7111 Dry Creek Road

Vineyard Project

Biological Resources Report

Prepared for:

Annalee Sanborn

PPI Engineering

2800 Jefferson Street

Napa, CA 94558

Prepared by:

MIG, Inc.

Revised July 2023

Project Number: 16221

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Contents

List of Abbreviated Terms

APN	Assessor's Parcel Number
BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
BMP	Best Management Practice
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFP	California Fully Protected Species
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CSSC	California Species of Special Concern
CWA	Clean Water Act
EPA	Environmental Protection Agency
FESA	Federal Endangered Species Act
FT	Federal Threatened
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
NOAA	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resource Conservation Service
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service
WDR	Waste Discharge Requirement

1 Introduction

This report presents the methods and results of a study of biological resources present or potentially present at 7111 Dry Creek Road ("the project site"; Figure 1 in Appendix A). This report was prepared by MIG for use in site planning and in permit applications to Napa County and state resource agencies, as needed.

Napa County requires a biological resources evaluation for discretionary projects in areas identified to contain, or potentially contain, special-status species based on the County's Baseline Data Report, California Natural Diversity Database, or other technical sources. The biological evaluation and impact analysis was completed by biologists with MIG, Inc. It identifies sensitive biological resources within the project site and potential impacts to those resources resulting from the proposed project, which includes development of a vineyard. This report provides:

- an overview of the proposed project and a description of the project site
- a list of the federal, state, and local resource related regulations that may pertain to project
- a description of the vegetation communities and associated wildlife habitats present
- a discussion of special-status plant and animal species and sensitive communities that are known to occur or that could potentially occur in or near the project site
- an evaluation of the potential impacts to biological resources that may occur because of development of the project
- recommendations to avoid or minimize those impacts
- responses to the California Environmental Quality Act (CEQA) Guidelines Appendix G questions related to biological resources

1.1 Regional and Local Setting

The project site is located in western Napa County south of Sugarloaf Ridge State Park, north of Archer Taylor Preserve, approximately 6 miles west of Yountville and approximately 12 miles east of Santa Rosa. It is between Bald Mountain and Mount Veeder in the Mayacama Mountains, on the Rutherford U.S. Geological Survey quadrangle (Latitude N 38.406125; Longitude W 122.471924). The project site ranges in elevation from 1,438 to 1,578 feet North American Vertical Datum of 1988 (NAVD88) (Google Inc. 2022). It is in the Dry Creek watershed, which is a sub-watershed of the Napa River.

The project site is located at 7111 Dry Creek Road (APN 027-070-036). It is zoned as Agricultural Watershed. Per Napa County Zoning, this zoning designation is defined as "those areas of the county where the predominant use is agriculturally oriented, where watershed areas, reservoirs and floodplain tributaries are located, where development would adversely impact on all such uses, and where the protection of agriculture, watersheds and floodplain tributaries from fire, pollution and erosion is essential to the general health, safety and welfare".

Land uses surrounding the project site include agriculture, grazing, open space, vineyards, and rural residential housing.

1.2 Project Description

The proposed project is the development of a vineyard on an existing 2.9-acre goat and sheep pasture. The project includes the clearing of vegetation in areas supporting grassland habitat and understory vegetation in areas supporting woodland habitat within the entire 2.9-acre site. No trees are proposed for removal. An existing deer fence surrounds the project site and would remain in place. No additional fencing is proposed.

2 Regulatory Setting

Biological resources in California are protected under federal, state, and local laws. The laws that may pertain to the biological resources found on the project site include the following:

- Federal Endangered Species Act (protects species listed by the federal government as threatened or endangered)
- U.S. Migratory Bird Treaty Act (protects most birds in the U.S.)
- U.S. Bald and Golden Eagle Protection Act (protects bald and golden eagles)
- U.S. Clean Water Act (protects water quality in waters of the U.S.)
- California Environmental Quality Act (mitigates the environmental effects of human-initiated development)
- California Endangered Species Act (protects species listed by the state of California as threatened or endangered)
- California Fish and Game Code (protects stream bed, bank, and channel; nesting birds, fully protected birds; migratory birds, non-game mammals, and fully protected mammals, reptiles, amphibians, and fish)
- Napa County General Plan (protects special-status species, water resources, and native vegetation communities)

2.1 Federal Endangered Species Act

The federal Endangered Species Act (FESA) is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries). Under the federal ESA, the USFWS has primary responsibility for terrestrial and freshwater organisms and NOAA Fisheries has primary responsibility of marine wildlife and anadromous fish. FESA provides protection for species included on the federal list of endangered and threatened species (known as “listed species”). In particular, FESA prohibits "take" of threatened or endangered species, as well as destruction or

adverse modification of designated critical habitat of these species. “Take” is defined by the FESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect [a federally listed species] or to attempt to engage in any such conduct” (16 U.S. Code [U.S.C.] 1532(19), 1538). Federal regulations also define “take” to include the incidental destruction of animals in the course of an otherwise lawful activity, such as habitat loss due to development. Therefore, the definition of “take” includes significant habitat modification or degradation that kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 Code of Federal Regulations [CFR] 17.3). For plants, FESA governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any federally listed plant on non-federal land in knowing violation of state law (16 U.S. C. 1538(a)(2)(B)).

“Take” may be allowed under a permit by either Section 7 or Section 10 of FESA. Under Section 7 of FESA, federal agencies (e.g., U.S. Army Corps of Engineers [USACE]) are required to consult with the USFWS and/or NOAA Fisheries if their actions, including permit approvals or funding, could adversely affect a listed species or its critical habitat. Through consultation and the issuance of a Biological Opinion, the USFWS and/or NOAA Fisheries may issue an incidental take statement, allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. Section 10 of FESA provides for issuance of incidental take permits to private parties if there is no federal involvement in the project. Section 10 of the FESA requires the development of a Habitat Conservation Plan (HCP).

2.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Under the MBTA it is illegal to remove vegetation containing nests that are being actively used, since this could result in killing a bird or destroying an egg. This would also be a violation of California Fish and Game Code (see section 2.7, below).

2.3 Bald and Golden Eagle Protection Act

Under the Bald and Golden Eagle Protection Act (BGEPA) it is unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, or their parts, products, nests, or eggs. “Take” includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing. Exceptions may be granted by the USFWS for scientific or exhibition use and for cultural use by Native Americans. In addition, in 2009 the USFWS established new permit regulations under the BGEPA that allows for incidental take of eagles while conducting

otherwise lawful activities (50 CFR 22.26). No permits may be issued for import, export, or commercial activities involving eagles.

2.4 Clean Water Act

The federal Clean Water Act (CWA) is the primary federal law regulating water quality. The implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Sections 404 and 401 of the CWA apply to activities that would impact waters of the U.S.

Section 404: As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into "waters of the U.S.". "Waters of the U.S." include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(b)). The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when it is in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE's administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided that such permits' other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required from the State of California for Section 404 permit actions.

Section 401: Any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The "401 Certification" is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB). This project is within the San Francisco Bay Region of the RWQCB.

The RWQCB issues and enforces permits for discharge of treated water, landfills, stormwater runoff, filling of any surface waters or wetlands, dredging, agricultural activities, and wastewater recycling. The RWQCB recommends that an application for certification under CWA Section 401 be made at the same time that the 404 application is submitted to the any applications are

provided to other agencies, such as the USACE. The permit cannot be issued until completion of environmental review under the California Environmental Quality Act (CEQA). The application to the RWQCB is similar to the pre-construction notification that is required by the USACE. It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement of functions and values, and replacement of wetland at a minimum ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and in-kind, with functions and values as good as or better than the water-based habitat that is being removed.

2.5 California Endangered Species Act

The California Endangered Species Act (CESA; Fish and Game Code 2050 et seq.) generally parallels the federal Endangered Species Act. It establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. “Take” is defined in Section 86 of the California Fish and Game Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” This definition differs from the definition of “take” under FESA. CESA is administered by the California Department of Fish and Wildlife (CDFW). CESA allows for take incidental to otherwise lawful projects, but mandates that State lead agencies consult with the CDFW to ensure that a project would not jeopardize the continued existence of threatened or endangered species.

2.6 California Environmental Quality Act

CEQA (Public Resources Code Sections 21000 et. seq.) requires public agencies to review activities which may affect the quality of the environment so that consideration is given to preventing damage to the environment. When a lead agency issues a permit for development that could affect the environment, it must disclose the potential environmental effects of the project. This is done with an “Initial Study and Negative Declaration” (or Mitigated Negative Declaration) or with an “Environmental Impact Report”. Certain classes of projects are exempt from detailed analysis under CEQA.

Under the CEQA Guidelines (Title 14 C.C.R. Sections 15000 et. seq.), Section 15303, single-family dwellings usually qualify as a Class 3 categorical exemption. Minor grading and landscaping usually qualify as a Class 4 categorical exemption. However, under CEQA Guidelines Section 15300.2, there are exceptions to allowing Class 3 and 4 categorical exemptions. Under the Guidelines a project is not categorically exempt if it “may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.”

The state maintains a list of sensitive, or “special-status”, biological resources, including those listed by the state or federal government or the California Native Plant Society as endangered,

threatened, rare or of special concern due to declining populations. Projects that directly impact these resources may not qualify for a categorical exemption.

This report responds to the CEQA checklist questions regarding biological resources and is a supporting technical report to the CEQA process.

2.7 California Fish and Game Code

California Fish and Game Code Sections 1600-1607

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions in the application and, if necessary, prepares a Lake or Streambed Alteration Agreement that includes measures to protect affected fish and wildlife resources onsite and downstream.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was created with the intent to preserve, protect, and enhance rare and endangered plants in California (California Fish and Game Code Sections 1900 to 1913). The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from "take." The CDFW maintains a list of plant taxa that have been officially classified as endangered, threatened, or rare.

Fully Protected Species

California Fish and Game Code Sections 3511, 4700, 5050 and 5515 address Fully Protected species. Prior to the passage of the California ESA, the classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Subsequently, many Fully Protected species have been listed under the California and/or federal ESAs. The only exceptions are golden eagle, white-tailed kite, trumpeter swan, northern elephant seal, and ringtail. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

California Fish and Game Code Sections 3505, 3503.5, and 3513

Nesting birds, including raptors, are protected by California Fish and Game Code Section 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, under California Fish and Game Code Section 3503.5, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any

regulation adopted pursuant thereto". Passerines and non-passerine land birds are further protected under California Fish and Game Code 3513, which makes it unlawful to take or possess any migratory nongame bird protected by the federal Migratory Bird Treaty Act. CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" under the law.

2.8 Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCBs) develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "waters of the State," include isolated waters that are not regulated by the USACE. Any person discharging, or proposing to discharge, waste (e.g., fill) to waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

2.9 Napa County Policies

Napa County General Plan

Napa County adopted a General Plan in 2008 that provides a broad framework for planning the future for the County. The General Plan was updated in 2013. The following conservation goals and policies are relevant to the biological resources on project site.

Natural Resources Goals and Policies

Goal CON-3: Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.

Goal CON 4: Conserve, protect, and improve plant, wildlife, and fishery habitats for all native species in Napa County.

Goal CON-5: Protect connectivity and continuous habitat areas for wildlife movement.

Policy CON-11: Control sediment production from mines, roads, development projects, agricultural activities, and other potential sediment sources.

Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreational, 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 [note: only the items pertinent to the project are included here]:

- *Require temporary or permanent buffers of adequate size (based on the requirements of the subject special-status species) to avoid nest abandonment by birds and raptors associated with construction and site development activities.*

Policy CON-16: The County shall require a biological resources evaluation for discretionary projects in areas identified to contain or potentially contain special-status species based upon data provided in the Baseline Data Report (BDR), CNDDB, or other technical materials. This evaluation shall be conducted prior to the approval of any earthmoving activities. The County shall also encourage the development of programs to protect special-status species and disseminate the updated information to state and federal resource agencies.

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:

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:

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 caused by the new vineyard development

Policy CON-30: All public and private projects shall avoid impacts to wetlands to the extent feasible. If avoidance is not feasible, projects shall mitigate impacts to wetlands consistent with state and federal policies providing for no net loss of wetland function.

Water Resources Goals and Policies

Goal CON-9: Control urban and rural storm water runoff and related non-point source pollutants, reducing to acceptable levels pollutant discharges from land-based activities throughout the county.

Policy CON-42: The County shall work to improve and maintain the vitality and health of its watersheds. Specifically, the County shall:

> *b) Reduce water pollutants through education, monitoring, and pollutant elimination programs (e.g., watershed education and monitoring programs identified in the Watershed Information Center and Conservancy (WICC) Strategic Plan and Napa County/Resource Conservation District (RCD) Watershed Programs, and pollution reduction goals outlined in Napa County's Phase II National Pollution Discharge Elimination System (NPDES) General Permit from the State Water Board).*

Policy CON-48: Proposed developments shall implement project-specific sediment and erosion control measures (e.g., erosion control plans and/or storm water pollution prevention plans) that maintain pre-development sediment erosion conditions or at minimum comply with state water quality pollution control (i.e., Basin Plan) requirements and are protective of the County's sensitive domestic supply watersheds. Technical reports and/or erosion control plans that recommend site-specific erosion control measures shall meet the requirements of the County Code and provide detailed information regarding site specific geologic, soil, and hydrologic conditions and how the proposed measure will function.

Policy CON-50: The County will take appropriate steps to protect surface water quality and quantity, including the following:

c) The County shall require discretionary projects to meet performance standards designed to ensure peak runoff in 2-, 10-, 50-, and 100-year events following development is not greater than predevelopment conditions.
e) In conformance with National Pollution Discharge Elimination System (NPDES) requirements, prohibit grading and excavation unless it can be demonstrated that such activities will not result in significant soil erosion, silting of lower slopes or waterways, slide damage, flooding problems, or damage to wildlife and fishery habitats.
f) Adopt development standards, in conformance with NPDES Phase II requirements, for post-construction storm water control.
g) Address potential soil erosion by maintaining sections of the County Code that require all construction-related activities to have protective measures in place or installed by the grading deadlines established in the Conservation Regulations. In addition, the County shall ensure enforceable fines are levied upon code violators and shall require violators to perform all necessary remediation activities.

Napa County Zoning Ordinance Chapter 18.108 Conservation Regulations

18.108.100 Erosion Hazard Areas – Vegetation Preservation and Replacement

Under the Napa County Conservation Regulations, Erosion Control Plans are required for agricultural projects involving grading and earthmoving activities on slopes over 5%. Approval of Erosion Control Plans by the County is subject to review under CEQA.

Section 18.108.100 of the County Conservation Regulations sets the following conditions on projects subject to discretionary review, include projects that require an Erosion Control Plan:

A. 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.
B. Existing trees six inches in diameter or larger, measured at diameter breast height (DBH), or tree stands of trees six inches in diameter 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.
C. Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriate 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.
D. Wherever 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.
E. Vegetation required to be preserved but removed either advertently or inadvertently, or before any required permit has been issued, shall be replaced with fifteen-gallon trees at a ratio of 2:1 at locations approved by the director or designee, or replaced with smaller trees at a higher ratio to be determined by the director or designee.
F. All graded areas for nonagricultural activities shall be replanted with permanent vegetation. A revegetation plan shall be submitted for approval by the director or designee concurrently with the erosion control plan or as part of the NPDES program. All approved plant materials shall be installed prior to occupancy. Plant materials shall be drought-tolerant and compatible with the existing habitat area in which the project is located.
G. To the extent relevant to the agriculture activity proposed, the project shall substantially conform to the guidelines contained in the Information Manual: Riparian Vegetation Management for Pierce's Disease in North Coast California Vineyards.
H. To prevent importation of plant insects or diseases, plant materials shall be purchased locally when practical. The county agricultural commissioner's office shall be notified of all impending deliveries of live plants with points of origin outside of the county.

***18.108.020 General Provisions* (for Water Quality and Tree Protection)**

Section 18.108.020 of the County Conservation Regulations sets the following applicable conditions related to vegetation removal:

> c) Vegetation Retention Requirements. In the AW zoning district, a minimum of seventy percent vegetation canopy cover as configured on the parcel existing on June 16, 2016 shall be maintained as part of any use involving earth-disturbing activity. Two or more contiguous parcels held and maintained under common ownership or legal control at the time the plan is submitted may be considered combined and treated as one holding for purposes of compliance with the vegetation requirements in this section; provided that:
>
> (1) the total vegetation proposed for clearing would not be greater than what could be cleared if each contiguous parcel was treated an individual unit; (2) a report prepared by a qualified professional biologist is submitted to the director which concludes that the proposed vegetation clearing would not result in greater impacts to biological resources than what would occur if the combined parcels were treated as individual units; and (3) a perpetual protective easement or a perpetual deed restriction is recorded for each parcel describing the amount of vegetation to be retained on each of the parcels.
>
> d).Vegetation Removal Mitigation. In the AW zoning district, the removal of any vegetation canopy cover shall be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio unless otherwise set forth below. The location for replacement or preservation may be prioritized as follows:
>
> 1. Replacement or preservation shall first be accomplished on-site on lands with slopes of thirty percent or less and outside of stream and wetland setbacks.
>
> 2. If sufficient vegetation canopy cover cannot be reasonably accomplished under subsection (D)(1) of this section, on-site preservation or replacement may occur on slopes greater than thirty percent and up to fifty percent in areas that result in the highest biological and water quality protections as determined by the director.
>
> 3. If sufficient vegetation canopy cover cannot be reasonably accomplished under subsection (D)(1) or under subsection (D)(2) of this section, off-site replacement or preservation may occur if it is within the same watershed and the habitat is of the same or better quality as determined by the director.
>
> 4. Replacement of vegetation canopy cover may occur within stream setbacks at a minimum 2:1 preservation ratio where a restoration plan prepared by a qualified professional biologist has been approved by the director, and where consistent with Section 18.108.025 (D) as determined by the director.

5. Alternatively, the removal of any vegetation canopy cover may be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 2:1 ratio, where the project includes substantial public benefits as determined by the director.

6. Non-native species shall not be subject to the vegetation canopy cover replacement or preservation requirements under subsection (D) of this section.

3 Methods

This section describes the methods used to complete the biological resources evaluation. Methods include database and literature review, field surveys, and an assessment of sensitive habitats and aquatic features.

3.1 Literature Review

Available background information pertaining to the biological resources on and in the vicinity of the project was reviewed prior to conducting field surveys. Information was compiled and subsequently compared against site conditions during field surveys. The following sources were consulted:

- CDFW California Natural Diversity Database record search of the Calistoga, Rutherford, Saint Helena, Chiles Valley, Kenwood, Yountville, Glen Ellen, Sonoma, and Napa, U.S. Geological Survey 7.5-Minute Quadrangles (CNDDB 2022)
- Biogeographic Information and Observation System: Spotted Owl Viewer (BIOS 2023)
- California Native Plant Society (CNPS) Rare Plant Program Inventory of Rare and Endangered Plants of California record search for Napa County (CNPS 2022)
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool (USFWS 2022a)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2022)
- U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) Online Wetlands Mapper (NWI 2022).
- ebird (Cornell Lab of Ornithology 2022)
- Other relevant scientific literature, technical databases, resource agency reports, and Federal Register notices and other information published by USFWS and NMFS to assess the current distribution of special-status plants and animals in the project vicinity.

3.2 Field Surveys

On March 22, 2022, MIG biologist David Gallagher, M.S. conducted a reconnaissance field survey of the project site. The surveys were conducted to provide a project-specific impact assessment for the development of the site as described in the project description. Specifically, surveys were conducted to (1) assess existing biotic habitats and plant and animal communities in the site, (2) assess the site for its potential to support special-status species and their habitats, and (3) identify potential jurisdictional habitats (e.g., waters of the U.S./state), and other sensitive biological resources. During the survey, the project site was surveyed using meandering pedestrian transects, at which time plant and wildlife species, any signs (e.g., tracks, scat, and feathers) of wildlife, and habitats present on the project site were documented. Photographs of the representative habitat types on the project site were taken.

On June 13, 2023, MIG biologist Kim Briones conducted a follow-up survey to assess the potential for the northern spotted owl (*Strix occidentalis caurina*) to nest within the project vicinity. While it was determined that no suitable roosting or nesting habitat is present on the project site, this additional survey was conducted to evaluate the potential for project activities to indirectly impact northern spotted owl nests (e.g., noise disturbance associated with construction) within 0.25 mile of the project site consistent with CDFW protocol (USFWS 2012).

3.3 Sensitive Habitats and Aquatic Features

Habitats were assessed to determine if any wetlands and “waters” within the jurisdiction of the USACE, RWQCB, or CDFW were present. The project area was inspected for the presence of wetlands, drainages, streams, and other aquatic features, including those that support stream-dependent (riparian) plant species. In addition, plant communities were evaluated to determine if they are considered sensitive under federal or state regulations or policies. Sensitive natural communities are communities that are especially diverse; regionally uncommon; or of special concern to local, state, and federal agencies. Elimination or substantial degradation of these communities would constitute a significant impact under CEQA.

Wetlands are defined for regulatory purposes in the 33 CFR 328.3 and 40 CFR 230.3 as areas “inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” To be considered subject to federal jurisdiction, a wetland must normally exhibit positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology”.

3.4 Special-Status Species Habitat Evaluation

During the biological resources survey, the biologist evaluated the suitability of all vegetation communities to support special-status species documented in and within the vicinity of the

project area. For the purposes of this assessment, special-status animal and plant species include:

- Species listed or proposed for listing as threatened or endangered under the federal ESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under the federal ESA (73 Federal Register [FR] 75176, November 9, 2009).
- Species listed or proposed for listing by the state of California as threatened or endangered under the California ESA (14 CCR 670.5).
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Plants listed as rare under the California NPPA (California Fish and Game Code, Section 1900 et seq.).
- Plants considered by CNPS to be "rare, threatened, or endangered in California", or on a watch list (California Rare Plant Rank [CRPR] 1A, 1B, 2A, 2B, 3, and 4).
- Animals listed as California species of special concern by the CDFW.
- Animals fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).

The potential occurrence of special-status plant and animal species within the project area was initially evaluated by developing a list of special-status species that are known to or have the potential to occur near the project area based on a review of past studies; search of current database records (e.g., CNDDB and CNPS Electronic Inventory records); and review of the USFWS list of federal endangered and threatened species. The potential for occurrence of those species included on the list were then evaluated based on the habitat requirements of each species relative to the conditions observed during the reconnaissance site visit. Each species was evaluated for its potential to occur on or in the immediate vicinity of the project site.

The list of plant and animal species observed during the site visit is in Section 4.7. The list of special-status plants animals that have the potential to occur in the vicinity of the project area, their habitat requirements, and a ranking of potential for occurrence on the project site are included in Appendix B, Tables 1 and 2, and are discussed in sections 4.8 and 4.9 below.

4 Existing Conditions

This section describes soils, vegetation communities, aquatic resources, wildlife movement corridors, sensitive plant communities, wildlife observations, special-status species present or potentially present, and other pertinent information about biological resources within the project site.

4.1 Soils and Topography

Soil types were determined by accessing the Natural Resources Conservation Service (NRCS 2022a) Web Soil Survey (NRCS 2022). Soil mapping from the NRCS is on a broad scale and small variations in soil type are not always available. The project site is mapped in the Web Soil Survey as supporting three soil complexes (Appendix A, Figure 3). These complexes include CmEsn (map unit symbol) - Cohasset gravelly loam with 15 to 30 percent slopes on most of the western half of the site, Boomer loam/volcanic bedrock with 2 to 35 percent slopes on the eastern portion of the site, and CmE (map unit symbol) – Cohasset gravelly loam with 15 to 30 percent slopes on the southern tip of the project site. CmEsn and CmE Cohasset gravelly loams are characterized as well-draining soils with a high runoff capacity. Both are formed from weathered igneous rock. Boomer loam/volcanic bedrock is a well-draining soil that allows medium runoff and is formed in material weathered from volcanic rock. No serpentine soils (which often support rare plants), are present on the project site, based on site observations of soils and vegetation, as well as the mapping provided in the soil survey. Although the site is mapped as supporting soils weathered from volcanic rock, no volcanic soils were observed during the field survey. None of the existing soils are classified as hydric in Santa Clara County on the National Hydric Soils List (NRCS 2022b).

The project slopes gently from elevation 1,438 feet in the northern corner of the site up to elevation 1,578 feet in the southern corner of the project site (PPI Engineering 2022). The topography appears to be natural.

4.1 Hydrology

The project site is located in the Napa River Watershed; however, there are no aquatic features present on the site (Figure 4, Appendix A). The primary hydrological sources for the project site are precipitation and runoff from adjacent lands. The site is located approximately 400 feet east of the headwaters of Calabazas Creek and approximately 500 feet west of an unnamed tributary to Dry Creek. Based on the topography, the site drains east toward the unnamed tributary to Dry Creek. Two drop inlet structures are present in the central and northeastern portions of the site (Appendix C, Photo 1). These inlets capture stormwater runoff from the site and likely carry it to the unnamed tributary to Dry Creek.

4.2 Sensitive Natural Communities, Wildlife Habitats, and Vegetation Alliances

The 1.66-acre project site is located within the Central Coast and San Francisco Bay Subregions of the Central Western Californian Region, both of which are contained within the larger California Floristic Province (Baldwin et al. 2012). Where applicable, vegetation communities were mapped using CDFW's Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2022). The project site contains two plant communities: California annual grassland (1.24 acres) and Coast Redwood Forest – Douglas Fir/California Bay (0.42 acre). Plant communities are shown in Figure 5 in Appendix A, and photographs are included in Appendix C. Plan communities and associated wildlife are described below.

California Annual Grassland. VegCAMP maps a majority of the site as occupied by California annual grassland and this was verified during the field survey (Appendix A, Figure 5 and Photo 2). At the time of the survey, the project site was being actively grazed by goats and sheep, and grasses on the site were mostly denuded (Appendix C, Photo 3). Nonetheless, many of the plant species occurring on the site were identifiable and included a mix of non-native grasses and herbs. Non-native grasses and herbaceous species present include Italian rye grass (*Festuca perennis*), wild geranium (*Geranium dissectum*), slim oat (*Avena barbata*), seaside barley (*Hordeum marinum*), speedwell (*Veronica arvensis*), milk thistle (*Silybum marianum*), and herbaceous species including miner's lettuce (*Claytonia perfoliata*), horseweed (*Erigeron bonariensis*), and Pacific pea (*Lathyrus vestitus*). Due to the grazing activities, the grasses and herbs in this plant community are short and sparse.

Wildlife. In general disturbed grasslands such as that present on the project site lacks the structural diversity (e.g., lack of layering of different plant species) necessary to support a high diversity of wildlife species, but these habitats are used as foraging, burrowing, and nesting locations by many species. The California annual grassland on the project site is limited in extent, is short-statured (due to grazing) and is isolated from more extensive grasslands and other natural areas in the region, and as such provide relatively low-quality habitat for wildlife species typically associated with grasslands. Therefore, wildlife species typically present in grassland communities such as the western meadowlark (*Sturnella neglecta*), grasshopper sparrow (*Ammodramus savannarum*), and loggerhead shrike (*Lanius ludovicianus*), are absent from this small grassland patch. Generalist species, such as the American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), and the California towhee (*Melozone crissalis*), which was observed during the survey, may forage in this habitat.

Coast Redwood Forest – Douglas Fir/California Bay. Redwood forests (*Sequoia sempervirens*) are found in a narrow band along the Pacific Coast, from central California to southern Oregon. They are found along alluvial terraces where temperatures are moderate year-round and dense summer fog provides moisture during the dry summer months. Typical species that co-occur with and coast redwood (*Sequoia sempervirens*) and Douglas fir (*Pseudotsuga menziesii*) include big leaf maple (*Acer macrophyllum*), California bay (*Umbellularia californica*), and tanoak (*Notholithocarpus denisflorus*). In VegCAMP the western and southern perimeter of the project site is mapped as Coast Redwood Forest – Douglas fir/California Bay (Appendix A, Figure 5) vegetation alliance. This is an alliance within the Redwood Forest and Woodland Association (CDFW 2022). However, within the project site, this plant community only supports coast redwood trees and small California bay saplings (Appendix C, Photos 4 and 5). The understory of the plant community is open and sparse and consists of short non-native grasses and herbs similar to what is present in the adjacent California Annual Grassland on the site. Numerous tree stumps are scattered throughout this plant community and several of the existing trees have burn scars left from the Nuns Fire that occurred in the area in 2017 (Appendix C, Photo 6). Although redwood trees are present on the site and the site is within the geographic range of the Coast Redwood Forest Alliance, this plant community is

not characteristic of Coast Redwood Forest – Douglas fir/California Bay due to the absence of associated plant and shrub species typically present in that alliance. Instead, the existing redwood stand is likely a remnant of redwood forest that was present prior to logging and agricultural practices in the area.

Redwood forests provide food and nesting opportunities for a variety of native and non-native species. Although the redwood forest on the site is not characteristic of redwood forests along the coast ranges and lacks dense understory vegetation, several wildlife species may occasionally nest on the site or move through the site on route to nearby habitat patches with more structure. Species that may occasionally occur in this habitat on the site include the fox squirrel (*Sciurus niger*), chestnut-backed chickadee (*Poecile rufescens*), Stellar's jay (*Cyanocitta stelleri*), and American crow (*Corvus brachyrhynchos*). In addition, the trees provide potential nesting habitat for small raptors such as the Cooper's hawks (*Accipiter cooperi*) and red-shouldered hawks (*Buteo lineatus*). However, no old nests of raptors were observed on the site during the reconnaissance survey. Bats occasionally roost is trees; however, an examination of the trees on the site did not find any large cavities or exfoliating bark that might provide habitat for roosting bats. Small mammals including deer mouse (*Peromyscus maniculatus*) and California vole (*Microtus californicus*) are typically present in coast redwood forests, but no mammals or signs of mammal burrowing were observed.

4.3 Plant Communities Within One Mile of the Project Site.

As required by Napa County for biological resource reports, plant communities within 1 mile of the project site are shown on Figure 6 in Appendix A. Based on a review of the VegCAMP mapping for Napa County and Sonoma County, 39 vegetation alliances, landcover types, and habitats are present within 1 mile of the project site. The California annual grassland and coast redwood – Douglas fir/California bay alliance that are present on the site extend out to these surrounding vegetation communities. However, neither are connected to any larger stands of grassland or redwood forest. In particular, the coast redwood – Douglas fir/California bay alliance on the site and surrounding the site is clearly disjunct from larger stands of this alliance elsewhere in its range.

4.4 Natural Communities of Special Concern

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance since the state inception of the Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types; and tracks sensitive communities in its Rarefind database (CNDDB 2022). Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows (CDFG 2007):

- G1/S1: Less than 6 viable occurrences or less than 2,000 acres.

- G2/S2: Between 6 and 20 occurrences or 2,000 to 10,000 acres.
- G3/S3: Between 21 and 100 occurrences or 10,000 to 50,000 acres.
- G4/S4: The community is apparently secure, but factors and threats exist to cause some concern.
- G5/S4: The community is demonstrably secure to ineradicable due to being common throughout the world (for global rank) or the state of California (for state rank).

State rankings are further described by the following threat code extensions:

- S1.1: Very threatened.
- S1.2: Threatened.
- S1.3: No current threats known.

In addition to tracking sensitive natural communities, CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer and Keeler-Wolf 1995). If an alliance is marked G1-G3, all the vegetation associations within it will also be of high priority (CDFG 2007). CDFW provides the Vegetation Classification and Mapping Program's (VegCAMP) currently accepted list of vegetation alliances and associations (CDFW 2022).

The Redwood Forest and Woodland Association within the project site is a CDFW classified sensitive natural community and has a G3/S3 global and state rank (CDFW 2022). Additionally, three natural communities classified by CDFW as sensitive natural communities are reported to occur within the project region (CNDDB 2022). These communities are northern vernal pool (Rank G2/S2.1), valley needlegrass grassland (Rank G3/S3.1), and coastal and valley freshwater marsh (Rank G3/S2.1). The latter three sensitive plant communities are not present within the project site or within one mile of the site. Impacts to natural communities of special concern may be considered significant under CEQA.

4.5 Critical Habitat

The USFWS national map of designated Critical Habitat was viewed on-line to determine if the project site is within Critical Habitat for any federally listed species (USFWS 2022b). The Critical Habitat designation identifies areas that are important to the recovery of a federally listed species; it does not necessarily indicate presence of the species. The project site is not within designated Critical Habitat for any federally listed species.

4.6 Wildlife Movement Corridors

Wildlife movement includes migration (*i.e*., usually one way per season), inter-population movement (*i.e*., long-term genetic flow) and small travel pathways (*i.e.,* daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene

flow among populations. These linkages among habitats can extend for miles and occur on a large scale throughout California. Habitat linkages facilitate movement between populations located in discrete areas and populations located within larger habitat areas.

One of the goals (Policy CON-18e) of the Napa County General Plan is to consider wildlife movement corridors within the context of agricultural development, especially new vineyard development. In Napa County, a least cost path analysis was conducted to provide an example of one approach to identifying movement corridors quantitatively (Napa County Baseline Data Report 2005). The analysis assigned California annual grassland and coast redwood - Douglas-fir / California bay a high beneficial cost value of 1 (on a scale of 1-10). Agricultural land, such as vineyards, was assigned a value of 5. Higher values are more difficult for most species to traverse.

The project site is not located within any of the three designated major wildlife movement corridors in the County (County of Napa 2007). Lands surrounding the project are predominantly undeveloped and largely dominated by coniferous forest, oak woodland, grassland, agricultural parcels, and rural development. While these areas are not within any of Napa County's designated wildlife movement corridors, the project site and surrounding undeveloped lands provide mostly uninhibited movement corridor for certain common birds, bats, small mammals, amphibians, and reptiles. However, movement of larger fauna such as deer and some mammals (e.g., skunk, opossum) may be impeded by the existing deer fence that currently surrounds the site. Thus, larger fauna have likely developed patterns of travel that do not depend on the project.

4.7 Plant and Wildlife Observations

Field Surveys

No special-status plants or animals or habitats such as mammal burrows or soils, that may support special-status species were observed during the field survey. Several species of common plants and animals were observed or heard on the site and within 500 feet of the project site during the site visit. This is not an exhaustive list as many other species would be expected to occur throughout the year. Plants and animals observed during the field survey are listed below.

Plant species observed include:

- Coast redwood (*Sequoia sempervirens)*
- Horseweed (*Erigeron bonariensis*)
- Milk thistle (*Silybum marianum*)
- Pacific pea (*Lathyrus vestitus*)
- Wild geranium (*Geranium dissectum*)
- Miner's lettuce (*Claytonia perfoliata*)
- Italian rye grass (*Festuca perennis*)

- Slim oat (*Avena barbata*)
- Seaside barley (*Hordeum marinum*)
- Speedwell (*Veronica arvensis*)
- California buttercup (*Ranunculus californicus*)

Birds observed include:

- American robin (*Turdus migratorius*)
- California towhee (*Melozone crissalis*),
- Western fence lizard (*Sceloporus occidentalis*)

4.8 Special-Status Plants

The CNPS (2022) and CNDDB (2022) list a number of special-status plant species as potentially occurring in the nine 7.5-minute quadrangles containing and/or surrounding the project site. All species were evaluated for their potential to occur on the project site (Appendix B, Table 1). All those potentially occurring special-status plant species were determined to be absent from the project site for at least one of the following reasons: (1) a lack of specific habitat (e.g., freshwater marsh) and/or edaphic requirements (e.g., serpentine soils) for the species in question, (2) the geographic range of the species does not overlap the project area, (3) the species is known to be extirpated from the site vicinity, and/or (4) the habitats within the project area are too degraded to reasonably expect any special-status species to occur there. Table 1 lists these plants, their habitat requirements, and the basis for why these species were determined to be absent from the site. This group includes a number of species that occur in grassland and woodland, including coniferous forest habitats. Although the site is mapped as supporting grassland and woodland habitats, active goat and sheep grazing has denuded the vegetation in these habitats making them unsuitable for these species. Additionally, several of these species are also known to occur in the region where gravelly volcanic soils are present. These species include Clara Hunt's milk-vetch (*Astragalus claranus*), Narrow-anthered brodiaea (*Brodiaea leptandra*), Small-flowered calycadenia (*Calycadenia micrantha*), Mead's owl's- clover (*Castilleja ambigua* var. *meadii*), Rincon Ridge ceanothus (*Ceanothus confusus*), Calistoga ceanothus (*Ceanothus divergens*), and Holly-leaved ceanothus (*Ceanothus purpureus*). Although the soil survey maps the site as having volcanic bedrock, no gravelly or exposed volcanic soils, which these species require, were observed on the project site. Additionally, these species were not observed during the field survey in March when they should have been detectable. Thus, these species were determined to be absent from the site.

4.9 Special-Status Animals

Based on a review of the USFWS and CNDDB databases, other data resources, the biologist's knowledge of sensitive species, and an assessment of the types of habitats within the project site, it was determined that no special-status species are expected to breed, occur regularly, or occur in large numbers on the project site. This determination was made due to the absence of

suitable habitat (i.e., stream, riparian forest, fresh and salt marshes, wet meadows and seeps, cliffs in deep canyons sea bluffs, and estuary habitats) for the species, the absence of known occurrences within 5 miles of the project site, and/or the project site's location is outside the species' known range distribution. However, three special-status wildlife species may occasionally occur as nonbreeding transients, foragers, or migrants. These species are the purple martin (*Progne subis*), pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus Townsendii*). These species are also discussed in more detail below. Expanded descriptions for all special-status species considered in this analysis, including their legal status, habitat requirements, and their likelihood of occurrence within the project site is provided in Appendix B, Table 3. Those species that may occasionally occur as non-breeding transients, foragers, or migrants are briefly discussed below.

Northern Spotted Owl

The northern spotted owl is listed as threatened under the California Endangered Species Act and Federal Endangered Species Act. The northern spotted owl's range extends from southwestern British Columbia, the coastal ranges and eastern and western Cascade Ranges of Washington State and Oregon down through northern California and Marin County (Gutiérrez et al. 2020). Within their range, the northern spotted owl occurs in 12 physiographic provinces, which are based on landscape subdivisions with different environmental features (Thomas et al. 1990). Napa County is located within the California Coast Province. This province encompasses most of the coastal redwood forest in northern California, and also encompasses inland forests that are comprised of Douglas fir and mixed Douglas fir/hardwood forests, which are often intermixed with chaparral and grassland habitat (CDFW 2016).

Nesting and roosting habitat of the northern spotted owl is broadly described as old growth coniferous forest with a high degree of structural complexity and a high canopy closure. Structural components of high-quality spotted owl habitat include a multilayered, multispecies canopy, large conifer overstory trees, shade-tolerant understory conifers or hardwood trees, and moderate to high canopy closure (CDFW 2016). The forest types and characteristics vary regionally depending on the physiographic province of the species' range (CDFW 2016). In the warmer inland portion of the California Coast Province where the project site is located, spotted owls appear to prefer structurally complex forest habitats in well-shaded forests, but tend to occupy these habitats in narrow, steep-sided canyons with north or east-facing slopes that tend to remain cool (USFWS 2011). Northern spotted owls do not build their own nests, but rather, they occupy broken live tree-tops, snags, tree cavities, mistletoe clumps, woody debris accumulations, or old nests constructed by other wildlife (CDFW 2016).

Foraging habitat may include the same components as nesting and roosting habitat but may also be composed of younger forests and hardwood stands in more open forest areas (USFWS 2016). In the southern portion of their range, where the project site is located, the northern spotted owls' diet consists mainly of small mammals including woodrats, deer mice, and gophers, which are common in mixed forest habitats (USFWS 2011). Other resources such as birds and insects may also be consumed. Spotted owls have been shown to avoid non-forested

habitats (e.g., grasslands), which is likely due to the lack of an abundant prey base (CDFW 2016).

Based on a review of the CNDDB spotted owl mapper, the project site is within 0.25 mile of two former spotted owl activity centers. An activity center is defined as a location or point representing the "best of" detections such as nest stands, stands used by roosting pairs or territorial singles, or concentrated nighttime detections (USFWS 2012). Within activity centers, spotted owls forage over a wide area and subsequently return to a nest or roost location that is centrally-located within the home range (Rosenberg and McKelvey 1999). One activity center was located approximately 0.23 miles from the project site and was recorded in 2012. The other activity center was located approximately 700 feet from the site and was recorded in 1998 (BIOS 2023). Additionally, 15 northern spotted owl observations associated with those activity centers have been documented between 1998 and 2014, including several pair sightings and two nest sightings (BIOS 2023). The current status of spotted owls in the vicinity is unknown.

As noted previously, the project site is primarily composed of open grassland habitat and is bordered by remnant coast redwood-Douglas fir/California bay forest. The forest that borders the site supports trees species that the northern spotted owl is associated with (e.g., coast redwood, Douglas fir), but due to the relatively young age of this tree stand, open structure, and lack of forest complexity, the site does not support suitably complex structure required for nesting or roosting habitat. Additionally, while the site may support a small population of rodents such as mice and voles, no woodrat stick nests were observed anywhere on the site and there is little understory complexity to support an abundant prey base. Thus, the site does not support high quality foraging habitat for the species. It is possible that the species may occasionally commute across the forested portion of the site on route to other areas, and infrequently forage on the site during such commutes. Potentially suitable nesting, roosting, and foraging habitat is present in the adjacent forest north and east of the project site, but due to the 2017 Nuns wildfire, forest habitat to the west and south of the site lacks suitable canopy cover to support the spotted owl. Although the current status of spotted owls is unknown in the project vicinity, it is possible that spotted owls could nest in the intact forested areas to the north and east, as they have done in the past.

Purple Martin

The purple martin (*Progne subis*) is a California species of special concern. This species nests in old woodpecker cavities, or human-made structures (e.g., nest boxes), often in tall, isolated trees/snags with low canopy cover. No occurrences for purple martin have been documented within 5 miles of the project site; however, this species is occasionally observed in the region (Cornell Lab of Ornithology 2022) and is known to nest in the County (Shuford 2008). No cavities were observed on any trees on the site; thus, this species is not expected to breed on site. However, this may occasionally occur on the project site as a non-breeding transient, forager, or migrant. Because this species is only considered a species of special concern when

nesting, it is not a “special-status species” when it occurs as a nonbreeding visitor to the project site.

Special Status Bats

The pallid bat (*Antrozous pallidus*) and Townsend’s big-eared bat (*Corynorhinus townsendii*) are considered California species of special concern year-round. The pallid bat forages over many habitats and roosts in caves, rock outcrops, buildings, and hollow trees. The Townsend’s big-eared bat roosts in caves and mine tunnels, abandoned buildings, bridges, and less frequently in crevices in trees such as redwoods in a variety of habitats. Both species may occasionally forage over the project site but are not expected to breed on the site as no suitable day-roosting habitat is present on the site. Additionally, several common bat species are known to occur in the region including Yuma myotis (*Myotis yumanensis*) and California myotis (*Myotis californicus*), and less common bat species, such as the fringed myotis (*Myotis thysanodes*) and long-eared myotis (*Myotis evotis*). All bat species are also protected by California Fish and Game Code. These and other common bat species roost in a variety of structures including trees that support cavities, crevices, and exfoliating bark. As described above, no potential roosting features that might provide suitable bat roosting habitat for bats.

Nesting Birds

Trees on and adjacent to the site provide nesting habitat for a variety of common bird species that are protected by the MBTA and California Fish and Game Code. Several passerine birds were noted during the biologists’ site visit and other common species have potential to nest on the trees within and adjacent to the site.

5 Biological Impact Assessment and Avoidance and Mitigation Measures Mitigation

5.1 Significance Criteria

Potential impacts to biological resources were determined in accordance with Appendix G of the CEQA Guidelines. Impacts would be considered potentially significant if the proposed project will:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?
c) Have a substantial adverse effect on state or federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
f) Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plant (NCCP), or other approved local, regional, or state HCP?

5.2 Special-Status Species

Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?
Less Than Significant with Mitigation

Impacts on candidate, sensitive, special-status species – Less than Significant with Mitigation

Impacts on Northern Spotted Owl

The northern spotted owl is associated with coniferous and mixed woodland forests and nests in structurally complex conifer and mixed forest habitats that are well-shaded and cool. They also require live tree-tops, snags, tree cavities, mistletoe clumps, woody debris accumulations, or old nests constructed by other wildlife for nesting. The project site is primarily composed of open

grassland habitat with a limited amount of fringe forest habitat, which lacks the structural complexity required by the species for nesting and roosting. Due to the lack of any complex forest habitat on the site, project activities will not result in the loss of such habitat, not impact such habitat.

Because the species is known to occur in the region, there is some potential for spotted owls to commute through the area and infrequently forage on the perimeter of the site that supports coast redwood-Douglas fir/California bay forest. No trees would be removed, but understory vegetation associated with the forest on the site perimeter would be removed for the project. Based on the lack of understory complexity (e.g., woody debris, fallen logs, other forest litter) that would support a healthy prey community, compared to the higher quality habitat in the surrounding areas, and the apparent absence of a woodrat population from the site, the removal of the understory vegetation would not result in the loss of important foraging habitat for the spotted owl. Spotted owls may infrequently forage across the forested portion of the site, but because prey availability is limited, the removal would not be significant under CEQA. Thus, the proposed project would not result in any direct substantial adverse effect on the northern spotted owl.

Although there are no recent observations of the northern spotted owl on or in the vicinity of the project site, the species has been well-documented within 0.25 miles from the project site since 1998 (BIOS 2023). This is the distance that project construction activities are evaluated for disturbance-only projects (USFWS 2012). Project construction activities that occur during the nesting season (generally March 1 to August 31) have the potential to cause disturbance to nesting owls from grading and vibrations. Such disturbances have the potential to affect adult and juvenile owl behaviors potentially causing adults to flush from the nest which may expose them to predation or heat stress, and decreased fledgling success, or increased mortality of chicks. Due to the rarity of this species and its state and federal status, the loss of an active nest due to noise/vibration-related abandonment would result in a substantial adverse effect on the northern spotted owl. With implementation of Mitigation Measure BIO-1, this impact would be reduced to less than significant.

Mitigation Measure BIO-1: Protocol-Level Surveys for Northern Spotted Owls

Avoidance. To the extent feasible, construction activities should be scheduled to avoid the spotted owl nesting season (generally March to July). If construction activities are scheduled to take place outside the nesting season, indirect impacts to spotted owl nests would be avoided.

Conduct Protocol-Level Surveys for Northern Spotted Owls. If construction activities cannot avoid the spotted owl nesting season, a six-visit survey over a one-year period (March 1 – August 31) should be conducted by a qualified biologist within suitable habitat within 0.25 miles of the project site, following USFWS's *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls* (USFWS 2012). See Appendix 4 of the protocol for recommended qualifications for qualified biologists. Per this protocol, surveys at least three surveys shall be completed by June of Year 1. If no owls are detected during the survey period,

the project can take place until the start of the next breeding season. If project construction is not completed by year two, three spot check survey visits each year should occur in years two and three OR a 2-year, six visits per year survey protocol. Spot checks are prescribed to detect spotted owls that may have moved into the project area subsequent to completion of general surveys. Consistent with the survey protocol, surveys should incorporate night-time call surveys during good weather conditions (e.g., not during inclement weather).

If a spotted owl nest is detected during the breeding season, no ground disturbing activities shall be conducted until the end of the breeding season.

Impacts on Other Special-Status Plants and Animal Species

No other species identified as a candidate, sensitive, special-status are expected to occur on the project site due to the lack of suitable habitat. Therefore, the proposed project would not result in a substantial adverse effect on special-status plant or animal species.

Impacts on Nesting Birds – Less Than Significant with Mitigation

All migratory bird species and their nests are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Project activities must comply with the provisions of the MBTA and California Fish and Game Code (i.e., avoid take of protected nesting birds). Therefore, project-related impacts to nesting birds would be considered significant under CEQA.

Construction disturbance during the avian breeding season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. In addition, noise and increased construction activity could temporarily alter foraging behavior, potentially resulting in the abandonment of nest sites. However, the implementation of Mitigation Measure BIO-1 below, impacts to nesting birds will be less than significant.

Mitigation Measure BIO-2: Pre-Construction/Pre-Disturbance Survey for Nesting Birds

Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Napa County extends from February 1 through August 31.

Pre-Construction Surveys. If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds will be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. These surveys will be conducted no more than 5 days prior to the initiation of any site disturbance activities and equipment mobilization, including tree, shrub, or vegetation removal, fence installation, grading, etc. If project activities are delayed by more than 5 days, an

additional nesting bird survey will be performed. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees and shrubs) in and immediately adjacent to the impact area for nests. Active nesting is present if a bird is building a nest, sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys will be documented.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the qualified biologist will determine the extent of a construction-free buffer zone to be established around the nest (typically up to 300 feet for raptors and up to 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. Within the buffer zone, no site disturbance and mobilization of heavy equipment, including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading will be permitted until the chicks have fledged.

A qualified biologist is an individual who has a degree in biological sciences or related resource management with a minimum of two seasonal years post-degree experience conducting surveys for nesting birds. During or following academic training, the qualified biologist will have achieved a high level of professional experience and knowledge in biological sciences and special-status species identification, ecology, and habitat requirements.

5.3 Riparian Habitat or other Sensitive Natural Communities

Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS? *Less than Significant Impact*

No riparian habitat is present on the project site. However, 0.419 acre of Redwood Forest and Woodland Association, a CDFW classified sensitive natural community, would be impacted by the project through the removal of understory vegetation associated with vineyard development. As described in Section 4.2, the understory vegetation in this community is sparse and frequently disturbed by goat and sheep grazing and is uncharacteristic of this sensitive community. Therefore, although this natural community is classified as sensitive, the removal of the understory vegetation within the community is considered to be less than significant because the vegetation in this habitat is already disturbed and no trees would be removed.

5.4 State or Federally Protected Wetlands

Would the project have a substantial adverse effect on state or federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.)? *Less than Significant Impact*

No state or federally-protected wetlands are present on or immediately adjacent to the project site. Thus, none will be impacted by the project. However, construction activities could cause

the degradation of surface or ground water quality in Calabazas Creek, approximately 400 feet from the project site and the unnamed tributary to Dry Creek, approximately 500 feet from the project site due to erosion and transport of fine sediments or unintentional release of contaminants. Therefore, project-related impacts to stream habitat would be considered significant under CEQA.

Construction projects in California causing land disturbances that are equal to 1.0 acre or greater must comply with State requirements to control the discharge of stormwater pollutants under National Pollutant Discharge Elimination System (NPDES)/Construction General Permit. Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project, and it must include the use of BMPs to protect water quality until the site is stabilized. Standard permit conditions under the NPDES/Construction General Permit require that the applicant utilize various measures including on-site sediment control best management practices, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors.

A stormwater management plan will be developed to ensure that, during rain events, construction activities do not increase the levels of erosion and sedimentation. This plan will include the use of erosion-control materials (e.g., baffles, fiber rolls, or hay bales; temporary containment berms) and erosion-control measures such as straw application or hydroseeding with native grasses on disturbed slopes; and floating sediment booms and/or curtains to minimize any impacts that may occur due to increased mobilization of sediments. Suitable erosion control, sediment control, source control, treatment control, material management, and non-stormwater management best management practices will be implemented.

A list of example BMPs include:

- Work areas that are temporarily impacted will be restored with respect to pre-existing contours and conditions, to the extent feasible, upon completion of work. Restoration work including re-vegetation and soil stabilization will be evaluated upon completion of work and performed, as needed.
- Implement a dewatering plan for the Blaney Avenue alternative. For work within the channel, the work area will be isolated from the channel using water control structures such as temporary coffer dams.
- Store, handle, and dispose of construction materials and wastes properly, so as to prevent their contact with stormwater.
- Control and prevent the discharge of all potential pollutants, including solid wastes, paints, concrete, petroleum products, chemicals, wash water or sediment and non-stormwater discharges to storm drains and water courses.
- Avoid cleaning, fueling, or maintaining vehicles on site, except in a designated area in which run-off is contained and treated.

- Perform clearing and earth moving activities during dry weather to the maximum extent practical.
- Remove spoils promptly and avoid stockpiling of fill materials when rain is forecast. Cover soil stockpiles and other materials with a tarp or other waterproof material during qualifying rain events.
- Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination and dispersal by wind.
- In the event of rain, all grading work is to cease immediately.
- Implement an erosion control plan during the wet season (October 15 through April 15), including, at a minimum, the following:
    - All paved areas will be kept clear of earth material and debris
    - Inlet protection will be installed at open inlets to prevent sediment from entering the storm drain system.
    - Straw rolls will be placed at the toe of slopes, and along the down slope perimeter of the project area.
    - To prevent trapping of animals, plastic mono-filament netting (erosion control matting), rolled erosion control products or similar material will not be used at the project site.
- Implement an approved accidental spill plan, including. The plan will describe what actions will be taken in the event of a spill. The plan will also incorporate preventative measures to be implemented, such as vehicle and equipment staging, cleaning, maintenance, and refueling; and contaminant (including fuel) management and storage. In the event of a contaminant spill, work at the site will immediately cease until the contractor has contained and mitigated the spill. The contractor will immediately prevent further contamination and notify appropriate authorities and mitigate damage as appropriate. Adequate spill containment materials, such as oil diapers and hydrocarbon cleanup kits, shall always be available on site. Containers for storage, transportation, and disposal of contaminated absorbent materials will be provided in the project site.

Also, in many Bay Area counties, including Napa County, projects must also comply with the RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (Water Board Order No. R2-2009-0074). This permit requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevents stormwater runoff pollution, promotes infiltration, and holds/slows down the volume of water coming from a site. In order to meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, etc., where appropriate.

During the construction phase, compliance with the requirements to control the discharge of stormwater pollutants under the NPDES Construction General Permit and Municipal Regional Stormwater NPDES Permit will reduce impacts to stream habitat to a less than significant level.

5.5 Wildlife Movement and Native Wildlife Nursery Sites

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? *Less than Significant Impact*

Migratory Corridors. The project is not located within any of Napa County's designated wildlife corridors. Under current conditions, an existing deer fence that surrounds the site excludes movement are large animals such as deer. Impeded movement of larger animals would remain the same as compared to existing conditions, because the existing fence would remain in place. However, some wildlife including small mammals, reptiles, and amphibians may occasionally make local movements across the site. Construction activities could temporarily preclude these movements. However, after the vineyard is constructed, wildlife that occasionally move across that site would be able to continue to do so. Movement of birds and bats would not be impeded by the project. Because movement would not be permanently impacted for wildlife that currently use the site, this temporary impact would be less than significant.

Nesting Birds. As described earlier, the site provides habitat for nesting birds. Potential project impacts associated with the project are discussed above. Implementation of the Mitigation Measure BIO-1 would reduce impacts to less than significant.

5.6 Local Policies or Ordinances Protecting Biological Resources

Would the Project Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *Less than Significant Impact*

As outlined in Section 2.9, the Napa County General Plan has adopted many goals and policies to protect special-status plants and animals, and their habitats; sensitive habitats including riparian habitat and state and federally protected wetlands; buffers to protect sensitive species; and wildlife movement. The general plan has also adopted goals and policies requiring no net loss of sensitive habitats and plant communities; and avoidance, restoration, or replacement of impacted sensitive habitats when they are impacted. Additionally, there are several adopted goals and policies that aim to protect water quality through various education, monitoring, pollutant elimination programs, enforcement of the County's NPDES permit, and requirement of sediment and erosion control plans. Likewise, the County Zoning Ordinance aims to protect water quality and vegetation preservation.

With exception of nesting birds, the project site does not support any special-status species, sensitive habitats, or any state or federally protected wetlands. Because the project has some potential to impact nesting birds, the project will implement Mitigation Measure BIO-1; thus, the project will comply with goals and policies to protect sensitive species. As described in Section 5.4 above, the project would not significantly impact wildlife movement corridors. Furthermore, as the project is designed, it would not remove any trees. There are no streams, wetlands, or other aquatic habitats on the site; thus, the project would not conflict with any goals and policies that project these resources. Because the project would require grading on slopes greater than 5 percent, it will submit an erosion control plan consistent with Policy CON-48 and Section

18.108.100 of the County Conservation Regulations. Additionally, the project will comply with the National Pollution Discharge Elimination System (NPDES) General Permit from the State Water Board. Thus, the project would not conflict with any local policies or ordinances protecting biological resources.

5.7 Habitat Conservation Plans or Natural Community Conservation Plans

Would the Project Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP? *No Impact*

The project is not within an area covered by an HCP or NCCP. As a result, the project will have no impact related to a conservation plan.

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Appendix A: Figures

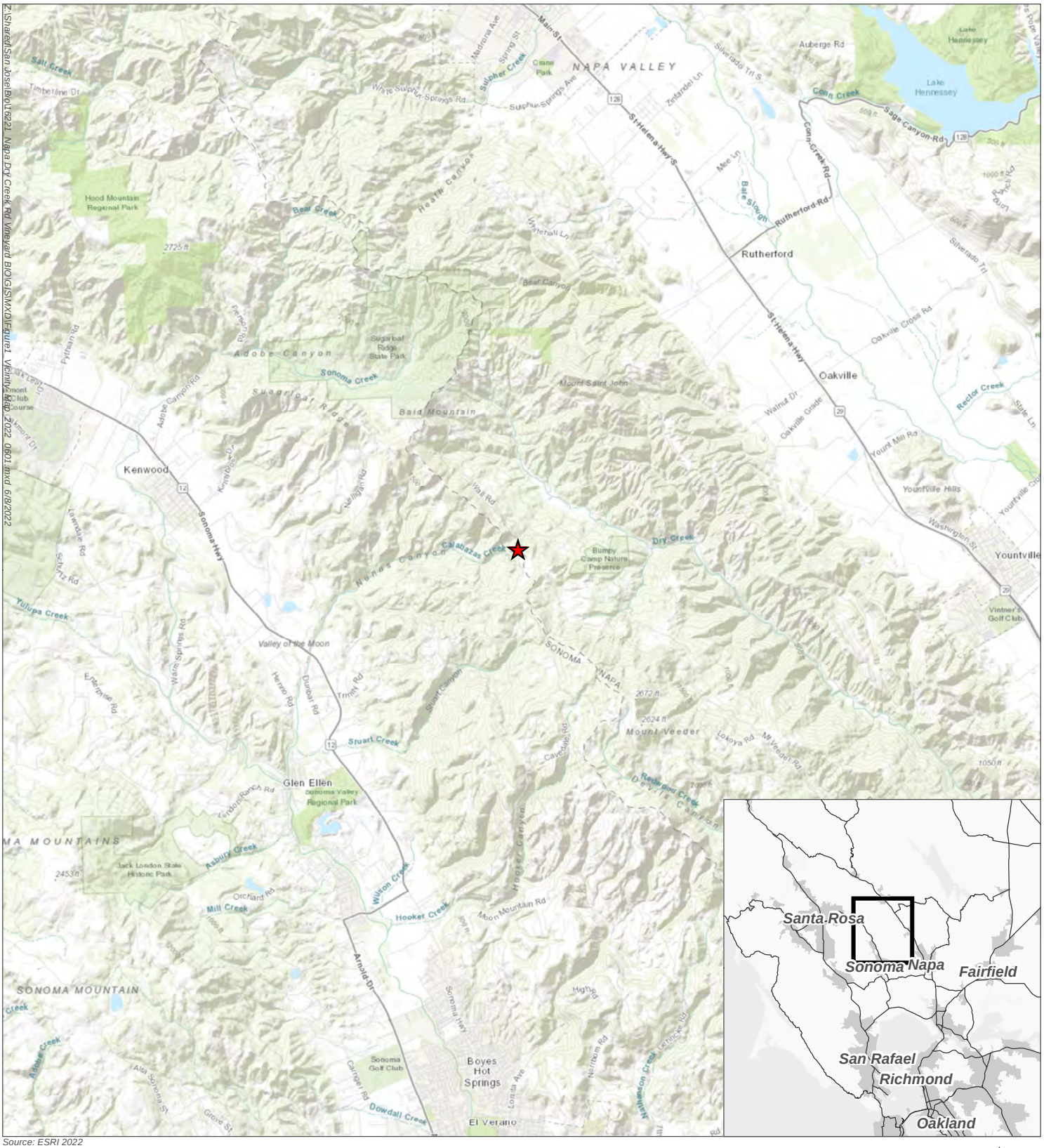
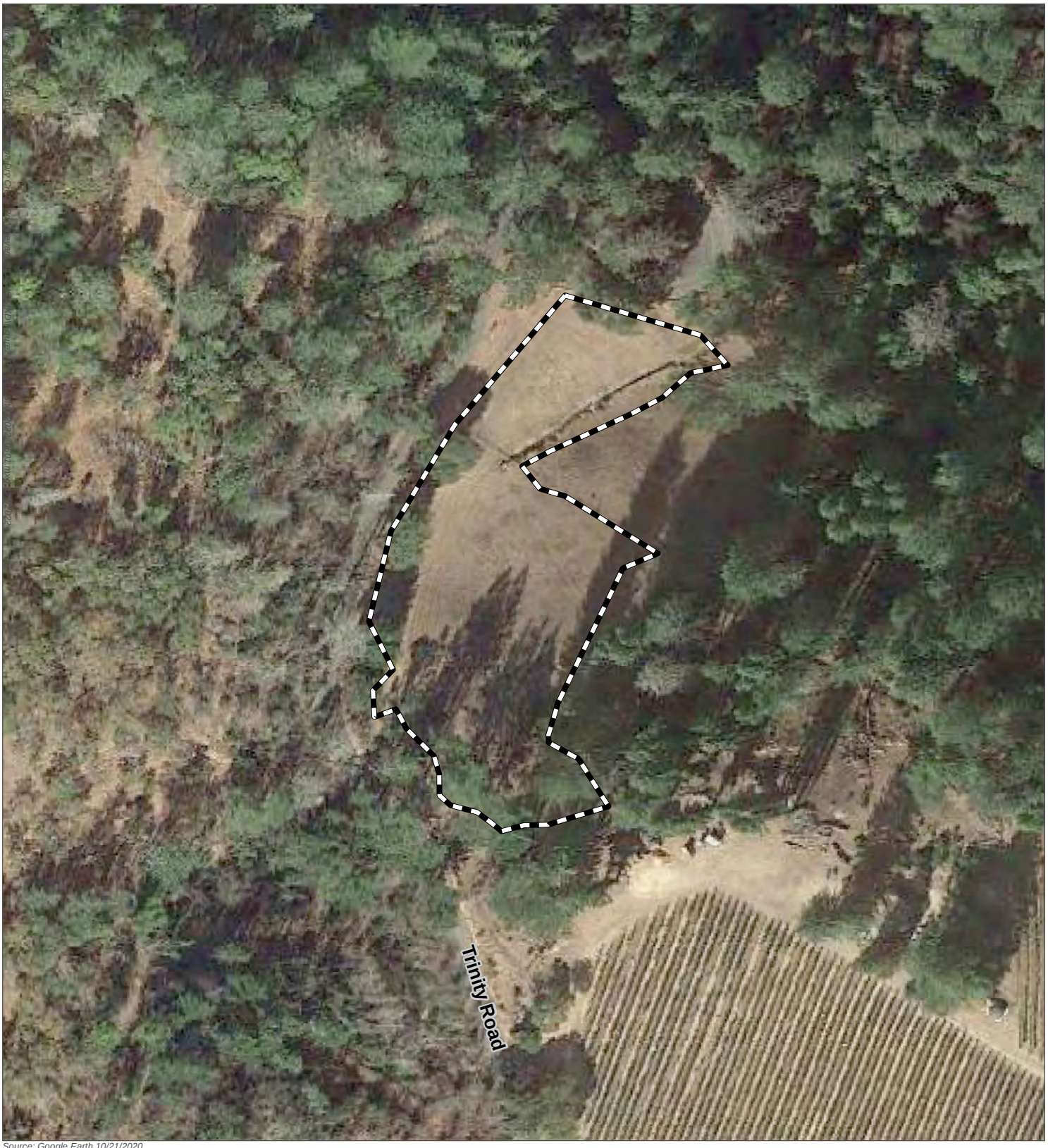


Figure 1 Vicinity Map

7111 Dry Creek Road Vineyard Project



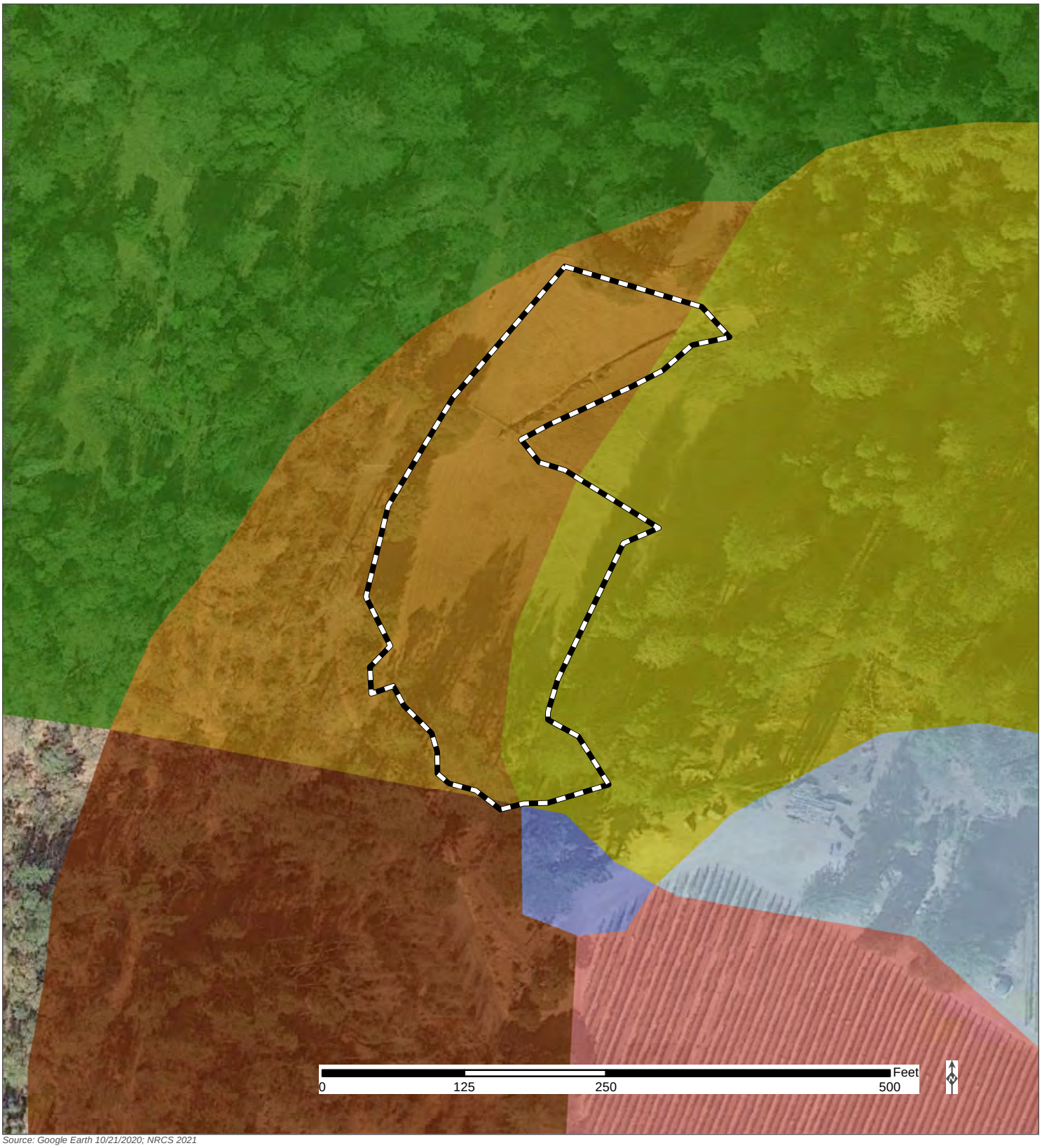
Source: Google Earth 10/21/2020

0 100 200 400 Feet

Project Site (1.66 acres)

Figure 2 Project Site

7111 Dry Creek Road Vineyard Project



Source: Google Earth 10/21/2020; NRCS 2021

Project Site

107- Boomer loam, volcanic bedrock, 2 to 35 percent slopes, MLRA 15

107n -Boomer loam, 2 to 15 percent slopes

152- Hambright rock-Outcrop complex, 30 to 75 percent slopes

CmE- Cohasset gravelly loam, 15 to 30 percent slopes

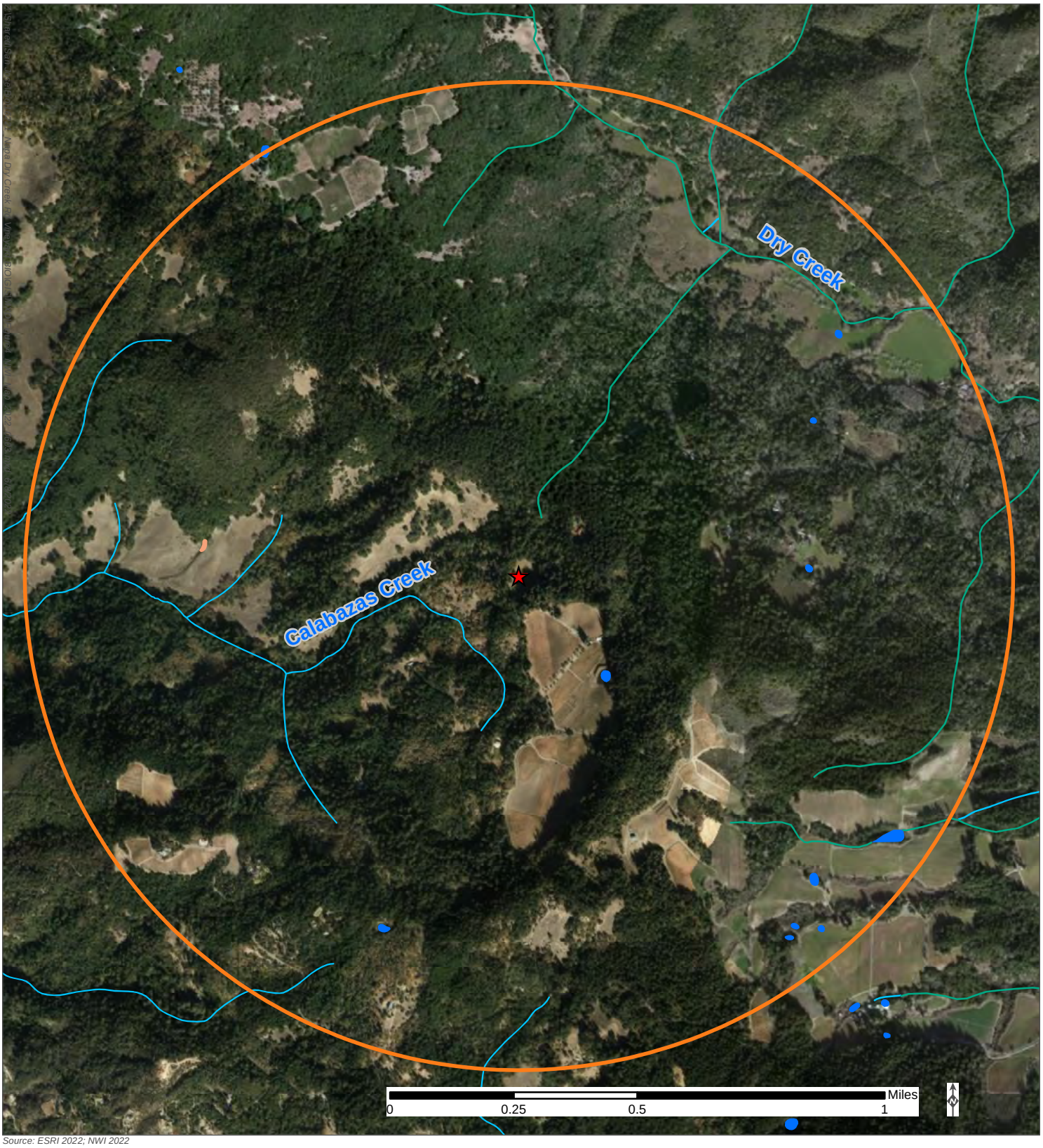
CmEsn- Cohasset gravelly loam, 15 to 30 percent slopes

RaD- Raynor clay, 9 to 15 percent slopes

RaDsn- Raynor clay, 9 to 15 percent slopes

Figure 3 Soils on the Project Site

7111 Dry Creek Road Vineyard Project



Source: ESRI 2022; NWI 2022

1 Mile Radius

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 4 Hydrological Features Within 1 Mile of the Project Site

7111 Dry Creek Road Vineyard Project

MIG

Source: Google Earth 10/21/2020

Project Site (1.66 acres)
California Annual Grassland (1.24 acres)
Coast Redwood – Douglas Fir/California Bay (.419 acres)

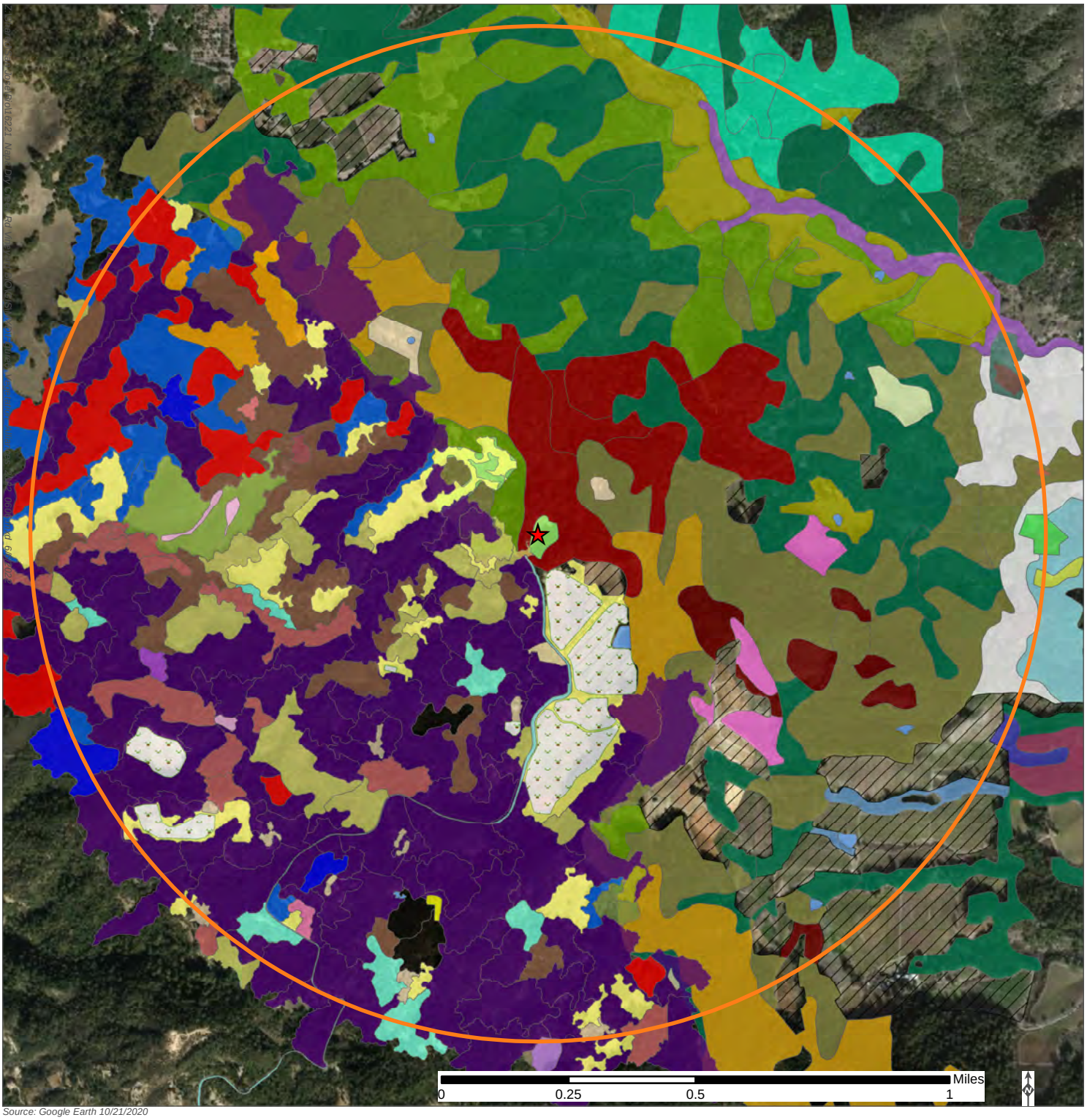
0 100 200 400 Feet

N

Figure 5 Natural Communities

7111 Dry Creek Road Vineyard Project

MIG



Source: Google Earth 10/21/2020

- Project Location
- 1 Mile Radius
- Acer macrophyllum Alliance
- Adenostoma fasciculatum Alliance
- Agriculture
- Annual Cropland
- Arbutus menziesii Alliance
- Arctostaphylos (canascens, manzanita, stanfordiana)
- Baccharis pilularis Alliance
- California Annual and Perennial Grassland Macrogroup
- California Annual Grasslands
- California Bay - Madrone - Coast Live Oak - (Black Oak Big Leaf Maple)
- Chamise Alliance
- Coast Live Oak
- Coast Redwood - Douglas-fir_California Bay
- Coyote Brush - California Sagebrush - (Lupine spp.)
- Developed
- Douglas-fir
- Knobcone Pine
- Leather Oak - California Bay - Rhamnus spp. Mesic Serpentine Chaparral
- Mixed Manzanita - (Interior Live Oak -California Bay - Chamise) West County
- Mixed Oak
- Mixed Willow
- Orchard or Grove
- Oregon White Oak
- Pinus attenuata Alliance
- Pinus ponderosa - Pseudotsuga menziesii Alliance
- Pseudotsuga menziesii Alliance
- Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizenii) Alliance
- Quercus agrifolia Alliance
- Quercus douglasii Alliance
- Quercus garryana Alliance
- Quercus kelloggii Alliance
- Sequoia sempervirens Alliance
- Umbellularia californica Alliance
- Upland Annual Grasslands & Forbs Formation
- Urban or Built-up
- Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest
- Vineyard
- Water
- Western North American Freshwater Marsh Macrogroup

Figure 6 Vegetation Alliances within 1 Mile of the Project Site

7111 Dry Creek Road Vineyard Project

Appendix B: Species Lists

Table 1: Special-status Plant Species Potentially Occurring within the Project Site

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Napa false indigo (*Amorpha californica* var. *napensis*)	CRPR 1B.2	Perennial deciduous shrub found in openings in broadleaf upland forests, chaparral, and cismontane woodlands. Occurs at elevations from approximately 400 to 6,600 feet.	April – July	**None.** Two occurrences of Napa false indigo have been documented within 700 feet of the site in 2001 in the CNDDB. Although there is woodland habitat present on the site, this habitat is disturbed by frequent grazing making the habitat unsuitable for this species. Additionally, no deciduous shrubs were detected during the March field survey. Determined to be absent.
Clara Hunt's milk-vetch (*Astragalus claranus*)	FE; ST; CRPR 1B.1	Annual herb found on open grassy hillsides, especially on exposed shoulders, in cismontane woodland, valley and foothill grasslands, and chaparral. Found in serpentine/volcanic, rocky, or thin clay soils. Occurs at elevations from approximately 250 to 900 feet.	March – May	**None.** Occurrences have been documented within 2.5 and 5 miles of the project site. No serpentine soils are present on the site. Although the eastern portion of the site is mapped as containing volcanic bedrock, no volcanic soils were observed on the site. Additionally, this species was not observed during the field survey in March when it should have been detectable. Determined to be absent.
Sonoma manzanita (*Arctostaphylos canescens* ssp. *sonomensis*)	CRPR 1B.2	Perennial evergreen shrub found in chaparral, lower montane coniferous forest, and open forests; sometimes in serpentine soil. Occurs at elevations from approximately 600 to 5,500 feet.	January – June	**None.** There is one documented occurrence within 4.5 miles of the site. Although the site supports woodland habitat, is disturbed by frequent grazing making the habitat unsuitable for this species. Additionally, this species was not observed on during the March field survey when it would have been detectable. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Big-scale balsamroot (*Balsamorhiza macrolepis*)	CRPR 1B.2	Perennial herb found in chaparral, cismontane woodland, valley and foothill grassland on open grassy or rocky slopes. Sometimes found on serpentine. Occurs at elevations from sea level to 4,620 feet.	March – June	**None.** There are no documented occurrences of this species within 5 miles of the site. Although grassland habitat is present, this habitat is disturbed by frequent grazing making it unsuitable for this species. Determined to be absent.
Narrow-anthered brodiaea (*Brodiaea leptandra*)	CRPR 1B.2	Perennial herb found in broadleaf upland forest, chaparral, cismontane woodland, valley and foothill grassland, and lower montane coniferous forest on volcanic soils. Occurs at elevations from approximately 360 to 3,000 feet.	May – July	**None.** There are two documented occurrences of this species within 3 and 3.5 miles of the site. Marginally suitable grassland habitat is present on the site; however, this habitat is disturbed by frequent grazing making the habitat unsuitable for this species. Additionally, no volcanic soils were observed on the site. Determined to be absent.
Small-flowered calycadenia (*Calycadenia micrantha*)	CRPR 1B.2	Annual herb found in chaparral, valley and foothill grasslands on rocky talus or scree, and/or sparsely vegetated areas, sometimes on serpentine. Also in meadows or seeps on volcanic substrate. Occurs at elevations from approximately sea level to 5,000 feet.	June – September	**None.** There are no documented occurrences within 5 miles of the project site. The project site does not contain rocky talus, scree, or volcanic soils. Determined to be absent.
Mead's owl's- clover (*Castilleja ambigua* var. *meadii*)	CRPR 1B.1	Annual herb found in meadows and seeps, vernal pools on gravelly, volcanic, clay soils. Occurs at elevations from 1,485 to 1,567 feet.	April – May	**None.** There are no documented occurrences within 5 miles of the project site, and there is no suitable wetland habitat present on the project site. Determined to be absent.
Rincon Ridge ceanothus (*Ceanothus confusus*)	CRPR 1B.1	Perennial evergreen shrub found in closed-cone coniferous forest, chaparral, and cismontane woodland on volcanic or serpentine substrates. Occurs at elevations from approximately 250 to 3, 600 feet.	February – June	**None.** There are two documented occurrences of this species within 5 miles of the site. There is no suitable habitat in the site due to the lack of volcanic or serpentine soils. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Calistoga ceanothus (*Ceanothus divergens*)	CRPR 1B.2	Perennial evergreen shrub found in chaparral and cismontane woodlands, especially on rocky, serpentine or volcanic soils. Occurs at elevations from approximately 550 to 3,100 feet.	February – April	**None.** There are four documented occurrences of this species within 5 miles of the site. However, There is no suitable habitat in the site due to the lack of volcanic or serpentine soils. Determined to be absent.
Holly-leaved ceanothus (*Ceanothus purpureus*)	CRPR 1B.2	Perennial evergreen shrub found in chaparral and cismontane woodland. Occurs in rocky, volcanic soils. Occurs at elevations from approximately 400 to 2,100 feet.	February – June	**None.** There are no documented occurrences within 5 miles of the project site and there is no suitable habitat in the site. Although the eastern portion of the site is mapped as containing volcanic bedrock, no volcanic soils were observed on the site. Additionally, this species was not observed during the field survey in March when it would have been detectable. Determined to be absent.
Sonoma ceanothus (*Ceanothus sonomnesis*)	CRPR 1B.2	Perennial shrub found in chaparral habitat	February - April	**None.** There are eight documented occurrences within 5 miles of the project site. However, the project site does not support chaparral habitat. Determined to be absent.
Bent-flowered fiddleneck (*Amsinckia lunaris*)	CRPR 1B.2	Annual herb found in cismontane woodland, Coastal bluff scrub, valley and foothill grassland.	March – June	**None.** There are two documented occurrences within 5 miles of the project site. Although the project site supports grassland and woodland habitat, this habitat is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Serpentine cryptantha (*Cryptantha dissita*)	CRPR 1B.2	Annual herb found in chaparral and foothill woodlands on rocky outcrops and gravelly slopes. Serpentine endemic. Occurs at elevations from approximately 1,300 to 1,900 feet.	April – June	**None.** The project site does not support rocky outcrops or serpentine habitat. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Cleveland's milk-vetch (*Astragalus clevelandii)*	CRPR 4.3	Perennial herb found in chaparral, cismontane woodland, riparian forest. Occurs at elevations from approximately 200 to 4,900 feet.	June - September	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports woodland habitat, this habitat is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Pink star tulip (*Calochortus uniflorus*)	CRPR 4.2	Perennial herb occurs in coastal prairie, coastal scrub, meadows and seeps, north coast coniferous forest. Occurs at elevations from approximately 30 to 3,500 feet.	April - June	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports coniferous forest, this habitat is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Serpentine collomia (*Collomia diversifolia*)	CRPR 4.3	Annual herb found in foothill woodland, chapparal; sometimes gravelly, rocky, or serpentinite.	May - June	**None.** There are no documented occurrences within 5 miles of the project site. Additionally, the site does not support serpentine soils, which this species is strongly associated with. Determined to be absent.
Streamside daisy (*Erigeron biolettii*)	CRPR 3	Perennial herb occurs in broadleafed upland forest, cismontane woodland, north coast coniferous forest on dry slopes, rocks, ledges along rivers. Occurs at elevations from approximately 100 to 3,600 feet.	June – October	**None.** There are no documented occurrences within 5 miles of the project site. Additionally, the site does not stream or riparian habitat. Determined to be absent.
St. Helena fawn lily (*Erythronium helenae*)	CRPR 4.2	Found on chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Occurs at elevations from approximately 1,000 to 4,000 feet.	March - May	**None.** There is one documented occurrence within 5 miles of the project site. Although the site supports woodland and grassland habitats, both are disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Purdy's fritillary (*Fritillaria purdyi*)	CRPR 4.3	Perennial bulb found in chaparral, cismontane woodland, lower montane coniferous forest. Occurs at elevations from approximately 500 to 7,400 feet.	March - June	**None.** There is one documented occurrence within 5 miles of the project site. Although the site supports coniferous forest habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Congested-headed hayfield tarplant (*Hemizonia congesta ssp. congesta*)	CRPR 1B.2	Annual herb found in valley and foothill grassland, sometimes on roadsides. Occurs at elevations from approximately 60 to 1,800 feet.	April - November	**None.** There are two documented occurrences within 5 miles of the project site. Although the site supports grassland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Cotula navarretia (*Navarretia cotulifolia*)	CRPR 4.2	Annual herb found in Chaparral, Cismontane woodland, Valley and foothill grassland in adobe clay soils. Occurs at elevations from approximately 10 to 6,000 feet.	May – June	**None.** There are no documented occurrences within 5 miles of the project site. Furthermore, the site does not support adobe clay soils. Determined to be absent.
Green jewelflower (*Streptanthus hesperidis*)	CRPR 1B.2	Annual herb found in chaparral, cismontane woodland. Occurs at elevations from approximately 400 to 2,400 feet.	May - July	**None.** There is one documented occurrence within 5 miles of the project site. Although the site supports woodland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Dark-mouthed triteleia (*Triteleia lugens*)	CRPR 4.3	Perennial herb found in broadleafed upland forest, chaparral, coastal scrub, lower montane coniferous forest. Occurs at elevations from approximately 300 to 3,200 feet.	April - June	**None.** There is one documented occurrence within approximately 0.8 miles of the project site. Although the site supports coniferous forest habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Broad-lobed leptosiphon (*Leptosiphon latisectus*)	CRPR 4.3	Annual herb found in Broad-leafed upland forest, Cismontane woodland. Occurs at elevations from approximately 500 to 4,900 feet.	April - June	**None.** There is one documented occurrence within approximately 2.5 miles of the project site. Although the site supports woodland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Redwood lily (*Lilium rubescens*)	CRPR 4.2	Perennial herb found in broadleaf upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest. Occurs at elevations from approximately 100 to 6,625 feet.	April – September	**None.** There are two documented occurrences within 5 miles of the project site. Although the site supports coniferous forest, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Two-carpellate western flax (*Hesperolinon bicarpellatum*)	CRPR 1B.2	Annual herb found in serpentine barrens at the edge of chaparral. Occurs at elevations from approximately 200 to 3,297 feet.	May – July	**None.** There are two documented occurrences within 5 miles of the project site. However, the site does not support chaparral habitat or serpentine barrens. Determined to be absent.
Brewer's western flax (*Hesperolinon breweri*)	CRPR 1B.2	Annual herb found in the chaparral, cismontane woodland, and valley and foothill grassland. Occasionally found in serpentine soils. Occurs at elevations from 100 to 3,100 feet.	May – July	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports woodland and grassland habitats, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Tehama County western flax (*Hesperolinon tehamense*)	CRPR 1B.3	Annual herb found in serpentine barrens in chaparral and cismontane woodland. Occurs at elevations from approximately 350-4,100 feet.	May – July	**None.** There are no documented occurrences within 5 miles of the project site. Furthermore, the site does not support serpentine soils. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Thin-lobed horkelia (*Horkelia tennuiloba*)	CRPR 1B.2	Perennial herb found in openings in broadleaf upland forest, chaparral, valley and foothill grassland on sandy soils. Occurs at elevations from approximately sea level to 150 to 1,650 feet.	May – August	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports grassland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Northern California black walnut (*Juglans hindsii*)	CRPR 1B.1	Perennial deciduous tree found in riparian habitats often associated with a creek or stream. Few native stands remain. Occurs at elevations from approximately sea level to 1,445 feet.	April – May	**None.** There are two documented occurrences within 5 miles of the project site. However, the site does not support riparian habitat. Determined to be absent.
Bristly leptosiphon (*Leptosiphon acicularis*)	CRPR 4.2	Annual herb found in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland.	April – July	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports grassland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Heller's bush mallow (*Malacothamnus helleri*)	CRPR 3.3	Perennial shrub found in chaparral and riparian woodland in open areas, often on sandstone or gravel substrate. Occurs at elevations from approximately 1,000 to 2,100 feet.	May – July	**None.** There are no documented occurrences within 5 miles of the project site. The site does not support chaparral or riparian woodland habitat. Determined to be absent.
Green monardella (*Monardella viridis*)	CRPR 4.3	Perennial herb found in chaparral, cismontane woodland, and broadleafed upland forest, sometimes on serpentine soil. Occurs at elevations from 350 to 3,300 feet.	June – September	**None.** There are two documented occurrences approximately 2 miles of the project site, and approximately 4.5 miles of the site. Although the site supports woodland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.

Species	Listing Status	Habitat	Blooming Season	Potential to Occur
Victor's gooseberry (*Ribes victoris*)	CRPR 4.3	Perennial shrub found in chaparral and broadleafed upland forest, usually in mesic, shady areas. Occurs at elevations from approximately 350 to 2,500 feet.	March – April	**None.** There are five documented occurrences within 5 miles of the project site. However, the site does not support chaparral or broadleafed upland forest vegetation communities. Determined to be absent.
Napa bluecurls (*Trichostema ruygtii*)	CRPR 1B.2	Annual herb found in open, sunny areas in cismontane woodland, chaparral, valley and foothill grasslands, vernal pools, or lower montane coniferous forests. Occurs at elevations from approximately 100 to 2,200 feet.	June – October	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports grassland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.
Showy rancheria clover (*Trifolium amoenum*)	FE; CRPR 1B.1	Annual herb found in coastal bluff scrub and valley and foothill grassland in moist heavy soils. Sometimes occurs on serpentine soils. Often occurs in open sunny sites, sometimes in swales or along roadsides. Occurs at elevations from near sea level to 1,361 feet.	April – June	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports grassland habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. The site also does not support moist soils. Determined to be absent.
Oval-leaved viburnum (*Viburnum ellipticum*)	CRPR 2B.3	Perennial deciduous shrub found in chaparral, cismontane woodland, and lower montane coniferous forests. Occurs at elevations from approximately 700 to 4,600 feet.	May – June	**None.** There are no documented occurrences within 5 miles of the project site. Although the site supports coniferous forest habitat, it is disturbed by frequent grazing making the habitat unsuitable for this species. Determined to be absent.

Status Codes:

Federal: FE = Listed as endangered under the Federal Endangered Species Act. FT = Listed as threatened under the Federal Endangered Species Act. ***California:*** SE = Listed as endangered under the California Endangered Species Act. ST = Listed as threatened under the California Endangered Species Act. SR = Listed as rare in California.	***California Rare Plant Rank (CRPR):*** 1B = Plants Rare, Threatened, or Endangered in California and Elsewhere 2 = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere 0.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat 0.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) 0.3- Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Table 2:Special-status Wildlife Species Potentially Occurring Within the Project Site

Species	Listing Status	Habitat	Potential to Occur
Fish			
Longfin smelt (*Spirinchus thaleichthys*)	FC, ST	Spawns in fresh water in the upper end of the San Francisco Bay; occurs year-round in the South Bay. The larvae are swept downstream into brackish water.	**None.** The project site does not support any stream or other aquatic habitat required by the species. Determined to be absent.
Steelhead - central California coast DPS (*Oncorhynchus mykiss irideus* pop. 8)	FT	Spawns in freshwater streams in gravel substrates in clear, cool, shady, perennial sections of undisturbed streams.	**None.** The project site does not support any stream or other aquatic habitat required by the species. Determined to be absent.
Amphibians			
California tiger salamander (*Ambystoma californiense* pop. 3)	FE, ST	Breeds in temporary (minimum of 3 to 4 months), ponded environments (e.g., vernal pools, ephemeral pools, or human-made ponds) surrounded by grasslands or open woodlands that support small mammal burrows for upland refugia.	**None.** There are no documented occurrences of CTS within 5 miles of the site, no aquatic habitat for breeding, and no upland refugia habitat present on the site. Additionally, the site is outside the known range of the species. Determined to be absent.
California red-legged frog (*Rana draytonii*)	FT, CSSC	Inhabits lowlands and foothills in or near permanent sources of deep water with emergent vegetation (Fellers 2005). Requires 11-20 weeks of permanent water for larval development. Must have access to moist estivation habitat such as small mammal burrows, old boards, and other debris (Jennings and Hayes 1994, USFWS 2002).	**None.** California red-legged frogs have been documented in the project region; however, there are no documented occurrences within 5 miles of the site. Additionally, no suitable aquatic habitat or associated upland aestivation habitat, including mammal burrows, is present on the site. One stock pond is located approximately 1,000 feet south of the project site. However, based on a review of aerial imagery, this pond does not support any riparian or emergent vegetation required by the species. Determined to be absent.

Species	Listing Status	Habitat	Potential to Occur
Foothill yellow-legged frog (*Rana boylii*)	SE; CSSC	Inhabits partly shaded, open canopy woodlands with shallow streams and rifles with a rocky substrate in a variety of habitats, including valley and foothill hardwood, riparian, mixed conifer, coastal scrub, mixed chaparral, and wet meadows. Rarely encountered far from permanent water. Needs at least some cobble-sized substrate for egg laying.	**None.** The foothill yellow-legged frog is known to occur in the project region and has been documented within 5 miles of the site in Dry Creek, Stuart Creek, Ashbury Creek, and Sonoma Creek, and in some tributaries to these creeks. The closest of these occurrences is approximately 1.7 miles from the project site. However, because the site does not support any stream habitat, this species has no potential to occur on the site. Determined to be absent.
Red-bellied Newt (*Taricha rivularis*)	CSSC	Lives in terrestrial habitats, rests and aestivates in moist habitats underground, under woody debris, rocks, or animal burrows. Adults active at surface in moist environments. Will migrate over approximately 0.5 mile to breed, typically in streams with moderate flow and clean, rocky substrate.	**None.** There is one historic CNDDB occurrences from 1977 within 1.5 miles of the project site. However, the project site does not support any aquatic or moist habitats, or animal burrows that could be used for breeding or upland aestivation. Determined to be absent.
California giant salamander (*Dicamptodon ensatus*)	CSSC	Adults known from wet forests under rocks and logs near streams and lakes. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds.	**None.** This species is known to occur in the project region. There are three CNDDB occurrences within 5 miles of the site including 2 miles to the south near Enchanted Hills; 3 miles to the west in Stuart Creek, and 4 miles to the south along Redwood Creek. No stream or associated wet forest habitat is present on the site. One pond is present approximately 1,000 feet to the south adjacent to the project site; however, this pond is likely too warm to support giant salamanders due to the lack of riparian vegetation. Determined to be absent.

Species	Listing Status	Habitat	Potential to Occur
Northwestern pond turtle (*Emys marmorata*)	CSSC	Inhabits permanent or nearly permanent water in ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms. Elevation range extends from near sea level to 4,690 feet. Requires basking sites, such as partially submerged logs, rocks, mats of floating vegetation, or mud banks. Nests in clay or sandy soils and grasslands in sunny areas surrounding aquatic habitats, generally within 600 feet of aquatic habitat (Jennings and Hayes 1994). However, they have been reported to travel up to 1,300 feet from water to nest sites (Storer 1930, Holland 1991a and 1991b, Rathbun et al 1992)	**None**. The project site supports ostensibly suitable nesting habitat. The closest potential aquatic habitat that could be a source of pond turtles is Calabazas Creek and a tributary to Dry Creek, approximately 400 and 500 feet from the project site, respectively. A stock pond is also present approximately 1,000 feet south of the site. Although there are no known occurrences of western pond turtles with 5 miles of the project site, it is plausible that pond turtles could occupy these aquatic features and could potentially travel from these features to the site to nest. However, the deer fence that surrounds the project site would be a partial barrier to the movement of turtles onto the site and active goat/sheep grazing would inhibit the use of the site for nesting. Thus, it is unlikely that pond turtles would nest on the site. Determined to be absent.
Invertebrates			
California freshwater shrimp (*Syncaris pacifica*)	FE, SE	Occurs in low elevation-low gradient streams, generally with submerged undercut banks, overhanging plants, woody debris, and the exposed live root systems of willow or alder.	**None.** The project site does not support any stream or other aquatic habitat required by the species. Determined to be absent.
Monarch butterfly California overwintering population 1 (*Danaus plexippus*)	FC	Adults require a variety of nectar food plants in their breeding grounds, requires milkweed (Asclepias sp.) host plants for oviposition and larval feeding. Roosts on the leaves and branches a variety of tree species including Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus maculata*), and eucalyptus (*Eucalyptus* sp.) in areas with appropriate sun exposure and thermal buffering.	**Absent as breeder.** The project site is within the early breeding range of the species (Xerces Society 2021)**.** There are several documented occurrences of monarch butterflies in the project region (WMWM Western Monarch Milkweed Mapper 2022). All observations are greater than 5 miles from the site. Redwood trees on the site provide ostensibly suitable roosting habitat; however, little to no floral resources are present and no larval host plants are present on the site. Thus, this species is not expected to breed on site. Individuals may occasionally be present as nonbreeding transients or migrants.

Species	Listing Status	Habitat	Potential to Occur
Crotch bumble bee (*Bombus crotchii*)	CEQA	Open grasslands and meadows with sufficient abundance and duration of floral resources for foraging; undisturbed soils, rodent and other animal burrows for nesting and overwintering sites.	**None.** There is one historic observation within 5 miles of the project site, and two recent observations in Solano and Yolo Counties (iNaturalist 2022). However, due to active goat/sheep grazing on the site, there are little to no floral resources present. Thus, the crotch bumble bee is determined to be absent.
Obscure bumble bee (*Bombus caliginosus*)	CEQA	Open grasslands and shrublands with sufficient abundance and duration of floral resources for foraging; nests underground in abandoned rodent burrows, and above-ground in tufts of grass, old bird nests, rock piles, or cavities in tree snags.	**None.** There is one historic observation within 5 miles of the project site, but no current occurrences have been recently documented in the region. However, due to active goat/sheep grazing on the site, there are little to no floral resources present. Thus, the obscure bumble bee is determined to be absent.
Western bumble bee (*Bombus occidentalis occidentalis*)	CEQA	Meadows and grasslands with sufficient abundance and duration of floral resources; underground rodent or other animal burrows for nesting; may overwinter in friable soils and plant litter or debris.	**None.** There are two historic observations within 5 miles of the project site, but no current occurrences have been recently documented in the region. However, due to active goat/sheep grazing on the site, there are little to no floral resources present. Thus, the western bumble bee is determined to be absent.
Birds			
Bald eagle (*Haliaeetus leucocepalus*)	FD; SE; CFP	Nests within one mile of water often by lake margins, near rivers or on the ocean shore. Nests in large, dominant trees with open branches. California resident breeding pairs remain in California during the winter, typically in the vicinity of their nesting areas, except when winter conditions are too severe and they must move to lower elevations. Roosts communally in the winter.	**None.** There are a few documented occurrences of this species within 5 miles of the site (Cornell Lab of Ornithology 2022). Redwood trees on the site and adjacent to the site provide ostensibly suitable nesting habitat; however, the closest large body of water, Lake Hennessy, is over 7 miles from the site. Due to the lack of any large water bodies in proximity to the site, the species is not expected to breed on the site. Determined to be absent.
Golden eagle (*Aquila chrysaetos*)	CFP	Nests in cliff-walled canyons and large trees in open areas. Avoids nesting near urban habitat and generally does not nest in densely forested areas.	**None**. There are numerous documented occurrences of this species within 5 miles of the site (Cornell Lab of Ornithology 2022). However, no suitable nesting or foraging habitat is present within the project. Determined to be absent.

Species	Listing Status	Habitat	Potential to Occur
Swainson's hawk (*Buteo swains Oni*)	ST	Large, open grasslands with suitable nest trees such as oaks or cottonwoods in or near riparian habitats; forages in grasslands, lightly grazed pastures/crops, irrigated pastures, and grain fields.	**None.** Rare breeder in Napa County (Fisher et al 2013). This species is only known to nest on the Napa Valley floor. There are no documented occurrences of Swainson's hawk within 5 miles of the project site. Trees surrounding the site provide ostensibly suitable nesting habitat, but due to the lack of extensive grasslands or similarly open habitat surrounding the site, this species is not expected to occur on the site. Determined to be absent.
American peregrine falcon (*Falco peregrinus anatum*)	CFP	Nests on ledges and caves on steep cliffs, and on human-made structures such as electrical transmission lines, building ledges, and bridges.	**None.** Has been known to breed in Napa County; however, no suitable cliffs or similar nesting structure are present on the site or in proximity to the site. Determined to be absent.
White-tailed kite (*Elanus leucurus*)	CFP	Inhabits low foothills or valley areas with scattered oaks and river bottoms or marshes next to deciduous woodland. Forages in open grasslands, meadows, agricultural fields, or marshes close to isolated, dense-topped trees for nesting and perching. Require healthy prey populations, and snags, shrubs, or trees for nesting.	**None.** White-tailed kites have been documented within 5 miles of the site (Cornell Lab of Ornithology 2022) and are known to breed in the County. However, based on the absence of small mammal activity, the site does not support a suitable prey base or open foraging habitat required by the species. Determined to be absent.
Purple martin (*Progne subis*)	CSSC (nesting)	Inhabits woodlands, low elevation coniferous forest including Douglas fir, ponderosa pine (*Pinus ponderosa*), Monterey pine (*Pinus radiata*), and coast redwood. Nests in old woodpecker cavities, or human-made structures, often in tall, isolated trees/snags. Nest sites typically have low canopy cover at the nest height and most tree nest sites are located in the upper slopes of hilly and mountainous terrain. Usually do not use snags along canyon bottoms or sites with dense vegetation at or above nest height.	**Absent as breeder.** No occurrences for purple martin have been documented within 5 miles of the project; however, this species is occasionally observed in the region (Cornell Lab of Ornithology 2022) and is known to nest in the County (Shuford 2008). Redwood trees on the site provide ostensibly suitable nesting habitat if any tree cavities are present. However, no cavities were observed in these trees. Furthermore, the stand does not provide low canopy cover required by the species. This species may occasionally occur as a nonbreeding transient, forager, or migrant.

Species	Listing Status	Habitat	Potential to Occur
Tricolored blackbird (*Agelaius tricolor*)	ST; CSSC	Nests in colonies primarily in tall, dense stands of cattails (*Typha* sp.) or tules (*Schoenoplectus* sp.), though may also nest in dense blackberry (*Rubus* sp.) brambles, wild rose (*Rosa californica*), and tall herbaceous species. Often nests near fresh water.	**None.** Tricolored blackbirds have not been documented within 5 miles of the project, and non-breeding individuals and small numbers of birds are infrequently observed in the region (Cornell Lab of Ornithology 2022, CNDDB 2022). However, no suitable nesting habitat is present on the site. Determined to be absent.
Northern spotted owl (*Strix occidentalis caurina*)	FT, ST	Dense forest and woodland habitats. Breeding sites include trees or snag cavities or broken tops of large trees. Primarily forages on rodents such as woodrats, flying squirrels, mice, and rabbits.	**Absent as Breeder.** Northern spotted owls have been documented in the region within 0.25 miles of the project site, including two activity centers and several observations associated with those activity centers (BIOS 2023). Additionally, 15 northern spotted owl observations associated with those activity centers have been documented between 1998 and 2014, including several pair sightings and two nest sightings (BIOS 2023). The project site does not support suitably dense/complex woodland to support nesting or roosting owls. Spotted owls may occasionally commute across the site and potentially forage on the site on route to neighboring areas. Determined to be absent as a breeder from the project site but may nest in the project vicinity.
Burrowing owl (*Athene cunicularia*)	CSSC	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels (S*permophilus beech*).	**None**. There are no documented occurrences within 5 miles of the site. While ostensibly suitable grassland habitat is present within the project site, it lacks burrowing habitat required for nesting and wintering owls. Determined to be absent.
Grasshopper sparrow (*Ammodramus savannarum*)	CSSC (nesting)	Breeds in extensive open, meadows, fallow fields, and pastures composed of native bunchgrasses or annual grasses, with scattered shrubs for perching and singing. Requires areas of bare ground within nesting habitat to escape predators and to forage.	**None.** There are no documented occurrences within 5 miles of the site. A majority of the site is open grassland habitat but is unsuitable for grasshopper sparrows due to the presence of active grazing on the site. Determined to absent.
Yellow rail (*Coturnicops noveboracensis*)	CSSC	Requires sedge marshes/meadows with moist soil or shallow standing water.	**None.** The project site does not support any marsh or moist habitat. Determined to be absent.

Species	Listing Status	Habitat	Potential to Occur
Black swift (*Cypseloides niger*)	CSSC	Nests on cliffs and behind waterfalls.	**None.** The project site does not support any cliffs or aquatic habitat. Determined to be absent.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT, SE	Requires dense wooded habitat with water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes.	**None.** Although the site supports wooded habitat, this habitat does not support dense understory canopy required by the species. Determined to be absent.
Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*)	CSSC	Breeds in tall herbaceous vegetation usually in brackish marshes and freshwater marshes. May nest in salt marshes with tall vegetation.	**None.** The project site does not support marsh habitat. Determined to be absent.
San Pablo song sparrow (*Melospiza melodia samuelis*)	CSSC	Breeds in tidal salt marsh. Requires dense vegetation for nesting sites, song perches, and cover from predators.	**None.** The project site does not support marsh habitat. Determined to be absent. Determined to be absent.
Bank swallow (*Riparia riparia*)	ST	Colonial nesting species; nests primarily in riparian and other lowland habitats. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**None.** The project site does not support riparian habitat or vertical banks or cliffs for nesting. Determined to be absent.
Mammals			
Pallid bat (*Antrozous pallidus*)	CSSC	Inhabits deserts, grasslands, shrublands, woodlands and forests from sea level up through mixed conifer forests. Most common in open dry habitats with rocky areas for roosting and foraging. Day roosts includes crevices in trees, caves, crevices, mines, and occasionally in hallow trees, buildings, and bridges.	**Absent as breeder**. There are three documented occurrences of pallid bats within 5 miles of the site, one at Sugarloaf Ridge State Park and two near the Sonoma Botanical Garden (iNaturalist 2022). However, there are no suitable roosting crevices or cavities in the existing trees on the site. However, this species may periodically forage over the site.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSSC	Roosts in caves, lava tubes, mine tunnels, and occasionally in basal hollows of trees such as redwoods, and in abandoned buildings, in a variety of habitats.	**Absent as breeder.** There are no documented occurrences within 5 miles of the project site. No suitably large cavities are present on the site. Nonetheless, this species may infrequently forage over the site.

Species	Listing Status	Habitat	Potential to Occur
American badger (*Taxidea taxus*)	CSSC	Inhabits a variety of open habitats with friable soils. Most abundant in open grasslands and grasslands with sparse shrubs with friable soils. Infrequently found in disked agricultural areas. Constructs underground burrows for protection and sleeping.	**None.** No occurrences of American badger have been documented within 5 miles of the site, though there are occurrences elsewhere in Napa County in suitable open habitats (iNaturalist 2022). However, this species is not expected to occur on the site due to the presence of surrounding large, wooded areas and absence of larger patches of open habitat, and absence of adequate prey resources (e.g., small mammals). Determined to be absent.
Ringtail (*Bassariscus astutus*)	CFP	Occurs in a variety of habitats including oak woodland, desert, and rocky canyons. Takes shelter in cavities under boulders and rocky outcrops, tree hollows, fallen snags, woodrat nests, and dense shrubs.	**None**. No potential denning habitat is present on the site. Determined to be absent.

Status Codes:

Federal:	***California:***
FE = Listed as endangered under the Federal Endangered Species Act. FT = Listed as threatened under the Federal Endangered Species Act. FD = Delisted under the Federal Endangered Species Act.	SE = Listed as endangered under the California Endangered Species Act. ST = Listed as threatened under the California Endangered Species Act. SR = Listed as rare in California CSSC = Listed as a species of special concern in California. CSSC (nesting) = Species that are considered a sensitive resource by the CDFG include those species whose primary season of concern is the nesting season, and those species that nest communally. CFP = Listed as fully protected in California CEQA = Species not currently protected by statute or regulation, but considered rare, threatened, or endangered under Section 15380 of the CEQA Guidelines.

Appendix C: Representative Photographs

Photo 1 Drop inlet structure on the eastern portion of the site. Photo taken on March 22, 2022.

Photo 2. California annual grassland looking east. Photo was taken on March 22, 2022.

Photo 3. Goats grazing in Coast redwood/California annual grassland. Photo was taken on March 22, 2022.

Photo 4. Coast Redwood Forest looking north. Photo was taken on March 22, 2022.

Photo 5. Coast Redwood Forest looking west. Photo was taken on March 22, 2022.

Photo 6. Coast redwood forest in background looking south. Photo was taken on March 22, 2022.