

# BIOLOGICAL RESOURCES RECONNAISSANCE SURVEY REPORT

## RED BOAT VINEYARD: 1373 SODA CANYON 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 (BRRS) for the proposed development of three vineyard blocks comprising 7.0 net acres of vines within 9.0 acres of clearing limit (Project Area) located at the Red Boat Vineyard property at 1373 Soda Canyon Road, Napa County, California. WRA, Inc. performed field surveys on March 25, April 15, and June 23, 2021. The Project Area is composed of developed areas, non-native grassland, toyon chaparral, blue oak woodland, and coast live oak woodland.

Approximately 4.4 acres, of a total 9.4 acres of oak woodlands across the property (46.8 percent) are proposed to be converted to vineyard and associated infrastructure. Oak woodlands are considered sensitive under Napa County General Plan Conservation Element Policy CON-24 which requires a ratio of 2:1 preservation for any impacts to oak woodlands. The 2017 Atlas Fire burned a substantial portion of the property, resulting in significant mortality to oak trees, particularly blue oaks (*Quercus douglasii*). Living canopy cover retention post-project will be an estimated 78.2 percent.

A protocol-level rare plant survey resulted in the negative detections of special-status plants; therefore, the project will not incur impacts to such.

Three special-status birds, as well as non-status birds with baseline legal protections, have the potential to occur in the Project Area. Mitigation measures and best management practices have been developed and provided herein to avoid impacts to these resources. No potential bat habitat trees exist onsite and therefore no impacts are anticipated.

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## DEFINITIONS

Study Area: The area throughout which the assessment was performed, the entirety of the parcel (APN: 039-380-037) the location of the proposed vineyard blocks and surrounding areas, totaling 16.4 acres

Project Area: The area encompassing the proposed project (vineyard blocks, grading limit); the area evaluated for potential impacts to sensitive biological resources, totaling 9.0 acres

Tree Survey Area: The area where a tree survey was conducted, which includes the proposed clearing limits plus an approximate 10- to 25-foot buffer, totaling 9.5 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
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
CRLF	California Red-legged Frog
CSRL	California Soils Resources Lab
CTS	California Tiger Salamander
CWA	Clean Water Act
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	(Federal) Endangered Species Act
MSFMA	Magnuson-Stevens Fishery Conservation & Management 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
SWRCB	State Water Resource Control Board
TOB	Top of Bank
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 March 25, April 15, and June 23, 2021, WRA, Inc. (WRA) performed an assessment of biological resources and several species-specific surveys at 1373 Soda Canyon Road, Napa County (hereafter Study Area) (Figure 1, Appendix A). 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 may or may not be 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 Project 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 installation of three vineyard blocks totaling approximately 7.0 net acres (9.0 gross acres). Associated with the installation of the grape vines will be vineyard avenues, fences, irrigation lines, etc. Site preparation (ripping, installation of erosion control measures, seeding cover crop, and installation of irrigation pipelines and trellis) will occur during the grading window of April 1 through October 15. By October 15, the site will be winterized with placement of straw wattles, seeding of vineyard avenues and planting areas, and straw mulch spread over disturbed areas as required by the ECP prepared for the Project.

## 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 phenomenon. 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 2018a) and keeps records of their occurrences in its California Natural Diversity Database (CNDDDB; CDFW 2018a). CNDDDB 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 are 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 [3:1 ratio; see below] 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, 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 2020, 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 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 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 retention based on vegetation that existed within the parcel in 1993. In addition, Chapter 18.108.020 subsections C and D were added to the Code that require a minimum of 70 percent retention of canopy cover based on the vegetation that existed within the parcel in 2016, and the preservation or mitigation of trees 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 15 percent slope and less than 5 acres.

### 3.0 ENVIRONMENTAL SETTING

The approximately 16.4-acre Study Area is set across the entirety of a single parcel (APN: 039-380-037; Appendix A). It is located in central Napa County, approximately five aerial miles north of downtown Napa, and five aerial miles southeast of Yountville. It is situated in the Atlas Mountains of Napa County on the western flank of such, leading into Napa Valley. 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 140 to 240 feet above sea level. According to the *Soil Survey of Napa County* (USDA 1978), the Study Area is underlain by two soil mapping units: Hambright-Rock Outcrop complex, 30 to 75 percent slopes and Sobrante loam, 30 to 50 percent slopes. The parent soil series of all the Study Area's mapping units are summarized below.

Hambright series: This series consists of shallow, very stony loam soils formed from weathered basic igneous rock on plateaus, basalt flows, and hillslopes at elevations ranging from 400 to 2,500 feet elevation (CSRL 2021, USDA 1978). These soils are not considered hydric, and are well drained with moderate permeability and medium to rapid runoff (USDA 2014, USDA 1978). Native vegetation on this series typically includes annual grasses and forbs with a few blue oaks (*Quercus douglasii*) and shrubs, while predominant land use is grazing (USDA 1978).

Sobrante Series: This series consists of moderately deep to shallow fine loam soils formed from residuum weathered from igneous and metamorphic rock situated on upland hillslopes at elevations ranging from 125 to 3,500 feet (CSRL 2021, USDA 1972). This series is not considered hydric in Sonoma County, and well drained, with moderate permeability, and low to very high runoff (USDA 2014, USDA 1972). Native and naturalized vegetation is oak (*Quercus* spp.) savannah and woodland dominated by annual grasses and forbs, and predominant land uses are rangeland, irrigated hay and pasture, and dry land crops (USDA 1972).

#### 3.2 Climate and Hydrology

The Study Area is located in the valley fog incursion zone of Napa County. The average monthly maximum temperature of Napa State Hospital is 82.8 degrees Fahrenheit, while the average monthly minimum temperature is 48.1 degrees Fahrenheit. Predominantly, precipitation falls as rainfall with an annual average of 26.5 inches. Precipitation-bearing weather systems are predominantly from the west and south with the majority of rain falls between November and March, with a combined average of 22.08 inches (USDA 2021).

The local watershed is Lower Napa Valley (HUC 12: 180500020205) and the regional watershed is Napa River (HUC 8: 18050002). The Study Area is situated in the Napa County Planning Watershed of Soda Creek. There is named (Soda Creek) dashed blue line stream at the southern edge of the Study Area on the Napa 7.5-minute quadrangle (USGS 2015). Likewise, this stream is mapped in the National Wetlands Inventory (NWI; USFWS 2021a) and the California Aquatic Resources Inventory (CARI; SFEI 2021). The primary hydrologic sources are direct precipitation and consequent surface sheet flow. Precipitation in the majority of the Study Area infiltrates quickly due to rocky loam soils.

### 3.3 Land Cover and Land Use

The Study Area is predominantly undeveloped woodlands and grasslands, with a single-family residence development. The development includes the residence, a garage, a pool, paved driveway, landscaping, and associated infrastructure. Detailed plant community descriptions are included in Section 5.1 below, and all observed plants are included in Appendix B. Regional land uses include rural residential, wineries, vineyards, and livestock grazing (Google Earth 2021). Historically, land uses in the region were open rangeland of larger ranches, rural residential, vineyards, and orchards. There is no history of intensive agriculture, quarrying, timbering, or mining, in the Study Area (Historic Aerials 2021); however, the property is grazed for fire protection.

## 4.0 ASSESSMENT METHODS

Prior to the site visit, 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)
- Napa 7.5-minute quadrangle (USGS 2015)
- Contemporary aerial photographs (Google Earth 2021)
- Historical aerial photographs (Historic Aerials 2021)
- National Wetlands Inventory (USFWS 2021a)
- California Aquatic Resources Inventory (SFEI 2021)
- California Natural Diversity Database (CNDDDB, CDFW 2021a)
- California Native Plant Society Electronic Inventory (CNPS 2021a)
- Consortium of California Herbaria (CCH 2021)
- USFWS List of Federal Endangered and Threatened Species (USFWS 2021b)
- *eBird* Online Database (eBird 2021)
- 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, 2<sup>nd</sup> Edition* (Sawyer et al. 2009)
- *A Manual of California Vegetation Online* (CNPS 2021b)
- *Preliminary Descriptions of the Terrestrial Natural Communities* (Holland 1986)
- Napa County Land Cover (NCLC) map (Thorne et al. 2004)
- *California Natural Community List* (CDFW 2018a)

Database searches (i.e., CNDDDB, CNPS) focused on the Rutherford, Yountville, Capell Valley, Sonoma, Napa, Mt. George, Sears Point, Cuttings Wharf, and Cordelia USGS 7.5-minute quadrangles for special-status plants. The special-status wildlife evaluation was based on database searches for the entirety of



Napa County. Appendix A contains observations of special-status species documented within a five-mile radius of the Study Area.

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<sup>1</sup>.

#### **4.1 Land Cover Types**

##### *4.1.1 Terrestrial Land Cover Types*

Terrestrial land cover types were mapped across the entire Subject Property, but they were only evaluated to determine if such areas have the potential to support special-status plants or wildlife within in the Study Area. In most instances, communities are delineated based on distinct shifts in plant assemblage (vegetation), and follow the *California Natural Community List* (CDFW 2018a), *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.<sup>2</sup> 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).

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<sup>1</sup> 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.

<sup>2</sup> Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2018)

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 ordinary high water mark 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.

## 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 preliminary site visit was made on March 25, 2021 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. CNDDDB, 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 Study Area and portions of the Subject Property outside of the Study Area on March 25, April 15, and June 23, 2021. The surveys correspond to the period sufficient to observe and identify those special-status plants determined to have the potential to occur. The field surveys were 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 2018b, USFWS 1996). Plants were identified using *The Jepson Manual, 2<sup>nd</sup> Edition* (Baldwin et. al. 2012) and Jepson Flora Project (eFlora 2020), to the taxonomic level necessary to determine whether or not they were sensitive. Plant names follow those of Jepson Flora Project (eFlora 2020), unless otherwise noted.

#### 4.2.3 *Special-status Wildlife*

A general wildlife assessment was performed on March 25, 2021. This assessment consisted of traversing the entirety of the Study Area as well as substantial portions of the Subject Property. Habitat elements required or associated with certain species (e.g., northern spotted owl) 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.

A daytime roost survey was performed on March 25, 2021. The survey assessed all trees and substrates within the Project Area to determine if bat roosting habitat was present. This survey was completed by walking the entire Project Area, and surveying each tree scheduled for removal. During the survey the biologist noted conditions that may be favorable or unfavorable for bat use such as thermal conditions, frequency of disturbance, and evidence of potential predators. All trees were also investigated for fissures, cracks, or hollows that could provide roosting substrate for bats.

#### 4.2.4 *Critical Habitat, Essential Fish Habitat, and Wildlife Corridors*

Prior to the site visit the USFWS Critical Habitat Mapper (USFWS 2020b) and the NMFS Essential Fish Habitat Mapper (NMFS 2020) 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 (CalTrans 2010), habitat connectivity data available through the CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2020a), and the NCBDR (Napa County 2005). Additionally, aerial imagery (Google 2020) 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.

#### 4.2.5 *Native Trees*

A tree survey was conducted within the preliminary vineyard layouts and clearing limits plus a buffer of 10 to 25 feet (Tree Survey Area). The Tree Survey Area was traversed on foot and all trees with a diameter at breast height (DBH) of six inches or greater were evaluated. The tree species, DBH, and mortality were

documented within a GPS unit. Additionally, as noted above, bat habitat was conducted concurrent with the tree survey.

## 5.0 ASSESSMENT RESULTS

### 5.1 Land Cover Types

WRA observed five land cover types within the Study Area: developed areas, non-native grassland, toyon chaparral, blue oak woodland, and coast live oak woodland (Figure A-3). The Project Area (vineyards and clearing limits) have been intentionally sited to reduce the impacts to oak woodlands (Figure A-5). The site burned in the 2017 Atlas Fire, which reduce the biomass of shrubs, killed many trees (Section 5.2.4), and likely increased the density and extent non-native grassland.

#### 5.1.1 Terrestrial Land Cover Types

Developed Area (no vegetation alliance). CDFW Rank: None. Within the Study Area, developed portions are composed of a single-family residence, garage, pool, hardscaping, paved driveway, and landscaping. The vegetation is highly altered, consisting of overhanging native trees, landscape species, and disturbance tolerant herbs. Species include blue oak (*Quercus douglasii*), coast live oak (*Quercus agrifolia*), burr chervil (*Anthriscus caucalis*), old-man-of-spring (*Senecio vulgaris*), hairy bittercress (*Cardamine hirsuta*), and scarlet pimpernel (*Lysimachia arvensis*). Developed areas total 1.0 acre in the Study Area, of which 0.1 acre is situated in the Project Area (10 percent of the total land cover type 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.

Non-native Annual Grassland – Wild Oat Grassland (*Avena barbata* Semi-Natural Herbaceous Stands). CDFW Rank: None. Non-native grasslands occur throughout cismontane California, particularly in the Sierra Foothills, Coast Range, Transverse Range, and Peninsular Ranges (Sawyer et al. 2009, CNPS 2021b). These grasslands are situated on a variety of landscapes including coastal terraces, valley bottoms, and foothills underlain by a variety of soil types. The Study Area contains 5.0 acres of which 4.3 acres is situated in the Project Area (86 percent of the total land cover type in the Study Area).

The dominant cover is the herbaceous layer, but there are scattered trees and shrubs including blue oak (*Quercus douglasii*), coyote brush (*Baccharis pilularis*), and whiteleaf manzanita (*Arctostaphylos manzanita* ssp. *manzanita*). The herbaceous layer is dominated by non-native grasses of wild oat (*Avena barbata*), big rattlesnake grass (*Briza maxima*), soft chess (*Bromus hordeaceus*), dogtail grass (*Cynosurus echinatus*), and Italian rye grass (*Festuca perennis*). Native wildflowers are infrequent, but include sky lupine (*Lupinus nanus*), California poppy (*Eschscholzia californica*), common soap plant (*Chlorogalum pomeridianum*), purple sanicle (*Sanicula bipinnatifida*), common yarrow (*Achillea millefolium*), and tomcat clover (*Trifolium willdenovii*).

This community is synonymous with the California Annual Grasslands Alliance biotic community in the NCLC (Thorne et al. 2004). These grasslands provide habitat for numerous common native plants and

wildlife, as well as have the potential to support several special-status species associated with grasslands. These grasslands are not considered sensitive by the CDFW or Napa County.

Toyon Chaparral (*Heteromeles arbutifolia* Shrubland Alliance). CDFW Rank: G4 S4. Toyon chaparral is known from the Interior Coast Range, Sierra Nevada Foothill, and Transverse Range (Sawyer et al. 2009, CNPS 2021b). These chaparrals are situated on steep slopes underlain by rocky loams from a variety of rock types. The Study Area contains 1.0 acre of toyon chaparral, of which 0.2 acre is situated in the Project Area (20 percent of the total land cover type in the Study Area).

The dominant cover is the shrub and small tree layer, particularly toyon (*Heteromeles arbutifolia*), California bay (*Umbellularia californica*), chamise (*Adenostoma fasciculatum*), coyote brush (*Baccharis pilularis*), and poison oak (*Toxicodendron diversilobum*). There is a substantial herbaceous layer due to the burned nature of the shrubs. Herbs are predominantly weedy non-natives, including Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), yellow star thistle (*Centaurea solstitialis*), prickly lettuce (*Lactuca serriola*), wild oat (*Avena barbata*), rip-gut brome (*Bromus diandrus*), and brome fescue (*Festuca bromoides*).

This community is synonymous with the Scrub Interior Live Oak-Scrub Oak-(California Bay-California Ash-Birch Leaf Mountain Mahogany-Toyon-California Buckeye) Mesic East County NFD Super Alliance biotic community in the NCLC (Thorne et al. 2004). These chaparrals provide habitat for numerous common native plants and wildlife, as well as the potential to support several special-status plants. The CDFW does not consider toyon chaparral a sensitive natural community. Likewise, it is not considered sensitive by Napa County.

Blue Oak Woodland (*Quercus douglasii* Woodland Alliance). CDFW Rank: G4 S4. Blue oak woodland is known from the interior North Coast Range, South Coast Range, southern Cascade Range, and Sierra Nevada Foothills from Humboldt County south to Ventura County (Sawyer et al. 2009, CNPS 2020b). These woodlands are typically situated on valley bottoms, foothills, and rocky outcrops underlain by moderately to excessively drained shallow, rocky, low-fertility substrate (Sawyer et al. 2009). The Study Area contains 6.9 acres of blue oak woodland, of which 4.0 acres are situated in the Project Area (58 percent of this land cover type in the Study Area). This extent is based on the extent of standing live and dead oak trees surveyed in 2021 (see Section 5.2.4). Canopy cover of living trees was based on aerial photo interpretation conducted by PPI Engineering, Inc. utilizing both aerial photo and tree survey data from WRA.

The dominant tree is blue oak (*Quercus douglasii*), with scattered cover of coast live oak (*Q. agrifolia*), California bay (*Umbellularia californica*), and California buckeye (*Aesculus californica*). Predominant understory species include poison oak (*Toxicodendron diversilobum*), soap plant (*Chlorogalum pomeridianum*), hedge parsley (*Torilis arvensis*), Pacific sanicle (*Sanicula crassicaulis*), Pacific hound's-tongue (*Cynoglossum grande*), and numerous non-native annual grasses.

This community is synonymous with the Blue Oak Alliance biotic community in the NCLC (Thorne et al. 2004). These woodlands provide habitat for numerous common native plants and wildlife, as well as have the potential to support several special-status species associated with woodlands. The CDFW does not consider blue oak woodland a sensitive natural community. Conversely, these woodlands are considered sensitive Napa County under the General Plan Conservation Element Policy CON-24 (oak woodland retention).

Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance). CDFW Rank: G5 S4. Coast live oak woodlands occur in the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County (Sawyer et al. 2009, CNPS 2020b). These woodlands are typically situated on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content (Sawyer et al. 2009). The Study Area contains 2.5 acres of coast live oak woodland, of which 0.4 acre in the Project Area (16 percent of the total land cover type in the Study Area). This extent is based on the extent of standing live and dead oak trees surveyed in 2021 (see Section 5.2.4). Canopy cover of living trees was based on aerial photo interpretation conducted by PPI Engineering, Inc. utilizing both aerial photo and tree survey data provided by WRA.

The dominant tree is coast live oak (*Quercus agrifolia*), with scattered cover of blue oak (*Q. douglasii*) and California bay (*Umbellularia californica*). The understory is dominated by poison oak (*Toxicodendron diversilobum*), rough hedgenettle (*Stachys rigida*), hedge parsley (*Torilis arvensis*), Italian thistle (*Carduus pycnocephalus*), rip-gut brome (*Bromus diandrus*), and dogtail grass (*Cynosurus echinatus*).

This community is synonymous with the Coast Live Oak Alliance biotic community in the NCLC (Thorne et al. 2004). These woodlands provide habitat for numerous common native plants and wildlife, as well as have the potential to support several special-status species associated with woodlands. The CDFW does not consider coast live oak woodland a sensitive natural community. Conversely, these woodlands are considered sensitive Napa County under the General Plan Conservation Element Policy CON-24 (oak woodland retention).

### 5.1.2 Aquatic Resources

Although Soda Creek is adjacent to the southeastern edge of the Study Area, there are no aquatic resources within the Study 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, 74 special-status plant species have been documented in the vicinity of the Study Area (CDFW 2021a, CNPS 2021a). Ten of these plants have the potential to occur in the Study Area. The remaining 64 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

- 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 several site visits during a period sufficient to identify all 10 special-status plant species with the potential to occur within the Study Area. No special-status plants were observed during these surveys. All species with the potential to occur are listed below and described in Appendix C.

- Franciscan onion (*Allium peninsulare* var. *franciscanum*); CRPR 1B
- Bent-flowered fiddleneck (*Amsinckia lunaris*); CRPR 1B
- Streamside daisy (*Erigeron biolettii*); CRPR 3
- Greene's narrow-leaved daisy (*Erigeron greenei*); CRPR 1B
- Nodding harmonia (*Harmonia nutans*); CRPR 4
- Hayfield tarplant (*Hemizonia congesta* ssp. *congesta*); CRPR 1B
- Bristly leptosiphon (*Leptosiphon acicularis*); CRPR 4
- Mt. Diablo cottonweed (*Micropus amphibolus*); CRPR 3
- Showy Rancheria clover (*Trifolium amoenum*); FE, CRPR 1B
- Oval-leaved viburnum (*Viburnum ellipticum*); CRPR 2B

### 5.2.2 Special-status Wildlife Species

A total of 58 special-status wildlife species have been documented in Napa County (CDFW 2021a, Napa County 2005). Three of these species have a moderate to high potential to occur in the Study Area and Project Area. Special-status bats do not have the potential to occur in the Project Area based on results of the day roost site assessment conducted concurrent with the tree survey. The remaining 55 species are unlikely or have no potential to occur due to one or more of the following reasons:

- 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) 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, old-growth coniferous trees) necessary to provide nesting, roosting, 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 nesting range

Grasshopper sparrow (*Ammodramus savannarum*). CDFW Species of Special Concern. Moderate Potential (Presence Unknown). The grasshopper sparrow is a summer resident in California, wintering in Mexico and Central America. This species occurs in open grassland and prairie-like habitats with short- to moderate-height vegetation, and often scattered shrubs (Shuford and Gardali 2008). Both perennial and annual (non-native) grasslands are used. Nests are placed on the ground and well concealed, often

adjacent to grass clumps (Shuford and Gardali 2008). Grasshopper sparrows are secretive and generally detected by voice. Insects comprise the majority of the diet. The Study Area provides open grassland areas that are suitable for nesting, and this species has been recently observed in the vicinity (eBird 2021). This species was not observed; however, a bird survey was not performed during this assessment.

Long-eared owl (*Asio otus*). CDFW Species of Special Concern. Moderate Potential (Presence Unknown). This generally uncommon species is resident throughout much of California outside of the Central Valley. Long-eared owls breed in a variety of woodland and forest habitats, including coniferous, oak and riparian, as well as planted tree groves. Nearby open habitats with small mammal populations, such as grasslands, meadows and marshes, are also required for foraging. Breeding typically relies on the presence of old nests made by similar-sized birds including hawks and crows (Shuford and Gardali 2008). Communal roosting often occurs during the winter. This species was not observed; however, a bird survey was not performed during this assessment.

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential (Presence Unknown). 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. The Study Area provides suitable year-round habitat for white-tailed kites, including stands of oaks for nesting and open areas in close proximity for foraging. This species was not observed; however, a bird survey was not performed during this assessment.

### 5.2.3 Critical Habitat, Essential Fish Habitat, and Wildlife Corridors

The Study Area does not contain any designated Critical Habitat (USFWS 2021b) or Essential Fish Habitat (NMFS 2021). Soda Creek, situated on the immediate southern edge of the Study Area, is Critical Habitat for Steelhead (USFWS 2021b); however, this stream is outside of the Study Area and 150 feet or greater from the Project Area. The Study Area is not within a designated wildlife corridor (CalTrans 2010, Napa County 2005). The site is located within a broader tract of oak woodland, shrubland, and grassland, and lightly-developed land within a semi-rural portion of Napa County. While common wildlife species presumably utilize the site to some degree for movement at a local scale, the Study Area itself does not provide corridor functions beyond connecting similar open woodland, chaparral, and grassland land parcels in surrounding areas.

### 5.2.4 Native Trees

There are 274 native trees with a DBH of six inches or greater within the Tree Survey Area but only 138 trees that appear to be alive (Figure A-4, Appendix E). There are 265 blue oaks (*Quercus douglasii*), eight coast live oak (*Quercus agrifolia*), and one California buckeye (*Aesculus californica*). Trees suffered high mortality from the 2017 Atlas Fire; 136 of the documented trees appear to be dead based observations of heavy fire scarring, extensive bark exfoliation, no living leaves, no living buds, and/or split trunks.



## 6.0 PROJECT ANALYSIS AND RECOMMENDATIONS

### 6.1 Land Cover Types

#### 6.1.1 Terrestrial Land Cover Types

##### Oak Woodlands

Blue oak and coast live oak woodlands are not 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 to provide for oak woodland and wildlife habitat, slope stabilization, soil protection, and species diversity. Policy CON-24c specifically 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 on June 16, 2016. 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) where the areas to be preserved must generally occur on slopes less than 50 percent and outside of stream and wetland setbacks. Since the parcel burned in the 2017 Atlas Fire, it is subject to Code Section 8.80.130(A) which requires that the vegetation canopy cover be based on that existing on the parcel on June 19, 2018. Living canopy cover mapped based on living trees and a 2018 aerial photograph results in 3.2 acres of oak canopy cover throughout the entire Study Area, of which 0.7 acre is situated within the Project Area (21.8 percent of total in the Study Area) (Figure A-4). Therefore, the proposed vineyard ECP is in compliance with the County Code vegetation canopy cover retention requirements and no further recommendations are necessary.

#### 6.1.2 Aquatic Resources

The Study Area and Project Area do not support aquatic resources. No further actions are recommended for aquatic resources.

### 6.2 Special-status Species

#### 6.2.1 Special-status Plants

The Study Area and Project Area do not support special-status plants. No further actions are recommended for special-status plants.

#### 6.2.2 Special-status Wildlife

The Project Area has the potential to support three special-status wildlife species (three birds), as well as non-status birds protected under the MBTA. There is no potential bat habitat within the Project Area. The following measures are recommended to avoid or otherwise minimize potential impacts to these species.

All Bird Species (including non-special-status): In addition to the three special-status bird species discussed above (grasshopper sparrow, long-eared owl, white-tailed kite), a variety of non-status bird species with baseline protections under the MBTA and CFGC may use vegetation within the Project Areas for nesting. Pre-construction surveys are recommended to ensure that the implementation of the Proposed Project would not impact any nesting birds.

Recommendation 1: WRA recommends that tree/vegetation removal and initial ground disturbance occur from August 16 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 tree removal or ground disturbance is recommended. 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. 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.

### 6.2.3 *Wildlife Movement*

The Study Area and Project Area do not support Critical Habitat, Essential Wildlife Habitat, or critical wildlife corridors. The proposed deer fence has been intentionally sited away from Soda Creek to preserve wildlife movement along the riparian corridor. No further actions are recommended for wildlife movement.

### 6.2.4 *Native Trees*

Mapping the canopy cover of living trees from the native tree survey and a 2018 aerial photograph, results in an estimated 78.2 percent retention of living canopy following the project. No further actions are recommended for native trees.

## 7.0 REFERENCES

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## 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  
Representative Photographs

Appendix E

Native Trees

Appendix F  
Statement of Qualifications