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Biological Resources Survey

Chateauneuf du Pott Winery P19-00408 & P19-00409
Planning Commission Hearing July 21, 2021

BIOLOGICAL RESOURCES ASSESSMENT

TO:	Aaron Pott, Owner
FROM:	Nick Bonzey, Senior Biologist
PROJECT:	Aaron Pott Winery Construction
SUBJECT:	Biological Resources Assessment
DATE:	9/5/2017

1.0 INTRODUCTION

This Biological Resources Assessment analyzes the approximate 4.13-acre study area for the Proposed Project. The Proposed Project consists of the construction of a winery facility located in Napa County, CA in the hills west of Yountville and east of Glen Ellen; the associated relocation and improvement of an access road; and construction of associated support facilities (**Figures 1** and **2**). The purpose of this report is to assess and identify whether any sensitive biological resources may be present in the study area and could be affected by the Proposed Project. The report documents the results of the biological resources surveys conducted on August 1, 2017. This report also describes survey methodologies, results, and provides recommendations consistent with protective measures for biological resources as specified by federal, State, and county regulatory agencies.

PROJECT LOCATION AND DESCRIPTION

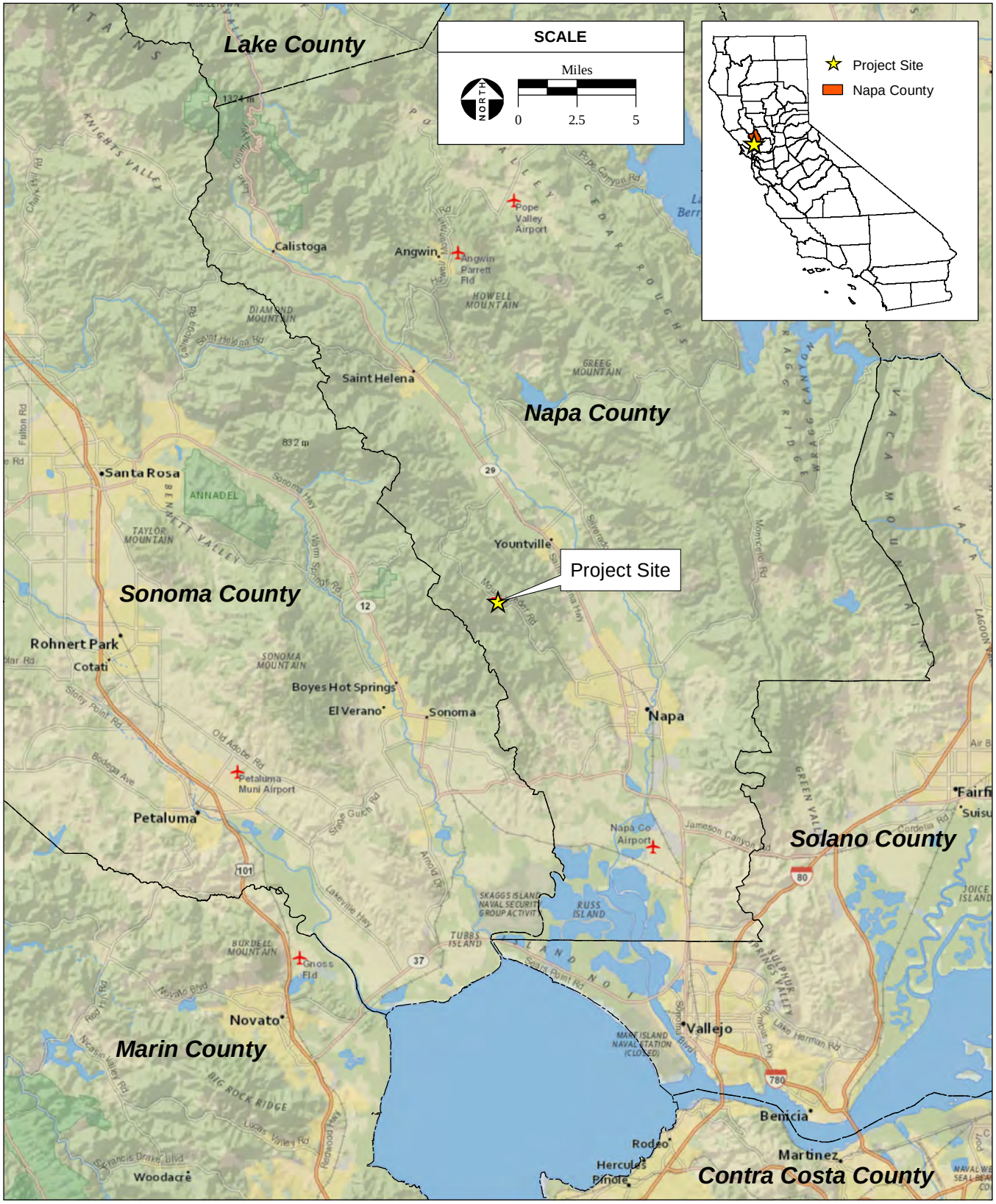
The Proposed Project is located at 2072 Mount Veeder Road, Napa, CA 94558. The 58.32-acre property consists of one parcel with the corresponding Napa county assessor's parcel number (APN) 034-100-046. The Proposed Project, located within the 4.13-acre study area shown in **Figure 3**, will result in demolition of the existing structures within the study areas, the construction of one winery building, the improvement and relocation of the existing access road, and the placement of sewer and water and potentially other infrastructure facilities as needed to support the new structures. The property is surrounded by similar properties (rural residential, vineyard, and undeveloped) on all sides. The property is situated in Section 15 of Township 6 North, Range 5 West, with the Mount Diablo Meridian, within the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle "Sonoma, CA" (quad). The site consists of moderately sloping terrain between approximately 880 to 1,025 feet (268 to 312 meters) above sea level.

2.0 METHODOLOGY

PRELIMINARY DATA GATHERING AND LITERATURE REVIEW

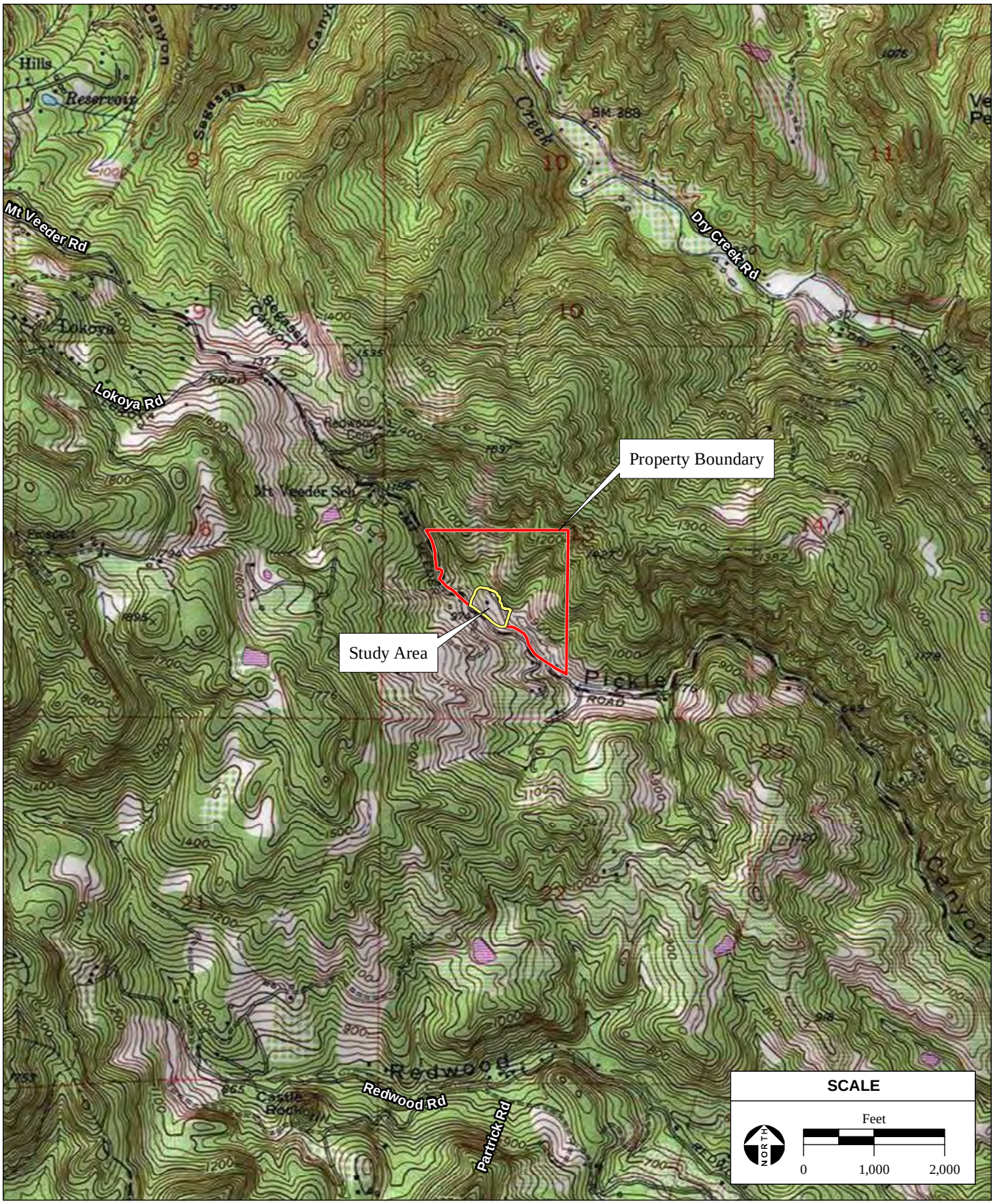
Prior to conducting the biological surveys, Analytical Environmental Services (AES) obtained biological information for the study area from the following sources:

- USFWS Official Species List, updated July 24, 2017, of federally listed special-status species with the potential to occur on or be affected by the project (USFWS, 2017) (**Attachment A**);



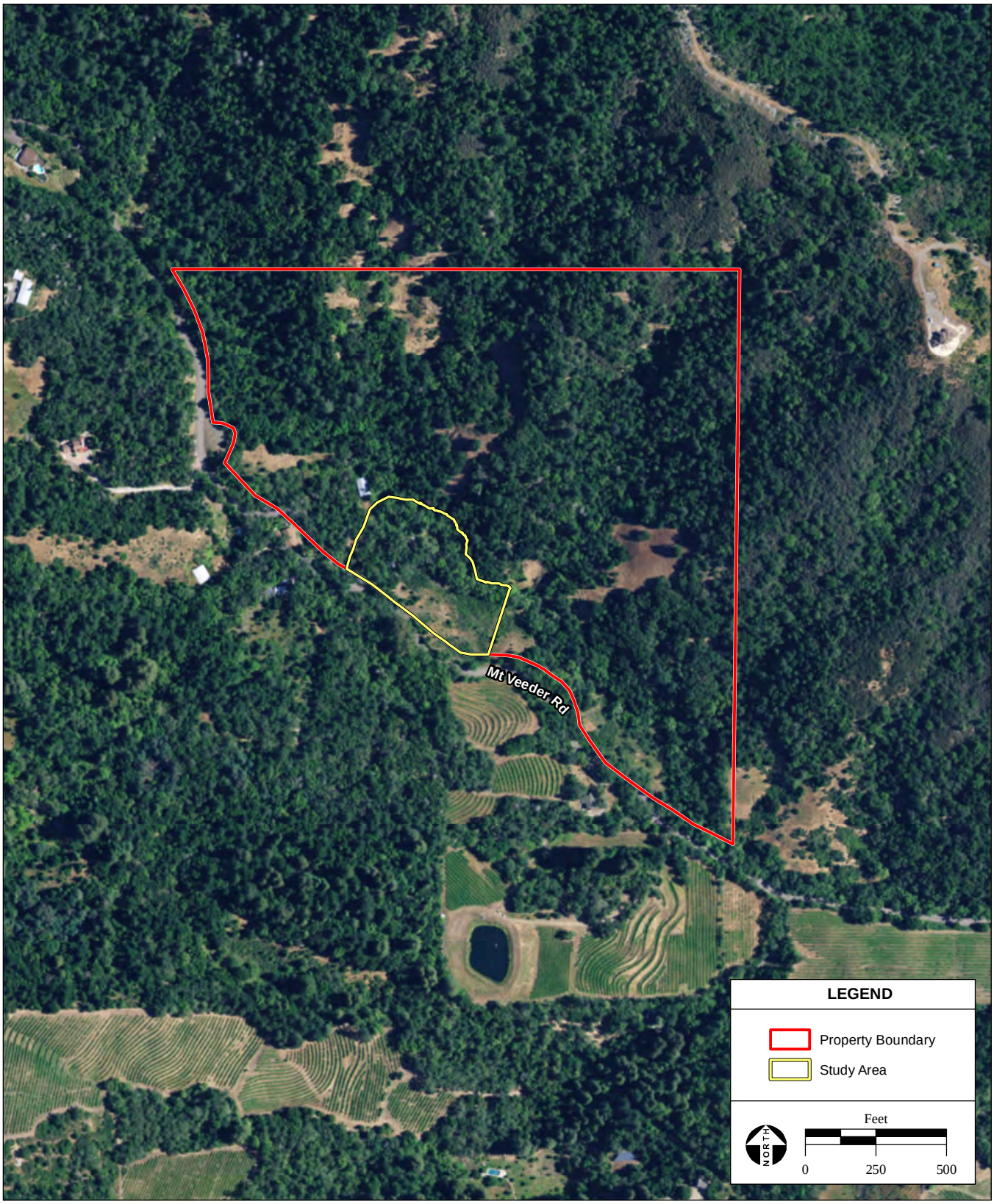
SOURCE: NatGeo 2017; AES, 8/7/2017

Figure 1
Regional Location



SOURCE: "Sonoma, CA" USGS 7.5 Minute Topgraphic Quadrangle,
T6N R5W Section 15, Mt. Diablo Baseline; AES, 8/8/2017

Figure 2
Site and Vicinity



SOURCE: Napa County Orthophoto, 6/5/2014; Napa Valley Engineering, 2013-2016; AES, 8/8/2017

Figure 3
Aerial Photograph of Project Area

- California Natural Diversity Database (CNDDB) query, dated August 14, 2017, of state and federally listed special-status species known to occur in the Sonoma, CA quad (CDFW, 2017a) (**Attachment A**);
- California Native Plant Society (CNPS) query, dated August 14, 2017, of state and federally listed special-status species known to occur in the Sonoma, CA quads (CNPS, 2017a) (**Attachment A**);
- A project description and preliminary maps provided by the project engineer, Applied Civil Engineering, Inc. (**Attachment B**).

FIELD SURVEY

AES biologists Nicholas Bonzey and Kaili Brande conducted a biological resources survey within the study area on August 1, 2017. The objective of the surveys was to identify habitat types in the study area, including any potential wetlands and Waters of the U.S., and to determine if any special-status species could be present. The field surveys consisted of walking transects throughout and around the entirety of the study area. Representative areas of each of the habitat types were reviewed with the aid of an aerial photograph and engineering drawing of the property and through identification of dominant vegetative species cover within each vegetation community. Potentially jurisdictional wetlands and Waters of the U.S. were mapped based on vegetation and hydrological characteristics and existing bed, bank, and channel.

Plant Survey Techniques

The timing of the August 1, 2017 survey covered the bloom period for ten of the twenty-nine special-status plant species that may occur within the study area (**Attachment A** and **Table 1**). Typically, plants are the most identifiable when they are blooming; however, it is not the only method for identifying the presence of or excluding the possibility of rare plants. Vegetative morphology, dried flower or fruit morphology, and skeletal remains from previous seasons can also be used as these features may persist after the blooming period. Some species do not flower each year or only flower at maturity and therefore must be identified from vegetative characteristics. Some trees and shrubs possess unique vegetative characteristics making flower identification unnecessary. Further, this year was a very wet year and some additional plants which shod a July bloom window were still identifiable on August 1.

Habitat is also a key characteristic for consideration of special-status species on a property. Many special-status species are rare in nature because of their specific and often very narrow habitat or environmental requirements. Their presence is limited by specific environmental conditions such as: hydrology, microclimate, soils, nutrients, interspecific and intraspecific competition, and aspect or exposure. A site evaluation based on habitat or environmental conditions is therefore a reliable method for estimating the possibility that special-status species may occur in a specific area.

Wildlife Survey Techniques

Animals were identified in the field by sight, sign, or call. The field techniques used consisted of surveying the area visually and walking throughout the study area. Existing site conditions were used to identify habitat, which could potentially support special-status animal species. Trees within and around

Table 1: Special Status Species with the Potential to Occur

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Plants					
Allium peninsulare var. franciscanum Franciscan onion	--/--/1B.2	Known to occur in Mendocino, Santa Clara, San Mateo, and Sonoma counties.	Cismontane woodland, Valley and foothill grassland/clay, volcanic, often serpentinite soils. Elevations: 100-300 meters.	May-July	**No.** Required habitats are not found in the study area.
Amorpha californica var. *napensis* Napa false indigo	--/--/1B.2	Know to occur in Monterey, Marin, Napa, and Sonoma counties.	Found in broad-leafed upland forest (openings), chaparral, and cismontane woodland habitats. Elevations range from 120-2000 meters.	April-July	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Antirrhinum virga Twig-like snapdragon	--/--/4.3	Known to occur in Lake, Mendocino, Napa, Sonoma, and Yolo counties.	A perennial herb found in rocky openings, often serpentinite soil in chaparral and lower montane coniferous forest. Elevations range from 100-2,015 meters.	June-July	**Yes.** Required habitats exist within the study area. However, no individuals of this species were observed.
Arctostaphylos bakeri ssp. bakeri Baker's manzanita	--/CR/1B.1	Known to occur in Sonoma county only.	Often serpentinite, broad-leafed upland forest, and chaparral. Elevations from: 75-300 meters.	February-April	**No.** Required habitats are not found in the study area.
Arctostaphylos stanfordiana Parry ssp. Decumbens wells Rincon Ridge manzanita	--/--/1B.1	Know to occur in Napa and Sonoma counties.	A perennial evergreen shrub found in chaparral and cismontane woodland habitat. Elevations range from 75-370 meters.	February-May	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Astragalus claranus Clara Hunt's milk-vetch	FE/CT/1B.1	Known to occur in Napa and Sonoma counties.	Found in chaparral (openings), cismontane woodland, and valley and foothill grassland habitats. Found in serpentinite or volcanic, rocky, and clay soils. Elevations range from 75-275 meters.	March-May	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Astragalus clevelandii Cleveland's milkvetch	--/--/4.3	Known to occur in Colusa, Lake, Napa, San Benito, Sonoma, Tehama, and Yolo counties.	Found in serpentinite seeps within chaparral, cismontane woodland, and riparian forest areas. Elevations range from 200-1500 meters.	June-September	**No.** Required habitats are not found in the study area.
Astragalus tener var. tener Alkali milk-vetch	--/--/1B.2	Known to occur in Alameda, Contra Costa, Merced, Monterey, Napa, San Benito, Santa Clara, San Francisco, San Joaquin, Solano, Sonoma, Stanislaus, and Yolo counties. However it is presumed extirpated in Contra Costa, Monterey, San Benito, Santa Clara, San Francisco, San Joaquin, Sonoma, and Stanislaus counties.	Found in alkaline soils and in playas, valley and foothill grassland (adobe clay), and vernal pools. Elevations range from 1-60 meters.	March-June	**No.** Required habitats are not found in the study area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Balsamorhiza macrolepis Big-scale balsamroot	--/--/1B.2	Known to occur in Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties.	Sometimes serpentinite. Chaparral, cismontane woodland, and valley and foothill grasslands. Elevations from: 90-1555 meters.	March-June	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Blennosperma bakeri Sonoma sunshine	FE/CE/1B.1	Known to occur in the Laguna de Santa Rosa and Sonoma areas of Sonoma County, California.	Valley and foothill grassland and Vernal pools. Elevations: 10-110 meters.	March-May	**No.** Required habitats are not found in the study area.
Brodiaea leptandra Narrow-anthered brodiaea	--/--/1B.2	Know to occur in Lake and Sonoma counties.	A perennial bulbiferous herb found in broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats. Elevations range from 110-915 meters.	May-July	**No.** Required habitats are not found in the study area.
Calandrinia breweri Brewer's calandrinia	--/--/4.2	Known to occur in Contra Costa, Colusa, El Dorado, Lake, Los Angeles, Mendocino, Marin, Mono, Monterey, Mariposa, Napa, Orange, Riverside, Santa Barbara, San Bernardino, Santa Clara, Santa Cruz, San Diego, Shasta, San Luis Obispo, San Mateo, Solano, Sonoma, Tehama, Tulare, Tuolumne, and Ventura counties.	Found in disturbed habitats and burns, chaparral, northern coastal scrub, and coastal sage scrub at elevations of 164 to 3772 feet.	January-June	**Yes**. Required habitats (disturbed habitats, chaparral) exist within the study area. However, no individuals of this species were observed.
Calycadenia micrantha Small-flowered calycadenia	--/--/1B.2	Colusa, Lake, Monterey, Napa, and Trinity counties.	Chaparral, meadows and seeps (volcanic), valley and foothill grassland/ roadsides, rocky talus scree, sometimes serpentine and sparsely vegetated areas. Elevations range from 5-1,500 meters.	June-September	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Castilleja ambigua var. ambigua Johnny-nip	--/--/4.2	Known to occur in Alameda, Contra Costa, Del Norte, Humboldt, Mendocino, Marin, Napa, Santa Cruz, San Francisco, San Luis Obispo, San Mateo, and Sonoma counties.	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.	March-August	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Castilleja ambigua var. meadii Mead's owls-clover	--/--/1B.1	Known to occur in Napa County.	Gravelly, volcanic, and clay substrate in meadows and seeps, and vernal pools. Elevations range from 450-475 meters.	April-May	**No.** Required habitats are not found in the study area.
Ceanothus confusus Rincon Ridge ceanothus	--/--/1B.1	Known to occur in Lake, Mendocino, Napa, and Sonoma counties.	Found in closed-cone coniferous forest, chaparral, and cismontane woodland habitats. Found in volcanic or serpentinite soils. Elevations range from 75-1065 meters.	February-June	**No.** Required habitats are not found in the study area.
Ceanothus divergens Calistoga ceanothus	--/--/1B.2	Known to occur in Lake, Napa, and Sonoma Counties.	Found in chaparral habitat and in serpentinite, or volcanic, rocky soils. Elevations range from 170-950 meters.	February-March	**No.** Required habitats are not found in the study area.

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Ceanothus purpureus holly-leaved ceanothus	--/--/1B.2	Known to occur in Napa, Shasta, Solano, Sonoma, and Trinity.	Chaparral, Cismontane Woodland (volcanic, rocky). Elevations range from 120-640 meters.	February-June	**No**. Required habitats are not found in the study area.
Ceanothus sonomensis Sonoma ceanothus	--/--/1B.2	Known to occur in Napa and Sonoma counties.	Chaparral (sandy, serpentinite, or volcanic soils). Elevations from 215-800 meters.	February-April	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Chorizanthe valida Sonoma spineflower	FE/CE/1B.1	Known to occur in Marin and Sonoma counties.	Coastal prairie (sandy). Elevations from 10-305 meters.	June-August	**No.** Required habitats are not found in the study area.
Clarkia breweri Brewer's clarkia	--/--/4.2	Known to occur in Alameda, Fresno, Merced, Monterey, San Benito, Santa Clara, and Stanislaus counties.	An annual herb often found in serpentinite in chaparral, cismontane woodland, and coastal scrub. Elevations range from 215-1,115 meters.	April-June	**No.** Required habitats are not found in the study area.
Clarkia gracilis ssp. tracyi Tracy's clarkia	--/--/4.2	Known to occur in Colusa, Humboldt, Lake, Mendocino, Napa, Tehama, and Trinity counties.	Found in chaparral openings. Usually found in serpentinite soils. Elevations range from 65-650 meters.	April-July	**No.** Required habitats are not found in the study area.
Downingia pusilla Dwarf downingia	--/--/2B.2	Known to occur in Amador, Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties. Also occurs in South America.	Found in mesic valley and foothill grassland and vernal pools. Elevations range from 1-445 meters.	March-May	**No.** Required habitats are not found in the study area.
Erigeron biolettii Streamside daisy	--/--/3	Known to occur in Humboldt, Mendocino, Marin, Napa, Solano, and Sonoma counties.	Found in broad-leafed upland forest, cismontane woodland, and North Coast coniferous forest habitats. Found in rocky, mesic soils. Elevations range from 30-1100 meters.	June-October	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Erigeron greenei Greene's narrow-leaved daisy	--/--/1B.2	Known to occur in Lake, Napa, and Sonoma counties.	Found in chaparral habitats on serpentine or volcanic soils. Elevations range from 80-190 meters.	May-September	**No.** Required habitats are not found in the study area.
Eryngium jepsonii Jepson's coyote thistle	--/--/1B.2	Known to occur in Alameda, Contra Costa, Napa, San Mateo, Solano, and Yolo counties.	A perennial herb found in clay vernal pools, and valley and foothill grasslands. Elevation range 3-300 meters.	April-August	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Extriplex joaquinana San Joaquin spearscale	--/--/1B.2	Known to occur in Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara, San Joaquin, San Luis Obispo, Solano, Tulare, Yolo. However, this species is presumed extirpated in Santa Clara, San Joaquin, and Tulare counties, and its presence is unconfirmed in San Luis Obispo and Tulare counties.	Found in alkaline soils and in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland habitats. Elevations range from 1-835 meters.	April-October	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Harmonia nutans Nodding harmonia	--/--/4.3	Known to occur in Lake, Napa, Sonoma, and Yolo counties.	Found in chaparral and cismontane woodland habitats. Found in rocky or gravelly, volcanic soils. Elevations range from 75-975 meters.	March-May	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Hemizonia congesta ssp. congesta Congested-headed hayfield tarplant	--/--/1B.2	Known to occur in Mendocino, Marin, San Francisco, San Mateo and Sonoma counties.	An annual herb found sometimes in roadsides and valley and foothill grasslands. Elevations: 20-560 meters.	April-November	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Hesperolinon bicarpellatum Two-carpellate western flax	--/--/1B.2	Known to occur in Lake, Napa, and Sonoma Counties.	Found in chaparral habitats, usually in serpentinite soils. Elevations range from 60-1,005 meters.	May-July	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Hesperolinon sharsmithiae Sharsmith's western flax	--/--/1B.2	Known to occur in Lake and Napa counties.	Serpentinite and chaparral. Elevations range from 270-300 meters.	May-July	**No.** Required habitats are not found in the study area.
Horkelia tenuiloba Thin-lobed horkelia	--/--/1B.2	Known to occur in Mendocino, Marin, and Sonoma counties.	Mesic openings, sandy. Broad-leafed upland forest, chaparral, and valley and foothill grassland. Elevations from: 50-500 meters.	May-August	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Juglans hindsii Northern California black walnut	--/--/1B.1	Known to occur in Contra Costa, Lake, Napa, Sacramento, Solano, and Yolo counties.	Found in riparian forests and riparian woodlands. Elevations range from 0-440 meters.	April-May	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Lasthenia conjugens Contra Costa goldfields	FE/--/1B.1	Known from Alameda, Contra Costa, Mendocino, Monterey, Marin, Napa, Santa Barbara, Santa Clara, and Sonoma counties.	Found in mesic soils and alkaline conditions in cismontane woodland, Valley and foothill grassland, vernal pools, and playas. Elevations range from 0-470 meters.	March-June	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Lathyrus jepsonii var. jepsonii Delta tule pea	--/--/1B.2	Known to occur in Contra Costa, Napa, Sacramento, San Joaquin, Solano, Sonoma, and Yolo counties.	Marshes and swamps (freshwater and brackish). Elevations range from 0-5 meters.	May-September	**No.** Required habitats are not found in the study area.
Leptosiphon acicularis Bristly leptosiphon	--/--/4.2	Found in Alameda, Butte, Colusa, Humboldt, Lake, Mendocino, Marin, Napa, Placer, San Benito, Santa Clara, San Mateo, and Sonoma counties.	Coastal Prairie, Chaparral, Foothill Woodland at elevations of 33 to 3150 feet.	April-July	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Leptosiphon jepsonii Jepson's leptosiphon	--/--/1B.2	Known to occur in Lake, Napa, and Sonoma counties.	Found in chaparral and cismontane woodland habitats. Usually found in volcanic soils. Elevations range from 100-500 meters.	March-May	**No.** Required habitats are not found in the study area.
Leptosiphon latisectus broad-lobed leptosiphon	--/--/4.3	Known to occur in Colusa, Del Norte, Glenn, Humboldt, Lake, Mendocino, Napa, Shasta, Sonoma, Tehama, and Trinity counties.	An annual herb found in broad-leafed upland forest and cismontane woodland. Elevations range from 170-1,500 meters.	April-June	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Lilaeopsis masonii Mason's lilaeopsis	--/CR/1B.1	Known to occur in Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, Solano, and Yolo counties. Mostly Suisun Bay.	Found in marshes and swamps (brackish or freshwater), and riparian scrub. Elevations range from 0-10 meters.	April-November	**No.** Required habitats are not found in the study area.
Lilium rubescens Redwood lily	--/--/4.2	Known range includes Del Norte, Glenn, Humboldt, Lake, Menocino, Napa, Santa Cruz, Shasta, Siskiyou, Sonoma and Trinity counties	Occurs in broadleaf upland forest, chaparral, lower montane coniferous forest, north coast coniferous forest, and upper montane coniferous forest with sometimes serpentinite soils and sometimes on roadsides from elevations of 30 to 1910 meters above sea level. (CNPS, 2013)	April - August	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Limnanthes vinculans Sebastopol meadowfoam	FE/CE/1B.1	Known to occur in Napa and Sonoma counties.	Found in meadows and seeps, valley and foothill grassland, and vernal pools (vernally mesic). Elevations range from 15-305 meters.	April-May	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Lomatium repostum Napa lomatium	--/--/4.3	Known to occur in Lake, Napa, Solano, and Sonoma counties.	Found in chaparral and cismontane woodland habitats in serpentinite soils. Elevations range from 90-830 meters.	March-June	**No.** Required habitats are not found in the study area.
Lupinus sericatus Cobb Mountain lupine	--/--/1B.2	Known to occur in Colusa, Lake, Napa, and Sonoma counties.	Found in broad-leafed upland forest, chaparral, cismontane woodland, and lower montane coniferous forest habitats. Elevations range from 275-1,525 meters.	March-June	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Micropus amphibolus Mt. Diablo cottonweed	--/--/3.2	Known to occur in Alameda, Contra Costa, Colusa, Lake, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Santa Cruz, San Joaquin, Solano, and Sonoma counties.	Found in rocky soils in broad-leafed upland forest, chaparral, cismontane woodland, and valley and foothill grassland. Elevations range from 45-825 meters.	March-May	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Monardella viridis Green monardella	--/--/4.3	Known to occur in Lake, Napa, Solano, and Sonoma counties.	A perennial rhizomatous herb found in broadleaf upland forest, chaparral, cismontane woodland. Elevations range from 100-1,010 meters.	June-September	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Navarretia leucocephala ssp. pauciflora few-flowered navarretia	FE/CT/1B.1	Known to occur in Lake and Napa counties.	Found in vernal pools (volcanic ash flow). Elevations range from 400-855 meters.	May-June	**No.** Required habitats are not found in the study area.
Penstemon newberryi var. sonomensis Sonoma beardtongue	--/--/1B.3	Known to occur in Lake, Napa, and Sonoma counties	A perennial herb found in rocky chaparral habitat. Elevations; 700-1370 meters	April-August	**No.** Required habitats are not found in the study area.
Ranunculus lobbii Lobb's aquatic buttercup	--/--/4.2	Known to occur in Alameda, Contra Costa, Mendocino, Marin, Napa, Santa Cruz, San Mateo, Solano, and Sonoma counties.	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.	February-May	**No.** Required habitats are not found in the study area.
Streptanthus hesperidis Green jewel-flower	-/--/1B.2	Known from Glenn, Lake, Napa, and Sonoma counties	Found in chaparral (openings) and cismontane woodland habitats. Found in serpentinite, rocky soils. Elevations range from 130 to 760 meters.	May-July	**No.** Required habitats are not found in the study area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Symphyotrichum lentum Suisun Marsh aster	--/--/1B.2	Known to occur in Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Yolo counties.	Found in marshes and swamps (brackish and freshwater). Elevations range from 0-3 meters.	May-November	**No.** Required habitats are not found in the study area.
Trichostema ruygtii Napa bluecurls	--/--/1B.2	Known to occur in Lake, Napa, and Solano counties.	Found in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland and vernal pools. Elevations range from 30-680 meters.	June-October	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Trifolium amoenum two-fork clover	FE/--/1B.1	Known to occur in Alameda (though may be extirpated), Marin, Napa (though may be extirpated), Santa Clara (though may be extirpated), Solano (though may be extirpated), and Sonoma (though may be extirpated/uncertain) counties.	Coastal bluff scrub and Valley and foothill grassland (sometimes serpentinite). Elevations: 5-415 meters.	April-June	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Trifolium hydrophilum saline clover	--/--/1B.2	Known to occur in Alameda, Contra Costa, Colusa, Lake, Monterey, Napa, Sacramento, San Benito, Santa Clara, Santa Cruz, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, and Yolo counties. However, this species is unconfirmed in Colusa county.	Found in marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. Elevations range from 0-300 meters.	April-June	**No.** Required habitats are not found in the study area.
Triteleia lugens Dark-mouthed (Coast Range) triteleia	--/--/4.3	Known to occur in Lake, Monterey, Napa, San Benito, Solano, and Sonoma counties.	Found in broad-leafed upland forest, chaparral, coastal scrub, lower montane coniferous forest. Elevations range from 328 to 3,280 feet.	April-June	**No.** Required habitats are not found in the study area.
Viburnum ellipticum oval-leaved viburnum	-/--/2B.3	Known to occur in Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Mendocino, Napa, Placer, Shasta, Sonoma, and Tehama counties.	Chaparral, cismontane woodland, and lower montane coniferous forest. Elevations from 215-1400 meters.	May-June	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Animals					
Amphibians					
Dicamptodon ensatus California giant salamander	--/CSC/--	Known to occur in Mendocino, Lake, Glenn, Sonoma, Marin, San Mateo, Santa Cruz and historically Monterey counties.	Occurs in wet coastal forests near streams and seepages.	N/A	**No.** Required habitats are not found in the study area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Rana aurora 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.** Required habitats are not found in the study area.
Rana boylii Foothill yellow-legged frog	--/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)	**No.** Required habitats are not found in the study area.
Taricha rivularis Red-bellied newt	--/CSC/--	Known to occur in the Coast Range from Mendocino County to San Diego County. Also known in the Peninsular Ranges, south of Boulder Creek, and in the southern Sierra Nevada foothills.	Occurs primarily in valley-foothill hardwood, hardwood-conifer, coastal scrub, and mixed chaparral but may occur in annual grassland and mixed conifer forests. Elevation ranges from sea level to 1,830 meters.	Fall-Late Spring	**No.** Required habitats are not found in the study area.
Birds					
Buteo swainsoni Swainson's hawk	--/CT/--	In California, breeds in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, Antelope Valley, and in eastern San Luis Obispo County.	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations.	March – October	**No.** Required habitats are not found in the study area.
Cypseloides niger Black swift	--/CSC/--	Breeds in the central and southern Sierra, the coastal cliffs and mountains of San Mateo, Santa Cruz, and Monterey counties, the San Gabriel, San Bernardino, and San Jacinto mountains of southern California, and within a small region of the Cascade Range.	Steep cliffs or ocean bluffs with ledges, cavities or cracks for nesting along ocean shore, inland deep canyons and often behind waterfalls. Forages in a wide variety of habitats including forests, canyons, valleys, and plains. Breeding elevations range from o-2285 meters.	May-July	**No.** Required habitats are not found in the study area.
Elanus leucurus White-tailed kite	--/FP/--	Permanent resident of coastal and Valley lowlands in California. Present throughout other parts of North America.	Habitats include savannah, open woodland, marshes and swamps, partially cleared lands, farm country, open oak grassland, desert grassland, and cultivated fields, mostly in lowland habitats. Open groves, river valleys, marshes, grasslands. Main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents.	All Year	**No.** Required habitats are not found in the study area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	--/CSC/--	Breeding range bounded by Tomales Bay on the north, Carquinez Strait on the east, and Santa Cruz county to south, with occurrences in the Bay Area during migration and winter.	Salt, brackish, and freshwater marshes. Nests just above ground or over water, in thick herbaceous vegetation, often at base of shrub or sapling, sometimes higher in weeds or shrubs up to about 1 m.	March-July	**No.** Required habitats are not found in the study area.
Haliaeetus leucocephalus Bald eagle	FD/CE/--	Nests in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, Humboldt, and Trinity Counties. Winters throughout most of California.	Found near ocean shorelines, lakes, reservoirs, river systems, and coastal wetlands. Usually less than 2 km to water that offers foraging opportunities. Suitable foraging habitat consists of large bodies of water or rivers with abundant fish and adjacent perching sites such as snags or large trees.	Year-round	**No.** Required habitats are not found in the study area.
Melospiza melodia samuelis San Pablo song sparrow	--/CSC/--	Distributed in marshes around San Pablo Bay continuously from Gallinas Creek in the west, along the northern San Pablo bayshore, and throughout the extensive marshes along the Petaluma, Sonoma, and Napa rivers.	Commonly found in saltmarsh, brackish marsh, salt marsh (altered), brackish marsh (altered), and fringe areas, where marsh vegetation is limited to edges of dikes, landfills, or other margins of high ground bordering salt or brackish water areas.	All Year	**No.** Required habitats are not found in the study area.
Phalacrocorax auritus Double-crested cormorant	--/CSC/--	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.** Required habitats are not found in the study area.
Riparia Bank swallow	--/CT/--	About 50-60 colonies remain along the middle Sacramento River and 15-25 colonies occur along lower Feather River where the rivers meanders still in a mostly natural state. Other colonies persist along the central coast from Monterey to San Mateo counties, and northeastern California in Shasta, Siskiyou, Lassen, Plumas, and Modoc counties.	Colonial nester; nests primarily in riparian scrub, riparian woodland, and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	All year	**No.** Required habitats are not found in the study area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Strix occidentalis caurina Northern spotted owl	FT/CT/--	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. Owls do not appear to use logged habitat until approximately 60 years after logging unless some larger trees or snags remain after logging. 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.** Dense forest areas do not exist within the project area.
Fish					
Hypomesus transpacificus Delta smelt	FT/CE/--	Occurs almost exclusively in the Sacramento-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay.	Estuarine waters. Majority of life span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta.	Consult Agency	**No.** Required aquatic habitats are not found in the study area.
Oncorhynchus mykiss irideus Steelhead-Central Valley DPS	FT/--/--	Spawn in the Sacramento and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area.	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning: streams with pool and riffle complexes. For successful breeding, require cold water and gravelly streambed.	Consult Agency	**Yes**. Required habitats exist within the study area. However, no individuals of this species were observed.
Spirinchus thaleichthys Longfin smelt-Bay-Delta DPS	FC/CT/--	Range in California includes: Slightly upstream from Rio Vista (on the Sacramento River in the Delta) including the Cache Slough region and Medford Island (on the San Joaquin River in the Delta) through Suisun Bay and Suisun Marsh, San Pablo Bay, San Francisco Bay (main), South San Francisco Bay, The Gulf of the Farallones, just outside of the Golden Gate, Humboldt Bay, and Eel river estuary and local coastal areas	Occurs in benthic habitat within medium and large low-grade river systems. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Consult Agency	**No.** Required habitats are not found in the study area.

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Syncaris pacifica California freshwater shrimp	FE/CE/--	Known only throughout Marin, Napa, and Sonoma counties.	Small, low-gradient, perennial coastal streams. Prefers relatively shallow streams with depths of 12-36 inches, exposed live roots of trees such as alder and willow, undercut banks greater than 6 inches, overhanging woody debris or stream vegetation and vines. Elevations range from 0-116 meters.	Consult Agency	**No.** Required aquatic habitats are not found in the study area.
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 counties, and the northwestern corner of the state from Del Norte and western Siskiyou counties 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.** Required habitats are not found in the study area.
Reithrodontomys raviventris Salt marsh harvest mouse	FE/CE/FP	Only found in the saline emergent wetlands of San Francisco Bay and its tributaries.	Critically dependent on dense cover and their preferred habitat is pickleweed (Salicornia virginica). Seldom found in cordgrass or alkali bulrush. In marshes with an upper zone of peripheral halophytes (salt-tolerant plants), mice use this vegetation to escape the higher tides, and may even spend a considerable portion of their lives there. Mice also move into the adjoining grasslands during the highest winter tides.	All Year	**No.** Required habitats are not found in the study area.
Taxidea taxus American badger	--/CSC/--	Found throughout most of California in suitable habitat.	Suitable habitat occurs in the drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Badgers are generally associated with treeless regions, prairies, parklands, and cold desert areas.	All Year	**No**. Required habitats are not found in the study area.
Reptiles					
Chelonia mydas Green sea turtle	FT/--/--	Globally distributed and generally found in tropical and subtropical waters along continental coasts and islands between 30° North and 30° South. In the eastern North Pacific, occurs from Baja California to southern Alaska.	Nests on oceanic beaches, feeds in benthic grounds in coastal areas, and frequents convergence zones in the open ocean.	Consult Agency	**No.** Required habitats are not found in the study area.
Emys marmorata Western pond turtle	--/CSC/--	Distribution ranges from Washington to northern Baja California.	Inhabit rivers, streams, lakes, ponds, reservoirs, stock ponds, and permanent and ephemeral wetland habitats.	Year-round	**No.** Required habitats are not found in the study area.
Invertebrates					

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/ CNPS LIST	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Bombus caliginosus Obscure bumble bee	--/CSC/--	Known to occur in Mediterranean California, parts of the Central Valley, and the Pacific Coast from southern California to southern British Columbia. Rare in San Francisco but relatively stable on San Bruno Mountain.	Open grassy coastal prairies and Coast Range meadows. Nesting occurs underground or in abandoned bird nests. Food plants are *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium,* and *Vaccinium*.	Unknown	**No.** Required habitats are not found in the study area.
Syncaris pacifica California freshwater shrimp	FE/CE/--	Known only throughout Marin, Napa, and Sonoma counties.	Small, low-gradient, perennial coastal streams. Prefers relatively shallow streams with depths of 12-36 inches, exposed live roots of trees such as alder and willow, undercut banks greater than 6 inches, overhanging woody debris or stream vegetation and vines. Elevations range from 0-116 meters.	Consult Agency	**No.** Required habitats are not found in the study area.

STATUS CODES

FEDERAL: United States Fish and Wildlife Service

FE Federally Endangered
FT Federally Threatened
FD Federally Delisted
FC Federal Candidate for Listing
CH Critical Habitat

STATE: California Department of Fish and Game

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

CNPS: California Native Plant Society

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

the study area (within a minimum 500 feet of the areas to be disturbed) were surveyed to determine whether occupied migratory bird nests were present within proximity of the study area. Surveys consisted of scanning the trees to search for nests or bird activity as well as searching for droppings or nest scatter that may have been present on the ground.

Wildlife Corridors

Aerial photos were reviewed to examine the habitat surrounding the study area and to identify the potential for wildlife movement, or wildlife corridors from adjoining areas onto or through the study area. Field methodology for identifying corridors for movement included searching for game trails or habitat which would favor movement of wildlife or potential gene flow. Barriers were also looked for as they could prevent movement or direct movement to particular areas.

Corridors are considered suitable for wildlife movements if they provide avenues along which:

1. Wide-ranging animals can travel, migrate, and meet mates;
2. Plants can propagate;
3. Genetic interchange can occur;
4. Populations can move in response to environmental changes and natural disasters; and
5. Individuals can re-colonize habitats from which populations have been locally extirpated.

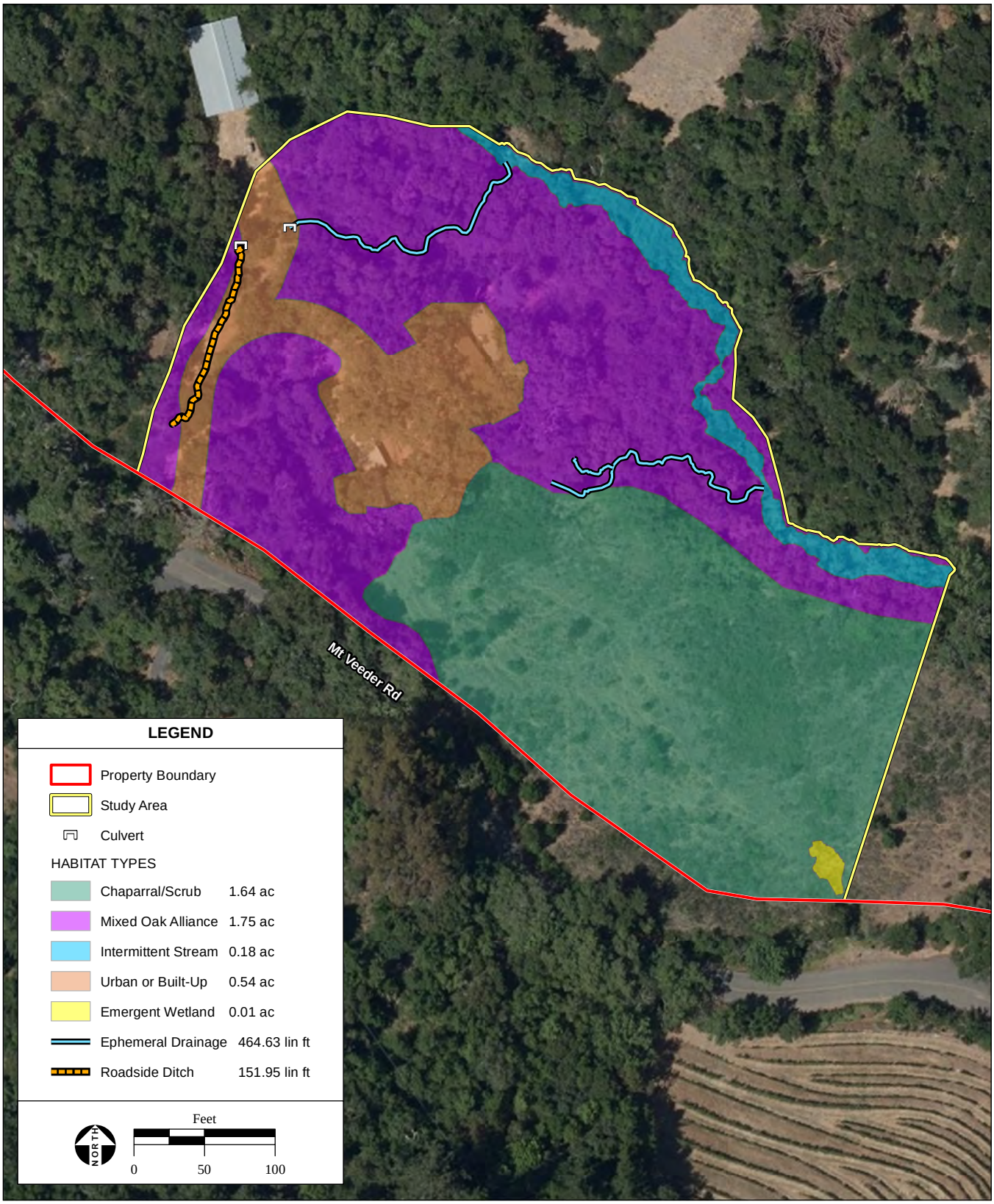
These five functions were used to evaluate potential wildlife corridors on the property and whether the project would interrupt significant corridors.

3.0 ENVIRONMENTAL SETTING

TERRESTRIAL AND AQUATIC HABITAT TYPES

Mixed Oak Alliance

Oak woodland habitat, and therefore Mixed Oak Alliance, occupies 1.77 acres within the study area (42.8 percent) (**Figure 4**; Photo 6, **Figure 6a**; **Attachment C**). Mixed Oak Alliance is mapped in 5.58 percent (28,302 acres) of Napa County. Oak species occurring on the project site within this habitat type include: valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), and blue oak (*Quercus douglasii*). Based on observation of these oaks present in this habitat type, we use the classification of Mixed Oak Alliance which is used by Napa County and is part of the Manual of California Vegetation (MCV) system, a publication produced by the California Native Plant Society (CNPS) in collaboration with the California Department of Fish and Wildlife (CDFW) (CNPS, 2017b). This habitat consists of a mixture of *Quercus agrifolia*, *Quercus douglasii*, *Quercus garryana*, *Quercus kelloggii*, *Quercus lobata* and/or *Quercus wislizeni,* which are codominant with *Aesculus californica*, *Arbutus menziesii*, *Pinus sabiniana*, *Pseudotsuga menziesii* and *Umbellularia californica* (CNPS, 2017b). Although Mixed Oak Alliance is not considered a sensitive biotic community by CDFW or the County, oak woodlands are afforded protection through the Napa County General Plan (NCPD, 2009).



SOURCE: Napa County Orthophoto, 6/5/2014; AES, 8/24/2017

Figure 4
Habitat Types

Chaparral/Scrub

The chaparral/scrub habitat occupies approximately 1.64 acres of the study area (39.8 percent) (**Figure 4**). Due to the composition of species within this area of the site, this habitat does not align with any particular Napa County vegetation alliance, although within the framework of the Manual of California Vegetation (MCV) system, it fits the principal biotic community of Chaparral/scrub according to the Napa County Baseline Report (Napa County, 2005) (Photo 7 and 8, **Figure 6b**). This principal biotic community covers 107,000 acres of Napa County (Napa County, 2005). This portion of the site appeared to be formerly used for agricultural purposes, namely cattle and horse grazing. One of the two structures built on the home site contain several stables that likely housed livestock and/or horses. The area directly southeast of the home site shows signs of mixed ruderal and annual grassland features, which may have served as remnants for past grazing material. Currently, the site is no longer used for such agricultural purposes, and subsequently succession of chaparral and wetland species has been occurring in the area (more detail below in ***Emergent Wetland***). Therefore, this portion of the study area was not considered to be the Agriculture vegetation alliance (**Attachment C**).

While other vegetation was difficult to identify during the site visit due to dry summer conditions and the end of the blooming season, species that are part of the successional process and are likely to occur within this habitat include several annual grassland species, as mentioned above, such as Purple false brome (*Brachypodium distachyon)*, Ripgut brome (*Bromus diandrus)* and Soft brome (*Bromus hordeaceus)* (CNPS, 2017c). In addition, at least two individuals of manzanita (*Arctostaphylos spp*.) were observed.

Intermittent Stream

Approximately 0.16 acres of the study area consists of intermittent stream, labeled as Pickle Creek in **Figure 4**. This mapped area was determined by the Ordinary High Water Mark (OHWM) of the Creek. Pickle Creek runs along a majority of the northeastern edge of the study area, ranges in width from approximately 7 to 12 feet, and shows evidence of sediment sorting, including fine silt, small cobble stones, and medium and large boulders. It exhibited a clear bed and bank distinction and an Ordinary High Water Mark (OHWM), as well as some undercut banks. This comprises a total of 3.9% of the total study area (**Figure 4** and Photo 5, **Figure 6a**; Photos 9 and 10, **Figure 6b**). The habitat that lines both banks of Pickle Creek does not notably differ from the Mixed Oak Alliance habitat that surrounds it, and it is not distinctly riparian vegetation. Therefore, despite the presence of Ash (*Fraxinus spp.***)** and California Bay (*Umbellularia californica*) trees, Pickle Creek is not representative of any other Napa County vegetation alliance. It is an anadromous stream and is designated as Critical Habitat for the Central Valley Distinct Population Segment (DPS) of Steelhead (*Oncorhynchus mykiss irideus*).

Ephemeral Stream

Approximately 0.028 acres of the study area consists of ephemeral stream. These areas were determined by the OHWM of each stream. Two of the streams are labeled as Ephemeral Drainages in **Figure 4**. The first ephemeral drainage runs west to east, beginning at the edge of the road leading to the barn, and ending at Pickle Creek. The culvert connecting from the Roadside Ditch empties at its westernmost point. This drainage shows evidence of sediment sorting and undercut banks. The second ephemeral drainage also runs west to east, starting just southeast of the ruderal home site and ending at Pickle Creek. Two branches of this stream naturally forge into one before it empties into Pickle Creek. At this confluence,

there are deep tree roots that are exposed from past water erosion (Photo 13, **Figure 6c**). There is also evidence of sediment sorting and undercut banks.

The other water feature, labeled as Roadside Ditch in **Figure 4**, runs from south to north, parallel to the course of the study area's driveway (Photo 2, **Figure 6a**; Photo 11, **Figure 6c**). This feature was not determined to be a naturally-formed ephemeral stream because its origin appears to stem from the original construction of the driveway and unnatural sloping of that section of land, not from natural flows and topography. The feature deepens suddenly at the mouth of the culvert, before it is channeled under the road and emptied into the first ephemeral drainage (**Figure 4**). It has a clear bed and bank distinction, and additionally shows evidence of sediment sorting.

None of the banks lining the described ephemeral streams consist of habitat that notably differs from the Mixed Oak Alliance habitat that surround them. Therefore, despite the presence of some Ash (*Fraxinus spp.***)** and California Bay (*Umbellularia californica*) trees, none of the streams are representative of any other riparian Napa County vegetation alliance. Thus the surrounding habitat is classified as Mixed Oak Alliance.

Emergent Wetland

Approximately 0.01 acres of the study area consists of emergent wetland. This is a potentially state jurisdictional wetland in the southernmost corner of the study area, located within the Chaparral habitat as shown on **Figure 4** and Napa County's Agriculture vegetation alliance, as shown on **Attachment C**. Nut sedge (*Cyperus esculentus**)*** as well as other hydrophytic species were present in the area. Further surveys would be required to definitively define the boundary of jurisdictionality of the wetland under the U.S. Army Corps of Engineers or State before the area is impacted, if avoidance and appropriate setbacks are not feasible.

Urban or Built-Up

Approximately 0.54 acres (13.2 percent) of the study area is considered ruderal, and therefore the Urban or Built-Up vegetation alliance (**Figure 4**). Urban or built-up areas are mapped in 28,784 acres (5.67 percent) of Napa County. This area, consisting of the home site where two structures stand and the dirt driveway that connects the home site to Mount Veeder Road, is largely unvegetated due to regular maintenance and a hard-packed road base (Photos 2, 3, and 4, **Figure 6a**). Several of the species occurring in this habitat are the same as those that occur in the California Annual Grasslands Alliance. Additional vegetation that occurs in this habitat is consistent with landscaped residential properties, and includes prickly pear cactus, *poa* grass species, domestic plum trees, and ornamental bushes.

WILDLIFE OBSERVED ON THE PROPERTY

During the August 1, 2017 biological site visit, several resident bird species were observed, including a Red-shouldered hawk (*Buteo lineatus*), California towhee (*Melozone crissalis*), Brown creeper (*Certhia americana*), California scrub jay (*Aphelocoma californica*), and Black phoebe (*Sayornis nigricans*). Turkey vultures (*Cathartes aura*) were observed along Mount Veeder Road, adjacent to the property.

Both field biologists additionally confirmed the presence of an adult deer.

SOILS

One soil series is present within the study area, Sobrante loam, which is broken down by slopes, with 5 to 30 percent slopes (0.066 acres) and 30 to 50 percent slopes (4.06 acres). Neither slope category of Sobrante loam is considered hydric nor formed from serpentinite parent materials. They both have a parent material that is residuum weathered from sandstone. Additionally, neither is a soil of statewide importance for prime farmland (USDA, 2017) (**Attachment A** and **Figure 5**).

4.0 RESULTS

POTENTIAL FOR SPECIAL STATUS SPECIES TO OCCUR

Preliminary literature review and biological field surveys determined that twenty-eight special-status plants, one special-status bird, and one special-status fish have the potential to occur in the study area in the study area (**Table 1**):

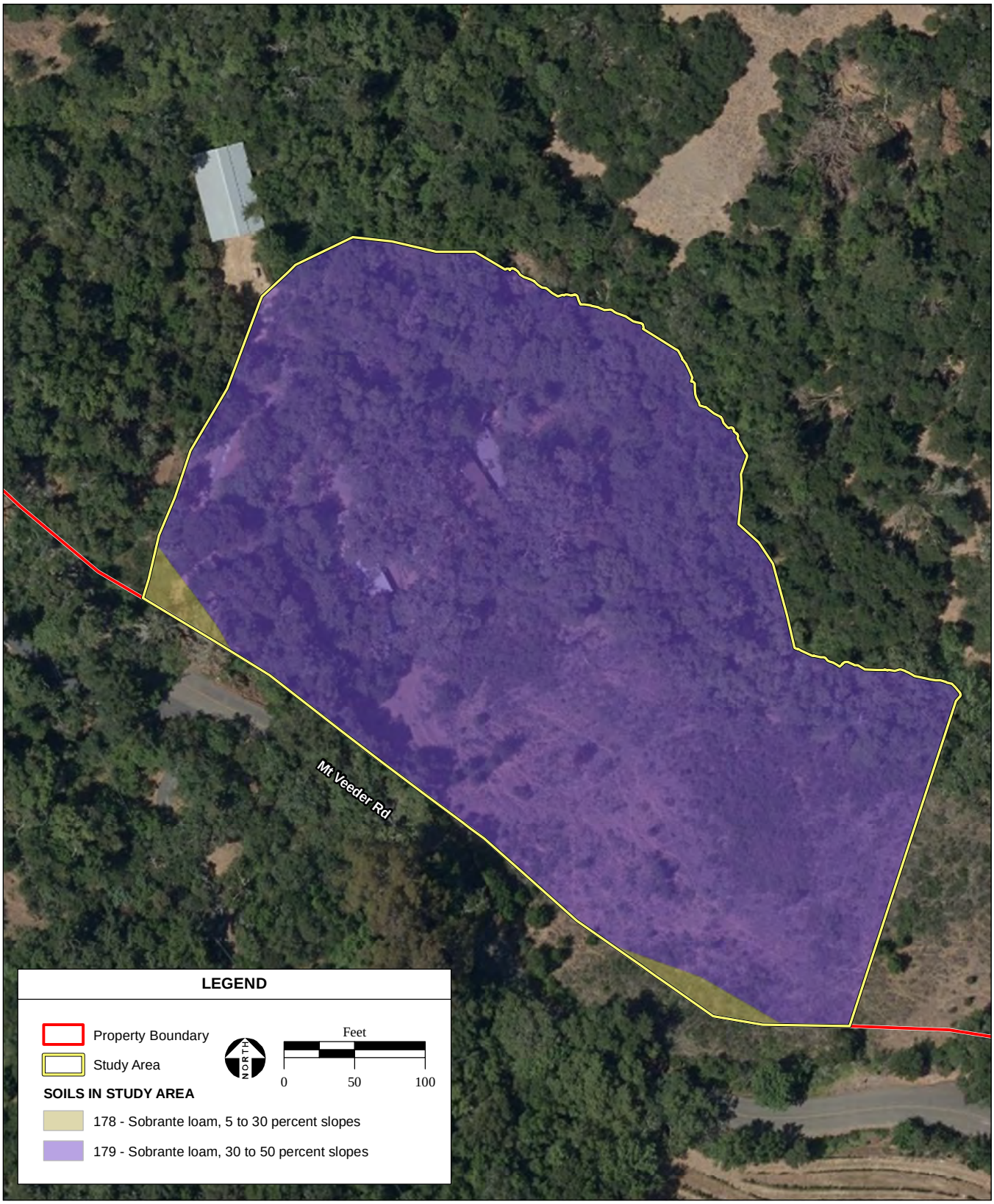
Special Status Plants

Twenty-eight special status species were found to have the potential to occur within the study area. Based on the site visit, no special-status species are found within the study area. Of these species, Small-flowered calycadenia (*Calycadenia micrantha*), Johnny-nip (*Castilleja ambigua var.ambigua*), Streamside daisy (*Erigeron biolettii*), Jepson's coyote thistle (*Eryngium jepsonii*), San Joaquin spearscale (*Extriplex joaquinana*), Congested-headed hayfield tarplant (*Hemizonia congesta ssp. Congesta*), Thin-lobed horkelia (*Horkelia tenuiloba*), Redwood lily (*Lilium rubescens*), Green monardella (*Monardella viridis*), and Napa bluecurls (*Trichostema ruygtii*) were in bloom during the site visit and were not observed. The other eighteen species were not in bloom during the site visit. Through our assessment, it was determined that of those not in bloom during the site visit, only four still have the potential to occur and were not able to be definitively ruled out. With implementation of the avoidance measure discussed in Section 5, impacts to these special status plants will be **Less than Significant**.

Special Status Animals

Because of local designation of critical habitat, it was determined that one special-status bird species, the Northern Spotted Owl (*Strix occidentalis caurina*), may be present in the study area. Through further analysis, as discussed below in **Section 5**, it was determined that this species is **unlikely to occur** and unlikely to be impacted by the Proposed Project.

Additionally, through habitat assessment, it was determined that one special-status fish species may be present in the study area: Steelhead trout (*Oncorhynchus (=Salmo) mykiss*). None were observed during the biological surveys; however the study area does have the potential to support this species (**Table 1**). This species has the potential to be impacted by the Proposed Project; however, with the avoidance measures recommended in **Section 5** the Proposed Project would have a **Less than Significant** impact on these species.



SOURCE: USDA NRCS SSURGO Soil Survey data for Napa County, 2014;
Napa County Orthophoto, 6/5/2014; AES, 8/8/2017

Figure 5
Soil Types

PHOTO 1: Edge of Property along Mount Veeder Road.

PHOTO 2: Driveway from Road heading northeast to Home Site.

PHOTO 3: Home Site.

PHOTO 4: Southwest building of Home Site.

PHOTO 5: Riparian woodland adjacent to Pickle Creek; northeast of Home Site.

PHOTO 6: Chaparral and Oak Woodland southeast of home site.

SOURCE: AES, 8/24/2017

Figure 6a
Site Photographs

PHOTO 7: Transition from Ruderal to Chaparral near home site.

PHOTO 8: Chaparral southeast of Home Site.

PHOTO 9: Pickle Creek bed facing downstream.

PHOTO 10: Pickle Creek bed facing downstream, further east along creek.

SOURCE: AES, 8/24/2017

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Figure 6b
Site Photographs

PHOTO 11: Westernmost unnamed ephemeral tributary of Pickle Creek.

PHOTO 12: Downstream end of culvert under driveway for westernmost unnamed ephemeral tributary of Pickle Creek.

PHOTO 13: Easternmost unnamed ephemeral tributary to Pickle Creek.

PHOTO 14: Potentially jurisdictional wetland southeast of Home Site.

SOURCE: AES, 8/24/2017

Figure 6c
Site Photographs

MIGRATORY BIRDS

Protection under the State statutes and the federal Migratory Bird Treaty Act is provided primarily to nesting migratory birds. Migratory birds may nest in all habitats found in the study area. The nesting season typically goes from February through September. These species have the potential to be impacted by the Proposed Project; however, with the avoidance measures recommended in Section 5, the Proposed Project would have a **Less than Significant** impact on these species.

SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE STUDY AREA

Twenty-eight plant species, one bird species, and one fish species with special status have the potential to occur in the study area. These species are discussed in detail below along with findings from the site visit on each.

Special-Status Plants

NAPA FALSE INDIGO (*AMORPHA CALIFORNICA VAR. NAPENSIS*)

Federal Status – None
State Status – None
Other – CNPS List 1B.2
Napa false indigo is a gland-dotted shrub from the legume family (Fabaceae) that occurs in openings within broadleaf upland forest, chaparral, and cismontane woodland communities at elevations that range from 12 to 2,000 meters above mean sea level. This species blooms from April through July. The known range of Napa false indigo includes Marin, Monterey, Napa, and Sonoma counties (CNPS, 2017a). There are 9 documented occurrences of this species within 5 miles of the study area, with the closest occurrence located approximately 0.8 miles northwest (CDFW, 2017b). Because our site visit was just outside of the blooming period, yet this species has been observed several times within a 5 mile range, this species still **has the potential to occur**. With implementation of the avoidance measures outlined in **Section 5**, impacts will be **Less than Significant**.

TWIG-LIKE SNAPDRAGON (*ANTIRRHINUM VIRGA*)

Federal Status – None
State Status – None
Other – CNPS List 4.3
Twig-like snapdragon is a perennial herb in the Plantaginaceae family. It occurs in chaparral and the rocky openings of coniferous forests often with serpentinite soils from elevations of 100 to 2,015 meters above sea level. This species blooms from June to July. The known range of twig-like snapdragon includes Lake, Mendocino, Napa, Sonoma and Yolo counties (CNPS, 2017a). Habitat on the site is marginal for this species and given the timing of the site visit and the fact that there are no documented occurrences of this species within 10 miles of the study area, this species is **unlikely to occur** (CDFW, 2017b).

RINCON RIDGE MANZANITA (*ARCTOSTAPHYLOS STANFORDIANA* SUBSP. *DECUMBENS*)

Federal Status – none
State Status – none
Other – 1B.1
Rincon ridge Manzanita is an evergreen shrub of the heath family (Ericaceae). It occurs in rhyolitic chaparral and cismontane woodland habitats at elevations from 75 to 370 meters above mean sea level. This species blooms from February to April and its known range in restricted to Sonoma County (CNPS, 2017a). Rincon Manzanita is a relatively small (i.e., 0.5 to 1 meter tall) woody shrub that usually occurs exclusively within Sonoma County. It occurs in chaparral and in cismontane woodland habitats. This species is associated with rhyolitic substrates (i.e., igneous volcanic rock with a felsic- or high silicon composition) and occurs at elevations that range from 75 to 370 meters (m) above mean sea level (msl). This species blooms from February through April. Rincon manzanita is known for having decumbent stems and puberulent twigs and floral axes (CNPS, 2017a). There is only one documented occurrence of this species within 5 miles of the study area, located approximately 4.6 miles northwest (CDFW, 2017b). Even though this species was not in bloom during the site visit, manzanitas are a distinct family of shrubby plants. At least two manzanita individuals were observed within the study area, and therefore this species still **has the potential to occur** in the study area. With implementation of avoidance measures in **Section 5**, impacts to this species will be **Less than Significant**.

CLARA HUNT'S MILKVETCH (*ASTRAGALUS CLARANUS*)

Federal Status – Endangered
State Status – Threatened
Other – 1B.1
Clara Hunt's milkvetch is an annual herb in the legume family (Fabaceae). It can be found in openings within chaparral habitat, cismontane woodland, and valley and foothill grasslands that are serpentine, volcanic, rocky, or clay. It blooms March through May. It grows at elevations from 75 to 275 meters above the mean sea level. Its known range is restricted to Napa and Sonoma Counties (CNPS, 2017a). There is one documented occurrence of this species within 9 miles of the study area, located approximately 8.6 miles northwest in 2009 (CDFW, 2017b). Therefore, due to an absence of occurrences within a 5 mile range, this species is **unlikely to occur**.

BIG-SCALE BALSAMROOT (*BALSAMORHIZA MACROLEPIS VAR. MACROLEPIS*)

Federal Status – None
State Status – None
Other – CNPS 1B.2
Big-scale balsamroot is a perennial herb member of the sunflower (Asteraceae) family. Suitable habitat includes chaparral, cismontane woodland, and open grassland, and it is generally found in grassy slopes and valleys. This species is known to occur on serpentine soils, but is not obligated to these soils. Its known range includes Alameda, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, and Tehama counties from 90 to 1,400 meters above mean sea level. The big-scale balsamroot blooms from March through June (CNPS, 2017a). There is one documented occurrence of this

species within 5 miles of the study area, with the closest occurrence located approximately 4.86 miles northwest at an unknown date (CDFW, 2017b). Because this species is usually found in grassy slopes and valleys and the study area has few areas solely vegetated with grasses, and because the closest occurrence of the species is almost 5 miles away, this species is **unlikely to occur**.

BREWER'S CALANDRINIA (*CALANDRINIA BREWERI*)

Federal status – none
State status – none
Other – CNPS 4.2
Brewer's calandrinia is an annual herb in the Montiaceae family. It blooms from (Jan) March to June. It is known to occur in Contra Costa, Colusa, El Dorado, Lake, Los Angeles, Mendocino, Marin, Mono, Monterey, Mariposa, Napa, Orange, Riverside, Santa Barbara, San Bernardino, Santa Clara, Santa Cruz, San Diego, Shasta, San Luis Obispo, San Mateo, Solano, Sonoma, Tehama, Tulare, Tuolumne, and Ventura counties. It can be found in disturbed habitats and burns, chaparral, and coastal scrub at elevations of 164 to 3772 feet above msl. (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Therefore, it is **unlikely to occur**.

SMALL-FLOWERED CALYCADENIA (*CALYCADENIA MICRANTHA*)

Federal Status – None
State Status – None
Other – CNPS List 1B.2
Small-flowered calycadenia is an annual herb from the composite family (Asteraceae). It occurs in chaparral and volcanic meadows and seeps, valley and foothill grassland, roadsides, rocky, talus, scree, sometimes serpentinite and sparsely vegetated habitats from 5 to 1,500 meters above msl. Blooming occurs from June to September. Its known range is restricted to Colusa, Lake, Monterey, Napa and Trinity counties (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area, and therefore it is **unlikely to occur** in the study area (CDFW, 2017b).

JOHNNY-NIP (*CASTILLEJA AMBIGUA SUBSP. AMBIGUA*)

Federal Status – None
State Status – None
Other – CNPS 4.2
Johnny-nip is an annual herb in the Orobanchaceae family. It is found in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland and vernal pool margins. This species blooms from March to August and occurs at elevations of 0 to 435 meters. Johnny-nip is known to Alameda, Contra Costa, Del Norte, Humboldt, Mendocino, Marin, Napa, Santa Cruz, San Francisco, San Luis Obispo, San Mateo, and Sonoma counties as well as Oregon and Washington state (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Because none were observed during the bloom season, it is **unlikely to occur**.

SONOMA CEANOTHUS (*CEANOTHUS SONOMENSIS*)

Federal Status – none
State Status – none
Other – 1B.2
Sonoma ceanothus is an evergreen shrub in the buckthorn family (Rhamnaceae). It occurs in chaparral habitat on sandy, serpentine or volcanic soils. It grows at elevations ranging from 215 to 800 meters above mean sea level. This species blooms from February through April. Its known range is restricted to Lake, Napa and Sonoma counties (CNPS, 2017a). There are 12 documented occurrences of this species within 5 miles of the study area, with the closest occurrence located approximately 1.5 miles southwest (CDFW, 2017b). Therefore, this species still **has the potential to occur** in the study area. With implementation of avoidance measures outline in **Section 5**, impacts to the species will be **Less than Significant**.

STREAMSIDE DAISY (*ERIGERON BIOLETTII*)

Federal Status – none
State Status – none
Other – CNPS List 3
Streamside daisy is a perennial herb that occurs in broadleaf upland forest, cismontane woodland, and North Coast coniferous forest habitats within rocky or mesic areas at elevations that range from 30 to 1,100 meters above msl. This species blooms from June through October. The range of streamside daisy includes Humboldt, Mendocino, Marin, Napa, Solano, and Sonoma counties. This species is noted for having densely glandular phyllaries and herbage, narrowly oblanceolate leaves, and flat-topped discoid heads that are approximately 12 to 15 millimeters in diameter (Hickman, 1993). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Because none were observed during the blooming period, it is **unlikely to occur**.

JEPSON'S COYOTE THISTLE *(ERYNGIUM JEPSONII)*
Federal Status – None
State Status – None
Other – CNPS List 1B.2
Jepson's coyote thistle is a perennial herb in the parsley family (Apiaceae). It occurs in clay soils of valley and foothill grasslands and vernal pools. It grows in elevations from 3 to 300 meters above mean sea level. This species blooms from April to August. Its known range includes Alameda, Amador, Calaveras, Contra Costa, Fresno, Napa, San Mateo, Solano, Stanislaus, Tuolumne, and Yolo counties (CNPS, 2017a). There is one documented occurrence of this species within 5 miles of the study area, located approximately 2.6 miles northeast (CDFW, 2017b). Because this species was not observed during its bloom season, it is **unlikely to occur**.

SAN JOAQUIN SPEARSCALE (*ATRIPLEX JOAQUINIANA*)

Federal Status – none
State Status – none

Other – 1B.2
San Joaquin spearscale is an annual herb in the family Chenopodiaceae. This species is found in chenopod scrub, meadows and seeps, playas and alkaline valley and foothill grassland habitats from 1 to 835 meters above mean sea level. It is often found in drier portions of alkaline soils. Its known range includes Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara*, San Joaquin*, San Luis Obispo, Solano, Tulare*, and Yolo Counties (CNPS, 2017a). This species blooms from April through October. There is one documented occurrence of this species within 9 miles of the study area, with the closest occurrence located approximately 8.7 miles southeast (CDFW, 2017b). Because it was not observed during its blooming period, this species is **unlikely to occur**. (*Indicates species may be extirpated from these counties)

NODDING HARMONIA (*HARMONIA NUTANS*)

Federal Status: None
State Status: None
Other: CNPS 4.3
The nodding harmonia is an annual herb in the Asteraceae family. Its blooming period is March through May. It can be found in rocky or gravelly, and volcanic soils in chaparral and cismontane woodland habitats. It is known to occur in Lake, Napa, Sonoma, and Yolo counties in an elevation range of 75 to 975 meters above mean sea level. (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Therefore, this species is **unlikely to occur**.

CONGESTED-HEADED HAYFIELD TARPLANT (*HEMIZONIA CONGESTA SSP. CONGESTA*)

Federal Status- None
State Status- None
Other- CNPS List 1B.2
Congested-headed hayfield tarplant is an annual herb in the Asteraceae family. It occurs in valley and foothill grasslands and sometimes along roadsides, at elevations of 30 to 1060 meters. The species blooms from April through November. Its range extends through Mendocino, Marin, San Francisco, San Mateo, and Sonoma counties (CNPS, 2017a; CalFlora, 2017). There is one documented occurrence of this species within 6 miles of the study area, with the closest occurrence located approximately 5.81 miles southwest (CDFW, 2017b). Additionally, because this species was not observed during its bloom season, it is **unlikely to occur**.

TWO-CARPELLATE WESTERN FLAX (*HESPEROLINON BICARPELLATUM*)

Federal Status – None
State Status – None
Other – CNPS List 1B.2
Two-carpellate western flax is an annual herb from the flax family (Linaceae). It occurs in chaparral communities at elevations that range from 60 to 1,005 meters above mean sea level. It frequently occurs on serpentinite substrates. This species blooms from May through July. The range of two-carpellate

western flax includes Lake, Napa, and Sonoma counties (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Therefore, this species is **unlikely to occur**.

THIN-LOBED HORKELIA (*HORKELIA TENUILOBA*)

Federal Status – None
State Status – None
Other – CNPS List 1B.2
Thin-lobed horkelia is a loosely matted perennial herb in the Rosaceae family. It occurs in broadleaf upland forest, chaparral, and valley and foothill grassland habitats at elevations that range from 50 to 500 m above msl. It has an affinity for sandy soils and mesic openings within forested habitats. Thin- lobed horkelia blooms from May through July (August). The known range of this species includes Mendocino, Marin, and Sonoma counties. Thin-lobed horkelia is known for having spreading hairs on the stems and petioles, hairy inner hypanthium walls, and leaflets that are divided more than halfway to the base into linear to oblanceolate lobes (CNPS, 2017a; Hickman, 1993). There is one documented occurrence of this species within 9 miles of the study area, with the closest occurrence located approximately 1.96 miles northwest (CDFW, 2017b). Additionally, because this species was not observed during the end of its bloom season, it is **unlikely to occur**.

NORTHERN CALIFORNIA BLACK WALNUT (*JUGLANS HINDSII*)

Federal Status – None
State Status – None
Other – CNPS 1B.1
Northern California black walnut is a deciduous tree in the walnut (Juglandaceae) family. They are found in riparian forest and woodland at elevations up to 440 meters above mean sea level. The known range of this species includes Contra Costa, Lake (?), Napa, Sacramento*, Solano*, and Yolo* Counties. Its blooming period is April to May (CNPS, 2017a). There is one documented occurrence of this species within 9 miles of the study area, with the closest occurrence located approximately 8.22 miles southeast in 2005 (CDFW, 2017b). Because no walnut trees were observed at the site visit, and there are no observations of this species within a 5 mile range, this species is **unlikely to occur**. (*Indicates species may be extirpated from these counties)

CONTRA COSTA GOLDFIELDS (*LASTHENIA CONJUGENS*)

Federal Status – Endangered
State Status – None
Other – CNPS 1B.1
Contra Costa goldfields is an annual with yellow flowers in the composite family (Asteraceae). It occurs in vernal pools, cismontane woodland, valley and foothill grassland, and alkaline playa habitats. It has been found in mesic soils at elevation up to 470 meters above mean sea level. The known range of Contra Costa goldfields includes Alameda, Contra Costa, Mendocino*, Monterey, Marin, Napa, Santa Barbara*, Santa Clara*, Solano and Sonoma Counties. Its blooming period extends from March to June

(CNPS, 2017a). There is one documented occurrence of this species within 6 miles of the study area, with the closest occurrence located approximately 5.75 miles northeast (CDFW, 2017b). USFWS has designated Critical Habitat for this species and its wetland habitat, yet the study area does not contain any of this Critical Habitat. Therefore, because the closest occurrence of this species is over 5 miles away, it is **unlikely to occur** in the study area. (*Indicates species may be extirpated from these counties)

BRISTLY LEPTOSIPHON (*LEPTOSIPHON ACICULARIS*)

Federal status – None
State status – None
Other – CNPS 4.2
The bristly leptosiphon is an annual herb in the Polemoniaceae family. It blooms April through July. It can be found in coastal prairie, chaparral, cismontane woodlands, and valley and foothill woodlands at elevations of 55 to 1500 feet above mean sea level. It is known to occur in Alameda, Butte, Contra Costa, Fresno, Humboldt, Lake, Mendocino, Marin, Napa, Santa Clara, San Mateo, and Sonoma counties. (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Therefore, it is **unlikely to occur**.

BROAD-LOBED LEPTOSIPHON (*LEPTOSIPHON LATISECTUS*)

Federal Status – None
State Status – None
Other – CNPS 4.3
Broad-lobed leptosiphon is an annual herb in the Polemoniaceae family and is known to occur in broadleaf upland forest and cismontane woodland from 170 to 1500 meters above sea level. This species blooms in April to June and its known range includes Colusa, Del Norte, Glenn, Humboldt, Lake, Mendocino, Napa, Shasta, Sonoma, Tehama, and Trinity counties (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Therefore, it is **unlikely to occur**.

REDWOOD LILY (*LILIUM RUBESCENS*)

Federal Status –None
State Status – None
Other – CNPS List 4.2
Chaparral lily is a bulbiferous herb in the lily family (Liliaceae) and occurs in broadleaf upland forest, chaparral, lower montane coniferous forest, north coast coniferous forest, and upper montane coniferous forest with sometimes serpentinite soils and sometimes on roadsides from elevations of 30 to 1910 meters above sea level. This species is known to bloom from April to August (September) and its known range includes Del Norte, Glenn, Humboldt, Lake, Mendocino, Napa, Santa Cruz, Shasta, Siskiyou, Sonoma and Trinity counties (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Additionally, because this species was not observed during its bloom season, it is **unlikely to occur**.

SEBASTOPOL MEADOWFOAM (*LIMNANTHES VINCULANS*)

Federal Status – Endangered
State Status – Endangered
Other – CNPS List 1B.1
Sebastopol meadowfoam is an annual herb that occurs in meadows and seeps, valley and foothill grassland, vernal pools, and other mesic areas at elevations that range from 15 to 305 meters above mean sea level. Sebastopol meadowfoam blooms from April through May. The known range of Sebastopol meadowfoam includes Napa and Sonoma counties. However, the occurrence and status of this species within Napa County is considered uncertain (CNPS, 2017a). Sebastopol meadowfoam is differentiated from other species in the genus by its stamens, petals, and leaflets. The stamens of this species are approximately five to eight millimeters long and the petals are approximately ten to 18 millimeters long. The petals of this species reflex (i.e., fall out as opposed to in) as the fruit matures. Sebastopol meadowfoam tends to have between three to five leaflets that are entire (as opposed to toothed or lobed) (Hickman, 1993). There is one documented occurrence of this species within 5 miles of the study area, with the closest occurrence located approximately 4.81 miles northeast in 1993 (CDFW, 2017b). Because the possibility of this species occurring in Napa County is uncertain, and the closest observation of this species was over two decades ago and almost 5 miles away, this species is **unlikely to occur** in the study area.

COBB MOUNTAIN LUPINE (*LUPINUS SERICATUS*)

Federal Status – None
State Status – None
Other – CNPS List 1B.2
Cobb Mountain lupine is a perennial herb from the legume family (Fabaceae). It occurs in broadleaf upland forest, chaparral, cismontane woodland, and lower montane coniferous forest communities at elevations that range from 275 to 1,525 meters above mean sea level. This species blooms form March through June. The range of Cobb Mountain lupine includes Colusa, Lake, Napa, and Sonoma counties (CNPS, 2017a). This species is noted for having peduncles that are 8 to 15 cm long, leaves that are covered with short, appressed hairs, and purple petals (SSU, 2010). There are two documented occurrences of this species within 5 miles of the study area, with the closest located approximately 0.8 miles to the west (CDFW, 2017b). This species was not observed during the site visit, yet it still **has the potential to occur** in the study area. With implementation of avoidance measures in **Section 5**, impacts to this species will be **Less than Significant**.

MT. DIABLO COTTONWEED (*MICROPUS AMPHIBOLUS*)

Federal Status – None
State Status – None
Other – CNPS List 3.2
Mt. Diablo cottonweed is an annual herb from the composite family (Asteraceae). It occurs in broadleaf upland forest, chaparral, cismontane woodland, and valley and foothill grassland (rocky) habitats at elevations that range from 45 to 825 meters above mean sea level. This species blooms from March

through May. The range of Mount Diablo cottonweed includes Alameda, Contra Costa, Colusa, Lake, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Santa Cruz, San Joaquin, San Luis Obispo, Solano, and Sonoma counties (CNPS, 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Therefore, it is **unlikely to occur**.

GREEN MONARDELLA (*MONARDELLA VIRIDIS*)

Federal Status – None
State Status – None
Other – CNPS List 4.3
Green Monardella is a perennial rhizomatous herb in the Lamiaceae family known to occur in broadleaf upland forest, chaparral, and cismontane woodland from elevations of 100 to 1010 meters above sea level. This species blooms from June to September and its known range includes Lake, Napa, Solano and Sonoma counties (CNPS 2017a). There are no documented occurrences of this species within 10 miles of the study area (CDFW, 2017b). Additionally, because this species was not observed during its bloom season, it is **unlikely to occur**.

NAPA BLUECURLS (*TRICHOSTEMA RUYGTII*)

Federal Status: None
State Status: None
Other: 1B.2
Napa bluecurls is an annual herb in the Lamiaceae family. It can be found in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and vernal pool habitats. It blooms from June to October. It can be found in an elevation range of 30 to 680 meters above msl. It is known to occur in Napa and Solano counties, as well as potentially in Lake County. (CNPS, 2017a). There are 5 documented occurrences of this species within 7 miles of the study area, with the closest occurrence located approximately 6.41 miles northwest in 2004 (CDFW, 2017b). Because it was not observed in its bloom season, and because there have been no observations within 5 miles, this species is **unlikely to occur**.

TWO-FORK CLOVER (*TRIFOLIUM AMOENUM*)

Federal Status – Endangered
State Status – None
Other – CNPS List 1B.1
Previously thought extinct, the two-fork clover was rediscovered in 1993 and 1996. The species is an annual herb of the legume (Fabaceae) family with heads of purple flowers with white tips. The two-fork clover occurs in coastal bluff scrub and valley and foothill grassland, sometimes in serpentine soils. It is known to occur at elevations ranging from 5 to 415 meters above sea level. It is distributed in the southern North Coast Ranges and San Francisco Bay Area, having been documented in Napa*, Marin, potentially Sonoma*, Solano*, San Mateo, and Santa Clara* counties. This plant blooms from April to June (CNPS, 2017a). There are 2 documented occurrences of this species within 8 miles of the study area,

with the closest occurrence located approximately 7.46 miles northwest in 1951 (CDFW, 2017b). Because the species has been presumed as extirpated from Napa County, and because the closest observation of this species is over 5 miles away, it is **unlikely to occur** in the study area. (*Indicates species may be extirpated from these counties)

OVAL-LEAVED VIBURNUM (*VIBURNUM ELLIPTICUM*)

Federal Status – None
State Status – None
Other – CNPS List 2B.3
The oval-leaved viburnum is a deciduous shrub in the Adoxaceae family. This species has white flowers clustered in inflorescences two inches in diameter. Its leaves are elliptic, round, or cordate and have coarsely dentate margins (Hickman, 1993). Suitable habitat includes chaparral, cismontane woodland, and lower montane coniferous forest, though it occurs most often in chaparral or yellow-pine forest habitats. It ranges in elevation from 215 to 1,400 meters above msl. Its known to occur in Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama counties as well as Oregon and Washington state. This species blooms from May through June (CNPS, 2017a). There is one documented occurrence of this species within 5 miles of the study area, with the closest occurrence located approximately 4.5 miles southwest in 1914 (CDFW, 2017b). Because the species' last observation was over 100 years ago and was almost 5 miles away, this species is **unlikely to occur** in the study area.

Special-Status Animals

NORTHERN SPOTTED OWL (*STRIX OCCIDENTALIS CAURINA*)

Federal Status – Threatened
State Status – Threatened; Species of Special Concern
Other - None
In northern California, the Northern Spotted Owl resides in dense, old-growth, multi-layered mixed conifer, redwood and douglas-fir habitats from sea level up to 2300 meters. Breeding range extends west of the Cascade Range through the North Coast Ranges. Roost selection appears to be related closely to thermoregulatory needs, this species is intolerant of high temperatures and roosts in dense overhead canopy on north-facing slopes in summer. In winter it roosts in oak habitats. This species primarily feeds on small mammals, including flying squirrels, woodrats, mice and voles and rabbits. It may also eat small birds, bats, and large arthropods. It usually searches from a perch and swoops or pounces on prey in vegetation or on the ground. It may also cache excess food. This species breeds from early March through June with peak in April and May and will usually nest in tree or snag cavities or in broken top of large trees. This species is sensitive to habitat destruction and fragmentation (CWHR 2011).

This species has designated critical habitat near the study area, but not within the study area (USFWS, 2017). The closest documented observation of this species is 0.133 miles away, near Mount Veeder Road (CDFW, 2017b). However, during the site visit, both biologists determined that the habitat in the study area was not suitable for this species, as marked in **Table 1** above. According to the US Fish and

Wildlife Service and CalFire, because the closest observation and the study area lie within 0.7 miles of each other, additional surveys and take avoidance procedures would be required (USFWS, 2011). However, these procedures only apply to activities associated with timber management, and subsequently this project does not require such procedures. Therefore, although Napa County has determined that Northern Spotted Owls may occur in this area (Napa County GIS, 2017), this species is **unlikely to occur** in the study area.

STEELHEAD TROUT (*ONCORHYNCHUS (=SALMO) MYKISS*) - CENTRAL CALIFORNIA COAST DPS

Federal Status – Threatened
State Status – None
Other- None
Steelhead trout can reach up to 55 pounds and 45 inches in length, and are usually dark-olive in color, have silvery-white color on their underside, a pink to red stripe along their side, and an overall heavily speckled body. They require gravel-bottomed, fast-flowing well-oxygenated streams and rivers for hatching, before migrating to the ocean. They return to freshwater streams either in a sexually immature ("stream-maturing", "summer-run") or mature ("ocean-maturing", "winter-run") condition, in order to mate. The breeding period for the stream-maturing type is several months after May to October, while the breeding period for the ocean-maturing type is shortly after November to April. Spawning habitat must consist of gravel substrates with little to no silt, and wintering habitat must be deep, low-velocity pools in streams (NOAA, 2016). There is one documented occurrence of this species within 6 miles of the study area, at approximately 5.3 miles northwest of the site (CDFW, 2017b). In addition, Pickle Creek, which runs adjacent to the study area, has been determined as an anadromous stream, and critical habitat for steelhead has been designated within the study area boundary. Therefore, this species still **has the potential to occur** within the study area. With implementation of avoidance measures listed in **Section 5**, impacts should be reduced to **Less than Significant**.

WETLANDS AND WATERS OF THE U.S.

A review of the National Wetlands Inventory database for the study area and the surrounding areas indicated that only one designated wetland exists within the study area and the Property (**Appendix A**). This wetland, labeled as Pickle Creek in **Appendix A**, was identified during the site visit. However, during the site visit, three other potential Wetlands or Waters of the U.S. were found to exist within the study area **(Figure 4)**. There are two small ephemeral streams, both of which are unnamed tributaries of Pickle Creek. One ephemeral stream begins adjacent to the dirt driveway to the study area, and flows east under the road through a 24 inch diameter culvert and then empties into Pickle Creek. Another ephemeral stream begins east of the home site and flows eastward towards its confluence of Pickle Creek. Pickle Creek itself is an intermittent stream about 7 to 12 feet wide that flows to the southeast and runs along the northern and northeastern border of the study area. Finally, there is a potential emergent wetland in the southeastern corner of the study area, within the chaparral habitat, that contains evidence of hydrophytic vegetation and wetland hydrology. With implementation of avoidance measures as outlined in **Section 5**, impacts to wetlands and waters will be **Less than Significant**.

WILDLIFE CORRIDORS

The southern and southwestern boundaries of the study area are fenced, along Mount Veeder Road. The northern, eastern, and southeastern boundaries lie within contiguous undeveloped forestland, and these areas represent the greatest opportunities for potential wildlife corridors in the immediate area. Pickle Creek, which crosses the northeast edge of the property, represents a local wildlife corridor and flows uninterrupted 11 miles to the southeast to its confluence with Napa River through Redwood Creek. Additionally, review of aerial photographs of the area surrounding the property suggests that there is contiguous forest or minimally-developed property for approximately 27 miles spanning to the northwest and southeast within the mountain range between the Napa Valley and the Russian River Valley. The Proposed Project will not increase the amount of fenced area on the property, nor will it negatively impact the undeveloped forestland to the north, northeast, and southeast. Setbacks, as outlined in **Section 5**, from the top of bank of Pickle Creek will ensure **Less than Significant** impacts to the creek wildlife corridor. Therefore, wildlife corridors will not be significantly impacted by the Proposed Project and no avoidance measures are required.

CRITICAL HABITAT

Critical habitat exists for five Distinct Population Segments (DPS) of Steelhead (*Oncorhynchus mykiss*) in the project area (USFWS, 2017). Due to Pickle Creek's role as a tributary to the Napa River, the DPS potentially present at this site is the Central California Coast DPS (NOAA, 2013). At least two partial barriers are present downstream of the study area along Pickle Creek (CalFish, 2017). During low flow, at least one of the barriers will prevent passage of steelhead, but in the case of high flow, there is the potential for steelhead to migrate as far up Pickle Creek as the study area. Therefore, appropriate avoidance measures described in **Section 5.0** are recommended, and with those measures, there will be a **Less than Significant** impact.

5.0 RECOMMENDATIONS

SPECIAL STATUS PLANTS

Twenty-eight special-status plants were originally determined to have the potential to occur within the study area, although only four species may still have the potential to occur after closer evaluation. All of the four species may bloom during the month of April, and therefore one pre-construction survey during April will be necessary to fully evaluate for the presence or absence of the species listed in **Section 4.0**. If surveys indicate an absence of these species, then impacts to special status plant species would be **Less than Significant**. If any species are found to be present, a 50-foot buffer is recommended surrounding the plant(s), or if impacted, transplantation or seed collection and propagation would be necessary to bring impacts to a **Less than Significant** level.

SPECIAL STATUS ANIMALS

Of the two special-status animal species listed above, only the Steelhead trout (*Oncorhynchus (=salmo) mykiss*) still has the potential to occur within the study area. The study area also potentially provides critical habitat for this species. To reduce effects to this species and its critical habitat, no construction

activity is proposed within any aquatic features in the study area. Additionally, a setback is recommended between the construction area of the project and the aquatic habitats, namely Pickle Creek and the associated unnamed ephemeral tributaries. The distance at which temporary silt fencing should be placed from the edge of construction activity is between 45 feet (13.7 m) and 65 feet (19.8 m), depending on the slope between the aquatic feature and the construction area. This will help prevent erosion and run-off of sediments and silts from the construction activity, which will preserve the integrity of the creek bank morphology, water quality, and aquatic habitats. With this setback, impacts to the critical habitat would be avoided, and impacts would be **Less than Significant**.

MIGRATORY BIRDS

To reduce impacts to a **Less than Significant** level, preconstruction surveys shall be completed within 14 days prior to construction if ground-disturbing activities are to take place during the breeding season (February 15 through September 30). If migratory bird nests are found, a no-disturbance buffer zone appropriate to the species shall be established and delineated around the nests. This distance shall be determined based on the species and consultation with the CDFW.

WETLANDS AND WATERS OF THE U.S.

Four potential wetlands or waters of the U.S. were identified within the study area. If project construction and implementation avoids each feature by at least 45-65 feet, then there will be a **Less than Significant** impact to wetlands or other waters of the U.S. and no further measures will need to be implemented. If project construction and implementation extends into any of the 45-65 foot buffers, then silt fencing shall be installed to protect the wetland, as previously discussed in Special Status Animals, **Section 5**, above. If direct impacts to wetlands or other waters of the U.S. occur as a result of the project, then permits from the U.S. Army Corps of Engineers, California Regional Water Quality Control Board, and the California Department of Fish and Wildlife may be required prior to any disturbances. A jurisdictional delineation should be performed prior to permit submittal to define the boundaries of the features, and concurrence from the U.S. Army Corps of Engineers will be required. These permits will require certain measures as part of their permit conditions. With these measures, project effects on wetlands or other waters of the U.S. will be reduced to a **Less than Significant** level.

CRITICAL HABITAT

With implementation of the avoidance measures listed above for Steelhead and the other special-status species, the critical habitat for the Steelhead DPS will not be impacted. Therefore, there will be **No Significant** impact to critical habitat.

6.0 REFERENCES

CalFish. 2017. Passage Assessment Database (PAD). Published April 20, 2017. http://www.calfish.org/ProgramsData/HabitatandBarriers/CaliforniaFishPassageAssessmentDatabase.aspx Accessed August 4, 2017.

Calflora. 2017. Berkeley, California: The Calflora Database [a non-profit organization]. Available online at: http://www.calflora.org/ Accessed: August 15, 2017.

California Department of Fish and Game (CDFG). 1995. American Badger. Stanislaus River Report. Stanislaus River Basin and Calaveras River Water Use Program, *Threatened and Endangered Species Report - March 1995*. Bay Delta and Special Water Projects Division.

CDFG. 2005. WESTERN POND TURTLE. California Wildlife Habitat Relationships. Version 8.1. California Interagency Wildlife Task Group. Sacramento, California.

CDFW. 2017a. RareFind 5, California Natural Diversity Database (CNDDB). Available online: https://map.dfg.ca.gov/rarefind/Login.aspx?ReturnUrl=%2frarefind%2fview%2fRareFind.aspx Accessed July 24, 2017.

CDFW. 2017b. California Natural Diversity Database. BIOS/Spotted Owl Viewer. Version 5.55.31. Available online at: https://map.dfg.ca.gov/bios/?bookmark=326. Accessed August 7, 2017.

California Herps. 2017. Northern Western Pond Turtle - *Actinemys marmorata*, Available online at: http://www.californiaherps.com/turtles/pages/a.marmorata.html Accessed August 7, 2017.

California Native Plant Society (CNPS). 2017a. Inventory of Rare and Endangered Plants of California (Online edition, v8-03 0.39). Available online at: http://www.rareplants.cnps.org Accessed August 4, 2017.

CNPS. 2017b. A Manual of California Vegetation Online. *Quercus* (*agrifolia*, *douglasii*, *garryana*, *kelloggii*, *lobata*, *wislizeni*) Forest Alliance. Available online at: http://vegetation.cnps.org/alliance/86 Accessed on August 21, 2017.

CNPS. 2017c. A Manual of California Vegetation Online. *Bromus* (*diandrus*, *hordeaceus*) – *Brachypodium distachyon* Herbaceous Semi-Natural Alliance. Available online at: http://vegetation.cnps.org/alliance/331 Accessed on August 23, 2017.

Hickman, J.C., ed. 1993. The Jepson Manual, Higher Plants of California. University of California Press, Berkeley, California. 1,400 pp.

Jennings, M. R. and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game, Rancho Cordova, California.

Napa County GIS. 2017. *Parcel Report for {034100046000}*. Created 8/29/2017. Pg. 1-4.

Napa County Planning Division (NCPD). 2009. *Conservation Element, Napa County General Plan*. Page CON-24. Available online at: http://www.countyofnapa.org/GeneralPlan/ Accessed August 15, 2017.

Napa County. 2005. *Napa County Baseline Data Report*. Biological Resources-Version 1. Page 4-19. Available online at: https://www.napawatersheds.org/files/managed/Document/2360/Ch04_BiologicalResources.pdf Accessed on August 23, 2017.

National Oceanic and Atmospheric Administration (NOAA). 2013. Central California Coast Steelhead Distinct Population Segment. Available online at: http://www.westcoast.fisheries.noaa.gov/publications/gis_maps/maps/salmon_steelhead/esa/steelhead/ccc_steelhead.pdf Accessed August 4, 2017.

NOAA. 2016. Steelhead Trout *(Oncorhynchus mykiss).* Available online: http://www.nmfs.noaa.gov/pr/species/fish/steelhead-trout.html . Accessed August 7, 2017.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.5. NatureServe, Arlington, Virginia. Available online at: http://www.natureserve.org/explorer.

NatureServe. 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available at: http://explorer.natureserve.org. Accessed August 7, 2017.

Sonoma State University (SSU). 2010. Cobb Mountain Lupine (*Lupinus sericatus*). Written by Linden Schneider. Available online at: https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.sonoma.edu%2Fcei%2Fdocuments%2Fgalbreathsppaccts%2Fplants%2Flupinus_sericatus_final_text.doc Accessed August 7, 2017.

Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians, 3rd Ed. Houghton Mifflin, Boston, Massachusetts.

United States Department of Agriculture (USDA). 2017. Web Soil Survey. Natural Resources Conservation Science. Available online at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm Accessed August 9, 2017.

United States Fish and Wildlife Service (USFWS). 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Region 1, Portland, Oregon.

USFWS, 2011. Revised USFWS Attachment A NSO Take Avoidance Analysis. Arcata Fish and Wildlife

Office. Available online at: http://www.fire.ca.gov/resource_mgt/downloads/Revised_USFWS_Attachement_A_NSO_Take_Avoidance_Analysis--_Coast%20Redwood_3-15-11.pdf Accessed September 1, 2017.

USFWS. 2017. IpaC: Information for Planning and Consultation, ECOS: the Environmental Conservation Online System. Available online at: http://ecos.fws.gov/ipac/ Accessed July 24, 2017.

ATTACHMENT A

BACKGROUND SEARCHES

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

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

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

Project information

NAME

Potts Project

LOCATION

Napa County, California

DESCRIPTION

Sonoma/Napa
county, vineyard

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

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

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species

[1] are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

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

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
Northern Spotted Owl Strix occidentalis caurina There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle Chelonia mydas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Steelhead Oncorhynchus (=Salmo) mykiss There is a **final** critical habitat designated for this species. Your location overlaps the designated critical habitat. https://ecos.fws.gov/ecp/species/1007	Threatened

Insects

NAME	STATUS
San Bruno Elfin Butterfly Callophrys mossii bayensis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3394	Endangered

Crustaceans

NAME	STATUS
California Freshwater Shrimp Syncaris pacifica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7903	Endangered

Flowering Plants

NAME	STATUS
Sonoma Sunshine Blennosperma bakeri No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1260	Endangered

Critical habitats

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

This location overlaps the critical habitat for the following species:

NAME	TYPE
Steelhead Oncorhynchus (=Salmo) mykiss Northern California DPS https://ecos.fws.gov/ecp/species/1007#crithab	Final designated

Steelhead Oncorhynchus (=Salmo) mykiss — Final designated
Central California Coast DPS
https://ecos.fws.gov/ecp/species/1007#crithab

Steelhead Oncorhynchus (=Salmo) mykiss — Final designated
South-Central California Coast DPS
https://ecos.fws.gov/ecp/species/1007#crithab

Steelhead Oncorhynchus (=Salmo) mykiss — Final designated
Southern California DPS
https://ecos.fws.gov/ecp/species/1007#crithab

Steelhead Oncorhynchus (=Salmo) mykiss — Final designated
California Central Valley DPS
https://ecos.fws.gov/ecp/species/1007#crithab

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service[3]. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
Allen's Hummingbird Selasphorus sasin https://ecos.fws.gov/ecp/species/9637	Migrating
Bald Eagle Haliaeetus leucocephalus https://ecos.fws.gov/ecp/species/1626	Year-round
Bell's Sparrow Amphispiza belli https://ecos.fws.gov/ecp/species/9303	Year-round
Black Oystercatcher Haematopus bachmani https://ecos.fws.gov/ecp/species/9591	Year-round
Black Rail Laterallus jamaicensis https://ecos.fws.gov/ecp/species/7717	Breeding
Burrowing Owl Athene cunicularia https://ecos.fws.gov/ecp/species/9737	Year-round

Fox Sparrow Passerella iliaca	Wintering
Least Bittern Ixobrychus exilis https://ecos.fws.gov/ecp/species/6175	Breeding
Lesser Yellowlegs Tringa flavipes https://ecos.fws.gov/ecp/species/9679	Wintering
Lewis's Woodpecker Melanerpes lewis https://ecos.fws.gov/ecp/species/9408	Wintering
Long-billed Curlew Numenius americanus https://ecos.fws.gov/ecp/species/5511	Wintering
Mountain Plover Charadrius montanus https://ecos.fws.gov/ecp/species/3638	Wintering
Nuttall's Woodpecker Picoides nuttallii https://ecos.fws.gov/ecp/species/9410	Year-round
Oak Titmouse Baeolophus inornatus https://ecos.fws.gov/ecp/species/9656	Year-round
Olive-sided Flycatcher Contopus cooperi https://ecos.fws.gov/ecp/species/3914	Breeding
Peregrine Falcon Falco peregrinus https://ecos.fws.gov/ecp/species/8831	Year-round
Rufous Hummingbird selasphorus rufus https://ecos.fws.gov/ecp/species/8002	Migrating
Short-billed Dowitcher Limnodromus griseus https://ecos.fws.gov/ecp/species/9480	Wintering

Short-eared Owl Asio flammeus https://ecos.fws.gov/ecp/species/9295	Wintering
Swainson's Hawk Buteo swainsoni https://ecos.fws.gov/ecp/species/1098	Breeding
Tricolored Blackbird Agelaius tricolor https://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe aechmophorus occidentalis https://ecos.fws.gov/ecp/species/6743	Year-round

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the Northeast Ocean Data Portal. The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAANCCOS models: the models were developed as part of the NOAANCCOS project: Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf. The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the Northeast Ocean Data Portal, which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The Avian Knowledge Network (AKN) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest,survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the Migratory Bird Programs AKN Histogram Tools webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

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

Facilities

Wildlife refuges

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

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

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

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

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

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

55 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3812234, 3812244 3812233 and 3812243;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jun	1B.2	S1	G5T1
Amorpha californica var. napensis	Napa false indigo	Fabaceae	perennial deciduous shrub	Apr-Jul	1B.2	S2	G4T2
Antirrhinum virga	twig-like snapdragon	Plantaginaceae	perennial herb	Jun-Jul	4.3	S3S4	G3G4
Arctostaphylos bakeri ssp. bakeri	Baker's manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	S1	G2T1
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr (May)	1B.1	S1	G3T1
Astragalus claranus	Clara Hunt's milk-vetch	Fabaceae	annual herb	Mar-May	1B.1	S1	G1
Astragalus clevelandii	Cleveland's milk-vetch	Fabaceae	perennial herb	Jun-Sep	4.3	S4	G4
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S2	G2T2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Blennosperma bakeri	Sonoma sunshine	Asteraceae	annual herb	Mar-May	1B.1	S1	G1
Brodiaea leptandra	narrow-anthered brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	1B.2	S3?	G3?
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
Calycadenia micrantha	small-flowered calycadenia	Asteraceae	annual herb	Jun-Sep	1B.2	S2	G2
Castilleja ambigua var. ambigua	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	4.2	S4	G4T5
Castilleja ambigua var. meadii	Mead's owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Apr-May	1B.1	S1	G4T1
Ceanothus confusus		Rhamnaceae		Feb-Jun	1B.1	S1	G1

	Rincon Ridge ceanothus		perennial evergreen shrub				
Ceanothus divergens	Calistoga ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	1B.2	S2	G2
Ceanothus purpureus	holly-leaved ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Jun	1B.2	S2	G2
Ceanothus sonomensis	Sonoma ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	1B.2	S2	G2
Chorizanthe valida	Sonoma spineflower	Polygonaceae	annual herb	Jun-Aug	1B.1	S1	G1
Clarkia breweri	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	4.2	S4	G4
Clarkia gracilis ssp. tracyi	Tracy's clarkia	Onagraceae	annual herb	Apr-Jul	4.2	S3	G5T3
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Erigeron biolettii	streamside daisy	Asteraceae	perennial herb	Jun-Oct	3	S3?	G3?
Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	perennial herb	May-Sep	1B.2	S3	G3
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?	G2?
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Harmonia nutans	nodding harmonia	Asteraceae	annual herb	Mar-May	4.3	S3	G3
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	1B.2	S1S2	G5T1T2
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2Q
Horkelia tenuiloba	thin-lobed horkelia	Rosaceae	perennial herb	May-Jul (Aug)	1B.2	S2	G2
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	Apr-May	1B.1	S1	G1
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	May-Jul (Aug-Sep)	1B.2	S2	G5T2
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2	S3	G3
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	1B.2	S3	G3
Leptosiphon latisectus	broad-lobed leptosiphon	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	1B.1	S2	G2
Lilium rubescens	redwood lily	Liliaceae	perennial bulbiferous herb	Apr-Aug (Sep)	4.2	S3	G3
Limnanthes vinculans	Sebastopol meadowfoam	Limnanthaceae	annual herb	Apr-May	1B.1	S1	G1

Lomatium repostum	Napa lomatium	Apiaceae	perennial herb	Mar-Jun	4.3	S3	G3
Lupinus sericatus	Cobb Mountain lupine	Fabaceae	perennial herb	Mar-Jun	1B.2	S2	G2
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2	S3S4	G3G4
Monardella viridis	green monardella	Lamiaceae	perennial rhizomatous herb	Jun-Sep	4.3	S4	G4
Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	Polemoniaceae	annual herb	May-Jun	1B.1	S1	G4T1
Penstemon newberryi var. sonomensis	Sonoma beardtongue	Plantaginaceae	perennial herb	Apr-Aug	1B.3	S2	G4T2
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	S3	G4
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	1B.2	S2	G2
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	S2	G2
Trichostema ruygtii	Napa bluecurls	Lamiaceae	annual herb	Jun-Oct	1B.2	S1S2	G1G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	Apr-Jun	1B.1	S1	G1
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Triteleia lugens	dark-mouthed triteleia	Themidaceae	perennial bulbiferous herb	Apr-Jun	4.3	S4?	G4?
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Sonoma (3812234) OR Napa (3812233) OR Yountville (3812243) OR Rutherford (3812244))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Allium peninsulare var. franciscanum Franciscan onion	PMLIL021R1	None	None	G5T1	S1	1B.2
Amorpha californica var. napensis Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Arctostaphylos stanfordiana ssp. decumbens Rincon Ridge manzanita	PDERI041G4	None	None	G3T1	S1	1B.1
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus claranus Clara Hunt's milk-vetch	PDFAB0F240	Endangered	Threatened	G1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Blennosperma bakeri Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Brodiaea leptandra narrow-anthered brodiaea	PMLIL0C022	None	None	G3?	S3?	1B.2
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calasellus californicus An isopod	ICMAL34010	None	None	G2	S2	
Castilleja ambigua var. meadii Mead's owls-clover	PDSCR0D404	None	None	G4T1	S1	1B.1
Ceanothus confusus Rincon Ridge ceanothus	PDRHA04220	None	None	G1	S1	1B.1
Ceanothus divergens Calistoga ceanothus	PDRHA04240	None	None	G2	S2	1B.2
Ceanothus purpureus holly-leaved ceanothus	PDRHA04160	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ceanothus sonomensis Sonoma ceanothus	PDRHA04420	None	None	G2	S2	1B.2
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erigeron greenei Greene's narrow-leaved daisy	PDAST3M5G0	None	None	G3	S3	1B.2
Eryngium jepsonii Jepson's coyote-thistle	PDAPI0Z130	None	None	G2	S2	1B.2
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	PDAST4R065	None	None	G5T1T2	S1S2	1B.2
Hesperolinon sharsmithiae Sharsmith's western flax	PDLIN010E0	None	None	G2Q	S2	1B.2
Horkelia tenuiloba thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2
Juglans hindsii Northern California black walnut	PDJUG02040	None	None	G1	S1	1B.1
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Leptosiphon jepsonii Jepson's leptosiphon	PDPLM09140	None	None	G3	S3	1B.2
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limnanthes vinculans Sebastopol meadowfoam	PDLIM02090	Endangered	Endangered	G1	S1	1B.1
Lupinus sericatus Cobb Mountain lupine	PDFAB2B3J0	None	None	G2?	S2?	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Melospiza melodia samuelis San Pablo song sparrow	ABPBXA301W	None	None	G5T2	S2	SSC
Navarretia leucocephala ssp. pauciflora few-flowered navarretia	PDPLM0C0E4	Endangered	Threatened	G4T1	S1	1B.1
Oncorhynchus mykiss irideus steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
Penstemon newberryi var. sonomensis Sonoma beardtongue	PDSCR1L483	None	None	G4T2	S2	1B.3
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
Streptanthus hesperidis green jewelflower	PDBRA2G510	None	None	G2	S2	1B.2
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Syncaris pacifica California freshwater shrimp	ICMAL27010	Endangered	Endangered	G2	S2	
Taricha rivularis red-bellied newt	AAAAF02020	None	None	G4	S2	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trichostema ruygtii Napa bluecurls	PDLAM220H0	None	None	G1G2	S1S2	1B.2
Trifolium amoenum two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 57

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

August 15, 2017

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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Contents

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: 1:1,440 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

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 9, Sep 21, 2016

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

Date(s) aerial images were photographed: Feb 4, 2012—Feb 17, 2012

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

Napa County, California (CA055)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
178	Sobrante loam, 5 to 30 percent slopes	0.1	1.5%
179	Sobrante loam, 30 to 50 percent slopes	4.1	98.5%
Totals for Area of Interest		**4.1**	**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

178—Sobrante loam, 5 to 30 percent slopes

Map Unit Setting

National map unit symbol: hdmj
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: Concave
Across-slope shape: Concave
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: unweathered bedrock

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
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
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: LOAMY UPLAND (R015XD126CA)
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: unweathered bedrock

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: 25 to 40 inches to lithic bedrock
Natural 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
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

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

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

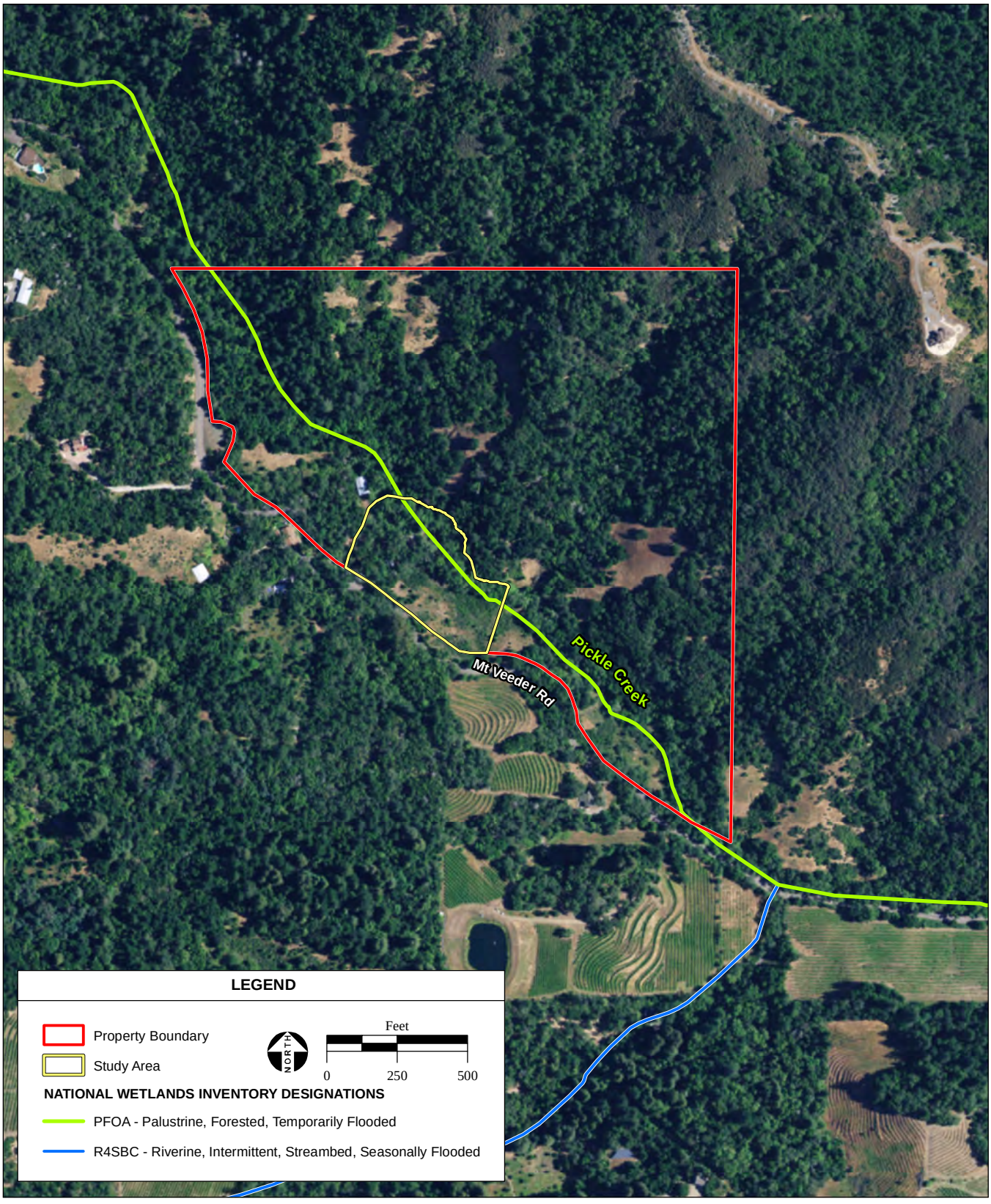
United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



SOURCE: USFWS National Wetlands Inventory "Sonoma, CA"
USGS 7.5 Minute Topographic Quadrangle, 4/1985;Napa County
Orthophoto, 6/5/2014; AES, 8/8/2017

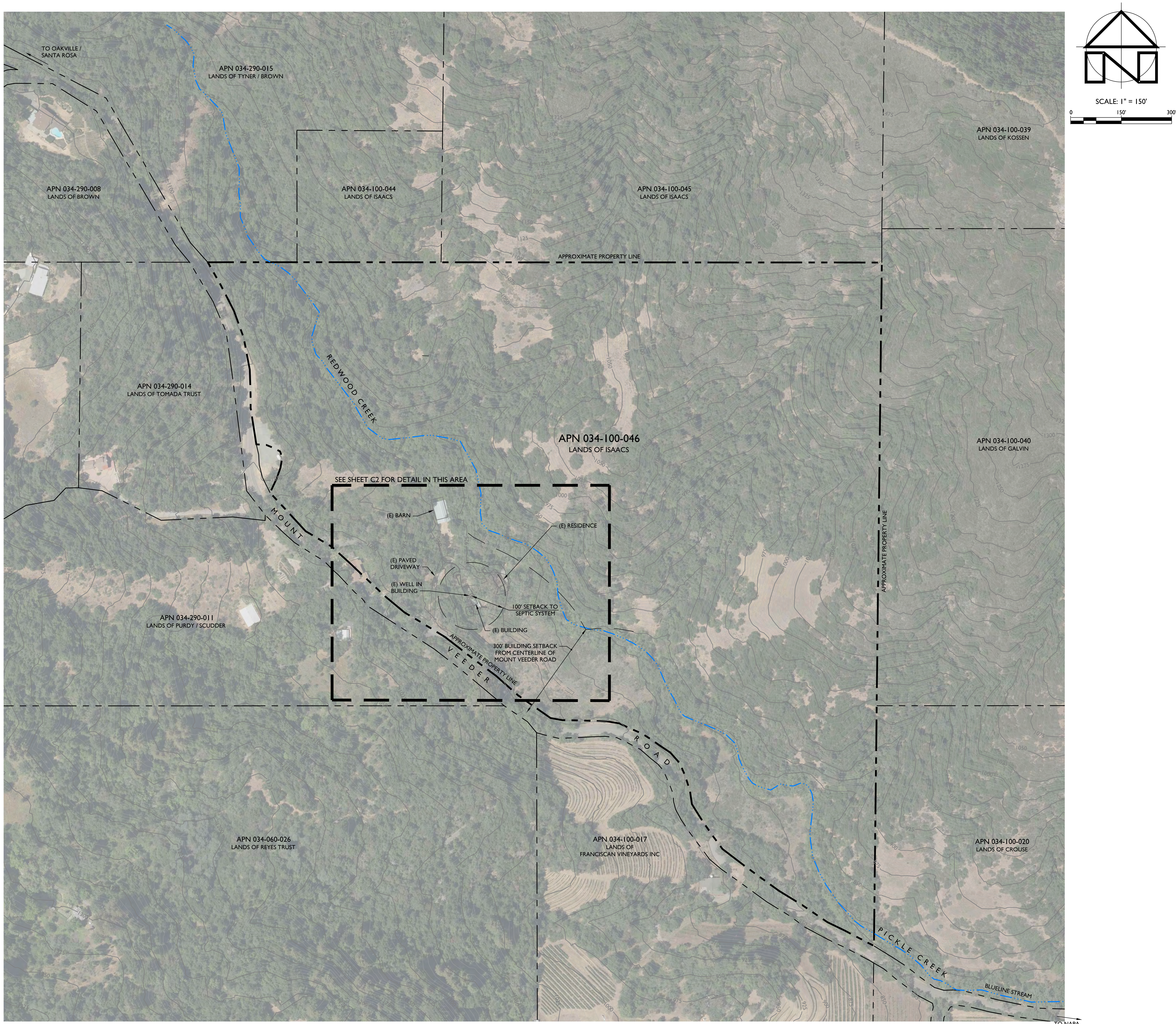
National Wetlands Inventory

ATTACHMENT B

ENGINEERING DRAWINGS

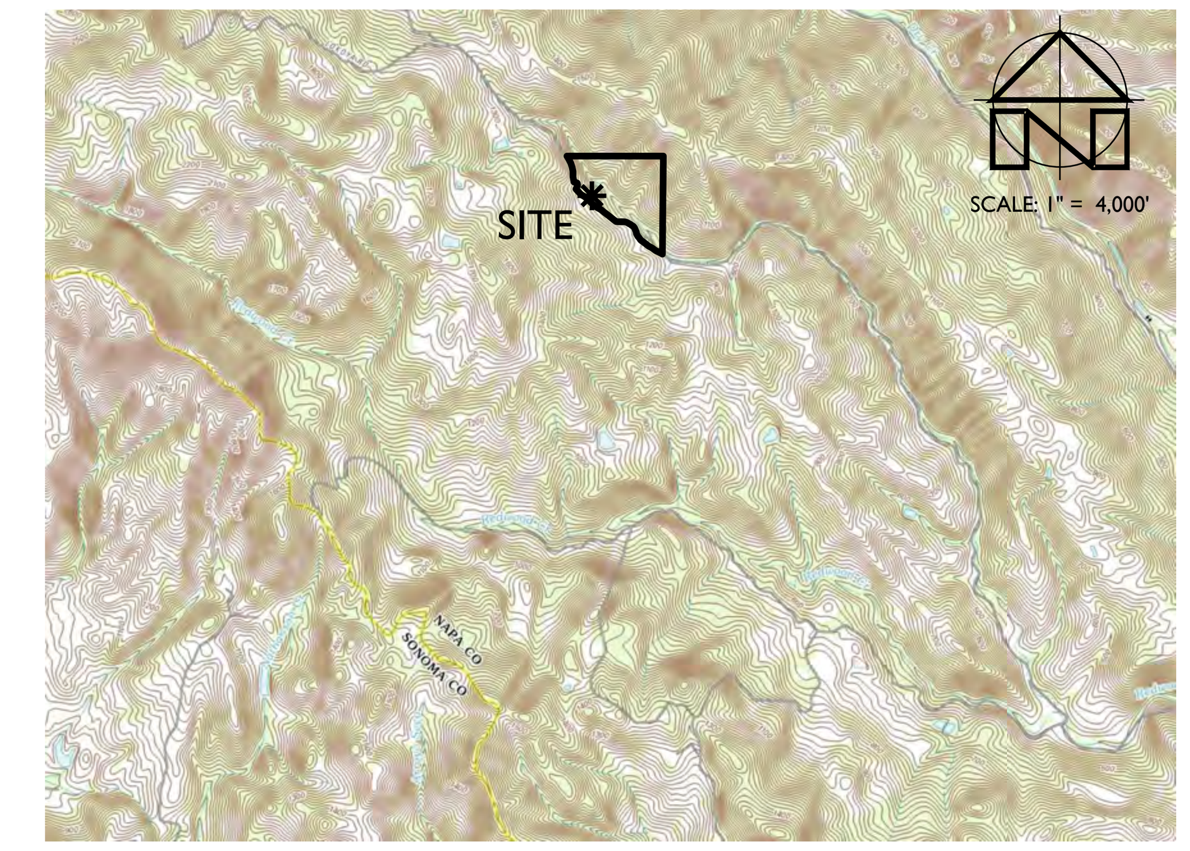
2072 MOUNT VEEDER ROAD WINERY

USE PERMIT CONCEPTUAL SITE PLAN



OVERALL SITE PLAN

SCALE: 1" = 150'



LOCATION MAP

SCALE: 1" = 4,000'

PROJECT INFORMATION

PROPERTY OWNER & APPLICANT:
AARON POTT
2072 MOUNT VEEDER ROAD
NAPA, CA 94558

SITE ADDRESS:
2072 MOUNT VEEDER ROAD
NAPA, CA 94558

ASSESSOR'S PARCEL NUMBER:
034-100-046

PARCEL SIZE:
40.0 ± ACRES

PROJECT SIZE:
0.5± ACRES

ZONING:
AGRICULTURAL WATERSHED (AW)

DOMESTIC WATER SOURCE:
PRIVATE

FIRE PROTECTION WATER SOURCE:
STORAGE TANK

WASTEWATER DISPOSAL:
ONSITE TREATMENT AND DISPOSAL

SHEET INDEX:

NOTES:

1. FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION ON SHEET C1 WAS TAKEN FROM THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATABASE. TOPOGRAPHIC INFORMATION ON SHEET C2 WAS TAKEN FROM THE "TOPOGRAPHIC MAP OF A PORTION OF THE LANDS OF DOUMANI" PREPARED BY RSA+, DATED APRIL, 2017. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
2. AERIAL PHOTOGRAPH WAS OBTAINED FROM THE SAN FRANCISCO ESTUARY INSTITUTE (SFEI) SAN FRANCISCO BAY AREA ORTHOPHOTOS DATABASE, DATED JUNE 2014 AND MAY NOT REPRESENT CURRENT CONDITIONS.
3. CONTOUR INTERVAL:

   SHEET C1: FIVE (5) FEET, HIGHLIGHTED EVERY TWENTY FIVE (25) FEET.
   SHEET C2: ONE (1) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET.
4. BENCHMARK: NAVD 88
5. THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
6. STREAM SETBACKS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.

FLOOD HAZARD NOTE:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 06055C0485E, EFFECTIVE SEPTEMBER 26, 2008, THE PROJECT SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA.

LEGEND:

EXISTING PROPERTY BOUNDARY (SUBJECT PARCEL)
EXISTING PROPERTY BOUNDARY (ADJACENT PARCEL)
BLUE LINE STREAM
SETBACK LINE

APPLIED CIVIL ENGINEERING INCORPORATED
2074 West Lincoln Avenue
Napa, CA 94558
(707) 320-4968 (707) 320-2395 Fax
www.appliedcivil.com

2072 MOUNT VEEDER ROAD WINERY
USE PERMIT CONCEPTUAL SITE PLAN
OVERALL SITE PLAN

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. MUELRATH
NO. 67435
EXP. 12/31/2018
CIVIL
STATE OF CALIFORNIA
FOR USE PERMIT REVIEW ONLY NOT FOR CONSTRUCTION

DRAWN BY: SMI

CHECKED BY: MRM

DATE: APRIL 20, 2017

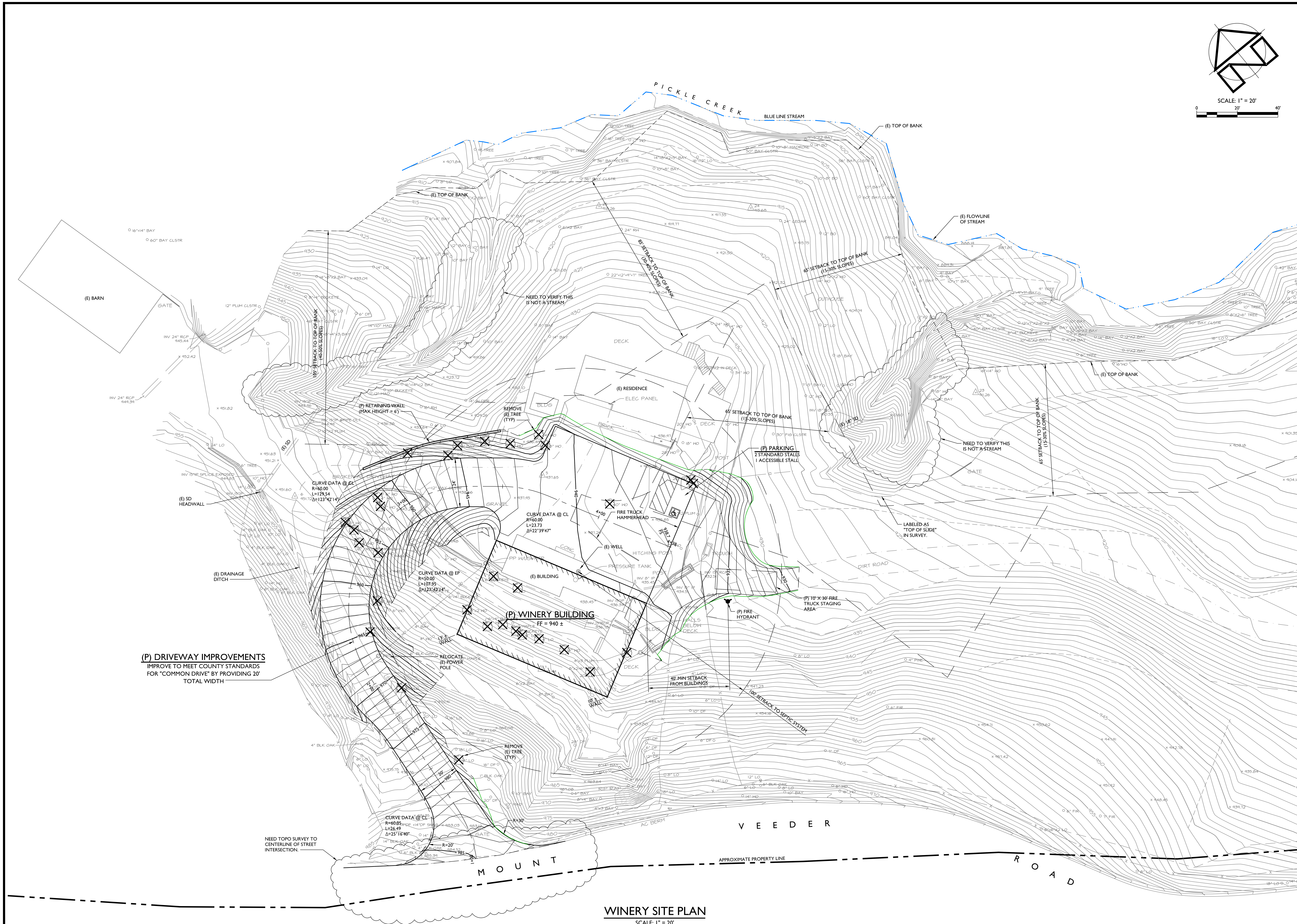
REVISIONS: BY:

JOB NUMBER: 17-110

FILE: 17-110CONC-OSP.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C1 OF 5



WINERY SITE PLAN
SCALE: 1" = 20'

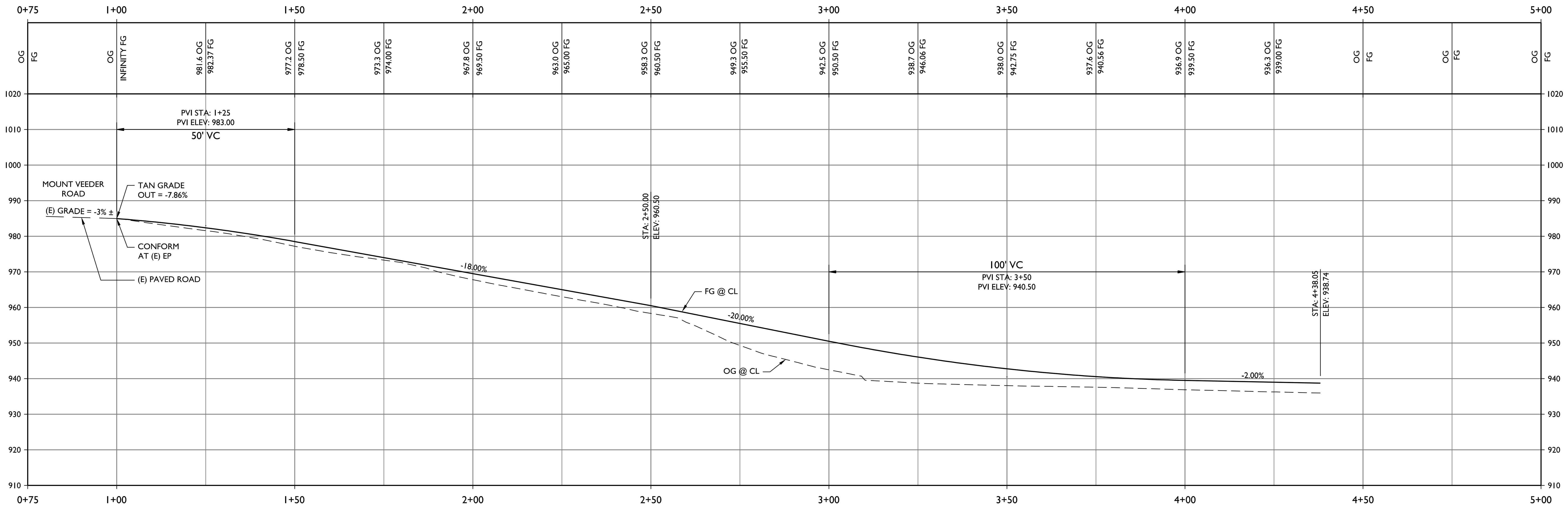
APPLIED CIVIL ENGINEERING INCORPORATED
2074 West Lincoln Avenue
Napa, CA 94558
(707) 320-4968 (707) 320-2395 Fax
www.appliedcivil.com

2072 MOUNT VEEDER ROAD WINERY
USE PERMIT CONCEPTUAL SITE PLAN
WINERY SITE PLAN

PREPARED UNDER THE DIRECTION OF:

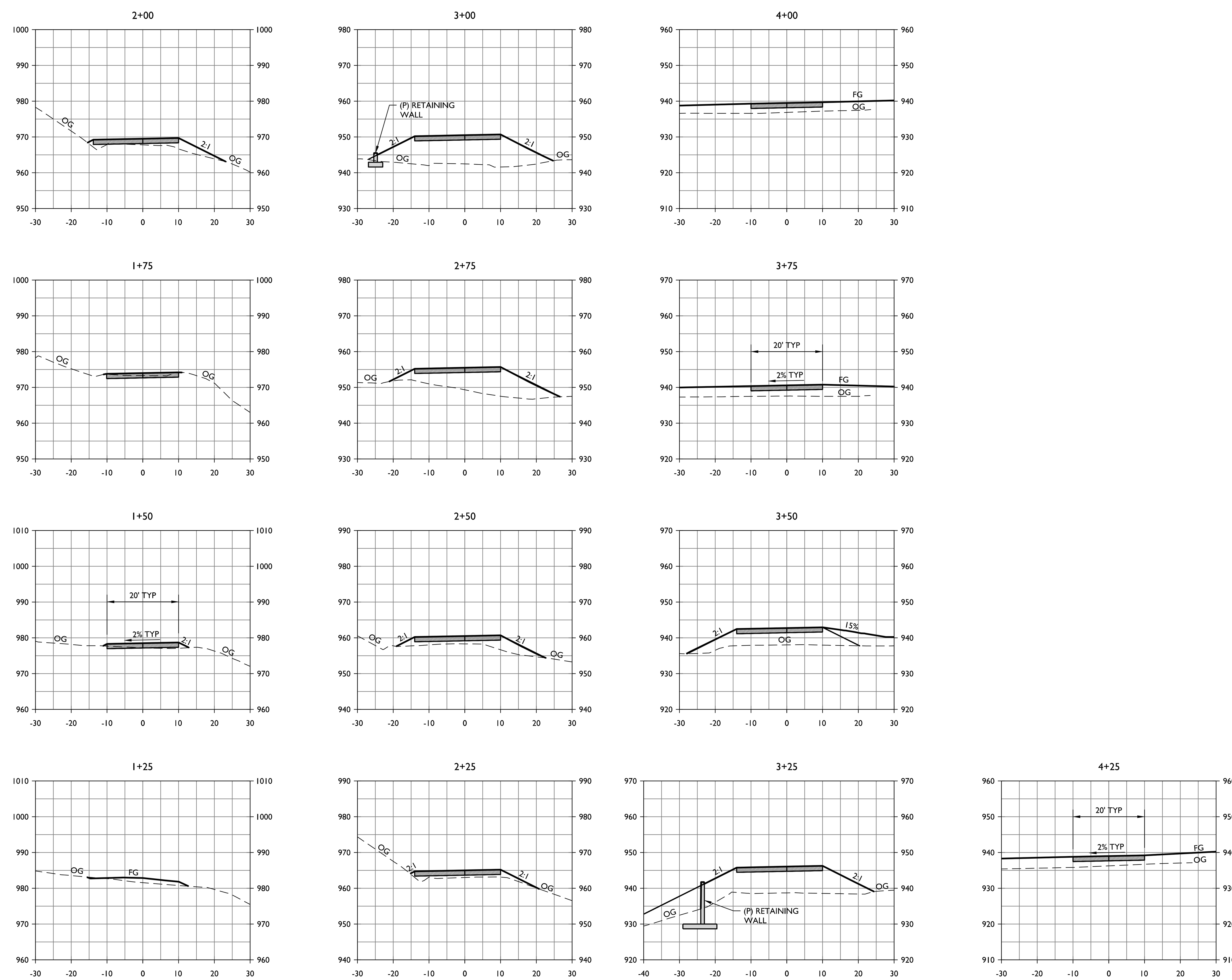
REGISTERED PROFESSIONAL ENGINEER, MICHAEL R. MUELRATH, No. 67435, Exp. 12/31/2018, CIVIL, STATE OF CALIFORNIA
FOR USE PERMIT REVIEW ONLY NOT FOR CONSTRUCTION

DRAWN BY:	SMI
CHECKED BY:	MRM
DATE:	APRIL 20, 2017
REVISIONS:	BY:
JOB NUMBER:	17-110
FILE:	17-110CONC-WSP.DWG
ORIGINAL SIZE:	24" X 36"
SHEET NUMBER:	C2 OF 5



DRIVEWAY PROFILE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'



DRIVEWAY SECTIONS

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'

APPLIED CIVIL ENGINEERING INCORPORATED
2074 West Lincoln Avenue
Napa, CA 94558
(707) 320-4968 (707) 320-2395 Fax
www.appliedcivil.com

2072 MOUNT VEEDER ROAD WINERY

USE PERMIT CONCEPTUAL SITE PLAN
DRIVEWAY PROFILE & CROSS SECTIONS

PREPARED UNDER THE DIRECTION OF:

FOR USE PERMIT REVIEW ONLY NOT FOR CONSTRUCTION

DRAWN BY: SMI

CHECKED BY: MRM

DATE: APRIL 20, 2017

REVISIONS: BY:

JOB NUMBER: 17-110

FILE: 17-110CONC-P&S.DWG

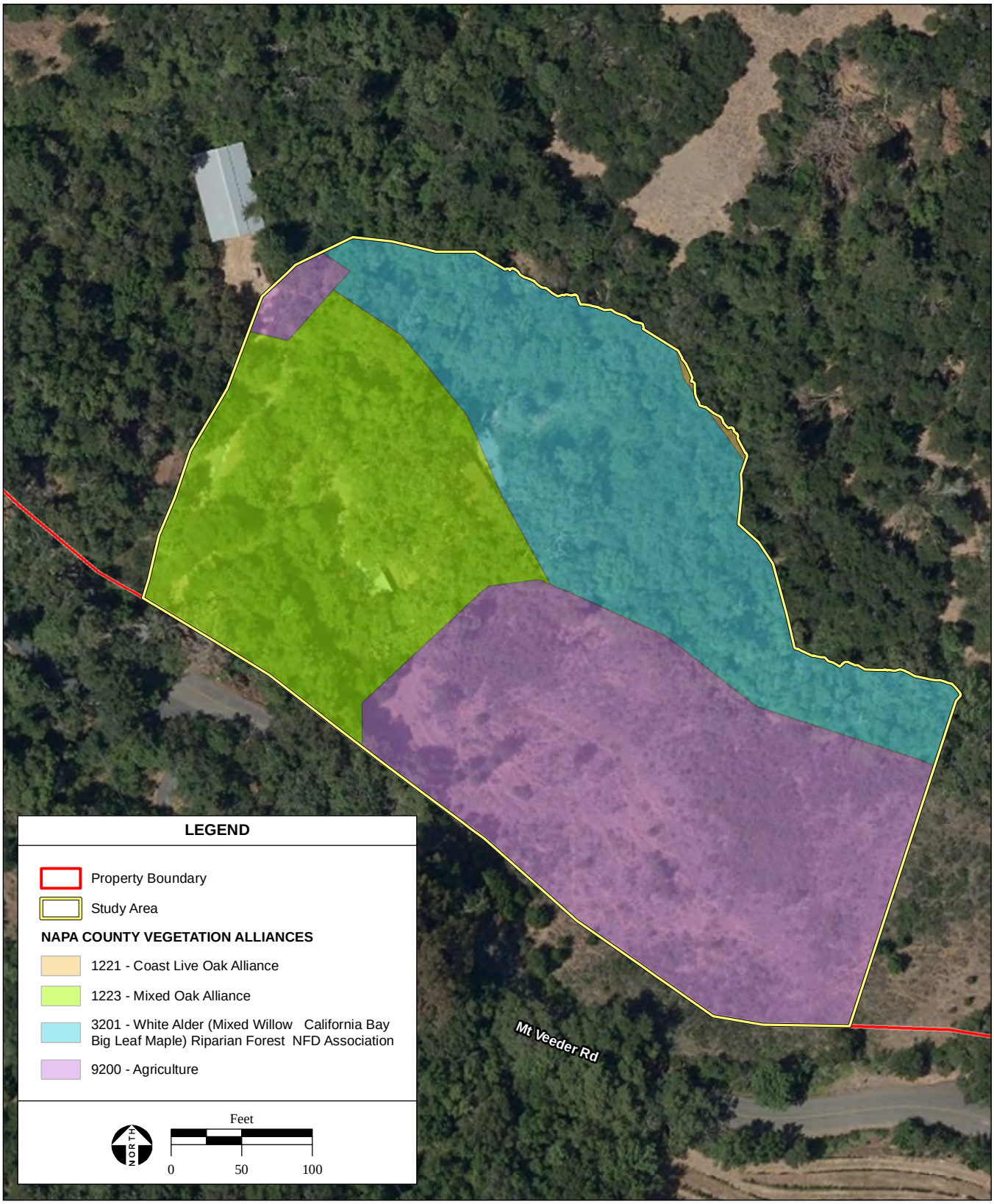
ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C3

OF 5

ATTACHMENT C

NAPA COUNTY VEGETATION ALLIANCES



SOURCE: Napa County Orthophoto, 6/5/2014; Napa Valley Engineering, 2013-2016; AES, 8/8/2017

Napa County Vegetation

ANALYTICAL ENVIRONMENTAL SERVICES

TECHNICAL MEMORANDUM

TO:	Aaron Pott
FROM:	Nicholas Bonzey, Senior Biologist
PROJECT:	Aaron Pott Winery Construction
SUBJECT:	Blooming Special-Status Plant Species Survey Results
DATE:	6/18/2018

INTRODUCTION

The purpose of this memorandum is to document the results of the blooming special-status plant species survey conducted on June 7, 2018 at the Aaron Pott winery site in Napa County, California. This memorandum describes survey methodologies and results.

METHODOLOGY

AES biologist Kaili Brande conducted a special-status plant species survey within the winery site on June 7, 2018. The objective of the survey was to identify any of the potentially-occurring special-status plant species that were not in their bloom period during the initial biological survey on August 1, 2017. AES staff walked meandering transects throughout the site to search for species that could potentially be affected by future construction activities.

SPECIAL-STATUS PLANT SPECIES

Special-status species include those that are listed by federal and state agencies as endangered, threatened, or of special concern, as well as those identified by Napa County as species of concern. Special-status plant species that were not in their bloom period during the initial biological survey but were still identified as having the potential to occur at the winery site include: Napa false indigo (*Amorpha californica var. napensis*), Rincon Ridge manzanita (*Arctostaphylos stanfordiana subsp. decumbens*), Sonoma ceanothus (*Ceanothus sonomensis*), and Cobb Mountain lupine (*Lupinus sericatus*). As described in the Biological Resource Assessment for the project, these species bloom in the month of April. Napa false indigo and Cobb Mountain lupine also bloom in the month of June. Rincon Ridge manzanita and Sonoma ceanothus do not bloom in June, however they possess distinct vegetative characteristics, being manzanita and ceanothus, which are identifiable outside of their bloom period.

RESULTS

SPECIAL-STATUS PLANT SPECIES

None of the special-status plant species listed above were observed during the preconstruction survey, including any manzanita or ceanothus species.

RECOMMENDATIONS

SPECIAL-STATUS SPECIES IMPACT AVOIDANCE MEASURES

No special-status species were observed during the preconstruction survey, therefore no avoidance measures are required.

NORTHWEST BIOSURVEY
Environmental & Planning Services
1905 Westlake Drive, Kelseyville CA 95451

Phone (707) 889-1061
nwbio98@gmail.com

October 22, 2020

George H Monteverdi, Ph.D.
Principal, Monteverdi Consulting, LLC.
PO Box 6079
Napa, CA 94581

RE: Pott Winery Tree Removal Assessment

Dear Dr. Monteverdi:

As per your request, we have completed our assessment of tree loss at the proposed Pott Winery site at 2072 Mount Veeder Road. Our results are provided in this letter format.

On October 19, 2020 we met with you on the property and conducted our walking survey of trees slated for removal as marked on the current RSA+ winery development plan. A primary goal of this survey has been to determine the status of these trees following the Nuns fire in 2017.

Survey Results: **Figure 1** provides a map of the winery area with the location and status of all trees slated for removal in the development plan. A total of 58 trees were inspected. Of these, 15 trees were determined to be dead and 6 additional trees were missing since the time of the original 2017 (pre-fire) survey. A total of 37 trees are alive. This total includes trees with burned trunks that subsequently stump-sprouted. **Table 1** provides the results of the survey for each tree. The table includes the waypoint corresponding to its mapped location in **Figure 1**, the species, the diameter at breast height (DBH), and status (alive, alive and stump sprouting, or dead). Missing trees are marked in Figure 1 (based on the 2017 pre-fire survey) but are not included in the table.

Proposed Mitigation: The combined canopy cover of living trees slated for removal within the coast live oak/mixed oak woodland of the winery site is shown in green outline in **Figure 1**. The amount of canopy cover within this woodland that will be lost is 0.21 acres. Current Napa County policy for mitigation of tree loss calls for a 30-percent/70-percent retention of woodland cover. At this ratio, a total of 0.49 acres of preservation of coast live oak woodland would be required to mitigate the loss of 0.21 acres of woodland. This preservation acreage must be in locations not already excluded from future development due to slope steepness (more than 30-percent) or waterway setbacks.

The locations of proposed Tree Canopy mitigation sites are shown in **Figure 2**. The sites consist primarily of coast live oak woodland on two of the few locations in the parcel that are less than 30-percent slope. They contain a combined 0.91 acres which is 1.86 times larger than the 0.49 acres required as a tree mitigation site under current Napa County policy. This larger ratio is recommended because all coast live oak woodland communities on the property were burned during the Nuns Fire and have oak survival rates similar that of the proposed winery site. This total mitigation acreage (which is all of the available coast live oak on the parcel on less than a 30-percent slope) should adequately replace coast live oak canopy proposed for removal at the winery site.

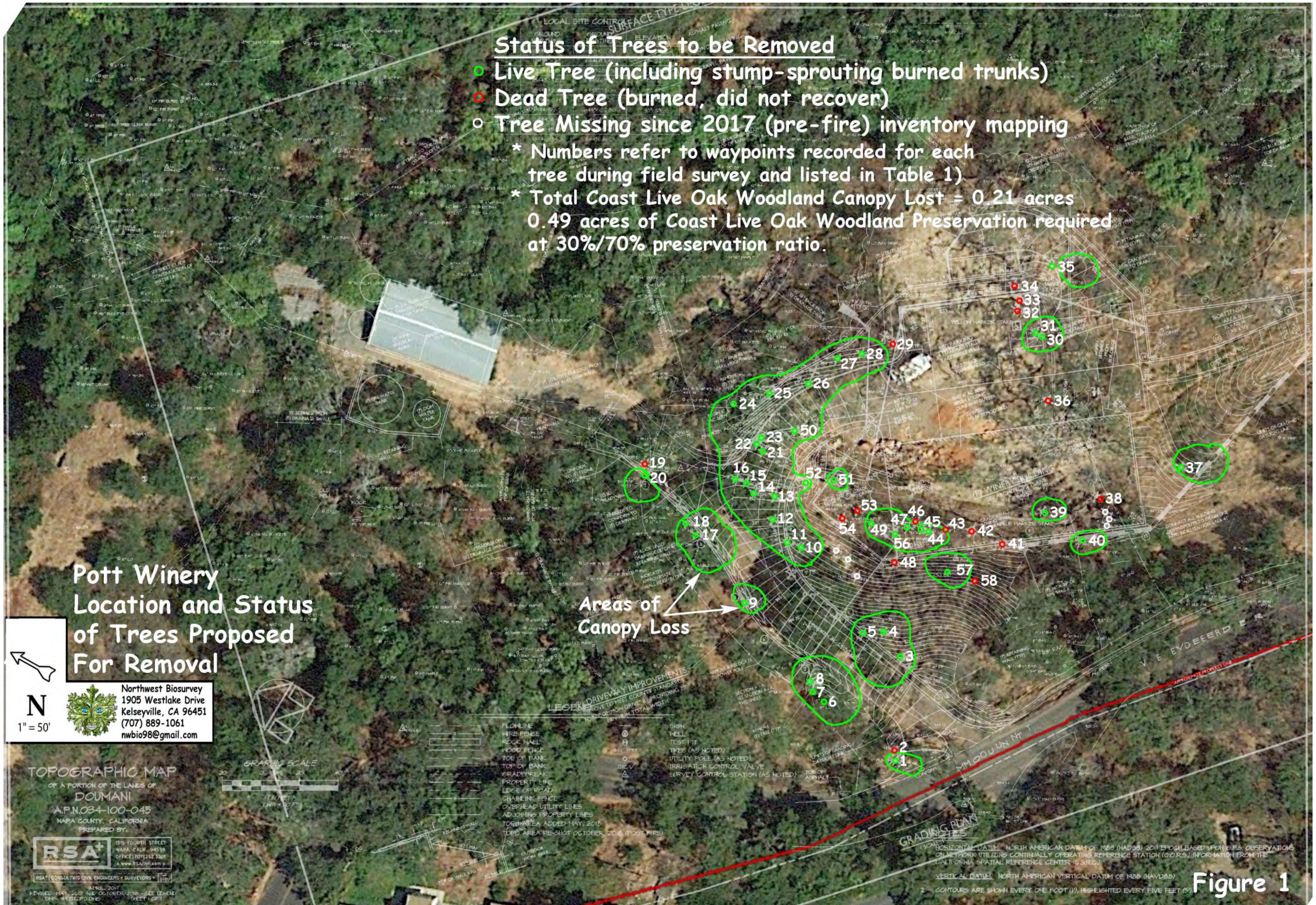
TREE SURVEY OCTOBER 19, 2020

WAYPOINT	SPECIES	DIAMETER AT BREAST HEIGHT (DBH) (in.)	NOTES
1	OWO	13	alive
2	Ind	22	dead (burned)
3	CLO	18	alive
4	CLO	13	alive
5	CLO	18	alive
6	CLO	9	alive
7	CLO	8	alive
8	BLK	5	alive
9	OWO	7	alive
10	Plum	9	from orchard
11	OWO	7	alive
12	OWO	9	alive
13	OWO	9	alive
14	OWO	6	alive
15	OWO	10	alive
16	OWO	9	alive
17	BLK	6	alive
18	CLO	7	alive
19	OWO	11	dead
20	CLO	12	alive
21	OWO	7	alive
22	OWO	4	alive
23	OWO	8	alive
24	BAY	30 (cluster)	alive
25	OWO	14	alive
26	CLO	8	alive

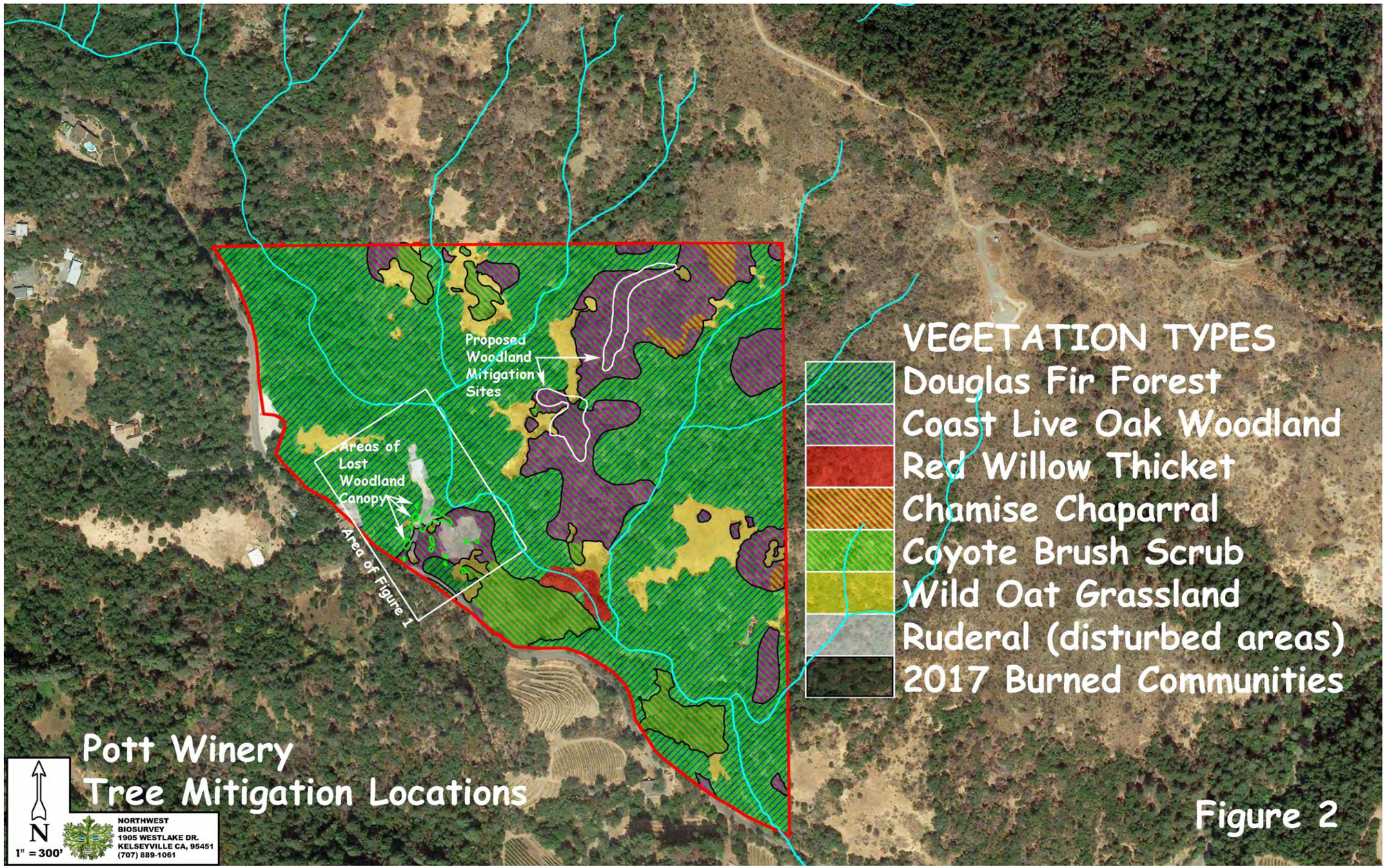
WAYPOINT	SPECIES	DIAMETER AT BREAST HEIGHT (DBH) (in.)	NOTES
27	BAY	6	alive
28	OWO	12	alive
29	OWO	36	dead
30	WAL	9	stump-sprouting
31	OWO	18	alive
32	OWO	20	dead
33	OWO	15	dead
34	OWO	19	dead
35	OWO	9	alive
36	OWO	35	dead
37	CLO	8	alive
38	CLO	20	dead
39	BLM	17	stump-sprouting
40	DFR	27	alive
41	OWO	18	dead
42	CLO	6	dead
43	CLO	?	dead
44	BUC	4	stump-sprouting
45	BLM	7	stump-sprouting
46	CLO	5	dead
47	BUC	8	stump-sprouting
48	CLO	6	dead
49	OWO	5	alive
50	NA	NA	alive
51	BAY	12	stump-sprouting
52	OWO	6	stump-sprouting
53	Ind	13	dead
54	OWO	6	dead
55	BAY	5	stump-sprouting
56	BLM	12	stump-sprouting
57	CLO	6,6	multi-stem
58	BAY	6	dead

Key:

BAY = California Bay
BLK = Black Oak
BLM = Bigleaf Maple
BUC = California Buckeye
CLO = Coast Live Oak
DFR = Douglas Fir
MAD = Pacific Madrone
Ind = Indeterminate
OWO = Oregon White Oak
WAL = Northern California Black Walnut



Status of Trees to be Removed
Live Tree (including stump-sprouting burned trunks)
Dead Tree (burned, did not recover)
Tree Missing since 2017 (pre-fire) inventory mapping
* Numbers refer to waypoints recorded for each tree during field survey and listed in Table 1)
* Total Coast Live Oak Woodland Canopy Lost = 0.21 acres
0.49 acres of Coast Live Oak Woodland Preservation required at 30%/70% preservation ratio.
Pott Winery
Location and Status of Trees Proposed For Removal
Areas of Canopy Loss
N
1" = 50'
Northwest Biosurvey
1905 Westlake Drive
Kelseyville, CA 96451
(707) 889-1061
nwbio98@gmail.com
TOPOGRAPHIC MAP
DOUMANI
Figure 1


Proposed Woodland Mitigation Sites
Areas of Lost Woodland Canopy
Area of Figure 1
VEGETATION TYPES
Douglas Fir Forest
Coast Live Oak Woodland
Red Willow Thicket
Chamise Chaparral
Coyote Brush Scrub
Wild Oat Grassland
Ruderal (disturbed areas)
2017 Burned Communities
Pott Winery
Tree Mitigation Locations
N
1" = 300'
NORTHWEST BIOSURVEY
1905 WESTLAKE DR.
KELSEYVILLE CA, 95451
(707) 889-1061
Figure 2