's woodlands, particularly the foothill pine woodland; this species was not identifiable at the time of the site survey. The following recommendation is included for this species:

> Recommendation 1: WRA recommends an appropriately (i.e., reference site visit) timed spring survey for Clara Hunt's milk-vetch (*Astragalus claranus*). If this species is not present within the Study Area, then no further actions are recommended for this species. If this plant is present, but the Proposed Project would not impact it, then no further actions are recommended. If this plant is present and impacts are unavoidable, then the Proposed Project should be amended to avoid impacts. Alternatively, the number of individuals should be mitigated at a ratio of at least 1.2:1. A mitigation plan should be developed by a qualified biologist in consultation with USFWS and CDFW.

6.2.2 Special-status Wildlife

The Study Area has the potential to support four special-status wildlife species (two bats, three birds, and one reptile), as well as non-status birds protected under the MBTA and CFGC. The following measures are recommended to avoid or otherwise minimize potential impacts to these species.

Bat Species: Two special-status bats have the potential to occur within the Study Area (pallid bat, fringed myotis). Tree removal and including trimming (e.g., limb removal, if needed to accommodate construction) during the local bat maternity season and/or hibernation period could impact bat breeding and potentially result in take (injury, mortality) of bats. Because a targeted bat habitat assessment was not conducted as part of this biological assessment, pre-construction surveys for bat habitat and recommendations for tree removal to avoid impacts to bat species are provided below.

> Recommendation 2: WRA recommends that any tree trimming (if needed) be performed from September 1 through October 15, or March 1 to April 15, outside of the respective bat maternity and hibernation seasonal periods. If tree removal during either of these periods is not feasible, it is recommended that a bat habitat assessment and survey effort (the latter if needed) be performed by a qualified biologist prior to tree removal to determine if bats are present in the trees. If no suitable roosting habitat for bats is found, then no further study is warranted. If special-status bat species or bat maternity roosts are detected, then roost trees should be avoided until the end of the maternity roosting or hibernation season. If this avoidance is not feasible, appropriate species- and roost-specific mitigation measures should be developed in consultation with CDFW. Irrespective of time of year, all felled trees with potential bat roosts should remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats present within the felled trees to escape.

Bird Species: Olive-sided Flycatcher, White-tailed Kite, Purple Martin, and Non-special-status Species: In addition to the three special-status bird species discussed above (olive-sided flycatcher, white-tailed kite, and purple martin), various non-status bird species with baseline

protections under the MBTA and CFGC may use vegetation within or directly adjacent to the Project Area for nesting. Pre-construction surveys are recommended to ensure that the implementation of the Project would not impact any nesting birds, including via incidental impacts (such as construction noise).

> Recommendation 3: WRA recommends that vegetation removal (including tree trimming, if needed) and initial ground disturbance occur from September 1 to January 31, outside of the general bird nesting season. If tree/vegetation removal during this time is not feasible, a pre-construction nesting bird survey should be performed by a qualified biologist no more than 14 days prior to the initiation of Project activities. The survey should cover the Project Area (including tree removal areas) and surrounding areas within 500 feet. If active bird nests are found during the survey, an appropriate no-disturbance buffer should be established by the qualified biologist. Buffer sizes may vary dependent on bird species, location and setting of the nest, levels of ambient disturbance near the nest, and other factors. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer may be lifted and work may be initiated within the buffer.

Western Pond Turtle: Although western pond turtle was not observed during the site visit, the small reservoir within the Study Area provides suitable aquatic habitat and the species may be present in the future. If pond turtles are present upland nesting near the reservoir may also occur. Proposed project activities will avoid the reservoirs including their immediate shorelines (along with basking substrates), reducing the risk of harm to adult pond turtles. However, ground disturbance near the reservoirs has some potential to impact turtle nests in the substrate (if present) as well as adult turtles and/or hatchlings moving to/from the pond to upland areas. To avoid any potential impacts to nesting activities of this species, the following measures are provided.

> Recommendation 4: WRA recommends that a presence/absence survey for western pond turtles be performed prior to April 1 (see context below) in the year when ground disturbance is planned. The survey should be performed by a qualified biologist using suitable methods, i.e., surveying the two focal reservoirs on a sunny day from suitable distant vantage points as to limit potential disturbance to turtles and increase the chances of detection of any that are present. Alternately, presence of the species within either or both reservoirs may simply be assumed with no survey performed.
>
> If the species is observed on-site or presence is assumed, exclusion fencing should be installed during the wet season (prior to April 1) around the northwestern boundary of the disturbance area in such a manner as to preclude turtles from entering ground disturbance areas with suitable nesting habitat, e.g., grassland and other relatively open areas. The fencing should have a minimum height above ground of 24 inches, the bottom of the fence buried to a minimum depth of 4 inches. Erosion control fencing (silt fencing) may serve as the exclusion fence if it meets the requirements above. Specific location(s) of the fencing should be approved by a qualified biologist prior to installation, and inspected by the biologist following installation to ensure that it is effective. The fencing should remain installed until on-site mechanized ground disturbance is completed.

Additionally, if pond turtles are observed on-site, prior to the initiation of work, a biological education program should be provided by the qualified biologist to all personnel that will be present at the site during ground disturbance and related activities. The worker education program should include information regarding the identification of western pond turtle (including photographs), the potential for occurrence within work areas, the purpose of the exclusion fencing and importance of maintaining it, and specific measures being implemented to avoid impacts (which will include halting all ground disturbance and immediately alerting the qualified biologist if western pond turtle is observed in work areas over the course of the work).

6.2.3 Wildlife Movement

The Study Area does not provide movement corridor functions at either landscape-level or localized scales. While it is adjacent to a wooded area, the Study Area is already partially developed and situated at the very periphery of the subject undeveloped area. The Project involves relatively limited land conversions and existing woodland to the south and east will not be impacted. For these reasons, the Project will not impact wildlife movement or migration.

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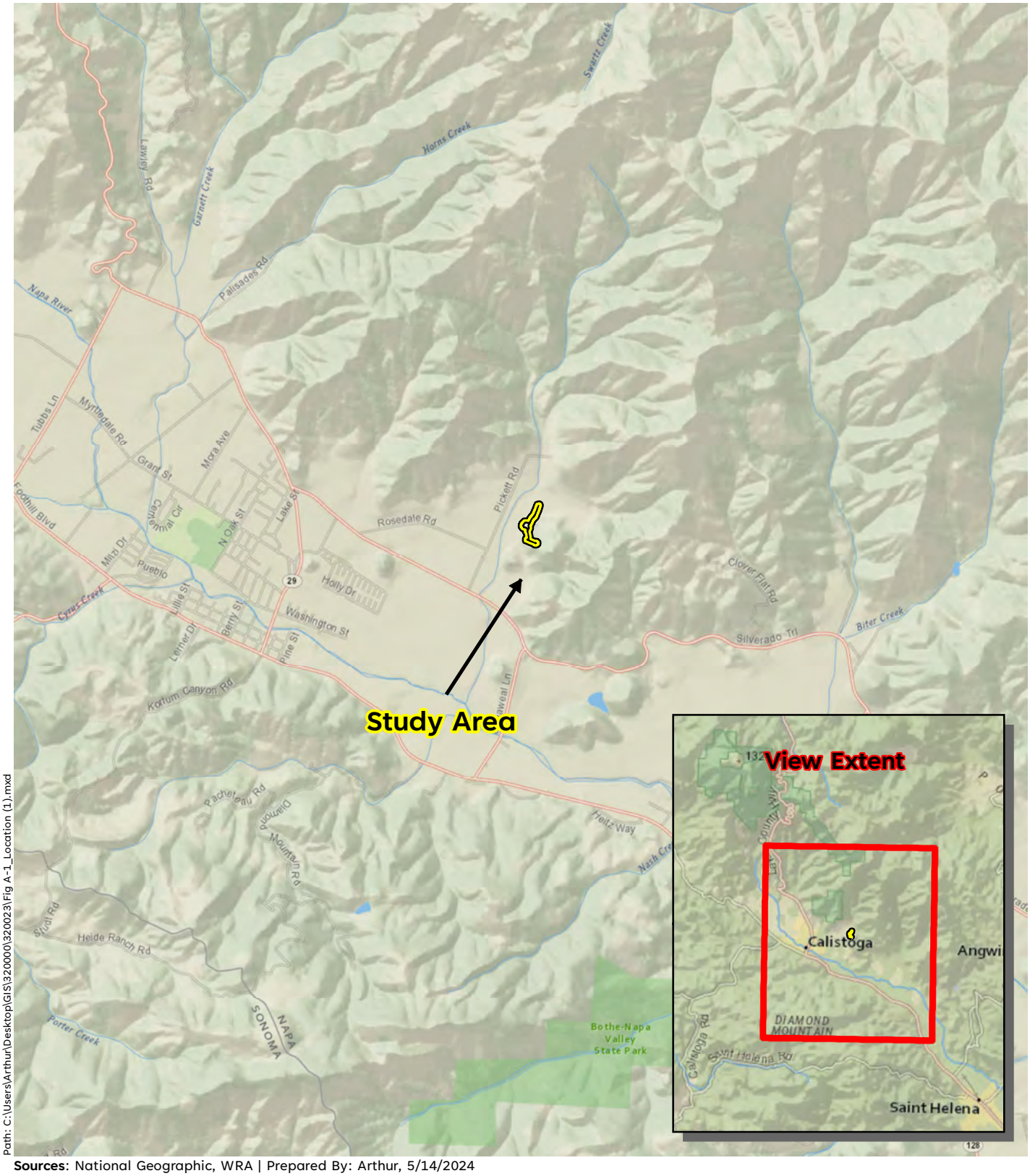
Appendix A

Figures



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Sources: National Geographic, WRA | Prepared By: Arthur, 5/14/2024

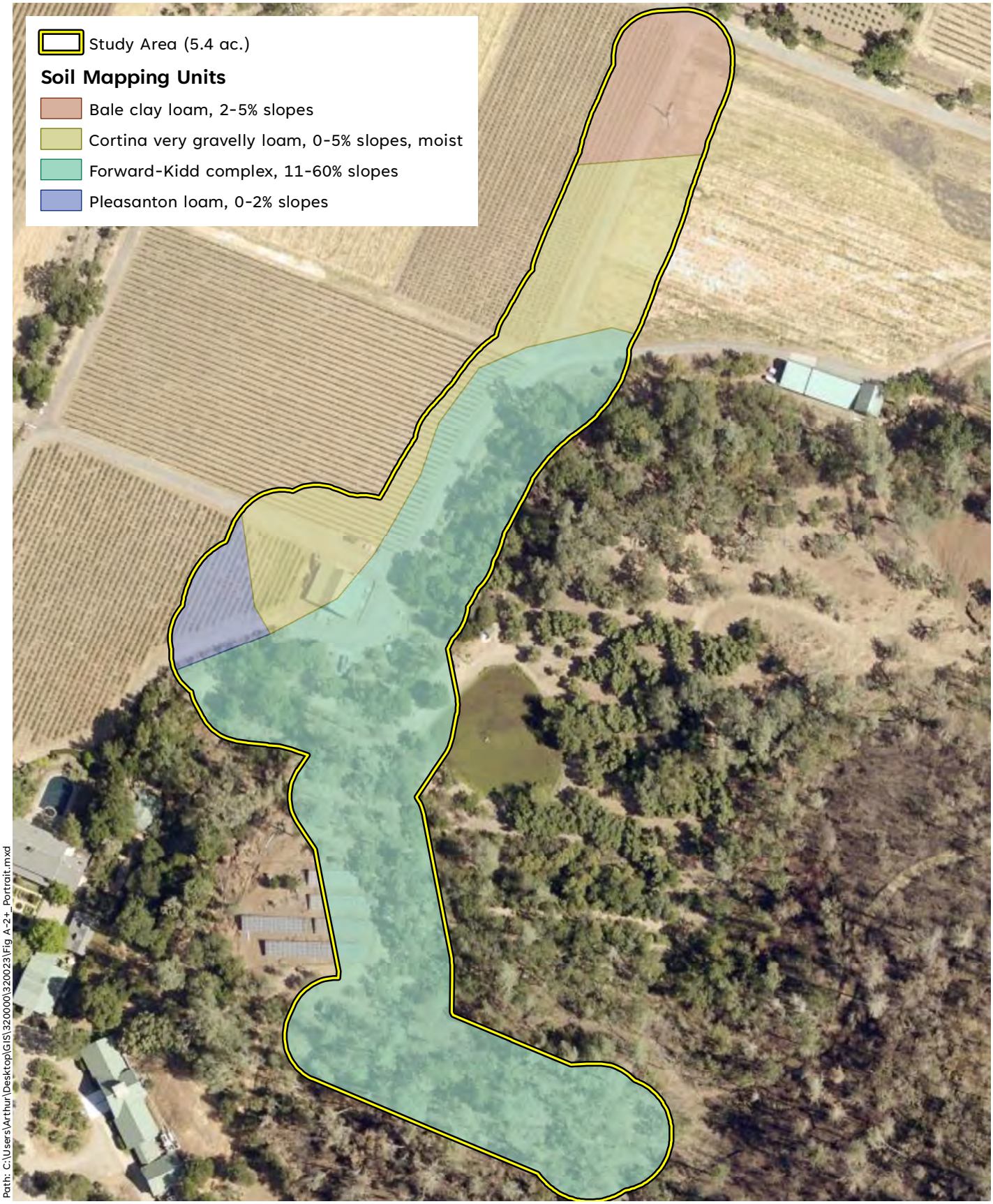
Figure A-1. Study Area Location

Eisele Winery
Napa County, CA

0 1 2 Miles

N

wra Environmental Consultants



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Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: Arthur, 7/8/2024

Figure A-2. Soil Mapping Units

Eisele Winery
Napa County, CA

0 200 400 Feet

N

wra Environmental Consultants

Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: Arthur, 7/8/2024

Figure A-3. Land Cover: Study Area

Eisele Winery
Napa County, CA

0 200 400 Feet

N

wra Environmental Consultants

Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: Arthur, 7/8/2024

Figure A-4. Land Cover: Project Area

Eisele Winery
Napa County, CA

0 200 400 Feet

N

wra Environmental Consultants

Appendix B

Species Observed in the Study Area

Table B-1. Plant species observed in the Study Area: June 6, 2024

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]
Agavaceae	*Chlorogalum pomeridianum* var. *pomeridianum*	common soap plant	perennial forb	native	--	--	NL
Anacardiaceae	*Toxicodendron diversilobum*	poison oak	deciduous shrub	native	--	--	FACU
Apiaceae	*Daucus carota*	Queen Anne's lace	perennial forb	non-native	--	assessed	UPL
Apiaceae	*Lomatium californicum*	California biscuitroot	perennial forb	native	--	--	NL
Apiaceae	*Sanicula bipinnatifida*	purple sanicle	perennial forb	native	--	--	NL
Apiaceae	*Sanicula crassicaulis*	Pacific sanicle	perennial forb	native	--	--	NL
Apiaceae	*Torilis arvensis*	field hedge parsley	annual forb	non-native	--	moderate	NL
Asteraceae	*Achillea millefolium*	common yarrow	perennial forb	native	--	--	FACU
Asteraceae	*Agoseris grandiflora*	large-flowered agoseris	perennial forb	native	--	--	NL
Asteraceae	*Baccharis pilularis* ssp. *consanguinea*	coyote brush	evergreen shrub	native	--	--	NL
Asteraceae	*Carduus pycnocephalus*	Italian thistle	annual forb	non-native	--	moderate	NL
Asteraceae	*Centaurea solstitialis*	yellow star thistle	annual forb	non-native	--	high	NL
Asteraceae	*Helminthotheca echioides*	bristly ox-tongue	perennial forb	non-native	--	limited	FAC
Asteraceae	*Hypochaeris radicata*	rough cat's-ear	perennial forb	non-native	--	moderate	FACU
Asteraceae	*Lactuca serriola*	prickly lettuce	annual forb	non-native	--	assessed	FACU
Asteraceae	*Leontodon saxatilis* ssp. *longirostris*	hawkbit	annual forb	non-native	--	--	FACU
Asteraceae	*Madia elegans*	common madia	annual forb	native	--	--	NL
Azollaceae	*Azolla filiculoides*	Pacific mosquitofern	annual fern	native	--	--	OBL
Boraginaceae	*Adelinia grandis*	Pacific hound's tongue	perennial forb	native	--	--	NL
Brassicaceae	*Brassica nigra*	black mustard	annual forb	non-native	--	moderate	NL
Brassicaceae	*Hirschfeldia incana*	short podded mustard	perennial forb	non-native	--	moderate	NL
Brassicaceae	*Raphanus sativus*	wild radish	perennial forb	non-native	--	limited	NL
Caprifoliaceae	*Lonicera interrupta*	chaparral honeysuckle	evergreen shrub	native	--	--	NL
Caprifoliaceae	*Lonicera hispidula*	pink honeysuckle	evergreen shrub	native	--	--	FACU
Caryophyllaceae	*Spergularia rubra*	red sandspurry	perennial forb	non-native	--	--	FAC

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]
Cyperaceae	*Cyperus eragrostis*	tall flat-sedge	perennial graminoid	native	--	--	FACW
Cyperaceae	*Eleocharis macrostachya*	common spikerush	perennial graminoid	native	--	--	OBL
Cucurbitaceae	*Marah fabacea*	California manroot	perennial vine	native	--	--	NL
Ericaceae	*Arbutus menziesii*	Pacific madrone	evergreen tree	native	--	--	NL
Ericaceae	*Arctostaphylos manzanita* ssp. *manzanita*	common manzanita	evergreen shrub	native	--	--	NL
Ericaceae	*Arctostaphylos stanfordiana* ssp. *stanfordiana*	Stanford's manzanita	evergreen shrub	native	--	--	NL
Fabaceae	*Acmispon americanus*	American lotus	annual forb	native	--	--	NL
Fabaceae	*Lathyrus vestitus*	Pacific pea	perennial forb	native	--	--	NL
Fabaceae	*Lupinus bicolor*	miniature lupine	annual forb	native	--	--	NL
Fabaceae	*Lupinus nanus*	sky lupine	annual forb	native	--	--	NL
Fabaceae	*Medicago polymorpha*	bur medic	annual forb	non-native	--	limited	FACU
Fabaceae	*Melilotus indicus*	yellow sweetclover	annual forb	non-native	--	--	FACU
Fabaceae	*Trifolium campestre*	hop clover	annual forb	non-native	--	--	NL
Fabaceae	*Trifolium glomeratum*	clustered clover	annual forb	non-native	--	--	NL
Fabaceae	*Trifolium subterraneanum*	subterranean clover	annual forb	non-native	--	--	NL
Fabaceae	*Trifolium wildenovii*	tomcat clover	annual forb	native	--	--	FACW
Fabaceae	*Vicia sativa*	garden vetch	annual forb	non-native	--	--	FACU
Fabaceae	*Vicia villosa*	woolly-pod vetch	annual forb	non-native	--	--	NL
Fagaceae	*Quercus agrifolia*	coast live oak	evergreen tree	native	--	--	NL
Fagaceae	*Quercus douglasii*	blue oak	deciduous tree	native	--	--	NL
Fagaceae	*Quercus kelloggii*	California black oak	deciduous tree	native	--	--	NL
Fagaceae	*Quercus lobata*	valley oak	deciduous tree	native	--	--	FACU
Geraniaceae	*Erodium brachycarpum*	foothill filaree	annual forb	non-native	--	limited	NL
Geraniaceae	*Geranium dissectum*	cutleaf geranium	annual forb	non-native	--	limited	NL
Juncaceae	*Luzula comosa*	Pacific woodrush	perennial graminoid	native	--	--	FAC

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]
Lauraceae	*Umbellularia californica*	California bay	evergreen tree	native	--	--	NL
Oleaceae	*Olea europaea*	olive	evergreen tree	non-native	--	limited	NL
Onagraceae	*Clarkia purpurea* ssp. *quadrivulnera*	winecup clarkia	annual forb	native	--	--	NL
Onagraceae	*Clarkia unguiculata*	woodland clarkia	annual forb	native	--	--	NL
Onagraceae	*Epilobium brachycarpum*	annual willowherb	annual forb	native	--	--	NL
Orobanchaceae	*Pedicularis densiflora*	Indian warrior	perennial forb	native	--	--	NL
Papaveraceae	*Eschscholzia californica*	California poppy	perennial forb	native	--	--	NL
Pinaceae	*Pinus sabiniana*	foothill pine	evergreen tree	native	--	--	NL
Pinaceae	*Pseudotsuga menziesii*	Douglas fir	evergreen tree	native	--	--	FACU
Plantaginaceae	*Collinsia heterophylla*	purple Chinese houses	annual forb	native	--	--	NL
Plantaginaceae	*Collinsia sparsiflora*	blue-eyed Mary	annual forb	native	--	--	NL
Plantaginaceae	*Kickxia elatine*	sharpleaf cancerwort	perennial forb	non-native	--	--	UPL
Plantaginaceae	*Plantago lanceolata*	English plantain	perennial forb	non-native	--	limited	FAC
Poaceae	*Avena barbata*	wild oat	annual graminoid	non-native	--	moderate	NL
Poaceae	*Brachypodium distachyon*	false brome	perennial graminoid	non-native	--	moderate	NL
Poaceae	*Bromus diandrus*	rip-gut brome	annual graminoid	non-native	--	moderate	NL
Poaceae	*Bromus hordeaceus*	soft chess	annual graminoid	non-native	--	limited	FACU
Poaceae	*Cynosurus echinatus*	dogtail grass	annual graminoid	non-native	--	moderate	NL
Poaceae	*Dactylis glomerata*	orchard grass	perennial graminoid	non-native	--	limited	FACU
Poaceae	*Elymus glaucus*	blue wildrye	perennial graminoid	native	--	--	FACU
Poaceae	*Festuca perennis*	Italian rye grass	annual graminoid	non-native	--	moderate	FAC
Poaceae	*Hordeum murinum*	mouse barley	annual graminoid	non-native	--	moderate	FACU
Poaceae	*Melica californica*	California melica	perennial graminoid	native	--	--	NL
Poaceae	*Melica torreyana*	Torrey's melica	perennial graminoid	native	--	--	NL
Poaceae	*Phalaris aquatica*	harding grass	perennial graminoid	non-native	--	moderate	FACU
Poaceae	*Poa annua*	annual bluegrass	annual graminoid	non-native	--	--	FAC

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]
Poaceae	*Stipa lepida*	foothill needlegrass	perennial graminoid	native	--	--	NL
Poaceae	*Stipa pulchra*	purple needlegrass	perennial graminoid	native	--	--	NL
Rhamnanceae	*Ceanothus cuneatus*	buck brush	evergreen shrub	native	--	--	NL
Rhamnanceae	*Frangula californica*	California coffeeberry	evergreen shrub	native	--	--	NL
Rosaceae	*Heteromeles arbutifolia*	toyon	evergreen shrub	native	--	--	NL
Rosaceae	*Rubus armeniacus*	Himalayan blackberry	evergreen shrub	non-native	--	high	FAC
Rubiaceae	*Galium aparine*	common bedstraw	annual forb	native	--	--	FACU
Rubiaceae	*Galium californicum*	California bedstraw	perennial forb	native	--	--	NL
Rubiaceae	*Galium porrigens*	graceful bedstraw	perennial forb	native	--	--	NL
Sapindaceae	*Aesculus californica*	California buckeye	deciduous tree	native	--	--	NL
Themidaceae	*Dipterostemon capitatum*	blue dicks	perennial forb	native	--	--	NL
Viscaceae	*Phoradendron leucarpum* ssp. *macrophyllum*	oak mistletoe	perennial forb	native	--	--	NL
Vitaceae	*Vitis vinifera*	wine grape	deciduous vine	non-native	--	--	NL

All species identified using the *Jepson Manual, 2nd Edition* (Baldwin et al. 2012), *The Jepson Flora Project* (eFlora 2024), and *A Flora of Napa County* (Ruygt 2020); nomenclature follows *The Jepson Flora Project* (eFlora 2024) unless otherwise noted

Sp.: "species", intended to indicate that the observer was confident in the identity of the genus but uncertain which species
Cf.: "*confer*" or "compared with", intended to indicate a species appeared to the observer to be specific, but was not identified based on diagnostic characters

[1]Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2023a)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
LR	Locally Rare
CRPR 1A:	Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B:	Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A:	Plants presumed extirpated in California, but more common elsewhere
CRPR 2B:	Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 3:	Plants about which we need more information – a review list
CRPR 4:	Plants of limited distribution – a watch list

[2]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2006)

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

[3]Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West Region (Corps 2018)

OBL:	Almost always a hydrophyte, rarely in uplands
FACW:	Usually a hydrophyte, but occasionally found in uplands
FAC:	Commonly either a hydrophyte or non-hydrophyte
FACU:	Occasionally a hydrophyte, but usually found in uplands
UPL:	Rarely a hydrophyte, almost always in uplands
NL:	Rarely a hydrophyte, almost always in uplands
NI:	No information; not factored during wetland delineation

Table B-2. Wildlife species observed in the Study Area: June 6, 2024

SCIENTIFIC NAME	COMMON NAME
Mammals	
Odocoileus hemionus columbianus	black-tailed deer
Birds	
Aphelocoma californica	California scrub-jay
Baeolophus inornatus	oak titmouse
Callipepla californica	California quail
Corvus brachyrhynchos	American crow
Haemorhous mexicanus	house finch
Melanerpes formicivorus	acorn woodpecker
Melozone crissalis	California towhee
Pipilo maculatus	spotted towhee
Spinus psaltria	lesser goldfinch
Tachycineta thalassina	violet-green swallow
Zenaida macroura	mourning dove

Appendix C

Potential for Special-status Species to Occur in the Study Area

Table C. Potential for Special-status Species to Occur in the Study Area. List compiled from the Napa County Baseline Data Report (NCBDR; Napa County 2005), CDFW BIOS database (CDFW 2024a), USFWS IPaC Report (USFWS 2024b), and CNPS Electronic Inventory (CNPS 2024a) searches. For plants, the Mount St. Helena, Detert Reservoir, Aetna Springs, Mark West Springs, Calistoga, St. Helena, Santa Rosa, Kenwood, and Rutherford USGS 7.5' quadrangles were included in the search. For wildlife, the entirety of Napa County was considered.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
PLANTS				
Allium peninsulare var. *franciscanum* Franciscan onion	CRPR 1B	Cismontane woodland, valley and foothill grassland; on clay substrate, often derived from volcanics or serpentine; serpentine indicator: WI. Elevation range 170 – 985 feet. Blooms: May – June.	**Moderate Potential.** The Study Area contains rocky woodland and grassland habitat that may support this species.	**Not Observed.** This species was not observed during the June botanical survey. No further actions are recommended for this species.
Alopecurus aequalis var. *sonomensis* Sonoma alopecurus	FE, CRPR 1B	Freshwater marshes and swamps, riparian scrub; closely associated with other wetland species; wetland indicator: OBL/OBL. Elevation range: 15 – 1200 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain perennial wetland (freshwater marsh) to support this species.	**Not Present.** No further actions are recommended for this species.
Amorpha californica var. *napensis* Napa false indigo	CRPR 1B	Openings in broadleaf upland forest, chaparral, cismontane woodland. Elevation range: 395 – 6560 feet. Blooms: April – July.	**Unlikely.** Although the Study Area contains woodland, it is not of the type and density type associated with this species.	**Presumed Absent.** No further actions are recommended for this species.
Amsinckia lunaris bent-flowered fiddleneck	CRPR 1B	Cismontane woodland, valley and foothill grassland, coastal bluff scrub; situated on rocky soils. Elevation range: 10 – 1625 feet. Blooms: March – June.	**Moderate Potential.** The Study Area contains rocky grassland that may support this species.	**Not Observed.** This species was not observed during the June botanical survey. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Antirrhinum virga twig-like snapdragon	CRPR 4	Chaparral, lower montane coniferous forest; located on rocky openings often derived from serpentine; serpentine indicator: SI. Elevation range: 325 – 6550 feet. Blooms: June – July.	**No Potential.** The Study Area does not contain chaparral or forest habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Aphyllon validum ssp. *howellii* Howell's broomrape	CRPR 4	Chaparral; located on serpentine or volcanic substrate. Elevation range: 585 – 5655 feet. Blooms: June – September.	**No Potential.** The Study Area does not contain chaparral habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Arctostaphylos manzanita ssp. *elegans* Konocti manzanita	CRPR 1B	Chaparral, cismontane woodland, lower montane coniferous forest; located on volcanic substrates. Elevation range: 1280 – 5250 feet. Blooms: March – July.	**No Potential.** The Study Area does not contain chaparral, shrubby woodland, or forest habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Arctostaphylos stanfordiana ssp. decumbens Rincon manzanita	CRPR 1B	Chaparral, cismontane woodland; highly restricted to red rhyolite soils. Elevation range: 245 – 1215 feet. Blooms: February – April.	**No Potential.** The Study Area does not contain chaparral habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Asclepias solanoana serpentine milkweed	CRPR 4, LR	Chaparral, cismontane woodland, lower montane coniferous forest; located on serpentine substrate; serpentine indicator: SE. Elevation range: 745 – 6045 feet. Blooms: May – August.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Astragalus breweri Brewer's milk-vetch	CRPR 4	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland; located on open, gravelly serpentine or volcanic substrate; serpentine indicator: SI. Elevation range: 290 – 2375 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Astragalus claranus Clara Hunt's milk-vetch	FE; ST; CRPR 1B	Cismontane woodland, valley and foothill grassland, chaparral; on open grassy hillsides, especially exposed shoulders with thin, volcanic or serpentine clay soils; serpentine indicator: SI. Elevation range: 245 – 900 feet. Blooms: March – May.	**Moderate Potential.** The Study Area contains rocky woodland that may support this species; documented occurrences from central Mayacama Mountains.	**Presence Unknown.** Conduct a spring botanical survey to determine absence or presence of this species. If present and unavoidable, develop an HMMP and consult with USFWS and CDFW to apply mitigation for impacts. See Section 6.0 for details.
Astragalus clevelandii Cleveland's milk-vetch	CRPR 4	Chaparral, cismontane woodland, riparian forest; located on serpentine seeps; serpentine indicator: SE. Elevation range: 650 – 4875 feet. Blooms: June – September.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Astragalus rattanii var. *jepsonianus* Jepson's milk-vetch	CRPR 1B	Chaparral, cismontane woodland, valley and foothill grassland; typically situated on serpentine substrate in openings or grasslands; often on roadsides; serpentine indicator: BE/SI. Elevation range: 955 – 2275 feet. Blooms: March – June.	**Unlikely.** The Study Area does not contain serpentine substrate to support this species.	**Presumed Absent.** No further actions are recommended for this species.
Balsamorhiza macrolepis big-scale balsamroot	CRPR 1B	Valley and foothill grassland, cismontane woodland; situated on rocky substrates, typically derived from metavolcanics, sometimes on serpentine substrate; serpentine indicator: SI. Elevation range: 295 – 3100 feet. Blooms: March – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Blennosperma bakeri Sonoma sunshine	FE, SE, CRPR 1B	Vernal pools, vernal swales, and mesic areas in valley grassland; highly restricted to the Santa Rosa Plain and Valley of the Moon. Elevation range: 35 – 360 feet. Blooms: March – April.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.
Brodiaea leptandra narrow-anthered brodiaea	CRPR 1B	Broadleaf upland forest, chaparral, lower montane coniferous forest; situated on gravelly soils derived from volcanics, particularly rhyolitic tuff, sometimes serpentine; serpentine indicator: WI. Elevation range: 360 – 3000 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain chaparral or forest habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Calamagrostis ophitidis serpentine reed grass	CRPR 4	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland; located in openings, often north-facing, underlain by rocky serpentine substrate; serpentine indicator: SE. Elevation range: 290 – 3465 feet. Blooms: April – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Calandrinia breweri Brewer's Calandrinia	CRPR 4	Chaparral, coastal scrub; located on sandy or loamy substrate in areas often recently disturbed or burned. Elevation range: 30 – 3965 feet. Blooms: March – June.	**No Potential.** The Study Area does not contain chaparral or coastal scrub habitat to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Calochortus uniflorus large-flowered mariposa lily	CRPR 4, LR	Coastal prairie, coastal scrub, meadows and seeps, North Coast coniferous forest; infrequently situated on serpentine substrate; serpentine indicator: WI. Elevation range: 30 – 3480 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Calyptridium quadripetalum four-petaled pussypaws	CRPR 4	Chaparral, lower montane coniferous forest; located on sandy or gravelly substrate, typically derived from serpentine; serpentine indicator: BE. Elevation range: 1020 – 6630 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Calystegia collina ssp. *oxyphylla* Mt. Saint Helena morning-glory	CRPR 4	Chaparral; located on serpentine barrens, slopes, and hillsides; serpentine indicator: SE. Elevation range: 815 – 3315 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Castilleja ambigua var. *ambigua* Johnny-nip	CRPR 4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins. Elevation range: 0 – 1415 feet. Blooms: March – August.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.
Ceanothus confusus Rincon Ridge ceanothus	CRPR 1B	Closed-cone coniferous forest, chaparral, cismontane woodland; known from volcanic and serpentine substrate; typically situated on dry shrubby slopes; serpentine indicator: WI/IN. Elevation range: 245 – 3495 feet. Blooms: February – April.	**No Potential.** The Study Area does not contain chaparral habitat to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Ceanothus divergens Calistoga ceanothus	CRPR 1B	Chaparral, cismontane woodland; on rocky, serpentine sites; serpentine indicator: WI. Elevation range: 560 – 3115 feet. Blooms: February – March.	**No Potential.** The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Ceanothus gloriosus var. *exaltatus* Point Reyes ceanothus	CRPR 4	Chaparral. Elevation range: 95 – 1985 feet. Blooms: March – June, sometimes August.	**No Potential.** The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Ceanothus purpureus holly-leaved ceanothus	CRPR 1B	Chaparral, cismontane woodland; located on rocky, volcanic slopes. Elevation range: 395 – 3000 feet. Blooms: February – June.	**No Potential.** The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Ceanothus sonomensis Sonoma ceanothus	CRPR 1B	Chaparral; located on sandy serpentine or volcanic substrates; serpentine indicator: WI/IN. Elevation range: 705 – 2625 feet. Blooms: February – April.	**No Potential.** The Study Area does not contain chaparral habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Centromadia parryi ssp. *parryi* pappose tarplant	CRPR 1B	Coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland; in vernally mesic sites, often with alkali substrate. Elevation range: 5 – 1380 feet. Blooms: May – November.	**No Potential.** The Study Area does not contain mesic (alkali) grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.
Clarkia breweri Brewer's clarkia	CRPR 4	Chaparral, cismontane woodland, coastal scrub; frequently on serpentine substrate; serpentine indicator: BE/SI. Elevation range: 695 – 3625 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Clarkia gracilis ssp. *tracyi* Tracy's clarkia	CRPR 4	Chaparral; located in openings and situated on substrates often derived from serpentine; serpentine indicator: BE. Elevation range: 210 – 2115 feet. Blooms: April – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Collomia diversifolia serpentine collomia	CRPR 4	Chaparral, cismontane woodland; situated on rocky to gravelly serpentine substrates; serpentine indicator: SE. Elevation range: 975 – 1950 feet. Blooms: May – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Cordylanthus tenuis ssp. *brunneus* serpentine bird's-beak	CRPR 4	Closed-cone coniferous forest, chaparral, cismontane woodland; typically located serpentine substrate; serpentine indicator: BE. Elevation range: 1540 – 2975 feet. Blooms: July – August.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Cryptantha dissita serpentine cryptantha	CRPR 1B	Chaparral; located on serpentine outcrops; serpentine indicator: BE/SI. Elevation range: 1280 – 1885 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Delphinium uliginosum swamp larkspur	CRPR 4	Chaparral, valley and foothill grassland; located in seeps and wet meadows underlain by serpentine substrate; serpentine indicator: SE. Elevation range: 1105 – 1985 feet. Blooms: May – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Downingia pusilla dwarf downingia	CRPR 2B	Valley and foothill grassland, vernal pools; located in mesic grassy sites, pool and lake margins. Elevation range: 3 – 1450 feet. Blooms: March – May.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Erigeron biolettii streamside daisy	CRPR 3	Broadleaf upland forest, cismontane woodland, North Coast coniferous forest; on rocky, mesic. Elevation range: 95 – 3610 feet. Blooms: June – October.	**Moderate Potential.** The Study Area contains rocky woodland that may support this species.	**Not Observed.** This species was not observed during the June botanical survey. No further actions are recommended for this species.
Erigeron greenei Greene's narrow-leaved daisy	CRPR 1B	Chaparral; located on volcanic or serpentine substrate. Elevation range: 260 – 3270 feet. Blooms: May – September.	**No Potential.** The Study Area does not contain chaparral habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Eriogonum nervulosum Snow Mountain buckwheat	CRPR 1B	Chaparral; located on serpentine substrate; serpentine indicator: SE. Elevation range: 975 – 6845 feet. Blooms: June – September.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Eriogonum umbellatum var. *bahiiforme* bay buckwheat	CRPR 4	Cismontane woodland, lower montane coniferous forest; situated on rocky substrates often derived from serpentine; serpentine indicator: BE/SI. Elevation range: 2275 – 7150 feet. Blooms: July – September.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Eryngium constancei Loch Lomond coyote thistle	FE; SE; CRPR 1B	Vernal pools; located on volcanic ash flow vernal pools. Elevation range: 1495 – 2780 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Eryngium jepsonii Jepson's coyote thistle	CRPR 1B	Valley and foothill grassland, vernal pools; situated on clay substrate that is vernally saturated. Elevation range: 10 – 975 feet. Blooms: April – August.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Erythranthe nudata bare monkeyflower	CRPR 4	Chaparral, cismontane woodland; located on serpentine seeps in brushy or wooded sites; serpentine indicator: SE. Elevation range: 810 – 2275 feet. Blooms: May – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Erythronium helenae St. Helena fawn lily	CRPR 4	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; located on volcanic or serpentine substrate; serpentine indicator: BE. Elevation range: 1135 – 3965 feet. Blooms: March – May.	**Unlikely.** The woodland and grassland types associated with this species are not present in the Study Area.	**Presumed Absent.** No further actions are recommended for this species.
Fritillaria liliacea fragrant fritillary	CRPR 1B	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland; located in grassy sites underlain by clay, typically derived from volcanics or serpentine; serpentine indicator: WI. Elevation range: 10 – 1335 feet. Blooms: February – April.	**No Potential.** The Study Area does not contain mesic grassland underlain by adobe clay to support this species.	**Not Present.** No further actions are recommended for this species.
Fritillaria pluriflora adobe lily	CRPR 1B	Chaparral, cismontane woodland, valley and foothill grassland; typically located on adobe clays, often derived from serpentine; serpentine indicator: WI. Elevation range: 195 – 2295 feet. Blooms: February – April.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Fritillaria purdyi Purdy's fritillary	CRPR 4	Chaparral, cismontane woodland, lower montane coniferous forest; usually situated on serpentine substrates; serpentine indicator: BE. Elevation range: 565 – 7330 feet. Blooms: March – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Gratiola heterosepala Boggs Lake hedge hyssop	SE, CRPR 1B	Marshes and swamps, vernal pools; situated on vernally saturated clay soil, often lake margins. Elevation range: 30 – 7720 feet. Blooms: April – August.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Harmonia hallii Hall's harmonia	CRPR 1B	Chaparral, rock outcrops; situated on rocky serpentine subtrates; often roadsides and roadcuts; serpentine indicator: SE. Elevation range: 1625 – 3170 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Harmonia nutans nodding harmonia	CRPR 4	Chaparral, cismontane woodland; located on rocky to gravelly substrates derived from volcanics. Elevation range: 240 – 3170 feet. Blooms: March – May.	**Moderate Potential.** The Study Area contains rocky grassland and woodland that may support this species.	**Not Observed.** This species was not observed during the June botanical survey. No further actions are recommended for this species.
Hemizonia congesta ssp. congesta hayfield tarplant	CRPR 1B	Coastal scrub, valley and foothill grassland; serpentine indicator: WI/IN. Elevation range: 65 – 1840 feet. Blooms: April – October.	**Unlikely.** The Study Area does not contain extensive grassland or coastal scrub to support this species.	**Presumed Absent.** No further actions are recommended for this species.
Hesperolinon bicarpellatum Two-carpellate western flax	CRPR 1B	Chaparral; located on serpentine substrate; serpentine indicator: SE. Elevation range: 195 – 3270 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Hesperolinon sharsmithiae Sharsmith's western flax	CRPR 1B	Chaparral; located on serpentine substrate; serpentine indicator: SE. Elevation range: 875 – 975 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Hosackia gracilis harlequin lotus	CRPR 4	Broadleaf upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest, valley and foothill grassland; located in wetlands and roadside ditches. Elevation range: 0 – 2275 feet. Blooms: March – July.	**No Potential.** The Study Area does not contain seasonal wetland or mesic grassland to support this species.	**Not Present.** No further actions are recommended for this species.
Iris longipetala coast iris	CRPR 4	Coastal prairie, lower montane coniferous forest, meadows and seeps; located on mesic sites. Elevation range: 0 – 1950 feet. Blooms: March – May.	**Unlikely.** This species is known from cooler, mesic coastal grasslands.	**Presumed Absent.** No further actions are recommended for this species.
Juncus luciensis Santa Lucia dwarf rush	CRPR 1B	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools. Elevation range: 975 – 6630 feet. Blooms: April – July.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Lasthenia burkei Burke's goldfields	FE; SE; CRPR 1B	Vernal pools, meadows and seeps; typically located in pools and swales. Elevation range: 45 – 1950 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Layia septentrionalis Colusa layia	CRPR 1B	Chaparral, cismontane woodland, valley and foothill grassland; on sandy, serpentine substrate; typically occurs in fields, grassy slopes; serpentine indicator: SI. Elevation range: 330 – 3595 feet. Blooms: April – May.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Leptosiphon aureus bristly leptosiphon	CRPR 4, LR	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland; often located on shallow, rocky substrate in foothill positions. Elevation range: 175 – 4875 feet. Blooms: April – July.	**Moderate Potential.** The Study Area contains rocky grassland that may support this species.	**Not Observed.** This species was not observed during the June botanical survey. No further actions are recommended for this species.
Leptosiphon jepsonii Jepson's leptosiphon	CRPR 1B	Chaparral, cismontane woodland; on open to partially shaded grassy slopes on volcanic or the periphery of serpentine substrate. Elevation range: 330 – 1640 feet. Blooms: April – May.	**No Potential.** The Study Area does not contain chaparral or serpentine woodland habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Leptosiphon latisectus broad-lobed leptosiphon	CRPR 4	Broadleaf upland forest, cismontane woodland; frequently situated on serpentine substrate; serpentine indicator: WI. Elevation range: 550 – 4875 feet. Blooms: April – June.	**Unlikely.** The Study Area does not contain woodland types associated with this species.	**Presumed Absent.** No further actions are recommended for this species.
Lessingia hololeuca woolly-headed lessingia	CRPR 3, LR	Broadleaf upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland; typically on clay, serpentine substrate; serpentine indicator: SI. Elevation range: 3 – 2885 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Lilium bolanderi Bolander's lily	CRPR 4	Chaparral, lower montane coniferous forest; typically situated on serpentine substrate; serpentine indicator: SE. Elevation range: 95 – 5200 feet. Blooms: June – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Lilium rubescens redwood lily	CRPR 4, LR	Broadleaf upland forest, chaparral, lower montane coniferous forest, upper montane coniferous forest, North Coast coniferous forest; often located on serpentine substrates, and along roadcuts; serpentine indicator: WI. Elevation range: 95 – 6210 feet. Blooms: April – September.	**No Potential.** The Study Area does not contain chaparral or forest habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Limnanthes floccosa ssp. *floccosa* woolly meadowfoam	CRPR 4	Chaparral, cismontane woodland, valley and foothill grassland, vernal pools; situated in vernally mesic settings. Elevation range: 195 – 4340 feet. Blooms: March – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Limnanthes vinculans Sebastopol meadowfoam	FE, SE, CRPR 1B	Mesic meadows, valley and foothill grassland, vernal pools; located in swales, wet meadows, depressions, and pools in the oak savanna of the Santa Rosa Plain on heavy adobe clay substrate. Elevation range: 3 – 2885 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.
Lomatium hooveri Hoover's Lomatium	CRPR 4, LR	Chaparral, cismontane woodland; situated on soils derived from serpentine, and rarely volcanic; serpentine indicator: SE. Elevation range: 975 – 2880 feet. Blooms: April – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Lomatium repostum Napa Lomatium	CRPR 1B	Chaparral, cismontane woodland; located on serpentine or volcanic substrates; serpentine indicator: SI. Elevation range: 290 – 2700 feet. Blooms: March – June.	**No Potential.** The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Lupinus sericatus Cobb Mountain lupine	CRPR 1B	Broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest; typically located in stands of knobcone pine-oak woodland, on open wooded slopes in gravelly substrate typically derived from volcanics, sometimes serpentine. Elevation range: 890 – 4960 feet. Blooms: March – June.	**Unlikely.** The Study Area does not contain woodland types associated with this species.	**Presumed Absent.** No further actions are recommended for this species.
Microseris paludosa marsh microseris	CRPR 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Elevation range: 5 – 300 feet. Blooms: April – June.	**Unlikely.** The Study Area does not contain forest, woodland types, or mesic grasslands associated with this species. No documented occurrences from Napa County.	**Presumed Absent.** No further actions are recommended for this species.
Monardella viridis green monardella	CRPR 4	Broadleaf upland forest, chaparral, cismontane woodland; situated on serpentine or volcanic soils; serpentine indicator: BE/SI. Elevation range: 325 – 3285 feet. Blooms: June – September.	**No Potential.** The Study Area does not contain chaparral or scrubby woodland habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Navarretia cotulifolia cotula navarretia	CRPR 4, LR	Chaparral, cismontane woodland, valley and foothill grassland; located on adobe substrate. Elevation range: 10 – 5950 feet. Blooms: May – June.	**No Potential.** The Study Area does not contain mesic grassland underlain by adobe clay to support this species.	**Not Present.** No further actions are recommended for this species.
Navarretia heterandra Tehama navarretia	CRPR 4	Valley and foothill grasslands, vernal pools; situated in pools and mesic grasslands. Elevation range: 95 – 3285 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	CRPR 1B	Wet, mesic sites underlain by adobe and/or alkaline substrate in cismontane woodland, meadows, seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Elevation range: 15 – 5710 feet. Blooms: April – July.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Navarretia leucocephala ssp. *plieantha* many-flowered navarretia	FE, SE, CRPR 1B	Vernal pools underlain by substrate derived from volcanic ash flows. Elevation range: 95 – 3120 feet. Blooms: May – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.
Navarretia myersii ssp. *deminuta* Myer's navarretia	CRPR 1B	Vernal pool; underlying substrate is clay loam. Elevation range: undocumented. Blooms: April – May.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands (vernal pool) to support this species.	**Not Present.** No further actions are recommended for this species.
Navarretia paradoxinota Porter's navarretia	CRPR 1B	Meadow and seep; typically situated in vernally mesic openings underlain by serpentine substrate; serpentine indicator: SE. Elevation range: 535 – 2730 feet. Blooms: May – June, sometimes July.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.
Navarretia rosulata Marin County navarretia	CRPR 1B	Closed-cone coniferous forest, chaparral; located on dry, rocky sites often formed from serpentine; serpentine indicator: SE. Elevation range: 650 – 2065 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Penstemon newberryi var. *sonomensis* Sonoma beardtongue	CRPR 1B	Chaparral; crevices in rock outcrops and talus slopes on ridgelines and mountain peaks. Elevation range: 2295 – 4495 feet. Blooms: April – August.	**No Potential.** The Study Area does not contain chaparral or large rock outcrops to support this species.	**Not Present.** No further actions are recommended for this species.
Plagiobothrys strictus Calistoga popcornflower	FE, ST, CRPR 1B	Broadleaf upland forest, meadows and seeps, valley and foothill grassland, vernal pools; located on heavy dark adobe alkali clay substrate near hot springs and vernal pools. Elevation range: 290 – 520 feet. Blooms: March – June.	**No Potential.** The Study Area does not contain alkali wetland habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Poa napensis Napa bluegrass	FE, SE, CRPR 1B	Meadows and seeps, valley and foothill grassland; located in moist alkaline substrate near hot springs. Elevation range: 325 – 650 feet. Blooms: May – August.	**No Potential.** The Study Area does not contain alkali wetland habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Puccinellia simplex California alkali grass	CRPR 1B	Chenopod scrub, meadow and seep, valley and foothill grassland, vernal pool; situated vernally mesic alkaline substrate in sinks, flats, and lake margins. Elevation range: 5 – 3025 feet. Blooms: March – May.	**No Potential.** The Study Area does not contain alkali wetland habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Ranunculus lobbii Lobb's buttercup	CRPR 4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools; located in mesic, vernally wet areas. Elevation range: 45 – 1530 feet. Blooms: February – May.	**High Potential.** The Study Area contains shallow edges of a small reservoir that may support this species.	**Presence Unknown.** Although this species may occur in the nearby reservoir, the Project has no potential to incur impacts. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Ribes victoris Victor's gooseberry	CRPR 4	Broadleaf upland forest, chaparral; located in shady, mesic sites. Elevation range: 325 – 2440 feet. Blooms: March – April.	**No Potential.** The Study Area does not contain chaparral or forest habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Sidalcea hickmanii ssp. *napensis* Napa checkerbloom	CRPR 1B	Chaparral; located on rhyolitic substrates. Elevation range: 1345 – 1985 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain chaparral habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Sidalcea oregana ssp. *hydrophila* marsh checkerbloom	CRPR 1B	Meadows and seeps, riparian forest; located on wet soils along streambanks and meadows. Elevation range: 3575 – 7475 feet. Blooms: July – August.	**No Potential.** The Study Area does not contain extensive perennial wetland habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Sidalcea oregana ssp. *valida* Kenwood Marsh checkerbloom	FE, SE, CRPR 1B	Freshwater marshes and swamps, on the edges of marshes. Elevation range: 375 – 495 feet. Blooms: June – September.	**No Potential.** The Study Area does not contain extensive perennial wetland habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Spergularia macrotheca var. *longistyla* long-styled sand-spurry	CRPR 1B	Meadow and seep, marshes and swamps; located in alkaline marshes, pools, mud flats, meadows, and hot springs. Elevation range: 0 – 830 feet. Blooms: February – March.	**No Potential.** The Study Area does not contain alkali wetland habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Streptanthus barbiger bearded jewel-flower	CRPR 4, LR	Chaparral; located on serpentine substrate; serpentine indicator: SE. Elevation range: 485 – 3480 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Streptanthus brachiatus ssp. *brachiatus* Socrates Mine jewel-flower	CRPR 1B	Chaparral, closed-cone coniferous forest; located on serpentine substrates; serpentine indicator: SE. Elevation range: 1770 – 3250 feet. Blooms: May – June.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Streptanthus brachiatus ssp. *hoffmanii* Freed's jewel-flower	FSC, CRPR 1B	Chaparral, cismontane woodland; located on serpentine outcrops, primarily in geothermal areas; serpentine indicator: SE. Elevation range: 1590 – 3965 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Streptanthus hesperidis green jewelflower	CRPR 1B	Chaparral, cismontane woodland; located in openings in brushy/wooded sites on rocky serpentine substrate; serpentine indicator: SE. Elevation range: 420 – 2470 feet. Blooms: May – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Streptanthus morrisonii ssp. *elatus* Three Peaks jewel-flower	CRPR 1B	Serpentine chaparral; serpentine indicator: SE. Elevation range: 90 – 815 feet. Blooms: June – September.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Streptanthus vernalis early jewel-flower	CRPR 1B	Closed-cone coniferous forest, chaparral; situated on serpentine; serpentine indicator: ?. Elevation range: undocumented. Blooms: March – May.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Stuckenia filiformis ssp. *alpina* slender-leaved pondweed	CRPR 2B	Marshes and swamps; located in shallow freshwater. Elevation range: 975 – 6990 feet. Blooms: May – July.	**Moderate Potential.** The Study Area contains fringes of a small reservoir that may support this species.	**Not Observed.** This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Toxicoscordion fontanum marsh zigzag	CRPR 4	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, marshes and swamps; located in vernally mesic sites underlain by serpentine; serpentine indicator: BE/SI. Elevation range: 45 – 3250 feet. Blooms: April – July.	**No Potential.** The Study Area does not contain serpentine habitats to support this species.	**Not Present.** No further actions are recommended for this species.
Trichostema ruygtii Napa bluecurls	CRPR 1B, LR	Cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest; located in open, sunny locations, and dried vernal pools. Elevation range: 95 – 2210 feet. Blooms: June – October.	**No Potential.** The Study Area does not contain volcanic ash soils to support this species.	**Not Present.** No further actions are recommended for this species.
Trifolium amoenum showy rancheria clover	FE, CRPR 1B	Valley and foothill grassland, coastal bluff scrub, swales, open sunny sites, sometimes on serpentine; serpentine indicator: WI/IN. Elevation range: 15 – 1365 feet. Blooms: April – June.	**Unlikely.** Although the Study Area contains grasslands, this species is known from mesic herbaceous habitats which are lacking.	**Presumed Absent.** No further actions are recommended for this species.
Trifolium buckwestiorum Santa Cruz clover	CRPR 1B	Broadleaf upland forest, cismontane woodland, coastal prairie endangered margins. Elevation range: 105 – 610 feet. Blooms: April – October.	**No Potential.** The Study Area does not contain forest or woodland types associated with this species.	**Not Present.** No further actions are recommended for this species.
Trifolium hydrophilum saline clover	CRPR 1B	Marshes and swamps, mesic portions of alkali vernal pools; mesic, alkali valley and foothill grassland. Elevation range: 0 – 985 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain mesic grassland or seasonal wetlands to support this species.	**Not Present.** No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Triteleia lugens dark-mouthed triteleia	CRPR 4, LR	Broadleaf upland forest, chaparral, lower montane coniferous forest, coastal scrub. Elevation range: 325 – 3250 feet. Blooms: April – June.	**No Potential.** The Study Area does not contain chaparral or forest habitat to support this species.	**Not Present.** No further actions are recommended for this species.
Viburnum ellipticum oval-leaved viburnum	CRPR 2B	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation range: 705 – 4595 feet. Blooms: May – June.	**Moderate Potential.** The Study Area contains woodland habitat that may support this species.	**Not Observed.** This species was not observed during protocol-level special-status plant surveys. No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
WILDLIFE				
Mammals				
Antrozous pallidus pallid bat	SSC, WBWG High	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees and various manmade structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Moderate Potential.** Oak and pine woodland within the Study Area provides trees suitable for roosting; there are multiple CNDDB occurrences within 5 miles (CDFW 2024a). Targeted bat assessment (i.e., close inspection of trees) was not performed.	**Presence Unknown.** If relevant, tree trimming outside of maternity roosting season, or conduct pre-construction roost habitat assessment. See Section 6.2.2.
Bassariscus astutus ringtail (ringtail cat)	SFP	Widely distributed throughout much of California. Found in a variety of habitats including riparian areas, semi-arid country, deserts, chaparral, oak woodlands, pinyon pine woodlands, juniper woodlands and montane conifer forests usually under 4,600 ft. elevation. Typically uses cliffs or large trees for shelter.	**Unlikely.** The Study Area lacks cliffs and large tree cavities/hollows typical of dens for this species; no known occurrences in the vicinity.	**Presumed Absent.** No further recommendations for this species.
Corynorhinus townsendii townsendii Townsend's western big-eared bat	SSC, WBWG High	Humid coastal regions of northern and central California. Roost in limestone caves, lava tubes, mines, buildings etc. Will only roost in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to disturbance	**Unlikely.** Existing buildings within the Study Area are occupied or otherwise maintained, reducing roost potential.	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Eumops perotis californicus western mastiff bat	SSC, WBWG High	Found in a wide variety of open, arid and semi-arid habitats. Distribution appears to be tied to large rock structures which provide suitable roosting sites, including cliff crevices and cracks in boulders.	**Unlikely.** The Study Area lacks large rock structures that are suitable for roosting. There are no CNDDB occurrences of this species in Napa County (CDFW 2024a).	**Presumed Absent.** No further recommendations for this species.
Lasiurus blossevillii western red bat	SSC, WBWG High	Highly migratory and typically solitary, roosting primarily in the foliage of trees or shrubs. Associated with riparian broad-leaved tree species including cottonwoods, sycamores, alders, and maples. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas.	**Unlikely.** The Study Area lacks large, broadleaved riparian trees of the type typically used for roosting (maples, sycamores, etc.).	**Presumed Absent.** No further recommendations for this species.
Myotis thysanodes fringed myotis	WBWG High	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Building, mines, and large trees and snags are important day and night roosts.	**Moderate Potential.** Oak and pine woodland within the Study Area provides trees potentially suitable for roosting; there is an occurrence in CNDDB within 5 miles (CDFW 2024a). Targeted bat assessment (i.e., close inspection of trees) was not performed.	**Presence Unknown.** If relevant, tree trimming outside of maternity roosting season, or conduct pre-construction roost habitat assessment. See Section 6.2.2.
Myotis volans long-legged myotis	WBWG High	Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Large hollow trees, rock crevices, buildings, mines, and caves are important day roosts.	**Unlikely.** The Study Area does not contain stands of coniferous forest of the type suitable for this species (with favorable tree density, canopy extent).	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Reithrodontomys raviventris salt marsh harvest mouse	FE, SE, SFP	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for dryland refugia during high tides.	**No Potential.** The Study Area contains no tidal or brackish marsh and is outside of this species' Napa County range.	**Not Present.** No further recommendations for this species.
Sorex ornatus sinuosus Suisun shrew	SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying vegetation cover, driftwood, and other litter above the mean high tide line for nesting and foraging.	**No Potential.** The Study Area contains no tidal or brackish marsh and is outside of this species' Napa County range.	**Not Present.** No further recommendations for this species.
Taxidea taxus American badger	SSC	Most abundant in drier open stages of most shrub, woodland, and herbaceous vegetation types. Requires friable soils and open, uncultivated ground. Preys largely on burrowing rodents.	**Unlikely.** The Study Area contains open woodland and grassland with some suitable habitat elements. However, there are no CNDDB occurrences within this portion of Napa County (nearest occurrences are south of the City of Napa; CDFW 2024a). Large burrows characteristic of this species were looked for and not observed during the site visits.	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Birds				
Agelaius tricolor tricolored blackbird	SC (E), SSC	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	**Unlikely.** The pond within the Study Area features only very limited emergent vegetation that is not suitable to support a nesting colony. No indication of presence observed during site visit (timed during the breeding season).	**Presumed Absent.** No further recommendations for this species.
Ammodramus savannarum grasshopper sparrow	SSC, LR	Summer resident. Breeds in open grasslands in lowlands and foothills, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	**Unlikely.** The Study Area lacks expanses of suitable grassland habitat.	**Presumed Absent.** No further recommendations for this species.
Aquila chrysaetos golden eagle	BGEPA, SFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**Unlikely.** The Study Area does not provide large cliffs and lacks typical nest large trees. No indication of presence observed during site visit. May forage in the vicinity.	**Presumed Absent.** No further recommendations for this species.
Ardea alba great egret	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially, usually in trees, occasionally on the ground or elevated platforms. Breeding sites usually in proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	**Unlikely (nesting).** The small pond (reservoir) within the Study Area provides aquatic foraging habitat, though adjacent trees are of marginal quality for nesting. However, no indication of nesting or even presence observed during site visit (timed during the breeding season).	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Ardea herodias great blue heron	LR (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially in tall trees and cliffs, also sequested terrestrial substrates. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	**Unlikely (nesting)** The small pond (reservoir) within the Study Area provides aquatic foraging habitat, though adjacent trees are of marginal quality for nesting. No indication of nesting or even presence observed during site visit (timed during the breeding season).	**Presumed Absent.** No further recommendations for this species.
Asio flammeus short-eared owl	SSC	Occurs year-round, but primarily as a winter visitor; breeding very restricted in most of California. Found in open, treeless areas (e.g., marshes, grasslands) with elevated sites for foraging perches and dense herbaceous vegetation for roosting and nesting. Preys mostly on small mammals, particularly voles.	**Unlikely.** The Study Area is mostly wooded. Known distribution (wintering) is restricted to the Napa Baylands; breeding in the County has never been documented (Smith 2003).	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Asio otus long-eared owl	SSC	Occurs year-round in California. Nests in trees in a variety of woodland habitats, including oak and riparian, as well as tree groves. Requires adjacent open land with rodents for foraging, and the presence of old nests of larger birds (hawks, crows, magpies) for breeding.	**Unlikely.** Rare in Napa County, with the nearest observations located on the Napa Valley floor (eBird 2024a).	**Presumed Absent.** No further recommendations for this species.
Athene cunicularia burrowing owl	SSC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	**Unlikely.** Breeding and wintering distribution within Napa County are restricted to the vicinity of Lake Berryessa and southern Baylands (Smith 2003, CDFW 2024a).	**Presumed Absent.** No further recommendations for this species.
Buteo swainsoni Swainson's hawk	ST	Summer resident in Central Valley and some coastal valleys. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as favored agricultural fields, especially alfalfa. Preys on arthropods year-round as well as vertebrates during the breeding season.	**Unlikely.** The Study Area is largely wooded and lacks open areas (non-vineyards) that provide typical foraging habitat Napa County's breeding population is primarily restricted to Baylands; the nearest CNDDB nesting occurrence is greater than 12 miles to the southeast (CDFW 2024a).	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Charadrius alexandrines nivosus western snowy plover	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	**No Potential.** The Study Area does not contain beaches or other suitable barren habitat near water.	**Not Present.** No further recommendations for this species.
Circus cyaneus northern harrier	SSC	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and some agricultural areas. Nests on the ground in dense vegetation, typically near water or otherwise moist areas. Preys on small vertebrates.	**Unlikely.** The Study Area is largely wooded; adjacent vineyards are unsuitable for foraging (and nesting).	**Presumed Absent.** No further recommendations for this species.
Contopus cooperi olive-sided flycatcher	SSC	Summer resident. Typical breeding habitat is montane coniferous forests. At lower elevations, also occurs in wooded canyons and mixed forests and woodlands. Often associated with forest edges. Arboreal nest sites located well off the ground.	**Moderate Potential.** Woodland within the Study Area is of moderate quality for nesting and foraging.	**Presence Unknown.** Vegetation removal and initial ground disturbance should occur outside of nesting season, or conduct dedicated pre-construction surveys and avoid any active nests found. See Section 6.2.2.
Coturnicops noveboracensis yellow rail	SSC	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic.	**No Potential.** The Study Area does not provide any suitable marsh/wetland habitat.	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Cypseloides niger black swift	SSC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas. No modern nesting records in Napa County.	**No Potential.** The Study Area does not contain waterfalls; there are no modern breeding records for Napa County (Smith 2003, Shuford and Gardali 2008).	**Not Present.** No further recommendations for this species.
Egretta thula snowy egret	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees, at times in sequestered beds of dense emergent vegetation (e.g., tules). Rookery sites usually situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	**Unlikely (nesting)** The small pond (reservoir) within the Study Area provides aquatic foraging habitat, though adjacent trees are of marginal quality for nesting. No indication of nesting or even presence observed during site visit (timed during the breeding season).	**Presumed Absent.** No further recommendations for this species.
Elanus leucurus white-tailed kite	SFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	**Moderate Potential.** Woodland areas within the Study Area provides suitable nesting trees, with nearby relatively open areas for foraging.	**Presence Unknown.** Vegetation removal and initial ground disturbance should occur outside of nesting season, or conduct dedicated pre-construction surveys and avoid any active nests found. See Section 6.2.2.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Falco peregrinus anatum American peregrine falcon	SE, SFP	Year-round resident and winter visitor. Occurs near water, including coastal areas, wetlands, lakes and rivers. Usually nests on sheltered cliffs or tall man-made structures. Preys primarily on waterbirds.	**Unlikely.** The Study Area does not contain large cliffs or suitable man-made structures for nesting.	**Presumed Absent.** No further recommendations for this species.
Geothlypis trichas sinuosa San Francisco (saltmarsh) common yellowthroat	SSC	Resident of the San Francisco Bay region, occurring in fresh and salt water marshes. Requires thick, continuous cover down to the water surface for foraging, and tall grasses, emergent marsh, and/or riparian vegetation (e.g., willows) for nesting.	**No Potential.** The pond (reservoir) within the Study Area lacks suitable marsh vegetation, and this species' Napa County distribution is restricted to tidal and brackish Baylands (Shuford and Gardali 2008).	**Not Present.** No further recommendations for this species.
Haliaeetus leucocephalus bald eagle	BGEPA, SE, SFP	Occurs year-round in California, but primarily a winter visitor; breeding population is growing. Nests in large trees in the vicinity of larger lakes, reservoirs, and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	**Unlikely.** Reservoirs are on the greater property are small. As per Smith (2003) and CDFW (2024a), nesting within Napa County is known only from the immediate vicinity of Lake Berryessa.	**Presumed Absent.** No further recommendations for this species.
Icteria virens yellow-breasted chat	SSC, LR	Summer resident, occurring in riparian areas with an open canopy, very dense understory, and trees for song perches. Nests in thickets of willows, blackberry, and (native) wild grape.	**Unlikely.** The Study Area does not contain stands of dense riparian understory favored by this species for nesting.	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Lanius ludovicianus loggerhead shrike	SSC, LR	Year-round resident in open woodland, grasslands, savannah, and scrub. Prefers areas with sparse shrubs, trees, posts, and other suitable perches for foraging. Preys upon large insects and small vertebrates. Nests are well-concealed in densely-foliaged shrubs or trees.	**Unlikely.** Open areas are limited within the Study Area; nearest observations are in association with grassland and/or agriculture near Angwin (eBird 2024).	**Presumed Absent.** No further recommendations for this species.
Laterallus jamaicensis coturniculus California black rail	ST, SFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**No Potential.** The Study Area does not contain tidal or brackish marsh. Within Napa County, this species is restricted to Baylands and the lower Napa River.	**Not Present.** No further recommendations for this species.
Melospiza melodia samuelis San Pablo song sparrow	SSC	Year-round resident of tidal marshes along the north side of San Francisco and San Pablo Bays. Typical habitat is dominated by pickleweed, with gumplant and other shrubs present in the upper zone for nesting. May forage in areas adjacent to marshes.	**No Potential.** The Study Area contains no tidal or brackish marsh and is outside of this species' limited Napa County range (Shuford and Gardali 2008).	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Nycticorax nycticorax black-crowned night heron	no status (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees but also in patches of emergent vegetation. Rookery sites are often on islands and usually located adjacent to foraging areas: margins of lakes and bays.	**Unlikely (nesting)** The small pond (reservoir) within the Study Area provides aquatic foraging habitat, though adjacent trees are of marginal quality for nesting. No indication of nesting or even presence observed during site visit (timed during the breeding season).	**Presumed Absent.** No further recommendations for this species.
Passerculus sandwichensis alaudinus Bryant's savannah sparrow	SSC	Year-round resident associated with the coastal fog belt, primarily between Humboldt and northern Monterey Counties. Occupies low tidally influenced habitats and adjacent areas, including grasslands. Also uses drier, more upland coastal grasslands. Nests near the ground in taller vegetation, including along levees and canals.	**Unlikely.** The Study Area lacks open grassland, and this species' Napa County breeding range is restricted to southwestern Baylands (Shuford and Gardali 2008).	**Presumed Absent.** No further recommendations for this species.
Progne subis purple martin	SSC, LR	Summer resident. Inhabits woodlands and low-elevation coniferous forests. Nests in old woodpecker cavities and man-made structures (bridges, utility towers). Nest is often located in tall, isolated tree or snag.	**Moderate Potential.** Woodland (including conifers) within the Study Area provide potential nesting habitat, and there are occurrences in the general vicinity (CDFW 2024a, eBird 2024).	**Presence Unknown.** Vegetation removal and initial ground disturbance should occur outside of nesting season, or conduct a pre-construction survey and avoid any active nests found. See Section 6.2.2.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Rallus obsoletus obsoletus California Ridgway's (clapper) rail	FE, SE, SFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on mollusks and crustaceans.	**No Potential.** The Study Area does not contain tidal or brackish marsh. Within Napa County, this species is restricted to the lower Napa River system.	**Not Present.** No further recommendations for this species.
Riparia riparia bank swallow	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	**No Potential.** The Study Area does not contain cliffs or cuts with fine-textured soils or any other potentially suitable nesting substrate. Not known to nest in Napa County as per Smith (2003).	**Not Present.** No further recommendations for this species.
Setophaga petechia brewsteri (Brewster's) yellow warbler	SSC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting is variable, but dense willow growth is typical. Occurs widely on migration.	**Unlikely (breeding).** The Study Area does not contain perennial or near-perennial streams and associated riparian cover used by this species for breeding. Individuals presumably occur during migration.	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Spizella atrogularis black-chinned sparrow	LR	Summer resident. Typically occurs on arid, rocky slopes with brushy vegetation, e.g. mixed chaparral, and sagebrush.	**No Potential.** The Study Area does not contain expansive chaparral or similar brushy habitats.	**Not Present.** No further recommendations for this species.
Strix occidentalis caurina northern spotted owl	FT, ST, SSC	Year-round resident in dense, structurally complex forests, primarily those with stands of mature conifers. In Napa County, uses both coniferous and mixed (coniferous-hardwood) forests. Nests on platform-like substrates in the forest canopy, including in tree cavities. Preys on mammals.	**Unlikely.** No typical habitat is present within the Study Area. Forest stands on the greater property (e.g., dominated by Douglas fir) lack typical canopy complexity, and recent fire impacts further reduced suitability.	**Presumed Absent.** No further recommendations for this species.
Xanthocephalus xanthocephalus yellow-headed blackbird	SSC, LR	Summer resident. Breeds colonially in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes or ponds. Requires abundant large insects such as dragonflies; nesting is timed for maximum emergence of insect prey.	**Unlikely.** Ponds with the Study Area feature only limited emergent vegetation that would be suitable for nesting. No indication of presence observed during site visits (timed during two consecutive breeding seasons).	**Presumed Absent.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Reptiles and Amphibians				
Dicamptodon ensatus California giant salamander	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**No Potential.** Woodland within the Study Area is relatively arid, and it lacks perennial or near-perennial streams.	**Not Present.** No further recommendations for this species.
Emys marmorata western pond turtle	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	**Moderate Potential.** The small pond (reservoir) partially within the Study Ara provides suitable aquatic habitat, and surrounding upland areas have some potential to be used for nesting. The larger on-site reservoirs may provide a source population, if the species is present there. Nearby occurrences have been documented (CDFW 2024a).	**Presence Unknown.** No turtles observed during site visit, but these results are not considered conclusive. Pre-construction survey recommended; see Section 6.2.2.
Rana boylii foothill yellow-legged frog	SSC	Found in or near rocky streams in a variety of habitats; highly aquatic. Prefers partially-sunlit, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on invertebrates (aquatic and terrestrial).	**No Potential.** The Study Area lacks perennial or near-perennial rocky streams.	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Rana draytonii California red-legged frog	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense emergent and/or overhanging riparian vegetation. Favors perennial to intermittent ponds, marshes, and stream pools. Requires 11 to 20 weeks of continuous inundation for larval development. Disperses through upland habitats during and after rains.	**Unlikely.** While a pond (reservoir) is present within the Study Area, it lacks vegetative cover. There are no modern CNDDB records within 5 miles of the Study Area, and accounts of nearby historic records indicate the species is considered extirpated there (CDFW 2024a).	**Presumed Absent.** No further recommendations for this species.
Fishes				
Acipenser medirostris green sturgeon	FT, SSC	Spawns in the Sacramento River and Klamath Rivers, at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	**No Potential.** The Study Area does not contain suitable anadromous or estuarine waters.	**Not Present.** No further recommendations for this species.
Eucyclogobius newberryi tidewater goby	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches. Requires fairly still but not stagnant water and high oxygen levels.	**No Potential.** The Study Area does not contain brackish or ore estuarine waters; believed to be extirpated from San Francisco Bay.	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Hypomesus transpacificus Delta smelt	FT, ST	Endemic to the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	**No Potential.** The Study Area does not contain estuarine waters.	**Not Present.** No further recommendations for this species.
Lampetra ayresi river lamprey	SSC	Lower Sacramento River, San Joaquin River and Russian River. May occur in coastal streams north of San Francisco Bay. Adults need clean, gravelly riffles, Ammocoetes need sandy backwaters or stream edges, good water quality and temps < 25 degrees C.	**No Potential.** The Study Area does not contain suitable anadromous or estuarine waters.	**Not Present.** No further recommendations for this species.
Mylopharodon conocephalus hardhead	SSC	Known from mid-elevation streams in the Sacramento, San Joaquin, Napa River, and Russian River drainages. Prefer clear, deep pools with sand-gravel-boulder bottoms and slow water velocity.	**No Potential.** The Study Area does not contain suitable anadromous or estuarine waters.	**Not Present.** No further recommendations for this species.
Oncorhynchus mykiss irideus steelhead - central CA coast DPS	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** The Study Area does not contain suitable anadromous or estuarine waters; the on-site ephemeral stream lacks hydrology to support migration or spawning.	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Oncorhynchus tshawytscha Chinook salmon - California coastal ESU	FT	This ESU includes all naturally spawned populations of Chinook salmon from rivers and streams south of the Klamath River (exclusive) to the Russian River (inclusive). Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 degrees C lethal to adults.	**No Potential.** The Study Area does not contain suitable anadromous or estuarine waters and is outside of the relevant watershed.	**Not Present.** No further recommendations for this species.
Pogonichthys macrolepidotus Sacramento splittail	SSC	Formerly endemic to the lakes and rivers of the Central Valley, but now confined to the Sacramento Delta, Suisun Bay and associated marshes. Occurs in slow-moving river sections and dead-end sloughs. Requires flooded vegetation for spawning and foraging for young. A freshwater species, but tolerant of moderate salinity (10-18 parts per thousand).	**No Potential.** The Study Area does not contain riverine or estuarine waters.	**Not Present.** No further recommendations for this species.
Spirinchus thaleichthys longfin smelt	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** The Study Area does not contain riverine or estuarine waters.	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Invertebrates				
Bombus occidentalis western bumble bee	SC	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared. Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g., mammal burrows). Many plant species are visited and pollinated.	**No Potential.** As per the Xerces Society (2018), this species is considered extirpated in the Bay Area.	**Not Present.** No further recommendations for this species.
Branchinecta lynchi vernal pool fairy shrimp	FT	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**No Potential.** The Study Area does not contain vernal pools or other suitable seasonal aquatic features (e.g., swales deep and ponded enough to support this species).	**Not Present.** No further recommendations for this species.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT	Known from the Central Valley and adjacent foothills, in riparian and oak savannah where elderberry (*Sambucus* sp.), the host plant, is present.	**No Potential.** Elderberry was not observed during the site visit; CNDDB occurrences are restricted to Napa County's southeastern-most portion (CDFW 202a).	**Not Present.** No further recommendations for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMENDATIONS
Speyeria callippe callippe Callippe silverspot butterfly	FE	Two populations are recognized, on San Bruno Mountain and the Cordelia Hills. The host plant is Johnny jump-up (*Viola pedunculata*), which is found on serpentine soils. Most adults found on east-facing slopes; males congregate on hilltops in search of females.	**No Potential.** Violets (*Viola* spp.) were not observed within the Study Area during the site visit. Additionally, this species' known range with Napa County is restricted to the immediate vicinity of the Cordelia Hills.	**Not Present.** No further recommendations for this species.
Syncaris pacifica California freshwater shrimp	FE, SE	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy; favors shallow pools away from mainstem flow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	**No Potential.** This species is restricted to perennial streams, and the only documented occurrence in Napa County is from Huichica Creek in the southwest portion of the county (CDFW 2024a).	**Not Present.** No further recommendations for this species.

***Key to status codes:**

FC	Federal Candidate for Listing
FE	Federal Endangered
BGEPA	Bald and Golden Eagle Protection Act Species
FT	Federal Threatened
LR	Locally Rare as per Napa County Baseline Report
SC (E/T)	State Candidate for Listing (Endangered/Threatened)
SE	State Endangered
SFP	State Fully Protected Animal
SR	State Rare
SSC	State Species of Special Concern
ST	State Threatened
CRPR 1A	CNPS CRPR 1A: Plants presumed extinct in California
CRPR 1B	CNPS CRPR 1B: Plants rare, threatened or endangered in California and elsewhere
CRPR 2A	CNPS CRPR 2A: Plants presumed extirpated in California, but more common elsewhere
CRPR 2B	CNPS CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 3	CNPS CRPR 3: Plants about which CNPS needs more information (a review list)

CRPR 4	CNPS CRPR 4: Plants of limited distribution (a watch list)
WBWG	Western Bat Working Group High or Medium-high Priority Species

Potential to Occur:

No Potential: Habitat on and adjacent to the site is clearly unsuitable for the species requirements (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.

Results and Recommendations:

Present: Species was observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.
Assumed Present: Species is assumed to be present on-site based on the presence of key habitat components.
Assumed Present without Impact: Species assumed present; however, project activities will not have an impact on the species.
Presumed Absent: Species is presumed to not be present due to a lack of key habitat components.
Not Present: Species is considered not present due to a clear lack of any suitable habitat and/or local range limitations.
Not Observed: Species was not observed during dedicated/formal surveys or otherwise
Presence Unknown: Species has the potential to be present, but no dedicated surveys to determine absence/presence were performed.

Appendix D

Site Photographs

California black oak woodland within the Study Area.

California black oak and foothill pine woodland within the Study Area.

Existing wine cave (development element) within the Study Area.

Existing barn and outbuilding (development elements) within the Study Area.

Taken: June 6, 2024

Appendix E

Statement of Qualifications

Appendix E. Statement of Qualifications

WRA is an environmental consulting firm with over 31 years of experience conducting biological resources assessments, wetland delineations, protocol-level rare plant surveys, special-status wildlife assessments and species-specific surveys, as well as preparing applications with state and federal natural resource agencies for avoiding, minimizing, and mitigating impacts to sensitive natural resources. Other services and products with which WRA has expertise include preparation of CEQA/NEPA documents, habitat mitigation and monitoring plans, natural resource management plans, mitigation and conservation bank enabling instruments, grazing management plans, and wetland and other natural resources restoration plans.

Matt Richmond, BS, Principal with WRA, has over 19 years of experience performing botanical assessments, rare plant surveys, environmentally sensitive habitat area surveys, wetland delineations, and vegetation mapping. He also has experience performing protocol-level surveys for California red-legged frog, Ridgway's rail, marbled murrelet, northern spotted owl, Point Arena mountain beaver, and Behren's silverspot butterfly. His project focus is in conservation and mitigation banking, coastal development projects, vineyard development, and timber resources. Mr. Richmond regularly manages large-scale mitigation banking projects, as well as coastal development permits, coastal restoration projects, and vineyard grading permits with a focus in Mendocino, Napa, Lake, and Sonoma counties. Mr. Richmond's technical training includes the flora of Northern California, plant ecology, and forest ecology. Additionally, he has completed the 40-hour Corps wetland delineation training. Mr. Richmond received his Bachelor of Science in Biology from Humboldt State University.

Jason Yakich, MS, Senior Biologist with WRA, has over 16 years of experience performing wildlife habitat assessments, biological monitoring for special-status wildlife species, breeding bird and other avian surveys, and protocol-level surveys for several special-status wildlife species. Additionally, he prepares and oversees a variety of general biological assessments and technical reports at WRA, with a geographic focus on the North Bay counties and North Coast. Mr. Yakich has respective permit authorizations from the USFWS and CDFW to conduct active (call-playback) surveys for California clapper rail and California black rail. Mr. Yakich received his Bachelor of Arts in Biology from U.C. Santa Cruz, and received his Master of Science in Biology from San Francisco State University with a focus on marine and estuarine biology.

Aaron Arthur, MS, Senior Plant Biologist with WRA, has over 16 years of experience performing vegetation & habitat mapping, rare plant surveys, botanical assessments, vegetation change analysis, and wetland delineations. His project focus is on vineyard development, timber resources, coastal development permits, habitat mitigation and monitoring plans, conservation and mitigation banking, and long-term management plans in Sonoma, Marin, Napa, and Mendocino counties. Mr. Arthur's technical training includes the flora of Northern California, the flora of the Pacific Northwest, agrostology, aquatic botany, plant ecology, forest ecology, and soil science. Additionally, he has completed the 40-hour Corps wetland delineation course, holds 2081(a) Plant Voucher Permit, and is Certified California Consulting Botanist #0016 from the California Native Plant Society. Mr. Arthur received his Bachelor of Arts in Geography and received his Master of Science in Physical Geography from Oregon State University, where his research focused on forest floristics and vegetation change.