California Biological Consulting

Addendum to Biological Resource Assessment
Long Ranch Road Vineyard Development Project

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From:	Cedrick Villaseñor, Ecologist California Biological Consulting 10458 Ambassador Drive, Rancho Cordova, 95670, CA
cc:	Mike Muelrath, PE., Applied Civil Engineering
Date:	September 17, 2024
Re:	Rare Plant and Canopy Assessment for the Long Ranch Road Vineyard Development Project

1.0 INTRODUCTION

This report is an addendum to a Biological Resource Assessment (BRA), that was prepared for the Long Ranch Road Vineyard Development Project (Proposed Project) prepared by Montrose Environmental on March 2023. The Proposed Project consists of the construction of a vineyard and associated infrastructure on approximately 18.72 acres (Project Site) within an approximate 48.42-acre property (Study Area) identified as assessor parcel number (APN) 032-560-027, located at 230 Long Ranch Road in Saint Helena, Napa County, California. A BRA was previously prepared by Montrose Environmental, which was submitted to Napa County (County), on May 3, 2024, to support the California Environmental Quality Act (CEQA) documentation for an Agricultural Erosion Control Plan (ECPA) #P24-00114-ECPA for the Proposed Project. The County issued an Application Completeness Determination Letter for #P24-00114-ECPA on May 31, 2024, which requested additional surveys for special-status species within the Disturbed/Managed habitat described and mapped in the BRA. In addition, the County requested an assessment of the quality of habitat classified as Scrub Interior Live Oak – Scrub Oak vegetation alliance, that is planned to be removed. The habitat assessment was conducted to demonstrate the Proposed Project is preserving like habitat to what is proposed for removal, and that the removal is consistent with the County's practice of ensuring 1:1 tree canopy preservation or replacement ratio so that there is no net loss of carbon sequestration resulting from project tree removal.

2.0 METHODOLOGY

The results of the BRA were reviewed in support of this assessment and prior to field investigations of the Study Area (**Attachment 1**). Field data collection for this assessment was conducted by California Biological Consulting biologist, Cedrick Villaseñor on Friday, August 23, 2024. Plants were identified to the lowest taxonomic order using

the Jepson eFlora (Jepson 2024). If not in bloom, identification of plants used characters that can be examined outside of the bloom period, which included dried flowers, fruits, vegetative morphology from plants that remained from this season.

The location of sensitive resources was documented using an Eos Positioning Systems Arrow 100 GNSS Global Positioning System (GPS) technology receiver paired with Esri Field Maps applications. This GPS is capable of real-time differential correction and sub-meter accuracy where possible. The GPS data were imported into Esri ArcGIS Online and mapped with ArcGIS Pro software for development of maps in Esri shapefile format. The geographic coordinate system used to reference the data was North American Datum (NAD83) State Plane California II in feet. If a polygon of sensitive resources were observed, the boundary was mapped by walking along the outer edges and the Esri data and GIS software were used to calculate the acreage of the polygon.

2.1 Professional Biologist Qualifications

The professional qualification of California Biological Consulting principal biologist Cedrick Villaseñor is available at **Attachment 2**.

3.0 DISTURBED/MANAGED HABITAT

Approximately 6.51 acres of Disturbed/Managed habitat classified and mapped in the BRA that would be impacted by the Proposed Project was surveyed for special-status species that were previously documented or determined to have a potential to occur within the Study Area. This habitat type is managed for wildfire fuel reduction management practices. Observations during the survey found most of the perennial vegetation such as chamise (*Adenostema fasciculata*) had resprouting. Twelve holly-leaved ceanothus (*Ceanothus purpurea*) shrubs were observed and documented within this habitat type that would be impacted by the Proposed Project. Each individual holly-leaved ceanothus shrubs were singular with a maximum canopy cover no more than one square foot. One small population of Sharsmith's western flax (*Hesperolinon sharsmithiae*), was documented along the ecotone between Disturbed/Managed habitat and Chamise Alliance along the northeastern boundary of the Project Site. Due to the small size of this population, only one quadrat of one-meter was sampled to determine density of individuals. This population had a low density and based on the density of individuals sampled from the quadrat, this population is estimated to total three hundred individuals.

4.0 SCRUB INTERIOR LIVE OAK – SCRUB OAK

The BRA classified and mapped approximately 18.23 acres of Scrub Interior Live Oak – Scrub Oak habitat within the Study Area. To ensure there is no net loss of carbon sequestration resulting from the removal of vegetation from the Proposed Project, the County requires a 1:1 preservation or replacement ratio for this habitat type. Areas of this habitat type located outside of stream setbacks and on slopes less than 30% were identified and mapped in the Scrub Oak Vegetation Exhibit (**Attachment 3**) to demonstrate how the Proposed Project will meet the County's preservation criteria.

Scrub Interior Live Oak – Scrub Oak habitat that will be impacted by the Proposed Project and those areas identified for preservation in the Scrub oak Vegetation Exhibit were surveyed to document a qualitative evaluation of composition and structure. In general, this habitat type is on slopes that do not face the south. The composition of dominant species was observed to be consistent between stands identified for removal and preservation during this evaluation. The areas located furthest downslope, which are to be preserved, exhibited taller canopies and larger shrubs. The largest stand of this habitat that will be removed by the Proposed Project

is located at higher elevations than surrounding stands of this habitat (**Attachment 3**). This stand is on a northeast facing slope and dominant woody vegetation is shorter than the same species in stands identified for preservation.

5.0 RESULTS

Field data collection for this assessment was conducted by California Biological Consulting biologists Cedrick Villaseñor on Friday, August 23, 2024. Surveys for special-status species within the Disturbed/Managed habitat type mapped a population of Sharsmith's western flax (*Hesperolinon sharsmithiae*) estimated at three hundred individual plants. The survey also identified twelve holly-leaved ceanothus (*Ceanothus purpurea*) individual isolated shrub was estimated to occupy one square foot of canopy, and therefore twelve square feet of cover (0.00275 acres) was added to the removal/retention totals reported in Table 3 of the BRA (Montrose 2023). The changes are shown in strike-though and were updated to include the estimated vegetation cover of holly-leaved ceanothus and individuals of Sharsmith's western flax documented during surveys conducted for this addendum and are provided in **Table 1** below.

TABLE 1[a]. SPECIAL-STATUS PLANT SPECIES OBSERVED IN THE STUDY AREA

Special-Status Species Occurring in Study Area	CRPR* Status	Study Area	Project Site	Outside Project Site	2:1 Preservation Target	Available Preservation Ratio
Holly-leaved Ceanothus (acres)	1B.2	1.41.000275	0.34.000275	1.07	0.68.00055	3.15~~47~~:1
Sharsmith's Western Flax (plants)	1B.2	202,~~3~~602	17,~~1~~491	185,111	34,~~3~~982	10.~~8~~58:1
Green Monardella (plants)	4	78	9	70	18	7.8:1

[a] Changes to results reported in Table 3 of proposed project Biological Resource Assessment (BRA) are in strike-through and new calculations are in red (Montrose 2023)

* CRPR: California Native Plant Society - California Rare Plant Rank

Table 1 provides updated preservation ratios available to the Proposed Project and show no significant decrease in available area for preservation from that reported in the BRA (Montrose 2023).

A qualitative evaluation of Scrub Interior Live Oak – Scrub Oak habitat within the Project Site and identified for preservation found that there was no significant change in composition of dominant plant species from stands that are proposed for removal. However, the structure of the largest stand was observed to be taller and with a higher canopy density. These differences in physiognomy can be attributed to slope aspect and elevation. The taller structure of woody vegetation and higher density in canopy can store more carbon. Therefore, the Scrub Interior Live Oak – Scrub Oak habitat identified for preservation is consistent with the County's goal of ensuring 1:1 preservation and no net loss of carbon sequestration capacity because of vegetation removal from the Proposed Project.

ATTACHMENTS

ATTACHMENT 1

Biological Resource Assessment (BRA)
Montrose 2023



BIOLOGICAL RESOURCES ASSESSMENT

LONG RANCH ROAD VINEYARD

NAPA COUNTY

MARCH 2024

PREPARED FOR:

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230 Long Ranch Rd
St. Helena, CA 94574

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1.0 INTRODUCTION

This Biological Resources Assessment (BRA) analyzes potential environmental impacts associated with the Long Ranch Vineyard Project (Proposed Project) in Napa County, California (**Figures 1** and **2**). The Proposed Project consists of the construction of a vineyard and associated infrastructure on approximately 18.72 acres (Project Site) within an approximate 48.42-acre Study Area (Assessor Parcel Number (APN) 032-560-027. The Study Area includes the Project Site, watercourses, structures, housing, and access roads (**Figure 3**). Biological surveys were conducted within the Study Area on April 12 and June 13, 2023. Survey methodologies, results, and recommended mitigation measures are presented herein.

1.1 PROJECT DESCRIPTION

The Proposed Project consists of the development of a vineyard and supporting infrastructure, including access driveways, water supply, and irrigation. Within the Study Area, there is a residence, water well and multiple concrete water storage tanks and these facilities maybe use for the Project. A service road runs through and parallel to the northern boundary of the Study Area. Surrounding areas consist of vineyards, their associated development, and open space (**Figure 3**). The Study Area occurs within the U.S. Geological Survey (USGS) 7.5-minute "Yountville, California" topographic quadrangle. Elevations range from approximately 1122 to 1352 feet (342 to 412 meters) above mean sea level.

2.0 REGULATORY SETTING

The following section summarizes applicable federal, state, and local regulations.

2.1 FEDERAL

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) implement the Federal Endangered Species Act (FESA) of 1973 (16 USC Section 1531 et seq.). Threatened and endangered species on the federal list (50 CFR Subsection 17.11, 17.12) are protected from "take" (direct or indirect harm) unless a Section 10 Permit is granted to an individual or a Section 7 consultation and a Biological Opinion with incidental take provisions are rendered to a lead federal agency. Under FESA, habitat loss is considered an impact on the species.

Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act of 1918 (16 USC Subsection 703-712), migratory bird species and their nests and eggs are protected from injury or death. Project-related disturbances must be reduced or eliminated during the nesting cycle. Fish and Game Code Subsections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. Fish and Game Code Section 3511 lists protected birds that cannot be taken except under specific permitting.

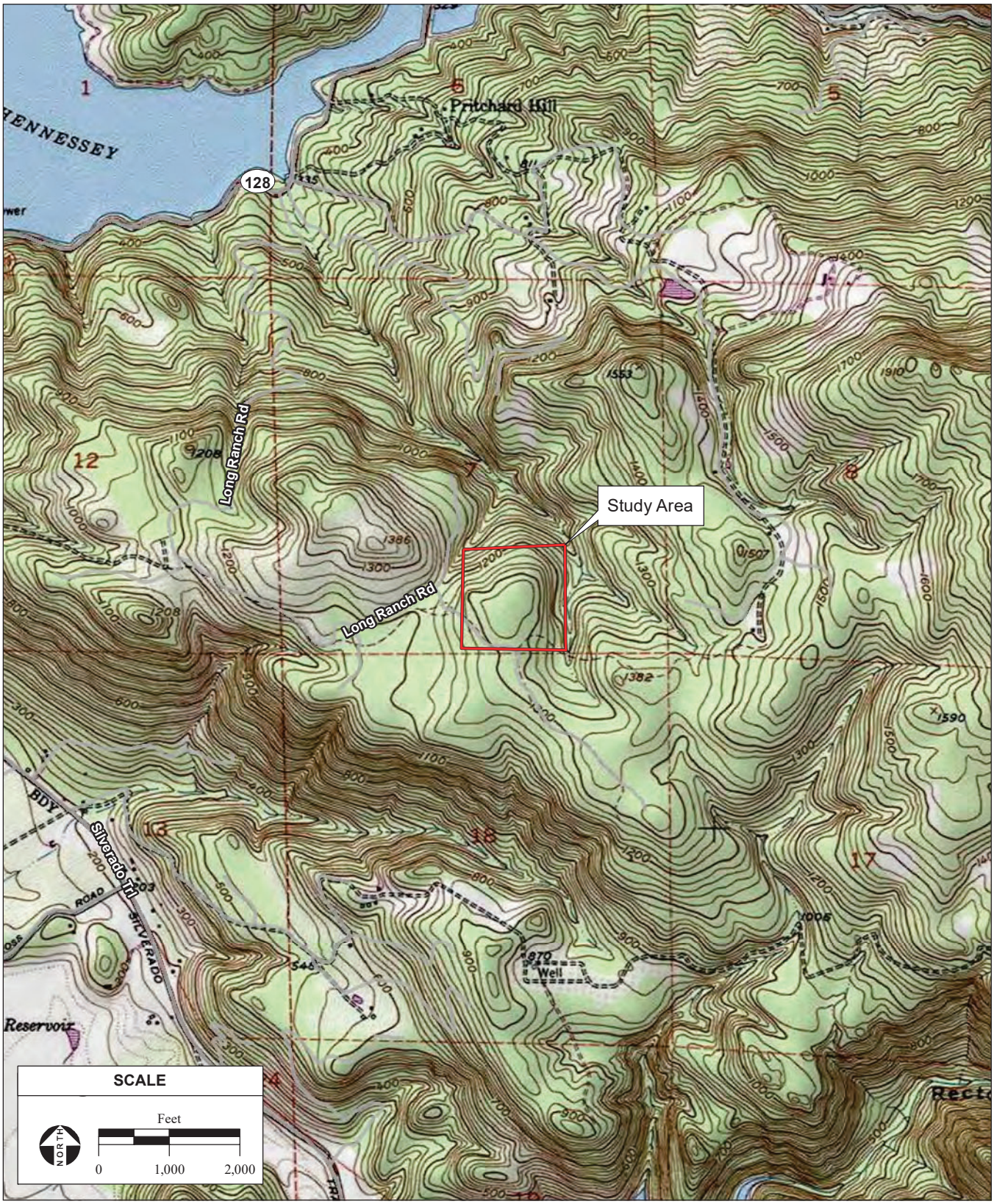
Bald and Golden Eagle Protection Act

The Bald Eagle Protection Act was enacted in 1940 and later amended to include golden eagles (16 USC Subsection 668-668). The Bald and Golden Eagle Protection Act prohibits take, possession, and commerce of bald and golden eagles, parts, feathers, nests, or eggs with limited exceptions. The statute imposes criminal and civil sanctions as well as an enhanced penalty provision for subsequent offenses.



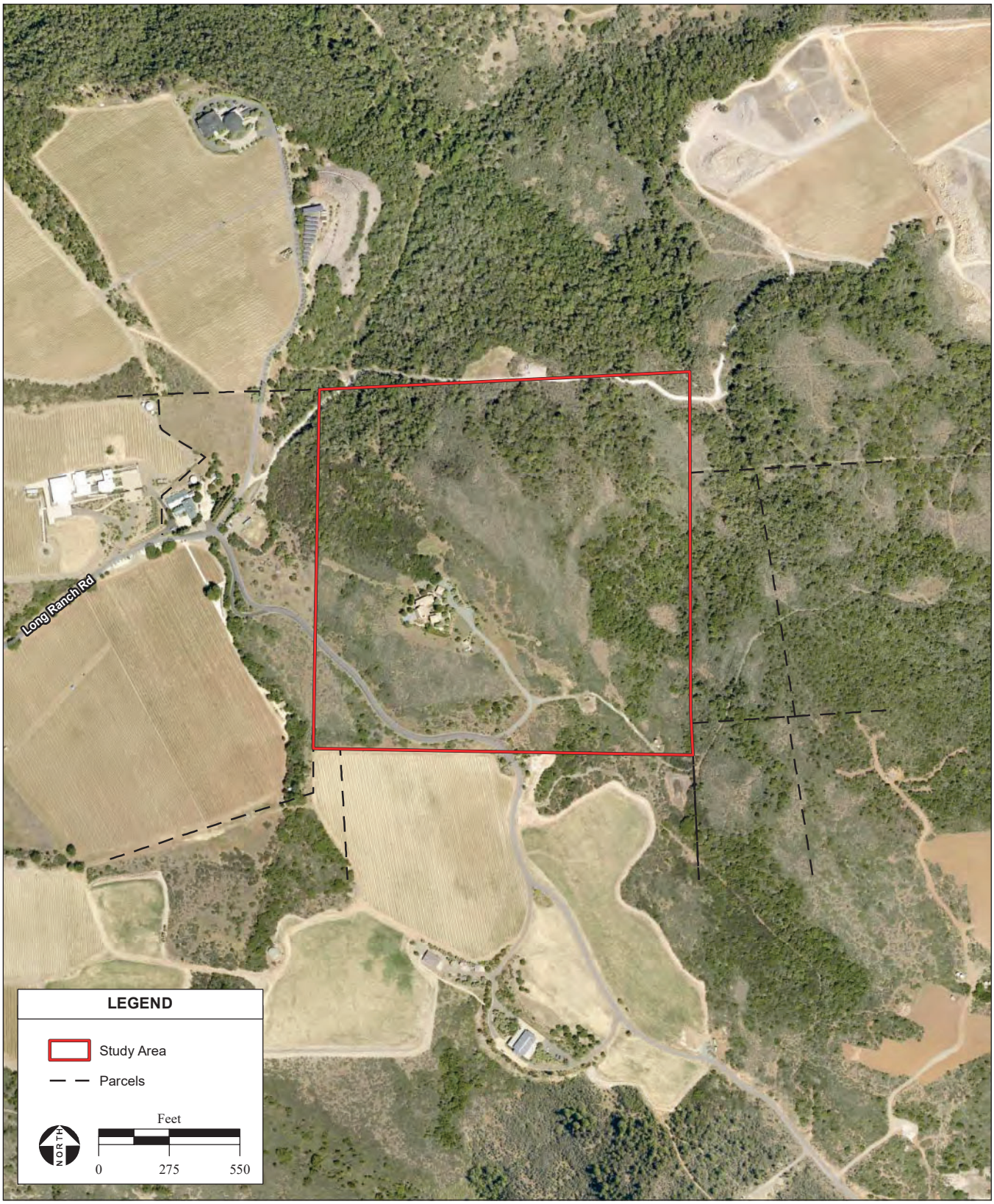
SOURCE: ESRI, 2023; Montrose Environmental, 11/2/2023

Figure 1
Regional Location



SOURCE: "Yountville, CA" USGS 7.5 Minute Topographic Quadrangle, T7N R4W, Section 7 and 18, Mt Diablo Baseline & Meridian; Napa County Roads, 2023; ESRI, 2023; Montrose Environmental, 11/2/2023

Figure 2
Site and Vicinity



SOURCE: Napa County Roads, 2023; County of Napa aerial photograph, 4/30/2021; ESRI, 2023; Montrose Environmental, 11/2/2023

Figure 3
Aerial Photograph

Wetlands and Waters of the U.S.

Any project that involves discharge of dredged or fill material in navigable Waters of the U.S. must first obtain authorization from the U.S. Army Corps of Engineers (USACE), under Section 404 of the Clean Water Act (CWA). Projects requiring a 404 permit under the CWA also require a Section 401 certification from either USEPA, or the California Regional Water Quality Control Board (RWQCB). The agencies also administer the National Pollutant Discharge Elimination System general permits for construction activities disturbing one acre or more.

2.2 STATE

Waters of the State

The California Department of Fish and Wildlife (CDFW) requires notification prior to commencement, and possibly a Lake or Streambed Alteration Agreement (SAA) pursuant to Fish and Game Code Subsection 1601-1616, 5650 if a project were to result in the alteration or degradation of a stream, river, or lake in California. The RWQCB may require State Water Quality Certification (CWA Section 401 permit) before other permits are issued.

California Endangered Species Act

The CDFW implements State regulations concerning fish, wildlife, and associated habitats. The California Endangered Species Act (CESA) of 1970 (California Fish and Game Code [Fish and Game Code] Section 2050 et seq., and CCR Title 14, Subsection 670.2, 670.51) prohibits the take of species listed under CESA (14 CCR Subsection 670.2, 670.5). A CESA permit must be obtained if a project were to result in the take of listed species during construction or operation. Under CESA, CDFW is responsible for maintaining a list of species that are threatened, endangered, or of special concern (Fish and Game Code 2070).

California Environmental Quality Act Guidelines Section 15380

The California Environmental Quality Act (CEQA) Guidelines Section 15380(b) and (d) provide that a species not listed on federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. Criteria have been modeled after the definition of FESA and the section of the Fish and Game Code dealing with rare or endangered plants or animals.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (Fish and Game Code Section 1900 et seq.) requires CDFW to establish criteria for determining if a species or variety of native plant is endangered or rare. The California Native Plant Society (CNPS) inventories native flora of California and ranks species according to rarity. Plants with California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B are considered special-status species. CRPR 1A plants are presumed extinct in California and CRPR 1B plants are rare or endangered in California and elsewhere. CRPR 2A plants are presumed extirpated in California but are more common elsewhere and CRPR 2B plants are rare, threatened, or endangered in California but are more common elsewhere. CRPR 3 is a watch list for plants about which more information is needed. CRPR 4 is a watch list for plants of limited distribution.

California Sensitive Natural Communities

CDFW provides current list of vegetation Alliances, Associations, Special Stands, and California Sensitive Natural Communities (CSNC). State and Global rarity ranks are indicated for Alliance and some Associations. Natural Communities with ranks of 1-3 are considered Sensitive. Unranked Associations considered Sensitive are marked with a Y in the rightmost column. A “?” indicates our best estimate of the rank when

we know we have insufficient samples over the full expected range of the type, but existing information points to this rank. Pending additions can be found at the bottom of the full Natural Community list.

Oak Woodlands Conservation Act

The Oak Woodlands Conservation Act (California State Senate Bill 1334) became law on January 1, 2005, and was added to the CEQA statutes as 21083.4. The conversion of oak woodlands on agricultural land used to produce or process plant and animal products for commercial purposes is exempt from mitigation under this law. One or more of the following mitigation measures are required should a project be determined to significantly impact oak woodlands:

1) Conserve oak woodlands through the use of conservation easements;
2) Plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings;
3) Contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and
4) Other mitigation measures developed by the county.

2.3 LOCAL

Napa County General Plan

Natural resource use in Napa County (County) is regulated by the Napa County General Plan (Napa County, 2009), and includes the following goals and policies concerning biological resources:

Open Space Conservation Policies

Policy CON-1: The County will preserve land for greenbelts, forest, recreation, flood control, adequate water supply, air quality improvement, habitat for fish, wildlife and wildlife movement, native vegetation, and natural beauty. The County will encourage management of these areas in ways that promote wildlife habitat renewal, diversification, and protection.

Policy CON-2: The County shall identify, improve, and conserve Napa County's agricultural land by:

a) Requiring existing significant vegetation be retained and incorporated into agricultural projects to reduce soil erosion and to retain wildlife habitat. When retention is found to be infeasible, replanting of native or non-invasive vegetation shall be required, and
b) Minimizing pesticide and herbicide use and encourage research and use of Integrated pest control methods such as cultural practices, biological control, host resistance, and other factors.

Policy CON-5: The County shall identify, improve, and conserve Napa County's rangeland through the following measures:

a) Providing a permanent means of preservation of open space areas for rangeland.
b) Encouraging responsible brush removal techniques with adequate environmental safeguards, leaving uncleared islands and peninsulas to provide cover for wildlife.
c) Staging land conversion operations to minimize adverse environmental impact on the watershed.
d) Encouraging livestock management activities to avoid long-term destruction of rangeland productivity and watershed capacity through overgrazing, erosion, or damage to riparian areas.

e) Encouraging replanting of depleted areas to restore rangeland productivity and/or restore native biological resource values.
f) Coordinating rangeland management programs with those of other County, the State of California, and the federal government in areas where vegetation conversion programs are planned.
g) Protecting trees and shrubs on rangelands for wildlife habitat and aesthetic purposes and encouraging alternate uses of rangelands, such as wildlife and open space, if grazing is phased out.

Natural Resource Goals and Policies

Goal CON-1: The County will conserve resources by determining the most appropriate use of land, matching land uses and activities to the land's natural suitability, and minimizing conflicts with the natural environment and the agriculture it supports.

Goal CON 2: Maintain and enhance the existing level of biodiversity.

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-10: The County shall conserve and improve fisheries and wildlife habitat in cooperation with governmental agencies, private associations, and individuals in Napa County.

Policy CON-11: The County shall maintain and improve fisheries habitat through a variety of appropriate measures, including the following as well as best management practices (BMPs) developed over time.

a) Control sediment production from mines, roads, development projects, agricultural activities, and other potential sediment sources.
b) Implement road construction and maintenance practices to minimize bank failure and sediment delivery to streams.

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:

a) Maintain the following essentials for fish and wildlife resources:
    1. Sufficient dissolved oxygen in the water.
    2. Adequate amounts of proper food.
    3. Adequate amounts of feeding, escape, and nesting habitat.
    4. Proper temperature through maintenance and enhancement of streamside vegetation, volume of flows, and velocity of water.

b) Employ supplemental planting and maintenance of grasses, shrubs, and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially stream side areas, in good condition.

c) Provide protection for habitat supporting special-status species through buffering or other means.

d) Provide replacement habitat of like quantity and quality on- or off-site for special-status species to mitigate impacts to special-status species.

e) Enhance existing habitat values, particularly for special-status species, through restoration and replanting of native plant species as part of discretionary permit review and approval.

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

g) Demonstrate compliance with applicable provisions and regulations of recovery plans for federally listed species.

Policy CON-14: To offset possible losses of fishery and riparian habitat due to discretionary development projects, developers shall be responsible for mitigation when avoidance of impacts is determined to be infeasible. Such mitigation measures may include providing and permanently maintaining similar quality and quantity habitat within Napa County, enhancing existing riparian habitat, or paying in-kind funds to an approved fishery and riparian habitat improvement and acquisition fund. Replacement habitat may occur either on-site or at approved off-site locations, but preference shall be given to on-site replacement.
Policy CON-15: The County shall establish and update management plans protecting and enhancing the County's biodiversity and identify threats to biological resources within appropriate evaluation areas and shall use those plans to create programs to protect and enhance biological resources and to inform mitigation measures resulting from development projects.

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 Napa County Baseline Data Report, California Natural Diversity Database (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 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:

a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.

c) Promote protection from overgrazing and other destructive activities.

d) Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species.

e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or

replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

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

a) In sensitive domestic water supply drainages where new development is required to retain 40 to 60 percent of the existing (as of June 16, 1993) vegetation onsite, the vegetation selected for retention should be in areas designed to maximize habitat value and connectivity.
b) Outside of sensitive domestic water supply drainages, streamlined permitting procedures should be instituted for new vineyard projects that voluntarily retain valuable habitat and connectivity, including generous setbacks from streams and buffers around ecologically sensitive areas.
c) Preservation of habitat and connectivity of adequate size, quality, and configuration to support special-status species should be required within the Study Area. The size of habitat and connectivity to be preserved shall be determined based on the specifics needs of the species.
d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat.
e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing installed on or after February 16, 2007 to offset the impact caused by the new vineyard development.
f) The County shall disseminate information about impacts that fencing has on wildlife movement in wild land areas of the County and encourage property owners to use permeable fencing.
g) The County shall develop a program to improve and continually update its database of biological information, including identifying threats to wildlife habitat and barriers to wildlife movement.
h) Support public acquisition, conservation easements, in-lieu fees where on-site mitigation is infeasible, and/or other measures to ensure long-term protection of wildlife movement areas.

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

Policy CON-20: The County shall monitor biodiversity and habitat connectivity throughout the County and apply appropriate adaptive management practices as necessary to achieve applicable Natural Resources Goals. Changing conditions may include external forces such as changing state or federal requirements, or changes in species diversity, distribution, etc.

Policy CON-21: The County shall initiate and support efforts relating to the identification, quantification, and monitoring of species biodiversity and habitat connectivity throughout Napa County.

Policy CON-22: The County shall encourage the protection and enhancement of natural habitats which provide ecological and other scientific purposes. As areas are identified, they should be delineated on environmental constraints maps so that appropriate steps can be taken to appropriately manage and protect them.

Policy CON-26: Consistent with Napa County's Conservation Regulations, natural vegetation retention areas along perennial and intermittent streams shall vary in width with steepness of the terrain, the nature of the undercover, and type of soil. The design and management of natural vegetation areas shall consider habitat and water quality needs, including the needs of native fish and special-status species and flood protection where appropriate.

Site-specific setbacks shall be established in coordination with Regional Water Quality Control Boards, CDFW, USFWS, NMFS, and other coordinating resource agencies that identify essential stream and stream reaches necessary for the health of populations of native fisheries and other sensitive aquatic organisms within the County's watersheds. Where avoidance of impacts to riparian habitat is infeasible along stream reaches, appropriate measures will be undertaken to ensure that protection, restoration, and enhancement activities will occur within these identified stream reaches that support or could support native fisheries and other sensitive aquatic organisms to ensure a no net loss of aquatic habitat function and value within the county's watersheds.

Policy CON-27: The County shall enforce compliance and continued implementation of the intermittent and perennial stream setback requirements set forth in existing stream setback regulations, provide education and information regarding the importance of stream setbacks and the active management and enhancement/restoration of native vegetation within setbacks, and develop incentives to encourage greater stream setbacks where appropriate. Incentives shall include streamlined permitting for certain vineyard proposals on slopes between 5 and 30 percent and flexibility regarding yard and road setbacks for other proposals.

Oak Woodlands Goals and Policies

Goal CON-6: Preserve, sustain, and restore forests, woodlands, and commercial timberland for their economic, environmental, recreation, and open space values.

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

a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agricultural projects.
b) Comply with the Oak Woodlands Preservation Act (PRC Section 21083.4) regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of residential, commercial, and industrial approvals.
c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.
d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil protection, and soil production be left standing.
e) Maintain, to the extent feasible, a mixture of oak species to ensure acorn production. Black, canyon, live, brewer, blue, white, scrub, and live oak are common associations.
f) Encourage and support the County Agricultural Commission's enforcement of state and federal regulations concerning Sudden Oak Death and similar future threats to woodlands.

Policy CON-28: To offset possible additional losses of riparian woodland due to discretionary development projects and conversions, developers shall provide and maintain similar quality and quantity of replacement habitat or in-kind funds to an approved riparian woodland habitat improvement and acquisition fund in Napa County. While on-site replacement is preferred where feasible, replacement habitat may be either on-site or off-site as approved by the County.

Policy CON-29: The County shall coordinate its efforts with other agencies and districts such as the Resource Conservation District and share a leading role in developing and providing outreach and education related to stream setbacks and other BPMs that protect and enhance the County's natural resources.

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 Policies

Policy CON-6: The County shall impose conditions on discretionary projects which limit development in environmentally sensitive areas such as those adjacent to rivers or streamside areas and physically hazardous areas such as floodplains, steep slopes, high fire risk areas and geologically hazardous areas.

Policy CON-41: The County will work to protect its watersheds and public and private water reservoirs to provide for the following purposes:

a) Clean drinking water for public health and safety;
b) Municipal uses, including commercial, industrial and domestic uses;
c) Support of the eco-systems;
d) Agricultural water supply;
e) Recreation and open space; and
f) Scenic beauty.

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

a) Support environmentally sustainable agricultural techniques and BMPs that protect surface water and groundwater quality and quantity (e.g., cover crop management, integrated pest management, informed surface water withdrawals and groundwater use).

Policy CON-45: Protect the County's domestic supply drainages through vegetation preservation and protective buffers to ensure clean and reliable drinking water consistent with state regulations and guidelines. Continue implementation of current Conservation Regulations relevant to these areas, such as vegetation retention requirements, consultation with water purveyors/system owners, implementation of erosion controls to minimize water pollution, and prohibition of detrimental recreational uses.

Policy CON-48: Proposed developments shall implement project-specific sediment and erosion control measures (e.g., erosion control plans (ECP) and/or storm water pollution prevention plans) that maintain pre-development sediment erosion conditions or at minimum comply with state water quality pollution

control 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.

Napa County Code

Stream Setbacks

Napa County Code defines streams and provides setbacks for land clearing for agricultural development. Under Section 18.108.030, a "stream" means any of the following:

1) A watercourse designated by a solid line or dash and three dots symbol on the largest scale of the USGS maps most recently published, or any replacement to that symbol;
2) Any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 (horizontal to vertical bank ratio) and contains hydrophilic (i.e., water-adapted) vegetation, riparian vegetation or woody vegetation including tree species greater than ten feet in height; or
3) Those watercourses listed in Resolution No. 94-19 and incorporated herein by reference.

Erosion gullies and ravines being repaired with the technical assistance and/or under the direction of the Napa County Resource Conservation District/National Resource Conservation Service, "scour-holes," and other non-linear features are not considered streams. Napa County Code 18.108.025 applies setbacks for agricultural development adjacent to streams. Setbacks range from 35 to 150 feet measured from the top of bank and increase with the slope of the terrain parallel to the top of bank.

Vegetation Preservation and Replacement

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

- Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the county's environmental sensitivity maps.
- Existing trees six inches in diameter or larger, measured at diameter breast height, (DBH), or tree stands of trees six inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized.
- Trees to be retained or designated for retention shall be protected through the use of barricades or other 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.
- 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.

Napa County Code 18.108.027 requires that as part of any use involving earth-disturbing activity in sensitive domestic water supply drainages, the following vegetation-retention requirements apply:

- A minimum of 60 percent of the tree canopy cover on the parcel or holding existing on June 16, 1993 along with any understory vegetation, and
- When vegetation consists of shrub and brush without tree canopy, a minimum of 40 percent of the shrub, brush and associated annual and perennial herbaceous vegetation is to be retained (referred to as vegetation understory hereafter and is defined below).

Vegetation understory is defined as the biotic communities classified as chaparral/scrub, shrubland, grassland, rock outcrop, or vegetated portions of wetlands based on the current Manual of California Vegetation (MCV; CNPS 2024b) and as described in the Napa County Baseline Data Report (NCBDR; Napa County, 2005).

3.0 METHODOLOGY

3.1 PRELIMINARY DATA REVIEW

Prior to conducting the biological surveys, biological information for the Study Area was obtained from the following sources:

- CNDDB query, generated February 26, 2024, of state and federally listed special-status species known to occur within a five-mile radius of the Study Area (CDFW, 2024a) (**Attachment 1**);
- CDFW Biogeographic Information and Observation System (BIOS) Terrestrial Connectivity Map (CDFW, 2024b);
- CNPS query generated March 4, 2024, of state and federally listed special-status species known to occur on Yountville's quad and generated a list of potential CRPR 1 through CRPR 4 plants that may occur in the Saint Helena, Chiles Valley, Rutherford, and Yountville 7.5' minute United States Geological Survey (USGS) topographical quads (CNPS, 2024a) (**Attachment 1**);
- National Marines Fisheries Service (NMFS) West Coast Region (WCR) species list (NMFS, 2022) (**Attachment 1**);
- USFWS list, generated March 4, 2024, of federally listed special-status species with the potential to occur on and near the Study Area (USFWS, 2024a) (**Attachment 1**);
- Critical Habitat Mapper (USFWS, 2024b) (**Attachment 1**);
- National Wetlands Inventory (NWI) database of wetlands and surface waters within the Study Area (USFWS, 2024b) (**Figure 6**);
- California Aquatic Resources Inventory (CARI) (SFEI 2024, **Attachment 1**);
- Custom Soil Resource Report for Napa County, NRCS, generated for the Study Area on March 4, 2024 (NRCS, 2024) (**Attachment 2**).

3.2 SURVEY TECHNIQUES

Biological resources surveys of the Study Area were conducted on April 12 and June 13, 2023. Surveys were conducted by walking meandering transects throughout and around the Study Area. Aerial imagery was

captured using a DJI Air 2S unmanned aircraft system. Geospatial data was collected with an Arrow 100 hand-held GPS receiver.

Survey goals consisted of identifying habitat types, sensitive habitats, wetlands and waters of the U.S. and state, special-status animal and plant species, including lichens and bryophytes, identifying potentially suitable bat habitat, characterization and identification of forested habitats and trees, and potential wildlife corridors.

Botanical assessments followed protocols described in the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW, 2018), *Botanical Survey Guidelines of the California Native Plant Society* (CNPS, 2001), *Guidelines for Mapping Rare Vegetation* (CNPS 2011), and *The Jepson Manual* (Baldwin, 2012). Plants are usually identified when in bloom; but other methods can be used to identify rare plants not in bloom. Features that can be examined outside of the bloom period include vegetative, dried flower, or fruit morphology, as well as skeletal plant remains from previous seasons. Not all species flower each year and some may only flower at maturity, therefore those species must be identified based on vegetative characteristics. Habitat requirements of special-status species were compared to habitats identified in the Study Area based on surveys and aerial photographs.

Wildlife was identified by calls, scat, remains, or direct sight. Evidence of dens, nests, or burrows, if present, were assessed to indirectly identify potentially occurring wildlife in the Study Area. Aerial imagery from Google Earth, as well as the BIOS Terrestrial Connectivity mapper, were reviewed to assess habitats surrounding the Study Area for potential wildlife movement, wildlife corridors, or movement barriers (Google, 2024 and CDFW, 2024b). Field methodology for identifying corridors for movement included searching for game trails or habitats that would favor the movement of wildlife or potential gene flow. Existing and proposed barriers were examined to determine current movement potential within the Study Area and whether the Proposed Project would impact movement.

4.0 ENVIRONMENTAL SETTING

4.1 SOIL TYPES

A soil assessment for the Study Area was prepared online through the NRCS (**Attachment 2**; **Figure 4**). The Study Area consists mainly of Rock outcrop-Hambright complex (50 to 75 percent slopes). Rock outcrop-Hambright complex consists of well-drained and non-flooding soil with a parent material of basic volcanic rock with a soil profile of very stony loam and unweathered bedrock. One other soil type, Sobrante loam, occurs at two slope types of 5 to 30 percent and 30 to 50 percent. This soil type is well-drained and non-flooding with a parent material of residuum weathered from sandstone.

4.2 HABITAT TYPES

Habitat types or biotic communities are the characteristic assemblages of plants and animals that are found in a given range of soil, climate, and topographic conditions across a region in Napa County, based on the NCBDR (Napa County, 2005). Sensitive habitats are designated by CDFW, considered to be waters of the U.S. or State, and/or considered by local experts or municipalities such as Napa County, to be of limited distribution (Napa County, 2005). Vegetation alliances in Napa County were delineated and mapped by the University of California Davis's Information Center for the Environment (Thorne et al. 2004). Napa County uses the 2004 edition vegetation map produced using the Manual of California Vegetation classification system as the base dataset of vegetation communities for land use decisions and policy. In 2019 Napa County updated the map because of its utility (Thorne et al. 2019). The habitat types were mapped onto

the Study Area and refined based on survey observations and classification vegetation alliance membership rules.

Habitat types classified delineated and mapped within the Study Area are shown in **Figure 5**. Habitat types within the Study Area include Chamise Alliance, Scrub Interior Live Oak – Scrub Oak Alliance, Disturbed/Managed, Developed, Cleared Areas with < 5% Slope, Intermittent Stream, and Ephemeral Drainage. For the purposes of this report, the vegetation communities observed within the Study Area have been classified as a NCBDR vegetation alliance or biotic community that most closely represents the observed vegetation and coverage characteristics and percent cover of component species. The Study Area contains a residence, its associated structures and infrastructure, and pre-existing paved and unpaved roadways. One unnamed intermittent drainage, a tributary of Lake Hennessey is variably present within the eastern border of the Study Area (**Figure 6**). Pre-project condition acres of habitat types are presented in **Table 1**.

TABLE 1
HABITAT TYPES WITHIN THE STUDY AREA

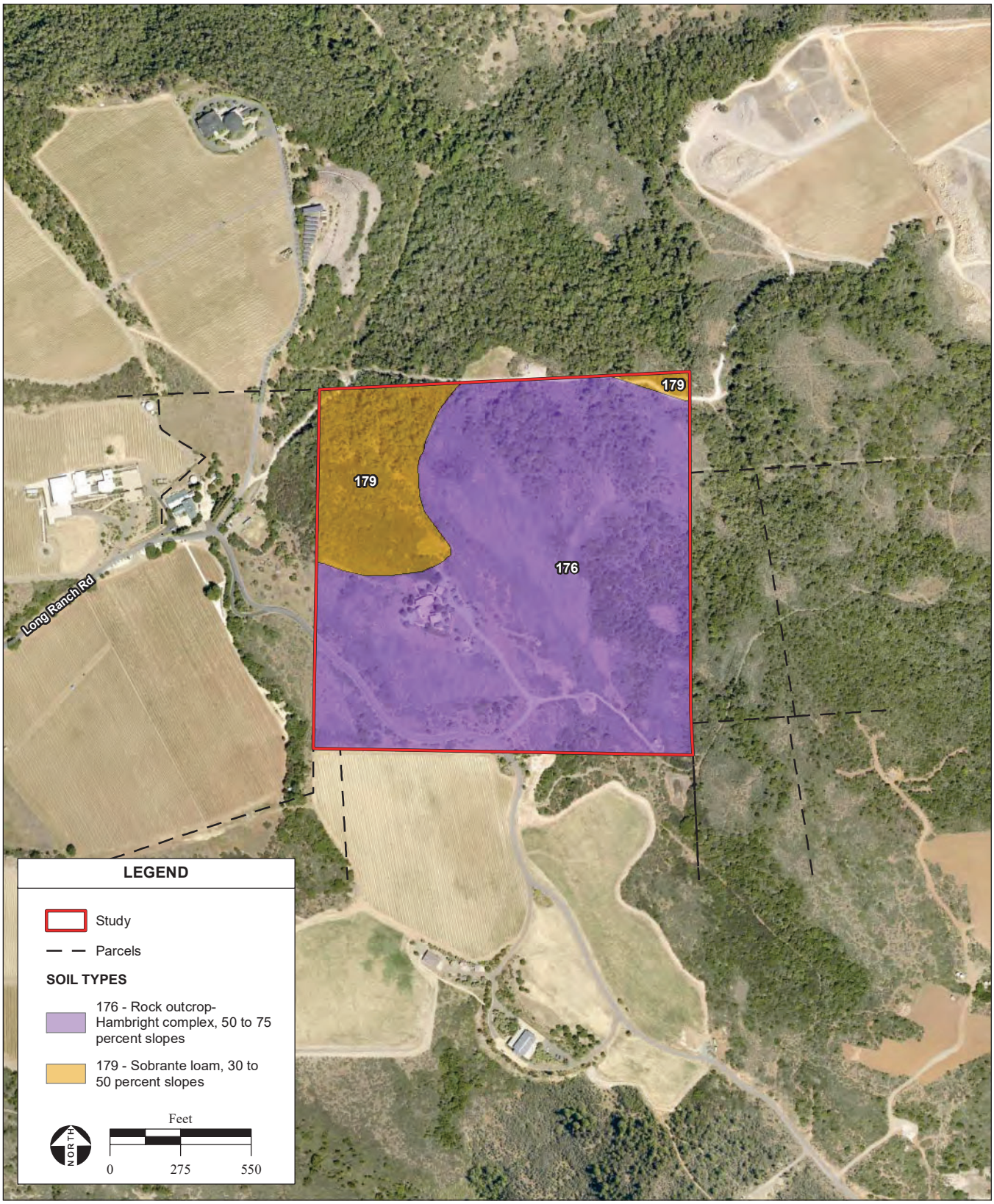
Vegetation Alliance or Habitat Type	Acres Within Study Area	Acres Within Project Site	Percent of Total Acreage within Project Site	Percent of Total Acreage Retained within Study Area
Chamise Alliance	16.96	6.40	46.19%	62.27%
Scrub Interior Live Oak – Scrub Oak	18.23	4.13	22.07%	77.32%
Disturbed/Managed	7.95	6.51	34.77%	18.13%
Developed	3.8	0.21	1.13%	94.49%
Cleared Areas with < 5% Slope	1.47	1.47	7.86%	0.00%

Chamise Alliance

Approximately 16.96 acres of the Study Area consists of Chamise Alliance. According to the NCBDR, Chamise Alliance is the most common chaparral type within the County and occurs across the county in xeric south and southwest slopes. This habitat type is the second most predominant vegetation alliance in the Study Area. The vegetation cover of this habitat was thinned by grazing wildfire fuel reduction vegetation management practices. Chamise alliance as described by the Manual of California Vegetation, typically occurs on varied topography where soils are shallow over colluvium or bedrock throughout cismontane California (CNPS 2024b). Chamise is dominant in the intermittent to continuous canopy of the shrub layer/vegetation understory. As the NCBDR describes, toyon (*Heteromeles arbutifolia*), buckbrush (*Ceanothus* spp.), sticky monkeyflower (*Diplacus aurantiacus*), coyote brush (*Baccharis pilularis*), and manzanitas (*Arctostaphylos* spp.) occur while chamise (*Adenostoma fasciculatum*) is the dominant species. This habitat type is not considered sensitive by CDFW or Napa County.

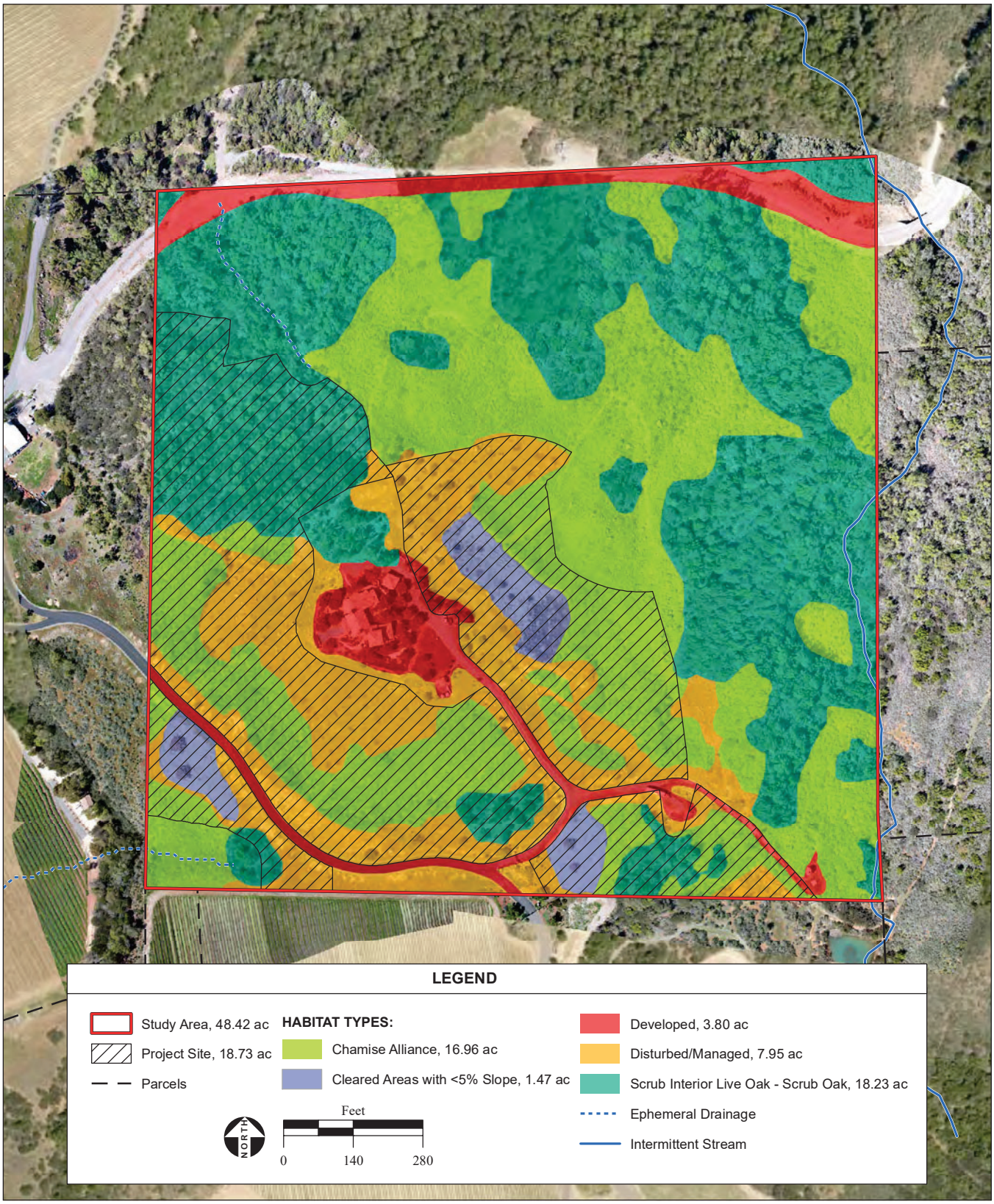
Scrub Interior Live Oak – Scrub Oak

Approximately 18.23 acres of the Study Area consists of Scrub Interior Live Oak – Scrub Oak Scrub– (California Bay–California Ash–Birch Leaf Mountain Mahogany–Toyon– California Buckeye) Mesic East Count NFD Super Alliance (Thorne et. al. 2019). Another of the most common chaparral types in the County per the NCBDR. This habitat type is the most predominant vegetation alliance in the Study Area and encompasses a majority of the eastern and northern facing slopes of the Study Area. Scrub Interior Live Oak – Scrub Oak, is composed primarily of interior live oak (*Quercus wislizeni*), and California scrub oak (*Quercus berberidifolia*).



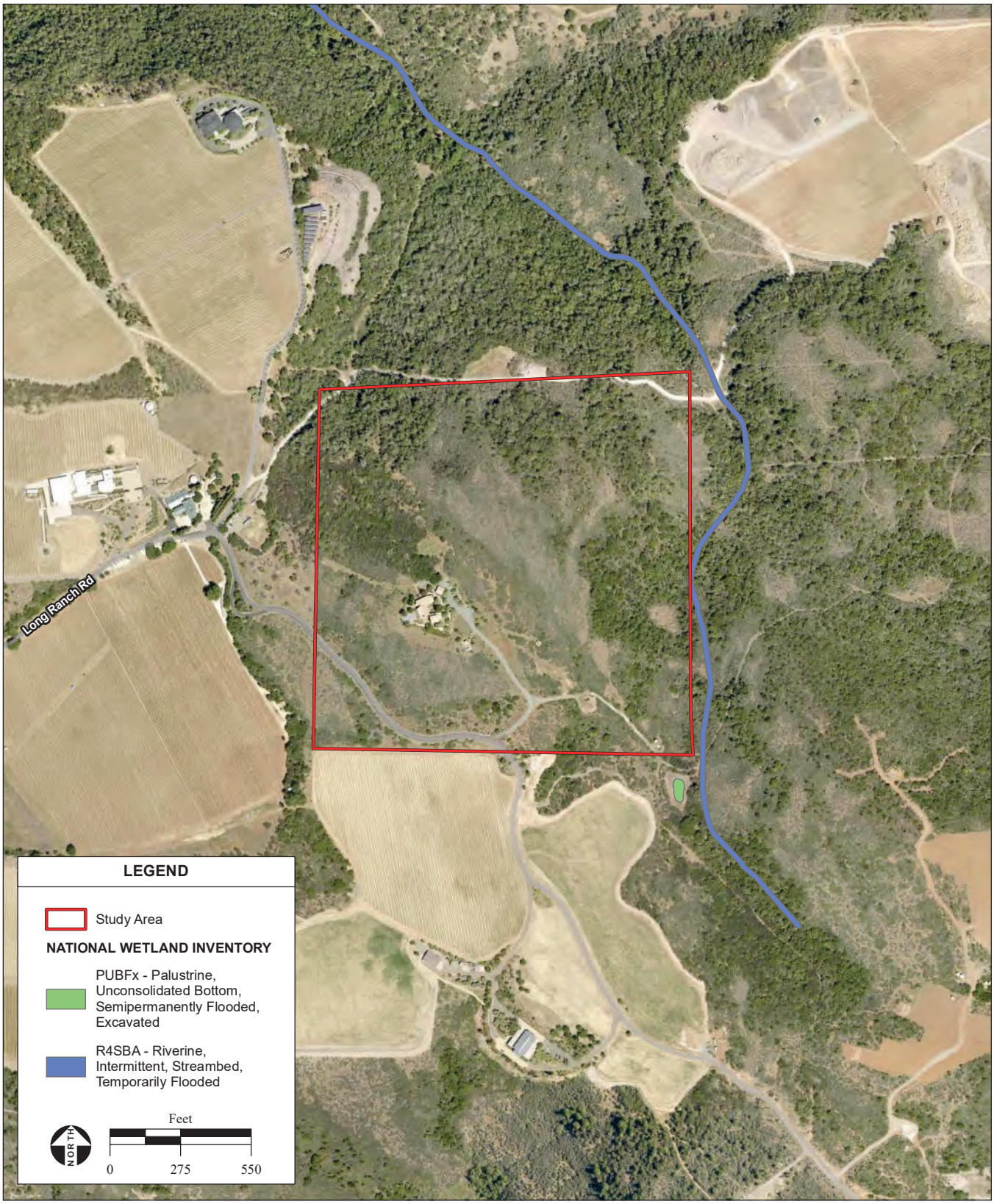
SOURCE: NRCS Napa County Soils data, 9/1/2022; Napa County Parcels, 2022; Napa County Roads, 2023; County of Napa aerial photograph, 4/30/2021; ESRI, 2023; Montrose Environmental, 11/2/2023

Figure 4
Soil Types



SOURCE: County of Napa aerial photograph, 4/30/2021; ESRI, 2024; Montrose Environmental, 3/6/2024

Figure 5
Habitat Types



SOURCE: USFWS National Wetland Inventory for "'Napa, CA" USGS 100k Topographic Quadrangle, 1973,1976; Napa County Parcels, 2022; Napa County Roads, 2023; County of Napa aerial photograph, 4/30/2021; ESRI, 2024; Montrose Environmental, 3/12/2024

Figure 6
National Wetlands Inventory

While interior live oak dominates this habitat type, stands of shrub form of California bay laurel (*Umbellularia californica*) trees. Other woody species observed within this habitat type included Toyon (*Heteromeles arbutifolia*), hoary coffee berry (*Frangula californica ssp. tomentella*), chaparral pea *(Pickeringia montana*), and whiteleaf manzanita (*Arctostaphylos manzanita ssp. manzanita*). In some areas of this habitat closest to the residential structures, the vegetation cover of this habitat was thinned by grazing wildfire fuel reduction vegetation management practices. The understory was very sparse. This habitat type is not considered sensitive by CDFW or Napa County.

Disturbed/Managed

Approximately 7.95 acres of the Study Area consists of disturbed/managed habitat. This habitat type is found in areas that have been cleared of vegetation to ground level or significantly thinned for wildfire fuel reduction vegetation management practices. A majority of this habitat type still contained remnant stumps of woody shrubs that were identified as being predominantly chamise, and therefore may have been formerly chamise alliance habitat. During the surveys, this area was documented as being nearly void of living vegetation, although chamise may resprout from stumps that survive. Vegetation found in the adjacent habitat types is often found at the margins of disturbed/managed habitat. This habitat is and has been heavily managed and is not considered sensitive by CDFW or Napa County.

Developed

Approximately 3.08 acres of the Study Area consists of a residence and its associated landscaping, supporting infrastructure such as structures, tanks, paved roads, and road cuts to mineral soil. This habitat is and has been heavily managed and is not considered sensitive by CDFW or Napa County.

Cleared Areas with < 5% Slope

Approximately 1.47 acres of the Study Area has been graded and ripped. This area is void of living vegetation having had heavy machinery clear, grade, and remove rocks from the soil, and was nearly void of living vegetation. During the June 13 survey, annual plants were observed germinating within this habitat type.

Intermittent Stream

An un-named intermittent Stream is located on the eastern boundary of the Study Area. This stream is designated as an intermittent stream by USGS (**Figure 5**). The stream is canyon forming the lowest elevations in the landscape which drains then drains north into Lake Hennessey. This feature has a clear bed and bank and was observed with flowing water during the April survey. The creek displays a clear ordinary high-water mark (OHWM), top of bank, and therefore is likely be considered a Water of the U.S. and State of California subject to USACE and RWQCB jurisdiction, respectively. The stream channel is predominantly bare rock, boulders, and cobble. The stream is bound by thick Scrub Interior Live Oak – Scrub Oak habitat and did not contain hydrophytic vegetation.

Ephemeral Drainage

Two ephemeral drainages occur within the Study Area. One ephemeral drainage is in the northwest and the second in the southwest(**Figure 5**). These drainages convey flows in response to rain events and do not contain flows or standing water outside of the rainy season. The ephemeral drainage in the northwestern portion of the Study Area starts on slopes 15-30% and then exits the Study Area on slopes between 50-75%. The drainage alignment and headwater was mapped based on physical characteristics of an ordinary highwater mark (OHWM) to the extent that they could be identified and deemed reasonably reliable.

Characteristics observed to determine an OHWM included destruction of annual terrestrial vegetation, wracking of leaf litter and debris, matted down vegetation, sediment sorting, scour and deposition. The upper reach of this drainage starts as a shallow swale and eventually ends in a steep ravine at the border of the Study Area. The headwaters of the second ephemeral drainage is within 200 feet of the southwestern border of the Study Area. The drainage is entirely within a ravine or an erosional feature that appears to be a remnant section of a historical drainage that no longer exists outside of the Study Area. This drainage is surrounded by chamise alliance habitat and eventually passes through a small section of scrub interior live oak – scrub oak habitat. Other extrapolated channel network mapped by Napa County were surveyed to determine if those locations had physical characteristics that would qualify as waters of the U.S. or state.

4.3 Wetlands and Waters of the U.S. and State

The National Wetland Inventory (NWI) database was queried to determine previously mapped wetlands and waters of the U.S. and state within the Study Area (**Figure 6**). Wetlands were not observed within the Study Area during the survey. Potential waters of the U.S. or state within the Study Area include one unnamed stream which is a tributary of Lake Hennessey. This drainage is riverine, intermittent streambed, and seasonally flooded according to the NWI as shown on **Figure 6** (USFWS, 2024b). This drainage runs along, but mostly external to, the eastern border of the Project Site, draining into Lake Hennessey approximately 1.2 miles outside of the Project Site.

4.4 Species Observed

Dominant plant species observed in the Study Area included interior live oak, California scrub oak, California bay laurel, toyon, chamise, holly-leaved ceanothus (*Ceanothus purpurea*), hoary coffee berry, white leaf manzanita (*Arctostaphylos viscida*), coyote brush, and Sonoma sage (*Salvia sonomensis*). A complete list of all the vascular plant species observed within the Study Area is provided in **Attachment 4**.

Avian wildlife species observed within the Study Area included: northern mockingbird (*Mimus polyglottos*), California Thrasher (*Toxostoma redivivum*), common raven (*Corvus corax*), golden eagle (*Aquila chrysaetos*), blue-gray gnatcatcher (*Polioptila caerulea*), turkey vulture (*Cathartes aura*), California scrub jay (*Aphelocoma californica*), and spotted towhee (*Pipilo maculatus*). Mammals observed or presence determined by scat or tracks included black-tailed jackrabbit (*Lepus californicus*), and mole (*Scapanus sp.*), and mule deer (*Odocoileus hemionus*), and feral pig (*Sus scrofa*). Reptiles observed western fence lizard (*Sceloporus occidentalis*), and western sagebrush lizard (*Sceloporus graciosus gracilis*).

4.5 Bat Habitat Assessment

Potentially suitable bat habitat within the Project Site was assessed during the site survey. Areas with live trees, snags, and rock outcrops were assessed for suitability as bat habitat or bat roosts. Woodland or forested habitat are absent from the Study Area. Some mature trees or tree-form species were present within the Study Area, predominately within the Scrub Interior Live Oak – Scrub Oak habitat on steep slopes on the northern and eastern portions of the Study Area. Tree snags were not observed. Tree species found within the Project Site were predominantly early successional shrub form, and/or lacking cavities. Tree species identified were tightly-barked species such as interior live oak and California bay laurel. The Study Area contains rock outcroppings on the eastern and northern slopes. These outcrops were in the form of exposed rounded boulders with shallow cracks with little to no surface exfoliation and were low-lying to the ground. Given the properties of the habitat observed, habitats found within the Project Site were determined to be not suitable as bat habitat or bat roosts.

4.6 CRITICAL HABITAT

Critical habitat designated by USFWS for three identified species is present within the vicinity of the Study Area (**Attachment 1**). Contra Costa goldfield designated critical habitat is present approximately 6.7 miles to the southeast, California red-legged frog critical habitat is 7.7 miles to the east, and northern spotted owl critical habitat is present approximately 6.3 miles to the north of the Study Area. Critical Habitat designated by NOAA/NMFS for California Central Coast Steelhead is present within two miles of the Study Area (NMFS 2022; **Attachment 1**). The Study Area is within NMFS designated Essential Fish Habitat (EFH) for Coho and Chinook salmon (NMFS 2022; **Attachment 1**).

4.7 WILDLIFE MOVEMENT

The Study Area is located within the mapped California Essential Connectivity Project and ranked as 4 – Conservation Planning Linkages (CDFW 2024b). Topographically, the Study Area contains a prominence/convex feature, being higher-lying relative to the surrounding mesa and contains low points and steeper slopes radiating from the center of the Study Area to the north and east. It is likely that wildlife uses the intermittent stream habitat as a wildlife movement corridor, as the most evidence of wildlife were observed within and around this habitat. Additionally, carnivore scat, including feral pig, was found in display piles at the top of rocks within easy access of the intermittent stream and other established vegetation management trails and outcrops within the Study Area. The surrounding area consists primarily of vineyard agriculture and open space. Highway 128 is present approximately one mile to the north of the Study Area. Long Ranch Road bisects the Study Area along the western and southern borders of the Study Area. Adjacent operating vineyards that border the Study Area to the west, northwest and south, have existing exclusionary fencing to preclude deer and feral pigs.

4.8 SPECIAL-STATUS SPECIES

Preliminary data review and special-status species searches list 51 special-status plant species and 11 special-status animal species with the potential to occur in the region. Further analysis determined that 12 special-status species plant species and three special-status animal species have the potential to occur within the Study Area. Species with no potential to occur were ruled out based on negative survey results and lack of suitable soils, elevations, substrates, and habitat requirements. The name, regulatory status, distribution, habitat requirements, period of identification, and potential to occur on the Study Area for each special-status species are listed in the Regionally Occurring Special-Status Species Table of **Attachment 3**.

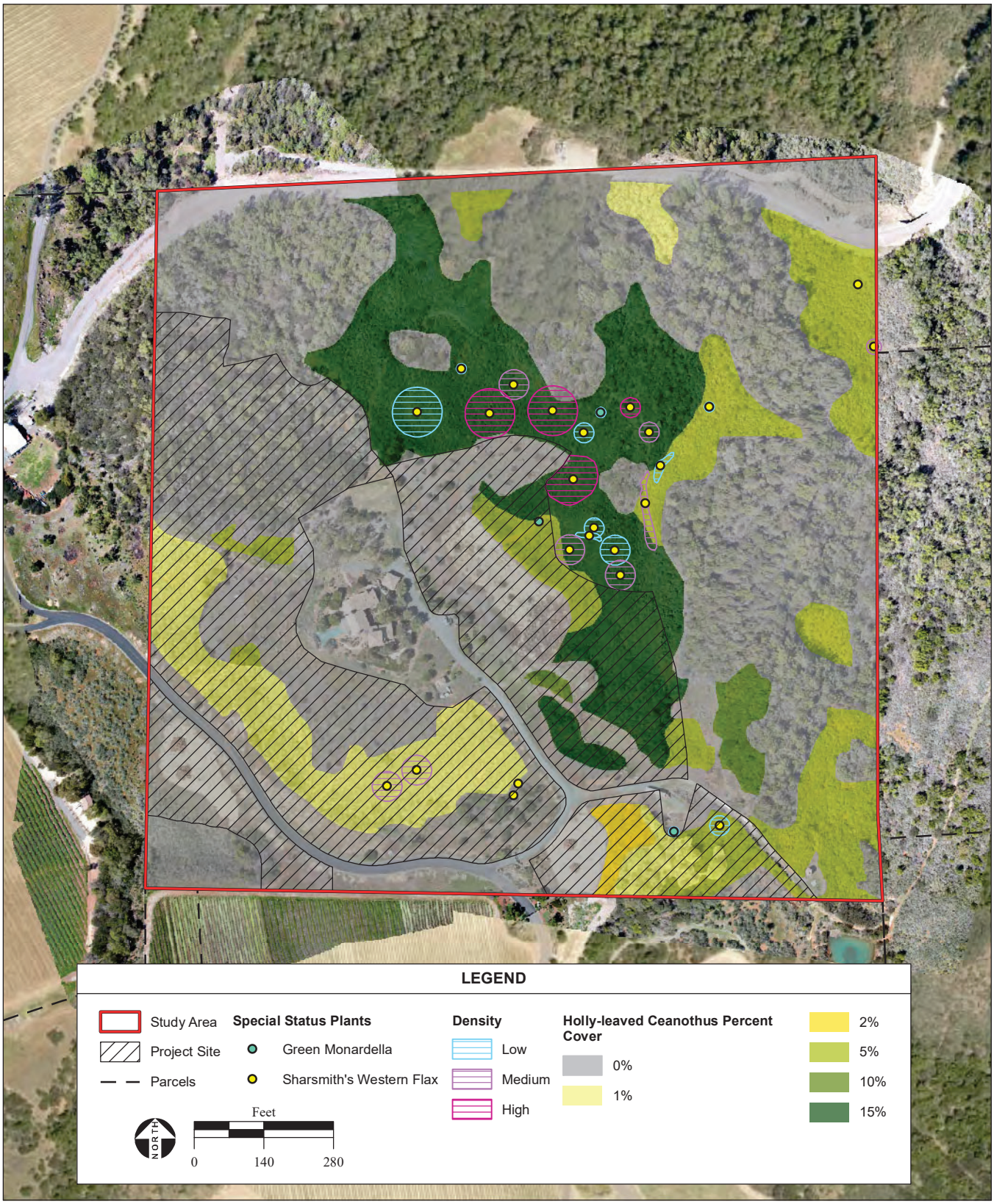
5.0 RESULTS & RECOMMENDED MITIGATION

5.1 SENSITIVE HABITATS

The Study Area consists of Chamise Alliance, Scrub Interior Live Oak – Scrub Oak, Disturbed/Managed, Developed, and Cleared Areas with < 5% Slope. None of these habitats are not considered sensitive by Napa County or CDFW. A majority of the acreage designated as disturbed/managed habitat is included within the Project Site and will be impacted through implementation of the Project (**Figure 7**).

5.2 WETLANDS AND WATERS OF THE U.S. AND STATE

Two ephemeral drainages and one intermittent stream occur within the Study Area (**Figure 5**). The ephemeral drainages are classified as a Class III drainages and the intermittent as a Class II.



SOURCE: County of Napa aerial photograph, 4/30/2021; ESRI, 2023; Montrose Environmental, 11/2/2023

Figure 7
Special Status Plants

Construction activities near streams that meet the Napa County definition of a stream will maintain setbacks in compliance with the Napa County Code of Ordinance, Conservation Regulations Code 18.108.025. **Table 2** shows the Napa County required stream setbacks per ground slope adjacent to the stream. For drainages that do not meet the Napa County definition of a stream, but are considered ephemeral streams, 35-foot minimum setbacks are maintained from the top of bank (Napa County Code Section 18.108.025). In accordance with these requirements and on-site bank slopes (over 5%), appropriate setbacks have been provided for drainages/streams in the vicinity of the Project Site as shown on the Proposed Project Erosion Control Plans (ECPs; **Attachment 6**). Additionally, implementation of **Recommended Mitigation 1** would reduce impacts to potential waters of the U.S. and state.

TABLE 2
NAPA COUNTY STREAM SETBACKS

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

Recommended Mitigation 1

- Temporary construction fencing shall be installed along the edges of stream bank setbacks prior to commencement of earthmoving activities and shall remain in place until construction in the vicinity of streams or drainages has been completed.
- Standard precautions shall be employed by the construction contractor to prevent accidental releases of fuel, oil, lubricant, or other hazardous materials associated with construction activities into nearby streams.
- All erosion control measures outlined in the ECP shall be adhered to.

5.3 Special-Status Species

Based on survey results and the review of regionally occurring special-status species and associated habitat requirements, the Study Area may contain suitable habitat for 12 special-status plant species: Napa false indigo, narrow-anthered brodiaea, holly-leaved ceanothus, Sharsmith's western flax, two-carpellate western flax, Jepson's leptosiphon, Napa lomatium, Mt. Diablo cottonweed, green monardella, Sonoma beardtongue, green jewelflower, and dark-mouthed triteleia. Special-status plant species were observed within the Study Area during the surveys. No special-status lichens or bryophytes were observed. The Study Area may contain suitable habitat for three special-status animal species: foothill yellow-legged frog (FYLF), western (northwestern) pond turtle (WPT), and white-tailed kite. Although the likelihood is low, the FYLF, north coast DPS, and western (northwestern) pond turtle may utilize the intermittent stream and adjacent stockpond. The intermittent stream is dry during the summer months and therefore the potential for these species to occur would be seasonally limited. The Proposed Project was designed following the Napa County Code of Ordinance stream setback of 65 feet for this feature and therefore potential impacts to FYLF and WPT would be reduced. Additionally with implementation of **Recommended Mitigation 1,**

potential impacts to these species would be further reduced. Special-status plant species observed within the Study Area are shown in **Figure 7**. Special-status plant species will be impacted as part of the Proposed Project; however, as shown in **Figure 7**, the project has been designed to avoid and minimize impacts to special-status plant species to the maximum extent feasible. Mitigation is required for impacts to special-status plant species, and will likely involve avoidance, preservation, and/or restoration at a 2:1 ratio. Avoidance has largely been accounted for in project design. Special-status plant species acreage and individual count estimates resulting from the surveys are presented in **Table 3** along with proposed mitigation quantities for preservation outside of the Project Site.

TABLE 3
SPECIAL-STATUS PLANT SPECIES OBSERVED IN THE STUDY AREA

Special-Status Species Occurring in Study Area	CRPR* Status	Individuals /Acres Within Study Area	Individuals /Acres Within Project Site	Individuals /Acres Outside Project Site	2:1 Preservation Target	Available Preservation Ratio
Holly-leaved Ceanothus	1B.2	1.41	0.34	1.07	0.68	3.15:1
Sharsmith's Western Flax	1B.2	202,302	17,191	185,111	34,382	10.8:1
Green Monardella	4	78	9	70	18	7.8:1
* CRPR: California Rare Plant Rank						

Holly-leaved Ceanothus stands were mapped using drone imagery and ground-truthed with pedestrian surveys. Percent cover of holly-leaved ceanothus within stands were determined with three randomized five-meter plots within a habitat type. Additional plots were sampled for percent cover if the habitat type covered larger areas. Sharsmith's Western Flax stands were mapped using a centroid point and a radius that captured the limits of the stand. A density for each stand was determined by averaging the total number of individuals in three one-meter quadrats sampled randomly within each stand. Green monardella stands were counted by fisically determining individuals. These three special-status plants were observed within the chamise alliance habitat-type or the ecotone with other habitat types.

Sharsmith's western flax is an annual known to germinate in disturbed conditions. Although the populations of Sharsmith's western flax within the Study Area were limited to chamise habitat, this species is an annual that can spread into disturbed habitats. Due to annual variation in weather patterns the populations of this species may vary from year to year. It is assumed that additional individuals of special-status plants may exist within suitable habitat beyond what was observed during the surveys.

As shown in **Table 3**, avoidance of suitable habitat acreage outside of the Project Site and within the Study Area will ensure there is no net loss of these special-status plant species. **Recommended Mitigation 2** will reduce and mitigate impacts to special-status plants because of the Proposed Project.

Recommended Mitigation 2

- In accordance with Napa County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) any special-status plants/populations inadvertently removed as part of the Long Ranch vineyard development shall be replaced on-site at a ratio of 2:1 at locations with similar habitat. For such removal a Habitat Management and Replacement plan shall be

prepared by a qualified botanist or ecologist for review and approval by the County prior to vineyard planting.

- At a minimum, the replacement plan shall include i) a site plan showing the locations where replacement plants will be planted, ii) a plant pallet composed the special-status plans specie(s) being removed including sizes and/or application rates, iii) planting notes and details including any recommended plant protection measures, iv) invasive species removal and management specifications, v) an implementation and monitoring schedule, and vi) performance standards with a minimum success rate of 80% to ensure the success of re-vegetation efforts.
- Any replaced special-status plants shall be monitored for a period of at least three years to success criteria are met.
- Fencing shall be installed along the perimeter of the proposed Project Site in order to protect preserved special-status plant populations from grading effects, dust and sediment migration.

5.4 Nesting Migratory Birds

Areas within 500 feet of construction may provide potential nesting habitat for migratory birds. The general nesting season for migratory birds occurs from February 1 through September 15. Construction activities have the potential to impact populations of nesting migratory birds within the Study Area should such activities occur during the general nesting season. Implementation of **Recommended Mitigation 3** would reduce potential impacts to nesting migratory birds.

Recommended Mitigation 3

- Should construction activities associated with the Proposed Project occur during the general nesting season (February 1 to September 15), a preconstruction nesting bird survey shall be conducted no more than 7 days prior to the start of ground-disturbing activities. Areas within 500 feet of construction shall be surveyed for active nests.
- Should an active nest be identified, an avoidance buffer shall be established by a qualified biologist based on the needs of the species identified. Avoidance buffers may vary in size depending on habitat characteristics, project-related activities, and disturbance levels.
- Avoidance buffers shall remain in place until the end of the general nesting season or upon a determination by a qualified biologist that young have fledged or the nest has failed.
- Should work activity cease for 7 days or greater during the breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.

5.5 Critical Habitat

There is no USFWS-designated critical habitat within the vicinity of the Project Site or Study Area. Therefore, the Proposed Project would not affect USFWS critical habitat.

5.6 Vegetation understory

The Project Site has been designed in accordance with the Vegetation Preservation and Replacement component of the Napa County Code 18.108.027 and Policy CON 18, which requires a minimum of 40 percent retention of the vegetation understory present in 1993 within a County designated sensitive domestic water supply watershed.

The Study Area is within two watersheds: Vinehill Creek and Lake Hennessey. Lake Hennessey watershed is a County designated municipal sensitive domestic water supply watershed (**Figure 8**). The Lake Hennessey

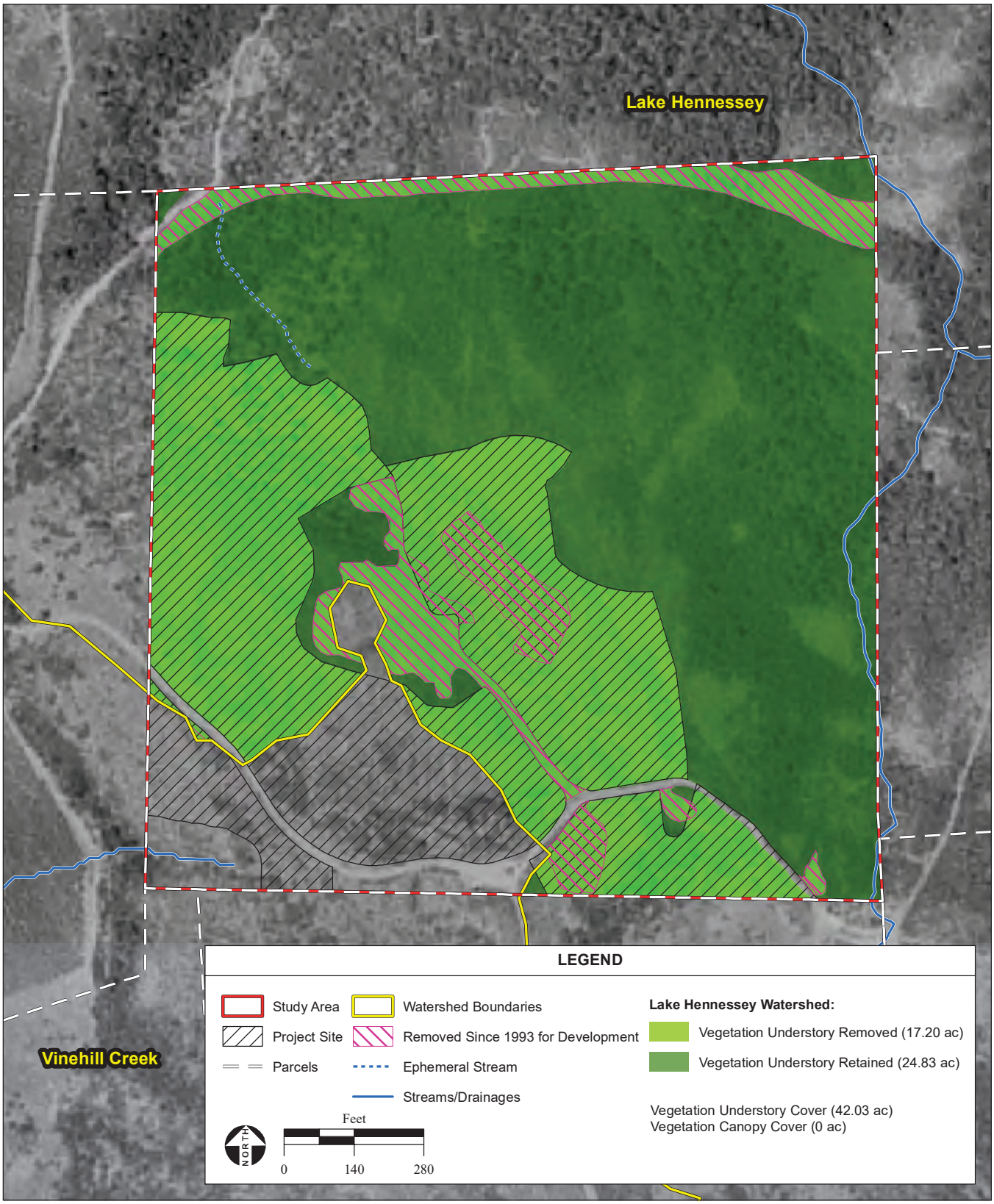
watershed encompasses approximately 86.6 percent of the Study Area. The Proposed Project meets the County's goals of vegetation understory retention for a municipal sensitive domestic water supply watershed with 59.08 percent of the vegetation understory of the Lake Hennessey watershed as retained within the Study Area (1993 County APN 032-560-027) (**Table 4** and **Figure 8**).

TABLE 4
1993 VEGETATION UNDERSTORY RETENTION

Watershed	Vegetation Understory Removed (ac)	Vegetation Understory Retained (ac)	Total Vegetation Understory Cover (ac)	Percent Vegetation Understory Retained (%)
Lake Hennessey	17.2	24.83	42.03	59.08%
Vinehill	4.94 Total			

5.7 WILDLIFE MOVEMENT

The Study Area is located within the mapped California Essential Connectivity Project and ranked as 4 - Conservation Planning Linkages (CDFW 2024b). Wildlife use the intermittent stream corridor for movement, as evidenced by of wildlife observed within and around this habitat. The Proposed Project will retain the integrity of the core habitat most suitable for wildlife movement such as the intermittent stream and the scrub interior live oak – scrub oak habitats. Existing barriers to wildlife movement into the Study Area include Long Ranch Road, exclusionary fencing from adjacent vineyards that border the southern, western, and northwestern boundaries of the Study Area. The Proposed Project is bound by these existing wildlife movement barriers. If exclusionary fencing is installed for the Proposed Project, it would not constitute a new barrier to wildlife movement and therefore would not be considered a significant impact.



SOURCE: USGS "Yountville NW" Orthophoto, 1993; ESRI, 2023;
Montrose Environmental, 11/21/2023

Figure 8
1993 Vegetation Understory

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ATTACHMENTS

ATTACHMENT 1

DATABASE QUERY RESULTS

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: **5-mile Radius** BIOS selection

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABH01051	***Rana boylii pop. 1*** foothill yellow-legged frog - north coast DPS	None	None	G3T4	S4	SSC
ABNFD01020	***Nannopterum auritum*** double-crested cormorant	None	None	G5	S4	WL
ABNGA04010	***Ardea herodias*** great blue heron	None	None	G5	S4	
ABNGA04040	***Ardea alba*** great egret	None	None	G5	S4	
ABNKC06010	***Elanus leucurus*** white-tailed kite	None	None	G5	S3S4	FP
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC19070	***Buteo swainsoni*** Swainson's hawk	None	Threatened	G5	S4	
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G4	S3	SSC
ARAAD02030	***Emys marmorata*** western pond turtle	Proposed Threatened	None	G3G4	S3	SSC
ICMAL05D70	***Stygobromus cowani*** Cowan's amphipod	None	None	G1	S1	
IIHYM24380	***Bombus caliginosus*** obscure bumble bee	None	None	G2G3	S1S2	
IMBIV19010	***Gonidea angulata*** western ridged mussel	None	None	G3	S2	
PDAPI0Z130	***Eryngium jepsonii*** Jepson's coyote-thistle	None	None	G2	S2	1B.2
PDAST3M5G0	***Erigeron greenei*** Greene's narrow-leaved daisy	None	None	G3	S3	1B.2
PDAST5N0F0	***Layia septentrionalis*** Colusa layia	None	None	G2	S2	1B.2
PDBOR01070	***Amsinckia lunaris*** bent-flowered fiddleneck	None	None	G3	S3	1B.2
PDBRA2G510	***Streptanthus hesperidis*** green jewelflower	None	None	G2G3	S2S3	1B.2
PDFAB0F240	***Astragalus claranus*** Clara Hunt's milk-vetch	Endangered	Endangered	G1	S1	1B.1
PDLAM220H0	***Trichostema ruygtii*** Napa bluecurls	None	None	G1G2	S2	1B.2
PDLIM02090	***Limnanthes vinculans*** Sebastopol meadowfoam	Endangered	Endangered	G1	S1	1B.1

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDLIN010E0	***Hesperolinon sharsmithiae*** Sharsmith's western flax	None	None	G2Q	S2	1B.2
PDPLM09140	***Leptosiphon jepsonii*** Jepson's leptosiphon	None	None	G2G3	S2S3	1B.2
PDRHA04160	***Ceanothus purpureus*** holly-leaved ceanothus	None	None	G2	S2	1B.2
PDSCR1L483	***Penstemon newberryi var. sonomensis*** Sonoma beardtongue	None	None	G4T3	S3	1B.3
PMLIL0C022	***Brodiaea leptandra*** narrow-anthered brodiaea	None	None	G3?	S3?	1B.2

Record Count: 25

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

51 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812254:3812253:3812244:3812243**]

▲ SCIENTIFIC NAME	COMMON NAME	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Amorpha californica var. *napensis*	Napa false indigo	None	None	G4T2	S2	1B.2
Amsinckia lunaris	bent-flowered fiddleneck	None	None	G3	S3	1B.2
Aphyllon validum ssp. *howellii*	Howell's broomrape	None	None	G4T3	S3	4.3
Arctostaphylos stanfordiana ssp. *decumbens*	Rincon Ridge manzanita	None	None	G3T1	S1	1B.1
Astragalus breweri	Brewer's milk-vetch	None	None	G3	S3	4.2
Astragalus claranus	Clara Hunt's milk-vetch	FE	CE	G1	S1	1B.1
Astragalus clevelandii	Cleveland's milk-vetch	None	None	G4	S4	4.3
Brodiaea leptandra	narrow-anthered brodiaea	None	None	G3?	S3?	1B.2
Calamagrostis ophitidis	serpentine reed grass	None	None	G3	S3	4.3
Calystegia collina ssp. *oxyphylla*	Mt. Saint Helena morning-glory	None	None	G4T3	S3	4.2
Castilleja ambigua var. *ambigua*	johnny-nip	None	None	G4T4	S3S4	4.2
Castilleja ambigua var. *meadii*	Mead's owls-clover	None	None	G4T1	S1	1B.1
Ceanothus confusus	Rincon Ridge ceanothus	None	None	G1	S1	1B.1
Ceanothus divergens	Calistoga ceanothus	None	None	G2	S2	1B.2
Ceanothus pinetorum	Kern ceanothus	None	None	G3	S3	4.3
Ceanothus purpureus	holly-leaved ceanothus	None	None	G2	S2	1B.2
Ceanothus sonomensis	Sonoma ceanothus	None	None	G2	S2	1B.2
Clarkia breweri	Brewer's clarkia	None	None	G4	S4	4.2
Clarkia gracilis ssp. *tracyi*	Tracy's clarkia	None	None	G5T3	S3	4.2
Collomia diversifolia	serpentine collomia	None	None	G4	S4	4.3
Cordylanthus tenuis ssp. *brunneus*	serpentine bird's-beak	None	None	G4G5T3	S3	4.3
Delphinium uliginosum	swamp larkspur	None	None	G3	S3	4.2
Downingia pusilla	dwarf downingia	None	None	GU	S2	2B.2
Erigeron biolettii	streamside daisy	None	None	G3?	S3?	3
Erigeron greenei	Greene's narrow-leaved daisy	None	None	G3	S3	1B.2
Eryngium jepsonii	Jepson's coyote-thistle	None	None	G2	S2	1B.2
Erythronium helenae	St. Helena fawn lily	None	None	G3	S3	4.2
Fritillaria purdyi	Purdy's fritillary	None	None	G4	S4	4.3
Harmonia nutans	nodding harmonia	None	None	G3	S3	4.3

Hesperolinon sharsmithiae	Sharsmith's western flax	None	None	G2Q	S2	1B.2
Layia septentrionalis	Colusa layia	None	None	G2	S2	1B.2
Leptosiphon aureus	bristly leptosiphon	None	None	G4?	S4?	4.2
Leptosiphon jepsonii	Jepson's leptosiphon	None	None	G2G3	S2S3	1B.2
Leptosiphon latisectus	broad-lobed leptosiphon	None	None	G4	S4	4.3
Limnanthes vinculans	Sebastopol meadowfoam	FE	CE	G1	S1	1B.1
Lomatium repostum	Napa lomatium	None	None	G3	S3	4.2
Lupinus sericatus	Cobb Mountain lupine	None	None	G2?	S2?	1B.2
Micropus amphibolus	Mt. Diablo cottonweed	None	None	G3G4	S3S4	3.2
Monardella viridis	green monardella	None	None	G3	S3	4.3
Navarretia cotulifolia	cotula navarretia	None	None	G4	S4	4.2
Navarretia leucocephala ssp. *bakeri*	Baker's navarretia	None	None	G4T2	S2	1B.1
Navarretia leucocephala ssp. *pauciflora*	few-flowered navarretia	FE	CT	G4T1	S1	1B.1
Navarretia rosulata	Marin County navarretia	None	None	G2	S2	1B.2
Penstemon newberryi var. *sonomensis*	Sonoma beardtongue	None	None	G4T3	S3	1B.3
Ranunculus lobbii	Lobb's aquatic buttercup	None	None	G4	S3	4.2
Sagittaria sanfordii	Sanford's arrowhead	None	None	G3	S3	1B.2
Sidalcea oregana ssp. *hydrophila*	marsh checkerbloom	None	None	G5T2	S2	1B.2
Streptanthus hesperidis	green jewelflower	None	None	G2G3	S2S3	1B.2
Toxicoscordion fontanum	marsh zigadenus	None	None	G3	S3	4.2
Trichostema ruygtii	Napa bluecurls	None	None	G1G2	S1S2	1B.2
Triteleia lugens	dark-mouthed triteleia	None	None	G4?	S4?	4.3

Showing 1 to 51 of 51 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 4 March 2024].

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: March 04, 2024
Project Code: 2024-0022753
Project Name: LONG RANCH VINEYARD DEVELOPMENT PROJECT

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0022753
Project Name: LONG RANCH VINEYARD DEVELOPMENT PROJECT
Project Type: Restoration / Enhancement - Agricultural
Project Description: VINEYARD DEVELOPMENT PROJECT
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.46716065,-122.34430410123778,14z



Counties: Napa County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

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

INSECTS

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

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered

FLOWERING PLANTS

NAME	STATUS
Contra Costa Goldfields *Lasthenia conjugens* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7058	Endangered
Few-flowered Navarretia *Navarretia leucocephala ssp. pauciflora (=N. pauciflora)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8242	Endangered
Sebastopol Meadowfoam *Limnanthes vinculans* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/404	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Cedrick Villasenor
Address: 1801 7th Street, Suite 100
City: Sacramento
State: CA
Zip: 95811
Email cvillasenor@montrose-env.com
Phone: 9164473479

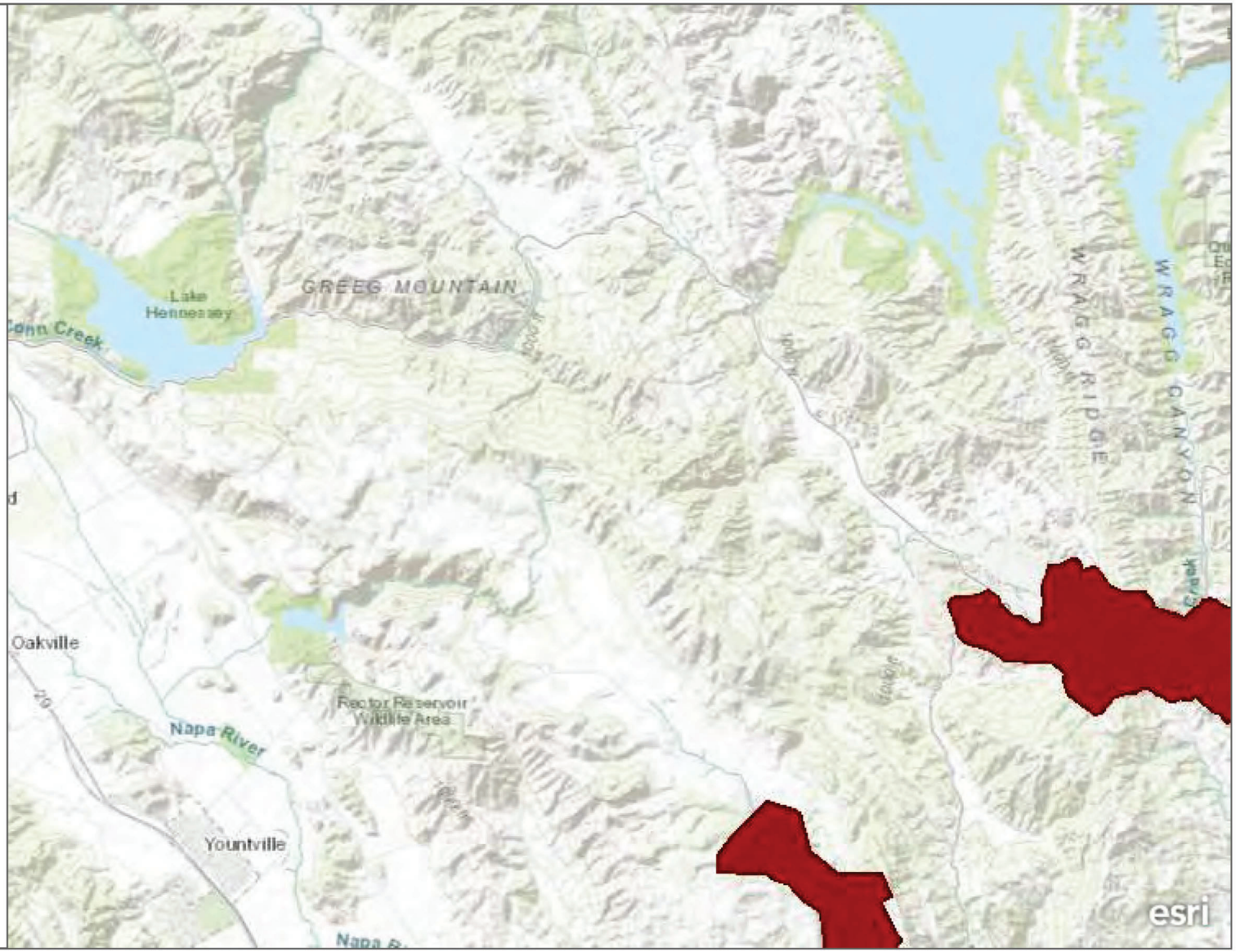
Critical Habitat for Threatened & Endangered Species [USFWS]

Final Polygon Features

Final Linear Features

Proposed Polygon Features

Proposed Linear Features



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

County of Napa, County of Solano, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Quad Name **Yountville**
Quad Number **38122-D3**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

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

Essential Fish Habitat

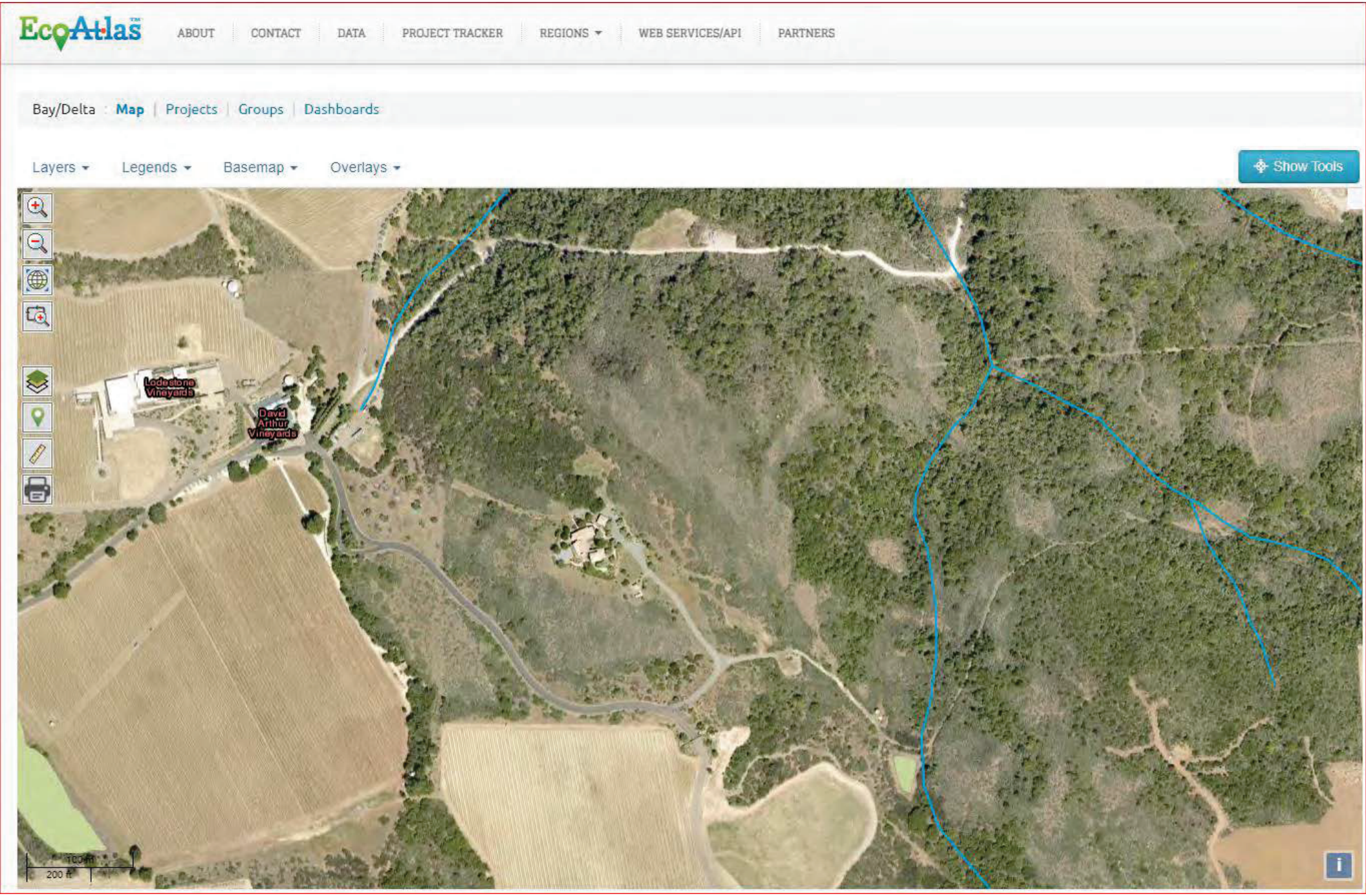
Coho EFH - **X**
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

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

MMPA Cetaceans -
MMPA Pinnipeds -


EcoAtlas
ABOUT
CONTACT
DATA
PROJECT TRACKER
REGIONS
WEB SERVICES/API
PARTNERS
Bay/Delta
Map
Projects
Groups
Dashboards
Layers
Legends
Basemap
Overlays
Show Tools
Lodestone Vineyards
David Arthur Vineyards
100 m
200 ft

Existing Aquatic Resources (CARI)

Rivers and Streams

- Fluvial
- Tidal

Lakes and Wetlands

Estuarine and Marine

- Eelgrass
- Tidal Flat and Marsh Panne
- Tidal Marsh
- Forested Tidal Wetland
- Managed and Muted Tidal Habitats
- Pond
- Subtidal Water
- Subtidal Vegetation
- Beach
- Dune
- Rocky Shore
- Tidal Channel

Palustrine and Riverine

- Pond and associated vegetation
- Lake, Reservoir, and associated vegetation
- Playa
- Fluvial Channel
- Riverine Vegetated
- Slope and Seep Wetlands
- Irrigated
- Vernal Pool Individual
- Vernal Pool Complex

ATTACHMENT 2

NRCS SOILS REPORT

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Napa County, California



March 4, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:3,400 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Napa County, California
Survey Area Data: Version 16, Sep 11, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
176	Rock outcrop-Hambright complex, 50 to 75 percent slopes	38.7	82.7%
179	Sobrante loam, 30 to 50 percent slopes	8.1	17.3%
Totals for Area of Interest		**46.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Napa County, California

176—Rock outcrop-Hambright complex, 50 to 75 percent slopes

Map Unit Setting

National map unit symbol: hdmg
Elevation: 200 to 3,000 feet
Mean annual precipitation: 23 to 35 inches
Mean annual air temperature: 59 to 63 degrees F
Frost-free period: 220 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 60 percent
Hambright and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Outcrop

Setting

Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Free face
Down-slope shape: Convex
Across-slope shape: Convex

Typical profile

H1 - 0 to 10 inches: unweathered bedrock

Properties and qualities

Slope: 50 to 75 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Description of Hambright

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Residuum weathered from basic volcanic rock

Typical profile

H1 - 0 to 12 inches: very stony loam
H2 - 12 to 22 inches: unweathered bedrock

Properties and qualities

Slope: 30 to 75 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 1.1 inches)

Interpretive groups
Land capability classification (irrigated): 7e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R015XY009CA - Hills 20-40"ppt
Hydric soil rating: No

179—Sobrante loam, 30 to 50 percent slopes

Map Unit Setting
National map unit symbol: hdmk
Elevation: 120 to 3,500 feet
Mean annual precipitation: 25 to 35 inches
Mean annual air temperature: 59 to 63 degrees F
Frost-free period: 220 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition
Sobrante and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sobrante

Setting
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone

Typical profile
H1 - 0 to 6 inches: loam
H2 - 6 to 30 inches: clay loam
H3 - 30 to 40 inches: bedrock

Properties and qualities
Slope: 30 to 50 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): 7e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R015XD126CA - LOAMY UPLAND
Hydric soil rating: No

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ATTACHMENT 3

REGIONALLY OCCURRING SPECIAL-STATUS SPECIES TABLE

ATTACHMENT 3

REGIONALLY OCCURRING SPECIAL-STATUS SPECIES TABLE

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
Plants					
Amorpha californica var. napensis Napa false indigo	--/--/1B.2	Known to occur in Sonoma, Napa, and Marin counties.	Occurs in openings within broadleaf upland forest, chaparral, and cismontane woodland communities at elevations that range from 12 to 2,000 meters amsl.	April-July	**Yes**, suitable habitat present in Study Area.
Amsinckia lunaris Bent-flowered fiddleneck	--/--/1B.2	Known to occur in Alameda, Contra Costa, Colusa, Lake, Marin, Napa, San Benito, Santa Clara, Santa Cruz, San Mateo, and Yolo counties	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland communities at elevations that range from 3 to 500 meters amsl.	March-June	**No**, the Study Area lacks suitable habitat to support this species.
Aphyllon validum ssp. howellii Howell's broomrape	--/--/4.3	Known to occur in Tehama, Glenn, Lake, and Napa counties.	Known to occur in chapparal habitats. Requires serpentinite soils. Elevations range from 180-1740 meters amsl.	June-September	**No,** the Study Area lacks suitable habitat to support this species, serpentinite soil not present.
Arctostaphylos stanfordiana ssp. decumbens Rincon Ridge manzanita	--/--/1B.1	Known to occur in Napa and Sonoma counties.	Rhyolitic chaparral and cismontane woodland habitats at elevations from 75 to 370 meters amsl.	February-April	**No**, the Study Area lacks suitable habitat to support this species.
Astragalus breweri Brewer's milk-vetch	--/--/4.2	Known range includes Colusa, Lake, Mendocino, Marin, Napa, Sonoma, and Yolo counties.	Chaparral, cismontane woodland, meadows and seeps, and valley and foothill grasslands that are open, often serpentine or volcanic. It occurs at elevations from 90 to 730 meters amsl.	April-June	**No**, the Study Area lacks suitable habitat to support this species.
Astragalus claranus Clara Hunt's milk-vetch	FE/CE/1B.1	Known to occur in Napa and Sonoma counties.	Openings within chaparral habitat, cismontane woodland, and valley and foothill grasslands that are serpentine, volcanic, rocky, or clay. It grows at elevations from 75 to 275 meters amsl.	March-May	**No,** the Study Area lacks suitable habitat to support this species, elevation out of range.
Astragalus clevelandii Cleveland's milk-vetch	--/--/4.3	Known to occur in Napa, Colusa, Lake, Sonoma, Tehama, and Yolo counties.	Perennial herb found in chaparral, cismontane woodland, and riparian forest habitats. Found in serpentinite seeps. Elevations range from 100-1500 meters amsl.	June-September	**No**, the Study Area lacks suitable habitat to support this species.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
Brodiaea leptandra narrow-anthered brodiaea	--/--/1B.2	Known to occur in Napa, Lake, and Sonoma counties.	A perennial bulbiferous herb found in mixed-evergreen forest, broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats. Usually on gravelly soils. Elevations range from 110-915 meters amsl.	May-July	**Yes**, the Study Area contains suitable habitat to support this species. No narrow-anthered brodiaea were observed. The nearest recent CNDDB occurrence is located within a mile of the Study Area.
Calamagrostis ophitidis serpentine reed grass	--/--/4.3	Known to occur in Marin, Sonoma, Napa, and Lake counties.	Meadows, seeps, grasslands, coniferous forests, and chapparal. Requires serpentinite soils.	April-July	**No**, the Study Area lacks suitable habitat to support this species.
Calystegia collina ssp. oxyphylla Mt. Saint Helena morning-glory	--/--/4.2	Known to occur in Marin, Mendocino, Sonoma, Napa, and Lake counties.	Chaparral, Lower montane coniferous forest, valley and foothill grassland. Requires serpentinite soils.	April-June	**No**, the Study Area lacks suitable habitat to support this species.
Castilleja ambigua var. *ambigua* Johnny-nip	--/--/4.2	Known to occur in Napa, Alameda, Contra Costa, Del Norte, Humboldt, Marin, Mendocino, San Mateo, Santa Cruz, Solano, and Sonoma counties.	Annual hemiparasitic herb found in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, and vernal pool margin habitats. Elevations range from 0-435 meters amsl.	March-August	**No,** the Study Area lacks suitable habitat to support this species.
Castilleja ambigua var. meadii Mead's owl's-clover	--/--/1B.1	Known to occur in Napa County.	An annual herb (hermiparasitic) found in gravelly, volcanic, and clay soils, in meadows and seeps, and vernal pools. Elevations range from 450-475 meters amsl.	April-May	**No,** the Study Area lacks suitable habitat to support this species, elevation out of range and soil type not present.
Ceanothus confusus Rincon Ridge ceanothus	--/--/1B.1	Known to occur in Lake, Mendocino, Napa, and Sonoma counties.	Occurs in closed-cone coniferous forest, chaparral, and cismontane woodland habitats at elevations ranging from 75 to 1,065 meters amsl.	February-June	**No,** the Study Area lacks suitable habitat to support this species.
Ceanothus divergens Calistoga ceanothus	--/--/1B.2	Known to occur in Lake, Napa, and Sonoma counties.	Chaparral habitats on serpentine or volcanic, rocky substrates from 170 to 510 meters amsl.	February-April	**No,** the Study Area lacks suitable habitat to support this species.
Ceanothus pinetorum Kern ceanothus	--/--/4.3	Known to occur in Kern, Napa, Marin, Shasta, Trinity, and Siskiyou counties.	Rocky granitic or metamorphic slopes and ridges, open pine forests. Elevation ranges from 1600–2600 m	May-July	**No,** the Study Area lacks suitable habitat to support this species.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
			amsl.		
Ceanothus purpureus holly-leaved ceanothus	--/--/1B.2	Known to occur in Napa, Solano, and Sonoma counties.	Perennial evergreen shrub found in cismontane woodland and chaparral habitats. Found in rocky, volcanic soils. Elevations range from 120-640 meters amsl.	February-June	**Yes**, suitable habitat present in Study Area. Individuals observed within the Study Area.
Ceanothus sonomensis Sonoma ceanothus	--/--/1B.2	Known to occur in Napa and Sonoma counties.	It occurs in chaparral habitat on sandy, serpentine, and volcanic soils. It grows at elevations ranging from 140-620 meters amsl.	February-April	**No,** the Study Area lacks suitable habitat to support this species.
Clarkia breweri Brewer's clarkia	--/--/4.2	Known to occur in Alameda, Santa Clara, Stanislaus, San Benito, Merced, Fresno, Monterey, Sonoma, and Napa counties.	It is found in serpentinite soils in chaparral, cismontane woodland, and coastal scrub habitats. Elevations range from 270-1380 meters amsl.	April-June	**No,** the Study Area lacks suitable habitat to support this species, serpentinite soil not present.
Clarkia gracilis ssp. *tracyi* Tracy's clarkia	--/--/4.2	Known to occur in Napa, Colusa, Lake, and Tehama counties.	Annual herb found in chaparral openings. Usually found in serpentinite soils. Elevations range from 65-650 meters amsl.	April-July	**No,** the Study Area lacks suitable habitat to support this species, serpentinite soil not present.
Collomia diversifolia Serpentine collomia	--/--/4.3	Known to occur in Contra Costa, Colusa, Glenn, Lake, Mendocino, Napa, Shasta, Stanislaus, and Yolo counties.	It typically occurs in serpentinite soils within chaparral and cismontane woodland.	May-June	**No,** the Study Area lacks suitable habitat to support this species, serpentinite soil not present.
Cordylanthus tenuis ssp. brunneus Serpentine bird's-beak	--/--/4.3	Known to occur in Mendocino, Lake, Glenn, Colusa, Napa, and Sonoma counties.	Typically occurs with serpentine soils in mixed evergreen forests and chaparral. Elevations range from 200–1400 m amsl.	July-August	**No,** the Study Area lacks suitable habitat to support this species, serpentinite soil not present.
Delphinium uliginosum Swamp larkspur	--/--/4.2	Known to occur in Butte, Mendocino, Lake, Colusa, and Napa counties.	Chaparral, grassland, and other habitat in the hills, typically on serpentine soils. Elevations range from 290-740 m amsl.	May-June	**No,** the Study Area lacks suitable habitat to support this species, serpentinite soil not present.
Downingia pusilla dwarf downingia	--/--/2B.2	Known to occur in Napa, Fresno, Merced, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties. Also occurs in South America.	Annual herb found in valley and foothill grassland (mesic) and vernal pools and roadside ditches. Elevations range from 1-445 meters amsl.	March-May	**No,** the Study Area lacks suitable habitat to support this species, mesic habitat not present.
Erigeron biolettii	--/--/3	Known to occur in Humboldt, Mendocino,	Broadleafed upland forest, cismontane	June-October	**No,** the Study Area lacks

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
streamside daisy		Marin, Napa, Solano and Sonoma counties.	woodland, and on rocky, mesic substrates within coniferous forest habitats. It grows at elevations between 30 and 1,100 meters amsl.		suitable habitat to support this species, mesic habitat not present.
Erigeron greenei Greene's narrow-leaved daisy	--/--/1B.2	Known to occur in Napa, Colusa, Lake, and Sonoma counties.	Perennial herb found in serpentinite or volcanic chaparral. Elevations range from 80-1005 meters amsl.	May-September	**No,** the Study Area lacks suitable habitat to support this species.
Eryngium jepsonii Jepson's coyote thistle	--/--/1B.2	Known to occur in Napa, Alameda, Contra Costa, San Mateo, Solano, and Yolo counties.	Perennial herb found in clay vernal pools and valley and foothill grasslands. Elevations range from 3-300 meters.	April-August	**No,** the Study Area lacks suitable habitat to support this species.
Erythronium helenae St. Helena fawn lily	--/--/4.2	Known to occur in Lake, Sonoma, and Napa counties.	Chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland often with serpentinite soils at elevations from 350-1220 meters amsl.	March-May	**No,** the Study Area lacks suitable habitat to support this species.
Fritillaria purdyi Purdy's fritillary	--/--/4.3	Known to Colusa, Glenn, Humboldt, Lake, Mendocino, Napa, Tehama, Trinity, and Yolo counties.	Known to occur in chaparral, cismontane woodland, and lower montane coniferous forest usually in serpentinite soils from elevations of 175-2255 meters amsl.	March-June	**No,** the Study Area lacks suitable habitat to support this species.
Harmonia nutans Nodding harmonia	--/--/4.3	Known to occur in Napa, Lake, Solano, Sonoma, and Yolo counties.	Annual herb found in chaparral and cismontane woodland habitats. Found in rocky or gravelly, volcanic soils. Elevations range from 75-975 meters amsl.	March-June	**No,** the Study Area lacks suitable habitat to support this species.
Hesperolinon sharsmithiae Sharsmith's western flax	--/--/1B.2	Known to occur in Napa and Lake counties.	Annual herb found in chaparral habitats on serpentinite substrate. Elevations range from 270-300 meters amsl.	May-July	**Yes**, suitable habitat present in Study Area. Individuals observed.
Hesperolinon bicarpellatum Two-carpellate western flax	--/--/1B.2	Known to occur in Lake, Napa, and Sonoma counties.	Annual herb found in chaparral habitats and serpentinite soils. Elevations range from 60-1005 meters amsl.	May-July	**Yes**, suitable habitat present in Study Area. The nearest recent CNDDB occurrence is located within a half-mile of the Study Area.
Layia septentrionalis	--/--/1B.2	Known to occur in Butte, Colusa, Glenn, Lake,	It occurs in chaparral, cismontane	April-May	**No,** the Study Area lacks

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
Colusa layia		Mendocino, Napa, Sonoma, Sutter, Tehama, and Yolo counties.	woodland, and valley and foothill grassland habitats, frequently occurring on sandy or serpentinite substrates. It can be found at elevations ranging from 100 to 1,095 meters amsl.		suitable habitat to support this species.
Leptosiphon acicularis Bristly leptosiphon	--/--/4.2	Found in Napa, Alameda, Butte, Colusa, Humboldt, Kern, Lake, Marin, Mendocino, Placer, San Benito, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, and Yuba counties.	Annual herb found in coastal prairie, chaparral, cismontane woodland, and valley and foothill grassland. Elevations range from 55-1500 meters amsl.	April-July	**No,** the Study Area lacks suitable habitat to support this species.
Leptosiphon jepsonii Jepson's leptosiphon	--/--/1B.2	Known to occur in Napa, Lake, Solano, Sonoma, and Yolo counties.	Annual herb found in chaparral, cismontane woodland, and valley and foothill grassland. Typically occurs in volcanic soils. Elevations range from 100-500 meters amsl.	March-May	**Yes**, suitable habitat present in Study Area. The nearest recent CNDDB occurrence is located within 1.2-miles of the Study Area.
Leptosiphon latisectus broad-lobed leptosiphon	--/--/4.3	Known to occur in Napa, Colusa, Del Norte, Humboldt, Lake, Marin, Mendocino, Monterey, San Benito, San Francisco, San Mateo, Shasta, Sonoma, Tehama, and Trinity counties.	Annual herb found in broad-leafed upland forest and cismontane woodland. Elevation range 170-1500 meters amsl.	April-June	**No,** the Study Area lacks suitable habitat to support this species.
Limnanthes vinculans Sebastopol meadowfoam	FE/CE/1B.1	Known to occur in Napa and Sonoma counties. Possible extirpated in Napa.	Annual herb found in vernally mesic meadows and seeps, valley and foothill grassland, and vernal pools. Elevations range from 15-305 meters amsl.	April-May	**No,** the Study Area lacks suitable habitat to support this species.
Lomatium repostum Napa lomatium	--/--/1B.2	Known to occur in Napa, Lake, Solano, and Sonoma counties.	Perennial herb found in chaparral and cismontane woodland habitats. Found in serpentinite soils. Elevations range from 90-1030 meters amsl.	March-June	**Yes**, suitable habitat present in Study Area. Individuals observed.
Lupinus sericatus Cobb Mountain lupine	--/--/1B.2	Known to occur in Colusa, Lake, Napa, and Sonoma counties.	Broadleaf upland forest, chaparral, cismontane woodland, and lower montane coniferous forest communities at elevations that range from 420-930 meters amsl.	March-June	**No,** the Study Area lacks suitable habitat to support this species.
Micropus amphibolus Mt. Diablo cottonweed	--/--/3.2	Known to occur in Napa, Lake, Marin, Monterey, San Joaquin, and Santa Cruz counties.	Annual herb found in broadleafed upland forest, chaparral, cismontane woodland, and valley and foothill grassland habitats. Found in rocky soils.	March-May	**Yes**, suitable habitat present in Study Area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
			Elevations range from 45-825 meters amsl.		
Monardella viridis green monardella	--/--/4.3	Known to occur in Napa, Lake, Los Angeles, Mendocino, and Sonoma counties.	Perennial rhizomatous herb found in broadleafed upland forest, chaparral, and cismontane woodland. Elevations range from 100-1010 meters amsl.	June-September	**Yes**, suitable habitat present in Study Area. Individuals observed within the Study Area.
Navarretia cotulifolia Cotula navarretia	--/--/4.2	Known to occur in Fresno, Stanislaus, Santa Clara, Alameda, Contra Costa, Solano, Yolo, Sutter, Glenn, Colusa, Lake, Napa, and Sonoma counties.	Almost always found in wetlands within chaparral, foothill woodland, valley grassland, and wetland-riparian areas. It is found at elevations less than 500 ft amsl.	May-June	**No,** the Study Area lacks suitable habitat to support this species.
Navarretia leucocephala ssp. bakeri Baker's navarretia	--/--/1B.1	Known to occur in Colusa, Glenn, Lake, Lassen, Mendocino, Marin, Napa, Solano, Sonoma, Sutter, Tehama, and Yolo counties.	Occurs in mesic soils in cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools.	April-July	**No,** the Study Area lacks suitable habitat to support this species, mesic habitat not present.
Navarretia leucocephala ssp. pauciflora few-flowered navarretia	FE/CT/1B.1	Known to occur in Napa and Lake counties.	Annual herb occurs in vernal pools (volcanic ash flow). Elevations range from 400-855 meters amsl.	May-June	**No**, suitable habitat for this species not present within Study Area, vernal pools not present.
Navarretia rosulata Marin County navarretia	--/--/1B.2	Known to occur in Marin and Napa counties.	Occurs in chaparral and closed-cone coniferous forest communities at elevations that range from 200-635 meters amsl.	May-July	**No,** the Study Area lacks suitable habitat to support this species.
Penstemon newberryi var. sonomensis Sonoma beardtongue	--/--/1B.3	Known to occur in Napa, Lake, and Sonoma counties.	Perennial herb found in rocky chaparral habitat. Elevations range from 700-1370 meters amsl.	April-August	**Yes**, suitable habitat to support this species present in Study Area. CNDDB occurrence is approximately 1 mile away.
Ranunculus lobbii Lobb's aquatic buttercup	--/--/4.2	Known to occur in Napa, Alameda, Contra Costa, Lake, Marin, Mendocino, Monterey, Sacramento, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma counties.	Aquatic annual herb found in cismontane woodland, North Coast coniferous forest, valley and foothill grassland, and vernal pool habitats. Found in mesic soils. Elevations range from 15-470 meters amsl.	February-May	**No**, suitable habitat for this species not present within Study Area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
Sagittaria sanfordii Sanford's arrowhead	--/--/1B.2	Known to occur in Napa, Butte, Del Norte, El Dorado, Fresno, Madera, Marin, Mariposa, Merced, Sacramento, San Bernardino, San Joaquin, Shasta, Solano, Sutter, Tehama, Tulare, Ventura, and Yuba counties. However, it is presumed extirpated in Ventura county.	Perennial rhizomatous herb found in marshes and swamps (assorted shallow freshwater). Elevations range from 0-650 meters amsl.	May-October (November)	**No**, suitable habitat for this species not present within Study Area.
Sidalcea oregana ssp. hydrophila marsh checkerbloom	--/--/1B.2	Known to occur in Glenn, Lake, Mendocino and Napa counties.	It occurs in meadows, seeps, and in mesic soils within riparian forest. It is found at elevations ranging from 1,100-2,300 meters amsl.	July-August	**No,** the Study Area lacks suitable habitat to support this species, mesic habitat not present.
Streptanthus hesperidis green jewelflower	--/--/1B.2	Known to occur in Napa, Lake, and Yolo counties.	Annual herb that occurs on serpentinite, rocky substrates. Found in chaparral (openings) and cismontane woodland habitats. Elevations range from 130 to 760 meters amsl.	May-July	**Yes**, suitable habitat to support this species present in Study Area. The nearest CNDDB occurrence is approximately 2 miles away.
Toxicoscordion fontanum marsh zigadenus	--/--/4.2	Known to occur in Lake, Mendocino, Monterey, Marin, Napa, San Benito, Santa Cruz, San Luis Obispo, San Mateo, and Sonoma counties.	It is found in chaparral, cismontane woodland, lower montane coniferous forest, meadow, seep, marsh, and swamp habitats. It is also found in vernally mesic, often serpentinite soils. Elevations range from 15-1000 meters amsl.	April-July	**No,** the Study Area lacks suitable habitat to support this species, mesic habitat and serpentinite soils not present.
Trichostema ruygtii Napa bluecurls	--/--/1B.2	Known to occur in Napa, Lake, Solano, and Sonoma counties.	Annual herb found in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and vernal pools. Elevations range from 30-680 meters amsl.	June-October	**No**, suitable habitat for this species not present within Study Area.
Triteleia lugens dark-mouthed triteleia	--/--/4.3	Known to occur in Lake, Monterey, Napa, San Benito, Solano, and Sonoma counties.	Broadleaf upland forest, chaparral, coastal scrub, and lower montane coniferous forest typically alongside streams. It occurs at elevations ranging form 100-1000 meters amsl.	April-June	**Yes**, suitable habitat present in Study Area. The nearest recent CNDDB occurrence is located within 2-miles of the Study Area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
Animals					
Invertebrates					
Branchinecta conservatio Conservancy fairy shrimp	FE/--/--	The species is currently known from several disjunct populations: the Vina Plains in Tehama County, south of Chico in Butte County, the Jepson Prairie Preserve and surrounding area in Solano County, Sacramento National Wildlife Refuge in Glenn County, Mapes Ranch west of Modesto, San Luis National Wildlife Refuge and the Haystack Mountain/Yosemite Lake area in Merced County, and two locations on the Los Padres National Forest in Ventura County.	Endemic to vernal pools in the northern two-thirds of the Central Valley.	December-May	**No**, suitable habitat for this species is not present within Study Area.
Danaus plexippus Monarch butterfly	FC/--/--	Known to occur in Mexico and north America. Populations that occur where winter conditions are not suitable travel along well-established migratory routes to overwintering areas. Overwintering sites are known to occur in Mexico and coastal California.	Migratory populations begin migration in the fall and can be found along established migratory routes where nectar sources are available. During breeding (typically February to March), monarch butterflies require milkweed to lay their eggs on. Overwintering monarchs require sites with sufficient roosts for the population (such as eucalyptus trees) that provide appropriate sunlight and shelter from the wind. Where climate is suitable for year-round habitation, monarchs are found in areas with nectar sources and milkweed as breeding can occur yearround.	Year-round	**No.** Suitable habitat for this species not present on site.
Amphibians					
Rana boylii pop. 1 foothill yellow-legged frog – north coast DPS	--/CSC/--	Known from California and Oregon.	Require shallow, flowing water in moderate sized streams with some cobble substrate.	November-March (breeding) June-August (non-breeding)	**Yes**, suitable habitat for this species is present within Study Area. Intermittent stream provides suitable habitat for this species. The neares CNDDB occurrences

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
					are within 3-miles of the Study Area.
Rana draytonii California red-legged frog	FT/CSC/--	Known to occur along the Coast from Mendocino County to Baja California, and inland through the northern Sacramento Valley into the foothills of the Sierra Nevada mountains, south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central Valley.	Occurs in permanent and temporary pools of streams, marshes, and ponds with dense grassy and/or shrubby vegetation. Elevations range from 0-1160 meters.	November – March (breeding) June - August (non-breeding)	**No**, suitable habitat for this species not present within Study Area.
Reptiles					
Emys (Actinemys) marmorata western (northwestern) pond turtle	FPT/CSC/--	Distribution ranges from Washington to northern Baja California.	Inhabit rivers, streams, lakes, ponds, reservoirs, stock ponds, and permanent wetland habitats with basking sites.	Year-round	**Yes**, suitable habitat to support this species is present within Study Area. The nearest CNDDB occurrence is within 2 miles of the Study Area.
Birds					
Elanus leucurus White-tailed kite	--/FP/--	Permanent resident of coastal and Valley lowlands.	Habitats include savannah, open woodland, marshes and swamps, partially cleared lands and cultivated fields, mostly in lowland habitats. Open groves, river valleys, marshes, grasslands. Nesting occurs in trees. Found in a wide variety of open habitats in North America, including open oak grassland, desert grassland, farm country, marshes. Main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents.	All Year	**Yes**, suitable habitat to support this species present in Study Area. The nearest CNDDB occurrence is approximately 3 miles away.
Haliaeetus leucocephalus Bald eagle	--/CE, FP/--	The State's breeding territories are in northern California, but the eagles also nest in scattered locations in the central and southern Sierra Nevada mountains and foothills, in several locations from the central coast range to inland southern California, and on several	Found in mountain and foothill forests and woodlands near ocean shorelines, lakes, reservoirs, river systems, and coastal wetlands. Most Usually less than 2 km to water that offers foraging opportunities. Suitable foraging habitat	Year-round	**No**, suitable habitat for this species not present within Study Area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	IDENTIFICATION PERIOD	POTENTIAL TO OCCUR WITHIN STUDY AREA
		California islands. Winters throughout most of California.	consists of large bodies of water or rivers with abundant fish and adjacent perching sites such as snags or large trees.		
Phalacrocorax auritus Double-crested cormorant	--/WL/--	A yearlong resident along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters.	Colonial nester on coastal cliffs, offshore islands and along lake margins in the interior of the state. Prefers water less than 9 meters deep with rocky or gravel bottom. Roosts beside water on offshore rocks, islands, steep cliffs, dead branches of trees, wharfs, jetties, or transmission lines. Perching sites must be barren of vegetation.	All Year	**No**, suitable habitat for this species not present within Study Area.
Strix occidentalis caurina Northern spotted owl	FT/CT; CSC/--	Geographic range extends from British Colombia to northwestern California south to San Francisco. The breeding range includes the Cascade Range, North Coast Ranges, and the Sierra Nevada. Some breeding populations also occur in the Transverse Ranges and Peninsular Ranges.	Resides in mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2,300 meters. Appear to prefer old-growth forests, but use of managed (previously logged) lands is not uncommon. Nesting habitat is a tree or snag cavity, or the broken top of a large tree. Requires a nearby, permanent source of water. Foraging habitat consists of any forest habitat with sufficient prey (e.g. flying squirrels, mice, and voles).	Year-round	**No**, suitable habitat to support this species present in Study Area, forest-specific habitats not present.
Mammals					
Antrozous pallidus Pallid bat	--/CSC/--	Locally common species at low elevations. It occurs throughout California except for the high Sierra Nevada from Shasta to Kern County, and the northwestern corner of the state from Del Norte and western Siskiyou County to northern Mendocino county.	Habitats occupied include grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests, generally below 2,000 meters. The species is most common in open, dry habitats with rocky areas for roosting. Roosts also include cliffs, abandoned buildings, bird boxes, under exfoliating bark, and under bridges.	Year-round	**No**, suitable habitat for this species not present within Study Area. Trees are nearly absent and shallow rock outcrops and yound, tightly barked trees do not provide suitable roosting.
SOURCE: **Attachment 1**					

STATUS CODES

FEDERAL: United States Fish and Wildlife Service

FE Federally Endangered
FT Federally Threatened
FC Candidate for Federal Listing
FPE Federally Proposed Endangered
FPT Federally Proposed Threatened

STATE: California Department of Fish and Game

CE California Listed Endangered
CT California Listed Threatened
CCE California Candidate Endangered
CCT California Candidate Threatened
CSC California Species of Special Concern
CR Caliofrnia Rare
FP California Fully Protected
WL California Watch List

CNPS: California Native Plant Society (California Rare Plant Rank [CRPR])

1A Plants Presumed Extinct in California
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants about Which We Need More Information – A Review List
4 Plants of Limited Distribution – A Watch List

CNPS Threat Ranks

0.1 - Seriously threatened in California
0.2 - Fairly threatened in California
0.3 - Not Very Threatened in California

ATTACHMENT 4

LIST OF VASCULAR PLANTS OBSERVED

List of vascular plant species observed within the Study Area
during surveys conducted on April 12, and June 13, 2023.

Scientific Name	Common Name	Family
Acer negundo	box elder	Aceraceae
Achillea millefolium	yarrow	Asteraceae
Acmispon americanus var. americanus	Spanish lotus	Fabaceae
Acmispon glaber var. glaber	deerweed	Fabaceae
Adenostoma fasciculatum	chamise	Asteraceae
Adiatum jordanii	California maidenhair	Pteridaceae
Aesculus californica	buckeye	Sapindaceae
Agoseris grandiflora	giant mountain dandelion	Asteraceae
Agoseris retrorsa	retrorse mountain dandelion	Asteraceae
Aira caryophyllea	European silver hairgrass	Poaceae
Amsinkia sp.	fiddleneck	Boraginaceae
Anthriscus caucalis	bur-chervil	Apiaceae
Aphanes occidentalis	field parsley piert	Rosaceae
Aquilegia formosa	columbine	Ranunculaceae
Arbutus menziesii	madrone	Ericaceae
Arctostaphylos glandulosa ssp. glandulosa	Eastwood manzanita	Ericaceae
Arctostaphylos manzanita ssp. manzanita	common manzanita	Ericaceae
Artemisia douglasiana	California mugwort	Asteraceae
Asclepias cordifolia	purple milkweed	Apocynaceae
Avena barbata	slender wild oat	Poaceae
Avena fatua	wild oats	Poaceae
Baccharis pilularis	coyote brush	Asteraceae
Bellardia trixago	Mediterranean lineseed	Orobanchaceae
Brassica nigra	black mustard	Brassicaceae
Brassica rapa	field mustard	Brassicaceae
Briza maxima	rattlesnake grass	Poaceae
Briza minor	little rattlesnake grass	Poaceae
Brodiaea elegans ssp. elegans	harvest brodiaea	Themidaceae
Bromus carinatus	California brome	Poaceae
Bromus diandrus	ripgut brome	Poaceae
Bromus hordeaceus	soft chess	Poaceae
Bromus madritensis	foxtail chess	Poaceae
Calandrinia menziesii	red maids	Montiaceae
Calochortus amabilis	golden fairy lantern	Liliaceae
Calystegia collina ssp. collina	Coast range false bindweed	Convolvulaceae
Capsella bursa-pastoris	shepherd's purse	Brassicaceae
Cardamine californica	milk maids	Brassicaceae

Scientific Name	Common Name	Family
Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	Asteraceae
Ceanothus cuneatus var. cuneatus	buckbrush	Rhamnaceae
Ceanothus foliosus var. foliosus	wavy leaved ceanothus	Rhamnaceae
Ceanothus oliganthus var. soriedatus	Jim bush	Rhamnaceae
Ceanothus purpureus	holly-leaf ceanothus	Rhamnaceae
Centaurea calcitrapa	purple star-thistle	Asteraceae
Centaurea melitensis	Tocalote	Asteraceae
Centaurea solstitialis	yellow star-thistle	Asteraceae
Cerastium glomeratum	mouse-ear chickweed	Caryophyllaceae
Cercocarpus betuloides var. betuloides	birch-leaved mountain-mahogany	Rosaceae
Chenopodium album	lamb's quarters	Chenopodiaceae
Chlorogalum pomeridianum var. pomeridianum	common soap plant	Agavaceae
Cichorium intybus	chicory	Asteraceae
Cirsium vulgare	bull thistle	Asteraceae
Claytonia perfoliata ssp. perfoliata	miner's lettuce	Montiaceae
Clematis lasiantha	chaparral clematis	Ranunculaceae
Collinsia heterophylla var. heterophylla	Chinese houses	Plantaginaceae
Conium maculatum	poison hemlock	Apiaceae
Convolvulus arvensis	field bindweed	Convolvulaceae
Crassula connata	Sand pygmyweed	Euphorbiaceae
Croton setiger	turkey-mullein	Euphorbiaceae
Cynodon dactylon	Bermuda grass	Poaceae
Cynoglossum grande	hound's-tongue	Boraginaceae
Cynosurus echinatus	bristly dogtail grass	Poaceae
Cyperus eragrostis	tall flatsedge	Cyperaceae
Cytisus scoparius	Scotch broom	Fabaceae
Dactylis glomerata	orchard grass	Poaceae
Dendromecon rigida	bush poppy	Papaveraceae
Deschampsia danthonioides	annual hairgrass	Poaceae
Dichelostemma capitatum	wild hyacinth	Themidaceae
Diplacus aurantiacus	Sticky monkeyflower	Phrymaceae
Diplacus guttatus	common monkeyflower	Phrymaceae
Dipsacus sativus	Fuller's teasel	Dipsacaceae
Dodecatheon hendersonii	Henderson's shooting stars	Primulaceae
Elymus glaucus	blue wildrye	Poaceae
Elymus triticoides	alkali ryegrass	Poaceae
Epilobium ciliatum	slender willlow herb	Onagraceae
Epilobium densiflorum	willow herb	Onagraceae
Erigeron canadensis	Canada horseweed	Asteraceae

Scientific Name	Common Name	Family
Eriodictyon californicum	yerba santa	Boraginaceae
Eriogonum nudum var. nudum	naked buckwheat	Polygonaceae
Eriophyllum lanatum var. achilleoides	yarrow wooly sunflower	Asteraceae
Erodium botrys	big heron bill	Geraniaceae
Erodium cicutarium	red-stemmed filaree	Geraniaceae
Eschscholzia californica	California poppy	Papaveraceae
Euphorbia peplus	petty spurge	Euphorbiaceae
Festuca bromoides	six-weeks fescue	Poaceae
Festuca microstachys	small fescue	Poaceae
Festuca myuros	rattail grass	Poaceae
Festuca perennis	Italian rye grass	Poaceae
Frangula californica ssp.tomentella	hoary coffeeberry	Rhamnaceae
Fraxinus bipetala	California ash	Oleaceae
Fritillaria recurva	scarlet fritillary	Liliaceae
Galium porrigens	climbing bedstraw	Rubiaceae
Gamochaeta ustulata	purple cudweed	Asteraceae
Garrya elliptica	chaparral silktassel	Garryaceae
Gastridium phleoides	nit grass	Poaceae
Geranium dissectum	wild geranium	Geraniaceae
Geranium molle	dove's-foot geranium	Geraniaceae
Gilia sp.	gilia	Polemoniaceae
Helminthotheca echioides	bristly ox-tongue	Asteraceae
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae
Heteromeles arbutifolia	toyon	Rosaceae
Hirschfeldia incana	short-podded mustard	Brassicaceae
Hordeum vulgare	barley	Poaceae
Hypericum concinnum	gold wire	Hypericaceae
Hypericum perforatum	Klamath weed	Hypericaceae
Hypochaeris radicata	hairy cats ear	Asteraceae
Iris macrosiphon	wild iris	Iridaceae
Keckiella breviflora var. glabrisepala	hairless gaping keckiella	Plantaginaceae
Kickxia elatine	sharp-leaved fluellin	Plantaginaceae
Lactuca serriola	prickly lettuce	Asteraceae
Lamium amplexicaule	Henbit deadnettle	Lamiaceae
Lathyrus vestitus var. vestitus	hillside pea	Fabaceae
Leontodon saxatilis	hawkbit	Asteraceae
Lepechinia calycina	pitcher sage	Lamiaceae
Lepidium nitidum	shining peppergrass	Brassicaceae
Leptosiphon parviflorus	common leptosiphon	Polemoniaceae
Linum bienne	narrow leaf flax	Linaceae
Logfia filaginoides	California cottonrose	Asteraceae

Scientific Name	Common Name	Family
Logfia gallica	Narrowleaf cottonrose	Asteraceae
Lomatium californicum	Celery weed	Apiaceae
Lomatium repostum	Napa lomatium	Apiaceae
Lomatium utriculatum	bladder lomatium	Apiaceae
Lonicera hispidula	hairy honeysuckle	Caprifoliaceae
Lonicera interrupta	chaparral honeysuckle	Caprifoliaceae
Lotus corniculatus	bird's-foot trefoil	Fabaceae
Lysimachia arvensis	scarlet pimpernel	Myrsinaceae
Malva parviflora	little mallow	Malvaceae
Marah fabacea	California manroot	Cucurtibaceae
Marrubium vulgare	horehound	Lamiaceae
Matricaria discoidea	pineapple weed	Asteraceae
Medicago polymorpha	burclover	Fabaceae
Melica californica	California melic	Poaceae
Melilotus indicus	annual yellow clover	Fabaceae
Mentha arvensis	field mint	Lamiaceae
Micropus californicus var. californicus	cottontop	Asteraceae
Microseris douglasii ssp. douglasii	Douglas' microseris	Asteraceae
Minuartia douglasii	Douglas' sandwort	Caryophyllaceae
Monardella viridis	Green monardella	Lamiaceae
Oxalis pes-caprae	Bermuda sorrel	Oxalidaceae
Parentucellia viscosa	yellow parentucellia	Orobanchaceae
Pedicularis densiflora	Indian warrior	Orobanchaceae
Pellaea andromedifolia	coffee fern	Pteridaceae
Pellaea mucronata	bird's foot fern	Pteridaceae
Pentagramma triangularis	gold back fern	Pteridaceae
Perideridia kelloggii	Yampah	Apiaceae
Petrorhagia dubia	windmill pink	Caryophyllaceae
Phyla nodiflora	common lippia	Verbenaceae
Pickeringia montana var. montana	chaparral pea	Fabaceae
Pinus sabiniana	foothill pine	Pinaceae
Plagiobothrys sp.	popcorn-flower	Boraginaceae
Plantago erecta	erect plantain	Plantaginaceae
Plantago lanceolata	ribwort	Plantaginaceae
Plantago major	English plantain	Plantaginaceae
Plectritis sp.	plecritis	Valerianaceae
Poa annua	annual bluegrass	Poaceae
Poa secunda	one-sided blue grass	Poaceae
Pogogyne serpylloides	thymeleaf mesamint	Lamiaceae
Polygala californica	milkwort	Polygalaceae
Polygonum aviculare ssp. depressum	common knotweed	Polygonaceae

Scientific Name	Common Name	Family
Polypogon monspeliensis	annual beardgrass	Poaceae
Potentilla glandulosa	Sticky sinquefoil	Roasaceae
Pseudognaphalium californicum	Ladies' tabacco	Asteraceae
Pseudognaphalium luteoalbum	weedy cudweed	Asteraceae
Pseudognaphalium stramineum	cotton-batting cudweed	Asteraceae
Quercus agrifolia	coast live oak	Fagaceae
Quercus berberidifolia	scrub oak	Fagaceae
Quercus durata var. durata	leather oak	Fagaceae
Quercus kelloggii	black oak	Fagaceae
Quercus lobata	valley oak	Fagaceae
Quercus wislizeni var. wislizeni	interior live oak	Fagaceae
Quercus wislizenii var. frutescens	Interior live oak	Fagaceae
Ranunculus californicus	buttercup	Ranunculaceae
Raphanus sativus	wild radish	Brassicaceae
Rhamnus crocea	redberry	Rhamnaceae
Rhus aromatica	fragrant sumac	Anacardiaceae
Rosa gymnocarpa var. gymnocarpa	wood rose	Rosaceae
Rumex acetosella	common sheep sorrel	Polygonaceae
Rumex conglomeratus	green dock	Polygonaceae
Rumex crispus	curly dock	Polygonaceae
Salvia sonomensis	Sonoma sage	Lamiaceae
Sanicula crassicaulis	Pacific sanicle	Apicaeae
Scrophularia californica	California bee plant	Scrophulariaceae
Senecio vulgaris	Common groundsel	Asteraceae
Silene gallica	common catchfly	Caryophyllaceae
Silybum marianum	milk thistle	Asteraceae
Sisyrinchium bellum	blue eyed grass	Iridaceae
Sonchus asper ssp. asper	sow thistle	Asteraceae
Sonchus oleraceus	sow thistle	Asteraceae
Spergularia rubra	purple sand spurry	Caryophyllaceae
Stachys albens	cobwebby hedge nettel	Lamiaceae
Stellaria media	chickweed	Caryophyllaceae
Stipa pulchra	Purple needle grass	Poaceae
Symphoricarpos mollis	Creeping snowberry	Caprifoliaceae
Thysanocarpus curvipes	Fringe pod	Brassicaceae
Torilis arvensis	Field hedge parsley	Apiaceae
Toxicodendron diversilobum	poisen oak	Anacardiaceae
Trifolium subterraneum	subterranean clover	Fabaceae
Trifolium willdenovii	tomcat clover	Fabaceae
Triphysaria eriantha ssp. eriantha	Johnny-tuck	Orobanchaceae
Triphysaria pusilla	dwarf owl-clover	Orobanchaceae
Umbellularia californica	bay laurel	Lauraceae

Scientific Name	Common Name	Family
Urtica dioica	stinging nettle	urticaceae
Verbascum sp.	moth mullein	Scrophulariaceae
Vicia sativa ssp. sativa	spring vetch	Fabaceae
Vicia villosa	vetch	fabaceae
Viola lobata ssp. integrifolia	yellow wood violet	Violaceae
Zeltnera sp.	centaury	Gentianaceae

ATTACHMENT 5

SITE PHOTOGRAPHS



PHOTO 1: South-facing view of managed/disturbed habitat (center), developed habitat (upper-right corner), and surrounding Chamise Alliance habitat.



PHOTO 3: Southwest facing aerial of southeast corner of the Project Site topography.



PHOTO 2: Overhead view of primarily Scrub Interior Live Oak- Scrub Oak habitat in the eastern area and boundary of the Project Site.



PHOTO 4: Chamise Alliance habitat.

SOURCE: Montrose Environmental, 6/27/2023

Attachment 5
Site Photographs

ATTACHMENT 6

EROSION CONTROL PLANS

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ATTACHMENT 2

Biologist Qualifications

California Biological Consulting



Cedrick Villaseñor

Ecologist

cedrick@californiabiological.com
Rancho Cordova, California
(805) 712-7845

Professional Experience

Cedrick Villaseñor has professional experience providing biological and regulatory expertise on tribal, federal, state, and local projects. He has extensive knowledge of the natural history and conservation status of a wide variety of flora and fauna across the western United States. Cedrick has been working in Northern California, and particularly in the north coast ranges for the last six years.

Over the years Cedrick has specialized in a variety of botanical fields and as senior botanist has conducted rare plant surveys and floristic inventories within varied habitats throughout the southwestern of North America. Other experience includes aquatic resource delineations and associated permitting, vegetation classification and mapping, and long term vegetation community monitoring.

Cedrick has been involved and managed restoration projects throughout California since 2004, where he has prepared habitat mitigation monitoring and reporting plans and directed subsequent implementation of design. The development of an appropriate mitigation plan requires the careful selection of sampling and analysis to ensure your project's success. Cedrick also provides management of restoration projects and works to collaborate effectively in multidisciplinary settings. To further support this practice, Cedrick regularly put into practice: developing species pallets and targeted native plant seed collection, selection and implementation of multiple quantitative and qualitative long-term sampling protocols for baseline and monitoring data, efficient analysis and concise documentation for compliance reporting.

Consulting as lead wildlife biologist, Cedrick has led a variety of nesting bird, herpetological, and small mammal special-status species surveys employing general and focused survey methodology. He has conducted hundreds of hours of nesting bird surveys where he has detected, documented, and monitored dozens of active nests within a wide range of habitats. He also conducts bat habitat assessments, roost site surveys, emergence surveys, and has conducted active and passive acoustical bat surveys using a variety of bat detectors and analytical software.

To meet environmental regulatory compliance requirements, California Biological Consulting can provide qualified agency approved project biologists that have comprehensive experience conducting pre-construction surveys, construction monitoring, worker awareness trainings, implementation and reporting of minimization measures and best management practices. Cedrick also has been assisting project teams with design solutions for site specific stormwater pollution management systems. To further support our clients, stormwater inspection services will soon be expanding to include Qualified Stormwater Developer (QSD) and Qualified Stormwater Practitioner (QSP) certifications pending completion of underlying pre-requisite certification.

Education, Licenses & Certifications

B.S., Ecology and Systematic Biology, California Polytechnic State University, San Louis Obispo, CA, 2005

Licenses and Certifications

- California Department of Wildlife Plant Voucher Collecting Permit. 2024 No. 2081(a)-19-042-V (pending renewal)
- Flat-tailed horned Lizard. Department of Fish and Wildlife. Take possession and transport Flat-tailed Horned Lizards out of harm's way authorization. July 2014
- U.S. Fish and Wildlife Service TE- 163610-0.3 Permit: Channel Island Fox. 2018 (expired)
- CA Department of Fish and Game SC-11417: Santa Cruz Island Fox. 2018 (expired)
- Channel Islands National Park: Bryophyte Collecting Permit. 2008-2016 (expired)
- Scientific Collecting Permit: National Forest: Los Padres. Ranger District: MPRD, SLRD, ORD, and SBRD. 2006 (expired)

Relevant Training

Wetland Delineation Training

- Hydric and Problem Area Soils, Wetland Training Institute Inc., Sacramento County, CA (April 2024)
- Basic Wetland Delineation, Wetland Training Institute Inc., Sacramento County, CA (April 2023)
- Advanced Wetland Delineation, Wetland Science and Coastal Training Program, Marine County, CA. (November 2019)
- Wetland Definitions and Delineation Methods, U.C. Jepson Herbarium, Berkeley, Alameda County, CA. (March 2011)

Botanical Training

- Vegetation Rapid Assessment/Releve Vegetation Sampling Combined Methodology, The California Native Plant Society (CNPS) & CA Fish & Wildlife, Truckee, Nevada County, CA. (July 2019)
- Identification of Lichens to Genus, Friends of the Chico State Herbarium, Chico, Butte County, CA. (March 2019)
- 9th International Oak Symposium, International Oak Society, U.C. Davis, Yolo County, CA. (October 2018)
- Ecology and Identification of Soil Biocrust, U.C. Santa Barbara, Santa Barbara County, CA. (March 2018)
- Polemoniaceae, Taxonomy and Diversity, Rancho Santa Ana Botanic Garden, Claremont, Los Angeles County, CA. (May 2017)

- Grass Identification Workshop, Rancho Santa Ana Botanic Garden, Claremont, Los Angeles County, CA. (April 2016)
- Evolution and Diversity of Mushrooms, U.C. Jepson Herbarium, Berkeley, Alameda County, CA. (January 2015)
- Vernal Pool Symposium, Sacramento-Shasta Chapter, Wildlife Society, Sacramento County, CA. (November 2017)
- Southern California Bryophytes, Rancho Santa Ana Botanic Garden, Claremont, Los Angeles County, CA. (February 2016)
- Oaks of Southern California, Rancho Santa Ana Botanic Garden, Claremont, Los Angeles County, CA. (November 2015)
- Bryaceae Moss Family: Taxonomy and identification. U.C. Jepson Herbarium, Berkeley, Alameda County, CA. (February 2006)
- Bryophytes (Mosses/Liverworts/Hornworts): Taxonomy and identification. U.C. Jepson Herbarium, Berkeley, Alameda County, CA. (January 2006)
- Lichens of the Southern California: Taxonomy and ID methods, Santa Barbara Botanical Gardens, Santa Barbara County, CA. (2006)

Wildlife Training

Herpetological

- Alameda Whipsnake Workshop, Alameda County Resource Conservation District. (May, 2018)
- California Red-Legged Frog Workshop, Moss Landing, Monterey County, CA, Elkhorn Slough Coastal Training Program. (2014)
- CTS Terrestrial Ecology and Rare Pond Species Workshop, Santa Rosa, CA, Laguna de Santa Rosa Foundation. (March 2018)
- Declining Aquatic and Semi-Aquatic Herps of the Central Coast, California Central Coast Chapter of the Wildlife Society. (April 2017)
- Ecology of Tiger Salamander Workshop. Moss Landing, Monterey County, CA, Elkhorn Slough Coastal Training Program. (2019)
- Foothill Yellow-legged Frog Ecology & Conservation Workshop, Santa Rosa, CA, Laguna de Santa Rosa Foundation. (October 2018)
- Vernal Pool Symposium, Sacramento, CA, Sacramento-Shasta Chapter of the Wildlife Society. (2017)
- Flat-tailed Horned Lizard. Department of Fish and Wildlife. Take possession and transport flat-tailed horned lizards out of harm's way training. CDFW authorization certificate. July 2014
- Desert Tortoise Surveying, Monitoring and Handling Techniques Workshop. Desert Tortoise Council. 2010

- Blunt-nosed leopard lizard surveyor training and hours (Level 1) 2009.
- Herpetology, California Polytechnic State University, San Luis Obispo County, CA. (2005)

Avian

- Western Purple Martin Workshop. Western Section of the Wildlife Society, Sacramento, CA, 2023
- Tricolored blackbird Workshop, Western Section of the Wildlife Society, Sacramento CA, 2022
- Raptor marking & Field Techniques, Raptor Research Foundation, Hands-on experience applying markers, bands, flags, tags, dyes, imping, handling, measuring, and sampling. (October 2015)
- Raptor Trapping & handling for Research, Raptor Research Foundation, Sacramento County, CA. (October 2015)
- Southern Sierra Research Station Yellow-billed Cuckoo Survey Workshop, Blythe, Riverside County, CA. (June 2016)
- Southwestern Willow Flycatcher Habitat Assessment and Protocol Level Survey Training, Southern Sierra Research Station, Lake Isabella, Kern County, CA. (2014)

Mammalian

- Bat Ecology and Field Techniques, Western Section of the Wildlife Society, Mount Diablo, Contra Costa County, CA. (September 2019)
- Bat Ecology and Field Techniques, Western Section of the Wildlife Society, Yosemite, Mariposa County, CA. (September 2017)
- Bat Ecology and Field Techniques, Western Section of the Wildlife Society, Chimineas Ranch and Carrizo Plain Ecological Area, San Luis Obispo County, CA. (2014)

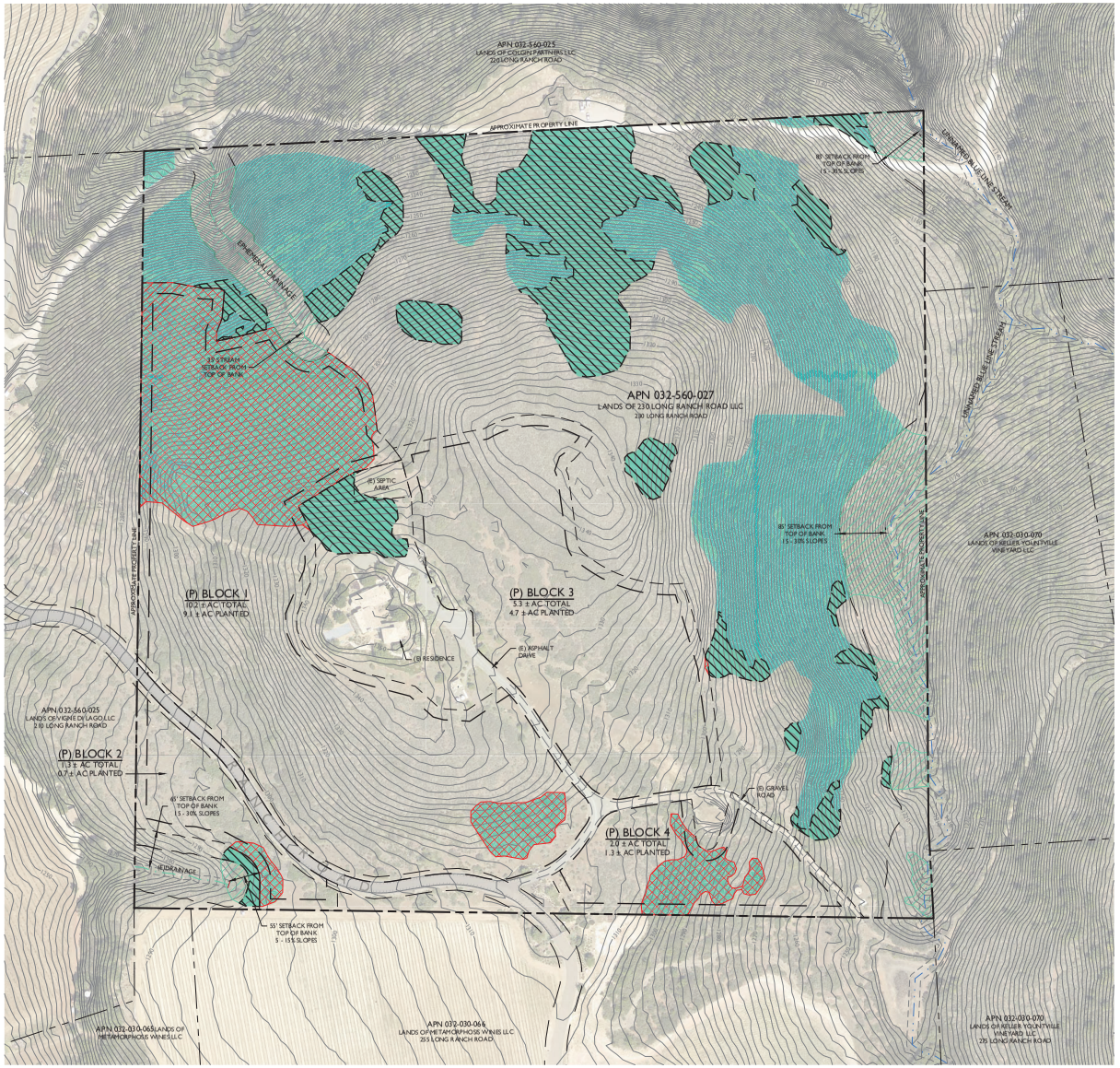
ATTACHMENT 3

Scrub Oak Vegetation Exhibit

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230 LONG RANCH ROAD LLC

SCRUB INTERIOR LIVE OAK - SCRUB OAK VEGETATION EXHIBIT



SCALE: 1" = 100'

0 100' 200'

LEGEND:

- (E) SCRUB INTERIOR LIVE OAK - SCRUB OAK UNDER 30% SLOPES (8.0 ± AC OF 18.5 ± AC)
- (E) SCRUB INTERIOR LIVE OAK - SCRUB OAK OVER 30% SLOPES (8.1 ± AC OF 18.5 ± AC)
- (E) SCRUB INTERIOR LIVE OAK - SCRUB OAK INSIDE STREAM SETBACK (2.4 ± AC OF 18.5 ± AC)
- SCRUB INTERIOR LIVE OAK - SCRUB OAK REMOVAL AREAS (4.1 ± AC)
- (P) SCRUB INTERIOR LIVE OAK - SCRUB OAK PRESERVATION AREAS (4.1 ± AC)

VEGETATION CANOPY COVER EXHIBIT
SCALE: 1" = 80'



LOCATION MAP
SCALE: 1" = 4,000'

PROJECT INFORMATION:

PROPERTY OWNER & APPLICANT:
230 LONG RANCH ROAD LLC
230 LONG RANCH ROAD
SAINT HELENA, CA 94574

SITE ADDRESS:
230 LONG RANCH ROAD
SAINT HELENA, CA 94574

ASSESSOR'S PARCEL NUMBER:
032-560-027

PARCEL SIZE:
48.4 ± ACRES

ZONING:
AGRICULTURAL WATERSHED (AW)

NOTES:

1. FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION WAS TAKEN FROM ELEVATION DATA DERIVED FROM BARE-EARTH SURFACE DIGITAL ELEVATION MODELS (DEMS) CREATED FROM LIDAR DATA FLOWN IN 2018 IN RESPONSE TO THE WIDESPREAD 2017 FIRES IN NORTHERN CALIFORNIA AS PART OF ONGOING NATIONWIDE 3DEP (U.S. GEOLOGICAL SURVEY 3D ELEVATION PROGRAM) EFFORTS. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
2. AERIAL PHOTOGRAPHS ARE NADIR IMAGES CAPTURED BY PICTOMETRY INTERNATIONAL DATED JULY 15, 2021 AND MAY NOT REPRESENT CURRENT CONDITIONS.
3. VERTICAL DATUM: NAVD 88
4. THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

VEGETATION MAPPING NOTE:

ALL VEGETATION MAPPING IS BASED ON THE BIOLOGICAL RESOURCES ASSESSMENT LONG RANCH VINEYARD BY MONTROSE ENVIRONMENTAL, DATED MARCH 14, 2024.

SCRUB OAK VEGETATION STATISTICS SUMMARY:

TOTAL SCRUB OAK VEGETATION (SOV): (SCRUB INTERIOR LIVE OAK - SCRUB OAK)	18.5 ± ACRES
TOTAL SOV PROPOSED TO BE REMOVED:	4.1 ± ACRES
SOV RETENTION RATIO:	78%
SOV PRESERVATION REQUIRED FOR MITIGATION @ 1:1 RATIO:	4.1 ± ACRES

APPLIED
CIVIL ENGINEERING INCORPORATED
2160 Jefferson Street, Suite 120
Napa, CA 94559
(707) 320-4968 | www.appliedcivil.com

230 LONG RANCH ROAD LLC
SCRUB INTERIOR LIVE OAK - SCRUB OAK VEGETATION EXHIBIT

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. MURPHY
NO. 67435
Exp. 12/31/2024
9/23/2024
CIVIL
STATE OF CALIFORNIA

DRAWN BY: PowerCAD LLC
CHECKED BY: MRM
DATE: SEPTEMBER 23, 2024

REVISIONS:	BY:
9/23/2024 PERMIT SUBMITTAL	YMS

JOB NUMBER: 23-105
FILE: 23-105EXH-VEG.DWG
ORIGINAL SIZE: 24" X 36"
SHEET NUMBER: 1 OF 1