

Exhibit B-2

Rare Plant Report

1300 Mt. Veeder Road (APN 034-230-029)
NAPA COUNTY, CALIFORNIA

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WRA Project No: 26082



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1.0 INTRODUCTION

On July 12, 2016, WRA, Inc. (WRA) conducted a floristic, protocol-level rare plant survey at the approximately 118 acre parcel at 1300 Mt. Veeder Road (APN 034-230-029) in unincorporated Napa County; surveys were concentrated within the 23 acres proposed for vineyard development (Project Area). The survey encompassed the peak blooming periods of four rare plant species that have a high or moderate potential to occur within the Project Area. Two rare plant species have blooming periods outside the survey date; however one is identifiable by vegetative features and the other would not need special consideration under CEQA. The proposed project includes converting approximately 23 acres of grasslands into cultivated vineyards.

The purpose of this report is to present the results of a protocol-level rare plant survey. In June 2016, WRA conducted a biological resources assessment site visit and compiled a report describing results of the site visit. This Rare Plant Survey report supplements the Biological Resources Assessment Report.

1.1 Project Description and Regulations

The proposed project would convert approximately 23 acres of grasslands into cultivated vineyard which will produce grapes to be used in the production of wine. Within the outlines of the Project Area are several patches of oak woodland, and these areas would be avoided during conversion such that no trees or oak woodland would be removed following the completion of the project. Grassland would be tilled and leveled using basic farm equipment such as tractors, discs and plows. Once any target vegetation is removed from within the Project Area, farm laborers would install the infrastructure including supporting posts and wires to trellis vines, followed by planting of the vineyard. Once vineyard planting is completed, non-cultivated vegetation would be managed on a regular basis through mowing and tilling, and grounds would be maintained as agricultural operations.

The Napa County Planning Division regulates vineyard development. The process is guided by the Napa County Conservation Regulations, the Napa County General Plan and compliance with CEQA. These regulations establish the requirements and guidelines for preparing, reviewing and approving Erosion Control Plans (ECP's). The Project was determined by the County of Napa to acquire an Erosion Control Plan approval from the County, which requires a Biological Resources Assessment Report.

1.2 Project Area Description

The Project Area consists of approximately 23 acres within a 118 acre parcel (APN 034-230-029) located in unincorporated Napa County, northwest of the city of Napa, between Mt. Veeder Road and Dry Creek Road (Figure 1). The Project Area is surrounded by a matrix of vineyards, undeveloped native vegetation, and rural residences.

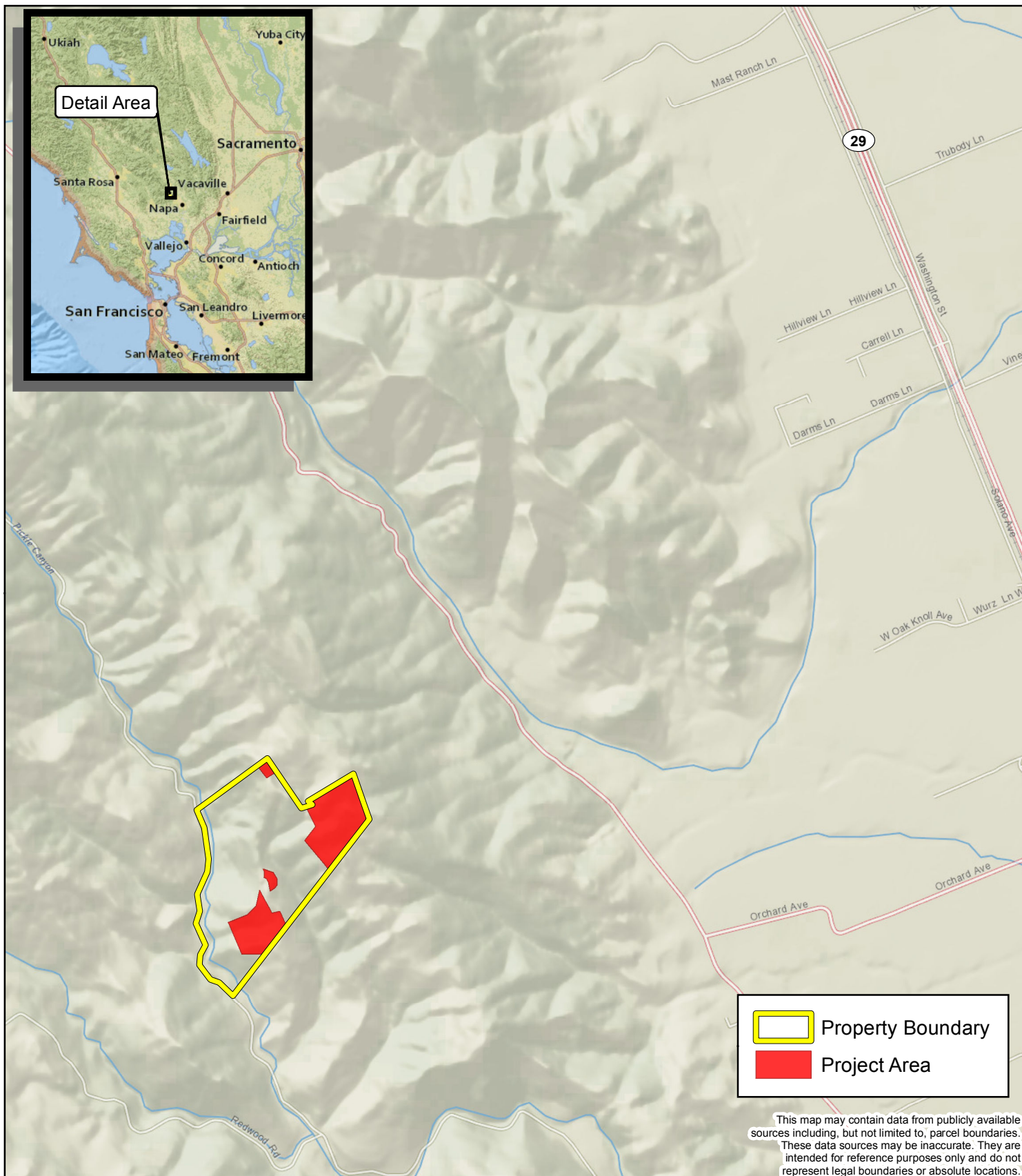


Figure 1. Project Area Location Map

DRAFT

Mount Veeder Vineyard Development
Napa County, California

0 750 1,500 3,000
Feet



Map Prepared Date: 6/28/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

1.2.1 Geology and Soils

Local bedrock is lower cretaceous sedimentary marine rock (USGS 1963). Within the Project Area, two native soil types, consisting of two soil series are derived from this bedrock. Topography on the site is primarily steep throughout with 15 to 30 percent slopes in elevations ranging from 530 to 970 feet above mean sea level.

The *Soil Survey of Napa County* (USDA 1978) indicates that the Project Area is composed of three mapping units: Felton gravelly loam, 30 to 50 percent slopes, Fagan clay loam 15 to 30 percent, and Fagan clay loam, 30 to 50 percent slopes. The Felton and Fagan soil series are described below.

Felton Series: This soil series consists of well drained silt loam formed in material weathered from shale, sandstone or mica schist, and is situated on uplands at elevations ranging from 400 to 3,000 feet. These soils are not considered hydric, with rapid to very rapid runoff, and moderately slow permeability (USDA 2016, USDA 1978). Native and naturalized vegetation includes madrone (*Arbutus menziesii*), Douglas fir (*Pseudotsuga menziesii*), redwood (*Sequoia sempervirens*), and oaks (*Quercus* spp.) (USDA 1978).

A representative pedon of this series consists of an O horizon of leaf litter to depths of approximately 1 inch. This is underlain by an A-horizon of moderately acid, dark brown (7.5YR 3/2), when moist, silt loam to clay loam from approximately 0 to 10 inches depth. This is underlain by a Bt-horizon of moderate to strongly acid, brown (17.5YR 5/4) to yellowish brown (10YR 5/6), when moist, clay loam from approximately 10 to 39 inches depth. This is underlain by a C horizon of strongly acid, yellowish brown (10YR 5/6) to dark yellowish brown (10YR 4/4), when moist, shaly clay loam from approximately 39 to 60 inches depth. This is underlain by a Cr-horizon of shale (USDA 2009).

Fagan Series: This soil series consists of well drained clay loam soils formed in material from sandstone or shale at elevations ranging from 200 to 1,500 feet above sea level on slopes from 5 to 50 percent. These soils are not considered hydric with medium to rapid runoff and slow permeability (USDA 2016, USDA 1978). Natural vegetation is mostly annual grasses and forbs and a few oaks on north slopes. Current uses include range and vineyards.

A representative pedon of this series consists of an A-horizon of medium acid, very dark grayish brown (10YR 3/2) when moist light clay loam from approximately 0 to 12 inches depth. This is underlain by Bt horizons of medium acid, very dark grayish brown to olive brown (2.5Y 4/4) to yellowish brown (10YR 5/5) clay from approximately 10 to 46 inches depth. Occurring 46 inches and deeper is the Cr horizon of light yellowish brown (10YR 6/4) sandstone.

1.2.2 Climate and Topography

The Project Area is located outside of the coastal fog belt of the Bay Area, but annual rainfall is substantial in winter with cool temperatures and summers are dry and hot. Average annual precipitation for Napa (046074 Napa State Hospital), the closest reporting weather station to the Project Area, is 24.66 inches, with the majority falling as rain in the winter months (November through March) (WRCC 2016). The mean daily low and high temperatures in degrees Fahrenheit range from 57 in December to 82 in September, however, temperatures frequently exceed 90 degrees in summer.

The primary hydrologic sources for the Project Area are precipitation and localized surface runoff from immediately adjacent lands. The Project Area experiences moderate winter/spring rainfall events, with evidence of surface ponding, repeated directional flow, perched water table, and/or saturated substrates for extended periods (14 days or greater) present in topographical low points.

1.2.3 Vegetation

A total of four biological communities occur in the Project Area and include wild oats grassland, purple needle grass grassland, mixed oak forest, and seasonal wetland. Biological communities are described in detail below and are shown in Figure 2.

Wild Oats Grassland

Wild Oats Grassland (*Avena* spp. Semi-Natural Herbaceous Stand) is dominated by the non-native wild oats and occurs in waste places, rangelands and openings in woodlands throughout California (Sawyer et.al. 2009). In wild oats grasslands either slim oat (*Avena barbata*) or wild oat (*Avena fatua*) are dominant with emergent trees and shrubs at low cover. Several species of non-native and native grasses and forbs can also be present, sometimes characteristically so.

In the Project Area, both slim and wild oats dominate the herbaceous layer; non-native grass species which are also characteristically present includes purple false brome (*Brachypodium distachyon*), dogtail grass (*Cynosurus echinatus*), and ripgut brome (*Bromus diandrus*). While predominantly occupied by non-native forbs, several native forbs were present, including lthuriel's spear (*Triteleia laxa*), yellow mariposa (*Calochortus luteus*), California poppy (*Eschscholzia californica*), western lupine (*Lupinus formosus* var. *formosus*), and narrow-leaved mules ears (*Wyethia angustifolia*). The areas of wild oats grasslands are regularly disturbed through disking as seen in satellite imagery and field observation. Wild oats grassland occupies 22.34 acres of the Project Area.

Mixed Oak Forest

Mixed oak forest (*Quercus* spp. Forest Alliance) occurs in valleys and gentle to steep slopes in moderately deep soils from Sonoma and Napa County south to Santa Barbara County (Sawyer et.al. 2009.) In mixed oak forests, several oak species are co-dominant in the canopy layer, which can also contain Douglas fir (*Pseudotsuga menziesii*), madrone (*Arbutus menziesii*), and California bay (*Umbellularia californica*).

In the Project Area, Oregon oak (*Quercus garryana*), California black oak (*Quercus kelloggii*), and coast live oak (*Quercus agrifolia*) are the oak species which comprise the majority of the tree canopy layer; California bay, madrone, and California buckeye (*Acslesus californica*) are also present in the canopy layer. The shrub and herbaceous layer of the mixed oak forest is either sparse, consisting primarily of leaf litter and scattered herbs or dense with a vertically heterogeneous layering of shrubs and herbs. Species observed within the mixed oak woodlands includes poison oak (*Toxicodendron diversilobum*), field hedge parsley (*Torilis arvensis*), cranesbill geranium (*Geranium molle*), purple sanicle (*Sanicula bipinnatifida*), split awn sedge (*Carex tumulicola*), purple false brome, blue wildrye (*Elymus glaucus*), yampah (*Perideridia* sp.), honeysuckle (*Lonicera hispidula*), wild strawberry (*Fragaria vesca*), toyon (*Heteromeles arbutifolia*), and several non-native grass species.

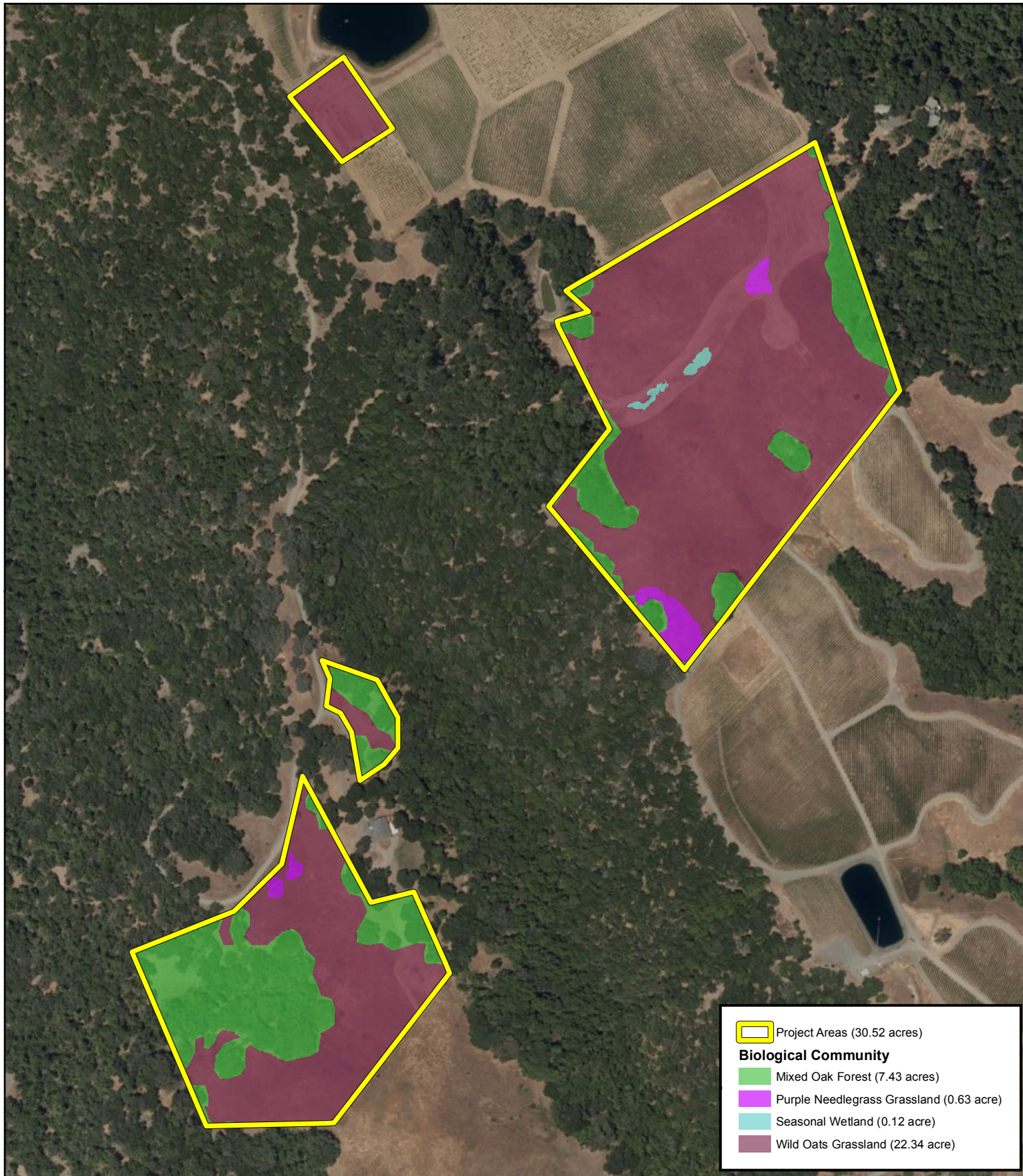


Figure 2. Biological Communities



Mount Veeder Vineyard Development
Napa County, California

0 125 250 500
Feet

Map Prepared Date: 6/23/2016
Map Prepared By: pkobylarz
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

The Project Area contains approximately 7.43 acres of mixed oak forest. While this habitat exists within the Project Area outlines no mixed oak forest will be converted to vineyard during the implementation of the proposed Project.

Purple Needle Grass Grassland

Purple Needle Grass Grassland (*Nassella pulchra* Herbaceous Alliance) typically occurs in valley and foothill areas on all topographic locations throughout cismontane California; where it occurs inland, soils are generally deep with high clay content (Sawyer et. al. 2009).

Purple needle grass grassland occurs in patches within the wild oat grassland of the Project Area. These areas are dominated by purple needle grass and generally located on south facing slopes. Additional species present within this community include wild oats, ripgut brome, garden vetch (*Vicia sativa*), soft chess (*Bromus hordeaceus*), Itherial's spear, Italian thistle (*Carduus pycnocephala*), coastal heron's bill (*Erodium cicutarium*), and narrow-leaved mules ears. There are four small patches of purple needle grass grassland within the Project Area, consisting of 0.63 acres.

Seasonal wetland

Seasonal wetlands are areas where the soil is saturated for duration sufficient to promote hydrophytic vegetation. Within the Project Area, the seasonal wetland occurs within a swale in the topography in the southeast section of the parcel. The swale containing the seasonal wetland has a low portion which is dominated primarily by wetland plant species including pennyroyal (*Mentha pulegium*), tall Cyperus (*Cyperus eragrostis*), sedge (*Carex densa*), slender willow herb (*Epilobium densiflorum*), rush (*Juncus patens*), and hyssop loosestrife (*Lythrum hyssopifolia*). The higher portions of the swale are dominated by facultative wetland plants, including fiddleneck dock (*Rumex pulcher*), little rattlesnake grass (*Briza minor*), California oat grass, and bristly ox tongue (*Helminthotheca echioides*). The upland edge of the wetland is indicated by the upland grass species Hardings grass (*Phalaris aquatica*). The seasonal wetland occupies 0.12 acres of the Project Area.

2.0 METHODS

2.1 Background Data Search

Rare plants are defined here to include: (1) all plants that are federal- or state-listed as rare, threatened or endangered, (2) all federal and state candidates for listing, (3) all plants included as Rank 1 through 4 of the California Native Plant Society Inventory (CNPS 2016b), and (4) plants that qualify under the definition of "rare" in the California Environmental Quality Act, section 15380.

A background information search was conducted to identify potential rare plant species that may occur in the Project Area vicinity. A table of these species, and their protection status, habitat requirements, and likelihood to occur in the Project Area is provided in Appendix A. Sources for this search included the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPC) report for the Project Area (USFWS 2016), California Consortium of Herbaria (CCH 2016), California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB 2016) records, and the CNPS Electronic Inventory of Rare and

Endangered Vascular Plants of California (CNPS 2016b) for the USGS Napa and Sonoma 7.5-minute quadrangles and the seven surrounding quadrangles.

All special-status plant species documented within the greater vicinity of the Project Area were then assessed based on associated vegetation communities, soil affinity, associated species, topographic position, shade tolerance, disturbance tolerance, elevation, and population distribution to determine the potential for these species to occur in the Project Area (Appendix A).

2.2 Field Survey

2.2.1 Special-status Plant Species

A floristic, protocol-level rare plant survey was conducted on July 12, 2016, focusing on the species with moderate or high potential to occur within the Project Area and which would need to be considered under CEQA. The survey entailed an intuitive meander within the entirety of the Project Area, focusing on habitat niches of the rare species with potential to occur. The survey corresponded with the peak blooming period of four of the six rare plant species with potential to occur in the Project Area. The remaining two have blooming periods outside of the survey date; however one is identifiable through vegetative features and the other would not need special consideration under CEQA.

The surveys followed the protocol for plant surveys described in recommended resource agency guidelines (CNPS 2001, CDFG 2000, CDFG 2009, USFWS 1996). All plants were identified using *The Jepson Manual, 2nd Edition* (Baldwin et al. 2012) and subsequent revisions by the Jepson Flora Project (2016), to the taxonomic level necessary to determine whether or not they were rare. Names given follow the Jepson Flora Project (2016) with relevant synonyms provided in brackets. Plant surveys were floristic in nature with all observed species recorded and included on a species list provided in Appendix B.

3.0 RESULTS

3.1 Background Data Search Results

Based upon a review of CNDDDB (CDFW 2016), CNPS Electronic Inventory (CNPS 2016b), USFWS Species List (USFWS IPC 2016), and CCH (2016) resources and databases, 54 special-status plant species have been documented in the vicinity of the Project Area (Appendix A, Figure 3). Forty-eight special-status plant species documented from the greater vicinity of the Project Area are unlikely or have no potential to occur because:

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

- The Project Area is geographically isolated (e.g., below elevation, coastal environ) from the documented range of the special-status plant species.

The remaining six special-status plant species have a moderate to high potential to occur in the Project Area and are discussed below:

Napa false indigo (*Amorpha californica* var. *napensis*) CRPR 1B.2. Moderate Potential. Napa false indigo is a small deciduous tree in the pea family (Fabaceae) that blooms from April to July, with identifiable vegetative structures remaining into early fall. It typically occurs on north-facing aspects in openings in broadleaf upland forest, chaparral, and cismontane woodland habitat at elevations ranging from 395 to 6,560 feet (CDFW 2016, CNPS 2016). Soil survey data at known locations suggest that this species is typically located on moderately acid (pH 5.6) to neutral (pH 6.7) loams, often mixed with larger textures derived from a variety of orogeny (CDFW 2016, CSRL 2016). Known associated species include California bay laurel (*Umbellularia californica*), black oak (*Quercus kelloggii*), coast live oak (*Q. agrifolia*), Douglas fir (*Pseudotsuga menziesii*), tanoak (*Notholithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), California hazelnut (*Corylus cornuta* var. *californica*), ocean spray (*Holodiscus discolor*), poison oak (*Toxicodendron diversilobum*), wood fern (*Dryopteris arguta*), bracken fern (*Pteridium aquilinum*), wood rose (*Rosa gymnocarpa*), and rein orchid (*Piperia transversa*) (CDFW 2016). Napa false indigo has a moderate potential to occur within the Project Area due to the presence of associated species and vegetation types.

Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*) CRPR 1B.2. Moderate Potential. Congested-headed hayfield tarplant is an annual herb in the sunflower family (Asteraceae) that blooms from April to November. It typically occurs in grassy areas and fallow fields in coastal scrub, and valley and foothill grassland at elevations ranging from 65 to 1,840 feet (CDFW 2016, CNPS 2016b). Observed associated species include coast live oak, white hyacinth (*Triteleia hyacinthina*), Italian rye grass (*Festuca perennis*), little rattlesnake grass, pennyroyal, and spiny-fruited buttercup (*Ranunculus muricatus*) (CDFW 2016). This species has a moderate potential due to the presence of associated species and vegetation as well as a nearby occurrence near Mount Veeder Road (CalFlora 2016, CCH 2016).

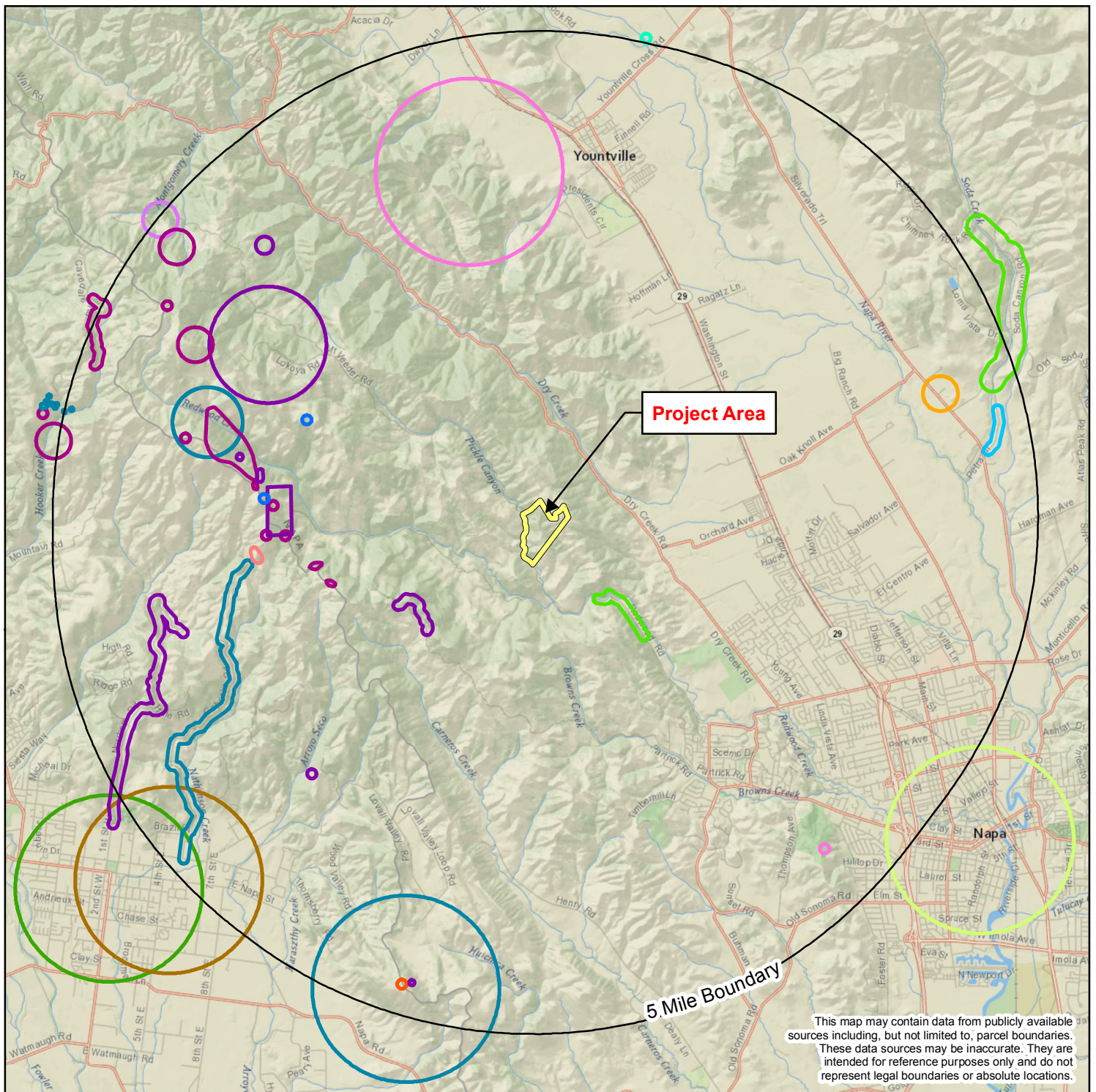
Redwood lily (*Lilium rubescens*). CNPS Rank 4.2. Moderate Potential. Redwood lily is a bulbiferous perennial forb in the lily family (Liliaceae) that blooms from April through September. It typically occurs in openings, roadsides, and trails, often on serpentine and volcanic substrates in broadleaf upland forest, chaparral, lower montane coniferous forest, upper montane coniferous forest, and North Coast coniferous forest habitat at elevations ranging from 95 to 6,210 feet (CNPS 2016b.) Known associated species include California bay, coast redwood (*Sequoia sempervirens*), Douglas fir, knobcone pine (*Pinus attenuata*), canyon live oak (*Quercus chrysolepis*), Sargent cypress (*Hesperocyparis sargentii*), MacNab cypress (*H. macnabiana*), chamise (*Adenostoma fasciculatum*), hoary manzanita (*Arctostaphylos canescens*), bush poppy (*Dendromecon rigida*), yerba santa (*Eriodictyon californicum*), and Sonoma sage (*Salvia sonomensis*). Redwood lily has a moderate potential to occur within the Project Area due to the presence of associated species and vegetation types.

Green Monardella (*Monardella viridis*). CNPS Rank 4.3. Moderate Potential. Green Monardella is a perennial forb in the mint family (Lamiaceae) that blooms from June through September. It typically occurs on serpentine substrates in chaparral, cismontane woodland, and broadleaf upland forest habitat at elevations ranging from 325 to 3,285 feet (CNPS 2016b). Known associated species are not reported in the literature. Green Monardella has a moderate

potential to occur within the Project Area due to the presence of associated vegetation types and documented occurrences from Mount Veeder (CCH 2016, Calflora 2016).

Dark-mouthed Tritoleia (*Triteleia lugens*). CNPS Rank 4.3. Moderate Potential. Dark-mouthed Tritoleia is a perennial bulbiferous forb in the brodiaea family (Themidaceae) that blooms from April through June. It typically occurs in chaparral, coastal scrub, broadleaf upland forest, and lower montane coniferous forest habitat at elevations ranging from 325 to 3,250 feet (CNPS 2016b). Known associated species are not reported in the literature. Dark-mouthed Tritoleia has a moderate potential to occur within the Project Area due to the presence of associated vegetation types.

Oval-leaf Viburnum (*Viburnum ellipticum*). CRPR 2B.3. Moderate Potential. Oval-leaf viburnum is a shrub in the honeysuckle family (Caprifoliaceae) that blooms from May to June, with identifiable vegetative characteristics remaining intact into fall. It typically occurs in chaparral, cismontane woodland, and lower montane coniferous forest habitat at elevations ranging from 695 to 4550 feet (CDFW 2016, CNPS 2016b). Known associated species include Pacific madrone, blue oak (*Quercus douglasii*), Oregon white oak, California black oak, interior live oak (*Q. wislizenii*), California bay, sticky manzanita (*Arctostaphylos viscida*), poison oak, choke cherry (*Prunus virginiana*), mock orange (*Philadelphus lewisii*), and thimbleberry (*Rubus parviflorus*) (CDFW 2016). Oval-leaved viburnum has a moderate potential to occur within the Project Area due to the presence of associated vegetation types and associated species.



Plant Species

Calistoga ceanothus	Greene's narrow-leaved daisy	Rincon Ridge ceanothus	narrow-anthered brodiaea
Cobb Mountain lupine	Jepson's leptosiphon	Sebastopol meadowfoam	oval-leaved viburnum
Contra Costa goldfields	Napa bluecurls	Sonoma ceanothus	thin-lobed horkelia
	Napa false indigo	big-scale balsamroot	two-fork clover

Figure 3. Special Status Plant Species within 5 Miles of the Project Area

DRAFT

Mount Veeder Vineyard Development
Napa County, California

0 0.5 1 2
Miles



Map Prepared Date: 6/9/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA, CNDDB June 2016

3.2 Field Survey Results

3.2.1 *Special-status Plant Species*

A total of 90 plant species were observed within the Project Area during the rare plant survey. Five of the six rare plant species with high or moderate potential to occur in the Project Area were surveyed for during the protocol-level survey in July;

While there are six species with a high or moderate potential to occur within the Project Area, surveys were conducted for the five species with a high or moderate potential to occur within the Project Area, have a peak blooming period in July, and/or would need to be considered under CEQA; these species include: Napa false indigo, Congested-headed hayfield tarplant, Redwood lily, Green Monardella, and Oval-leaf Viburnum.

The survey date encompassed the peak blooming period for four of the five species surveyed for: Napa false indigo, Congested-headed hayfield tarplant, Redwood lily, and Green Monardella. The remaining species, Oval-leaf Viburnum, has a blooming period outside of the survey date; however it is identifiable by vegetative characters and was surveyed for.

The July survey date was outside the blooming period for dark-mouthed *Triteleia*; however the June site visit, during which the entire Project Area was surveyed, was within the peak blooming period of the species and the species was not observed.

No special-status plant species were observed in the Project Area during the June or July surveys.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on a review of literature, the June site visit, and the protocol-level rare plant survey in July, the Project Area is potentially suitable for six special-status plant species; however, none of those species were observed. Development of the vineyard is not expected to impact rare plant species which would need to be considered under CEQA.

5.0 REFERENCES

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[USGS] United States Geological Survey. 1951. Photorevised 1978. Napa 7.5-minute quadrangle map.

[USGS] 1967. Geology Map of California, Santa Rosa Sheet. Compiled 1963. Second Printing 1967.

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APPENDIX A

Potential for Special-status Plant Species to Occur in the Project Area

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Appendix A. Potential for Special Status Plant and Wildlife Species to Occur in the Project Area. List compiled from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (2016), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation Database (2016), and California Native Plant Society (CNPS) Electronic Inventory (2016) searches of the Napa, Sonoma, Rutherford and Yountville USGS 7.5' quadrangles.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Plants				
Franciscan onion <i>Allium peninsulare</i> <i>var. franciscanum</i>	Rank 1B.2	Cismontane woodland, valley and foothill grassland/clay, volcanic, often serpentine. Elevation ranges from 170 to 980 feet (52 to 300 meters). Blooms (Apr), May-Jun.	Unlikely Potential. While Project Area contains valley and foothill grassland, it does not contain clay, serpentine or volcanic soils.	No further actions are recommended for this species.
Napa false indigo <i>Amorpha californica</i> <i>var. napensis</i>	Rank 1B.2	Broadleafed upland forest (openings), chaparral, cismontane woodland. Elevation ranges from 390 to 6560 feet (120 to 2000 meters). Blooms Apr-Jul.	Moderate Potential. Project Area contains broadleafed upland forest within the elevation range of the species.	Not Observed. No further actions recommended for this species.
twig-like snapdragon <i>Antirrhinum virga</i>	Rank 4.3	Chaparral, lower montane coniferous forest/rocky, openings, often serpentine. Elevation ranges from 330 to 6610 feet (100 to 2015 meters). Blooms Jun-Jul.	No Potential. The Project Area does not contain chaparral or coniferous forest.	No further actions are recommended for this species.
Baker's manzanita <i>Arctostaphylos</i> <i>bakeri</i> ssp. <i>bakeri</i>	SR, Rank 1B.1	Broadleafed upland forest, chaparral/often serpentine. Elevation ranges from 250 to 980 feet (75 to 300 meters). Blooms Feb-Apr.	Unlikely Potential. While the Project Area contains broadleafed upland forest within the elevation range of the species, it does not contain serpentine.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Rincon Ridge manzanita <i>Arctostaphylos stanfordiana</i> <i>ssp. decumbens</i>	Rank 1B.1	Chaparral (rhyolitic), cismontane woodland. Elevation ranges from 250 to 1210 feet (75 to 370 meters). Blooms Feb-Apr (May).	No Potential. The Project Area does not contain volcanic soil.	No further actions are recommended for this species.
Clara Hunt's milk-vetch <i>Astragalus claranus</i>	FE, ST, Rank 1B.1	Chaparral (openings), cismontane woodland, valley and foothill grassland/serpentine or volcanic, rocky, clay. Elevation ranges from 250 to 900 feet (75 to 275 meters). Blooms Mar-May.	No Potential. The Project Area does not contain serpentine or volcanic soils.	No further actions are recommended for this species.
Cleveland's milk-vetch <i>Astragalus clevelandii</i>	Rank 4.3	Chaparral, cismontane woodland, riparian forest/serpentine seeps. Elevation ranges from 660 to 4920 feet (200 to 1500 meters). Blooms Jun-Sep.	No Potential. The Project Area does not contain serpentine soils or riparian habitat.	No further actions are recommended for this species.
alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	Rank 1B.2	Playas, valley and foothill grassland (adobe clay), vernal pools/alkaline. Elevation ranges from 0 to 200 feet (1 to 60 meters). Blooms Mar-Jun.	No Potential. The Project Area does not contain vernal pools or clay soils.	No further actions are recommended for this species.
big-scale balsamroot <i>Balsamorhiza macrolepis</i>	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine. Elevation ranges from 300 to 5100 feet (90 to 1555 meters). Blooms Mar-Jun.	Unlikely Potential. The Project Area does not contain serpentine soils, chaparral or woodland; however it does contain valley and foothill grassland within the elevation range of the species.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Sonoma sunshine <i>Blennosperma bakeri</i>	FE, SE, Rank 1B.1	Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 30 to 360 feet (10 to 110 meters). Blooms Mar-May.	Unlikely Potential. The Project Area does not contain vernal pools and the grassland present is ruderal and does not represent typical habitat for the species.	No further actions are recommended for this species.
narrow-anthered brodiaea <i>Brodiaea leptandra</i>	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland/volcanic. Elevation ranges from 360 to 3000 feet (110 to 915 meters). Blooms May-Jul.	Unlikely Potential. While the Project Area does contain broadleafed upland forest and grassland, it does not contain volcanic soils.	No further actions are recommended for this species.
Brewer's calandrinia <i>Calandrinia breweri</i>	Rank 4.2	Chaparral, coastal scrub/sandy or loamy, disturbed sites and burns. Elevation ranges from 30 to 4000 feet (10 to 1220 meters). Blooms (Jan), Mar-Jun.	No Potential. The Project Area does not contain chaparral, coastal scrub or burns.	No further actions are recommended for this species.
small-flowered calycadenia <i>Calycadenia micrantha</i>	Rank 1B.2	Chaparral, meadows and seeps (volcanic), valley and foothill grassland/roadsides, rocky, talus, scree, sometimes serpentine, sparsely vegetated areas. Elevation ranges from 20 to 4920 feet (5 to 1500 meters). Blooms Jun-Sep.	Unlikely Potential. While the Project Area contains meadows and seeps and grassland, it does not contain volcanic soils or rocky/talus slopes or sparsely vegetated areas.	No further actions are recommended for this species.
johnny-nip <i>Castilleja ambigua</i> var. <i>ambigua</i>	Rank 4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins. Elevation ranges from 0 to 1430 feet (0 to 435 meters). Blooms Mar-Aug.	Unlikely Potential. The Project Area is not near the coast and the grasslands present are ruderal and do not represent typical habitat for the species.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Mead's owl's-clover <i>Castilleja ambigua</i> <i>var. meadii</i>	Rank 1B.1	Meadows and seeps, vernal pools/gravelly, volcanic, clay. Elevation ranges from 1480 to 1560 feet (450 to 475 meters). Blooms Apr-May.	Unlikely Potential. While the Project Area contains meadows and seeps as well as grassland, no volcanic or clay soils are present.	No further actions are recommended for this species.
Rincon Ridge ceanothus <i>Ceanothus confusus</i>	Rank 1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland/volcanic or serpentine. Elevation ranges from 250 to 3490 feet (75 to 1065 meters). Blooms Feb-Jun.	No Potential. The Project Area does not contain coniferous forest, woodland or volcanic or serpentine soils.	No further actions are recommended for this species.
Calistoga ceanothus <i>Ceanothus divergens</i>	Rank 1B.2	Chaparral (serpentine or volcanic, rocky). Elevation ranges from 560 to 3120 feet (170 to 950 meters). Blooms Feb-Apr.	No Potential. The Project Area does not contain chaparral or volcanic or serpentine soils.	No further actions are recommended for this species.
holly-leaved ceanothus <i>Ceanothus purpureus</i>	Rank 1B.2	Chaparral, cismontane woodland/volcanic, rocky. Elevation ranges from 390 to 2100 feet (120 to 640 meters). Blooms Feb-Jun.	No Potential. The Project Area does not contain volcanic soils nor chaparral or woodland.	No further actions are recommended for this species.
Sonoma ceanothus <i>Ceanothus sonomensis</i>	Rank 1B.2	Chaparral (sandy, serpentine or volcanic). Elevation ranges from 710 to 2620 feet (215 to 800 meters). Blooms Feb-Apr.	No Potential. The Project Area does not contain sandy, serpentine or volcanic soils.	No further actions are recommended for this species.
Sonoma spineflower <i>Chorizanthe valida</i>	FE, SE, Rank 1B.1	Coastal prairie (sandy). Elevation ranges from 30 to 1000 feet (10 to 305 meters). Blooms Jun-Aug.	No Potential. The Project Area is not near the coast.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Brewer's clarkia <i>Clarkia breweri</i>	Rank 4.2	Chaparral, cismontane woodland, coastal scrub/often serpentine. Elevation ranges from 710 to 3660 feet (215 to 1115 meters). Blooms Apr-Jun.	No Potential. The Project Area does not contain serpentine soils nor chaparral or woodland.	No further actions are recommended for this species.
Tracy's clarkia <i>Clarkia gracilis ssp. tracyi</i>	Rank 4.2	Chaparral (openings, usually serpentine). Elevation ranges from 210 to 2130 feet (65 to 650 meters). Blooms Apr-Jul.	No Potential. The Project Area does not contain chaparral.	No further actions are recommended for this species.
dwarf downingia <i>Downingia pusilla</i>	Rank 2B.2	Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 0 to 1460 feet (1 to 445 meters). Blooms Mar-May.	Unlikely Potential. The Project Area does not contain vernal pools and the grasslands present are ruderal and do not represent typical habitat for the species.	No further actions are recommended for this species.
streamside daisy <i>Erigeron biolettii</i>	Rank 3	Broadleafed upland forest, cismontane woodland, north coast coniferous forest/rocky, mesic. Elevation ranges from 100 to 3610 feet (30 to 1100 meters). Blooms Jun-Oct.	Unlikely Potential. The Project Area does not contain rocky areas or mesic areas within woodlands.	No further actions are recommended for this species.
Greene's narrow-leaved daisy <i>Erigeron greenei</i>	Rank 1B.2	Chaparral (serpentine or volcanic). Elevation ranges from 260 to 3300 feet (80 to 1005 meters). Blooms May-Sep.	No Potential. The Project Area does not contain chaparral.	No further actions are recommended for this species.
San Joaquin spearscale <i>Extriplex joaquinana</i>	Rank 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/alkaline. Elevation ranges from 0 to 2740 feet (1 to 835 meters). Blooms Apr-Oct.	No Potential. The Project Area does not contain alkaline soils.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
nodding harmonia <i>Harmonia nutans</i>	Rank 4.3	Chaparral, cismontane woodland/rocky or gravelly, volcanic. Elevation ranges from 250 to 3200 feet (75 to 975 meters). Blooms Mar-May.	No Potential. The Project Area does not contain rocky, gravelly areas within woodlands nor volcanic soils.	No further actions are recommended for this species.
congested-headed hayfield tarplant <i>Hemizonia congesta</i> <i>ssp. congesta</i>	Rank 1B.2	Valley and foothill grassland/sometimes roadsides. Elevation ranges from 70 to 1840 feet (20 to 560 meters). Blooms Apr-Nov.	Moderate Potential. The Project Area contains grassland within the elevation range of the species, however no individuals were observed during the June site visit.	Not Observed. No further actions recommended for this species.
two-carpellate western flax <i>Hesperolinon bicarpellatum</i>	Rank 1B.2	Chaparral (serpentine). Elevation ranges from 200 to 3300 feet (60 to 1005 meters). Blooms May-Jul.	No Potential. The Project Area does not contain chaparral.	No further actions are recommended for this species.
Sharsmith's western flax <i>Hesperolinon sharsmithiae</i>	Rank 1B.2	Chaparral/serpentine. Elevation ranges from 890 to 980 feet (270 to 300 meters). Blooms May-Jul.	No Potential. The Project Area does not contain chaparral.	No further actions are recommended for this species.
thin-lobed horkelia <i>Horkelia tenuiloba</i>	Rank 1B.2	Broadleafed upland forest, chaparral, valley and foothill grassland/mesic openings, sandy. Elevation ranges from 160 to 1640 feet (50 to 500 meters). Blooms May-Jul (Aug).	Unlikely Potential. The Project Area contains broadleafed upland forest and grassland; However the grassland is ruderal and overgrown and very few mesic sites are present within the grassland and forest.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Northern California black walnut <i>Juglans hindsii</i>	Rank 1B.1	Riparian forest, riparian woodland. Elevation ranges from 0 to 1440 feet (0 to 440 meters). Blooms Apr-May.	No Potential. The Project Area does not contain riparian habitat.	No further actions are recommended for this species.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE, Rank 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/mesic. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	Unlikely Potential. The grasslands within the Project Area are dominated by upland species.	No further actions are recommended for this species.
Delta tule pea <i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Rank 1B.2	Marshes and swamps (freshwater and brackish). Elevation ranges from 0 to 20 feet (0 to 5 meters). Blooms May-Jul (Aug), (Sep).	No Potential. The Project Area does not contain marshes and swamps.	No further actions are recommended for this species.
bristly leptosiphon <i>Leptosiphon acicularis</i>	Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet (55 to 1500 meters). Blooms Apr-Jul.	Unlikely Potential. The Project Area does not contain chaparral, coastal prairie, woodland; while grassland is present within the elevation range of the species, they are dense and overgrown.	No further actions are recommended for this species.
Jepson's leptosiphon <i>Leptosiphon jepsonii</i>	Rank 1B.2	Chaparral, cismontane woodland/usually volcanic. Elevation ranges from 330 to 1640 feet (100 to 500 meters). Blooms Mar-May.	No Potential. The Project Area does not contain volcanic soil, chaparral or woodland.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
broad-lobed leptosiphon <i>Leptosiphon latisectus</i>	Rank 4.3	Broadleafed upland forest, cismontane woodland. Elevation ranges from 560 to 4920 feet (170 to 1500 meters). Blooms Apr-Jun.	Unlikely Potential. While the Project Area contains broadleafed upland forest, the understory was typically dense ruderal grasslands which would likely preclude this species.	No further actions are recommended for this species.
Mason's lilaeopsis <i>Lilaeopsis masonii</i>	SR, Rank 1B.1	Marshes and swamps (brackish or freshwater), riparian scrub. Elevation ranges from 0 to 30 feet (0 to 10 meters). Blooms Apr-Nov.	No Potential. The Project Area does not contain marsh or swamp habitat or riparian scrub.	No further actions are recommended for this species.
redwood lily <i>Lilium rubescens</i>	Rank 4.2	Broadleafed upland forest, chaparral, lower montane coniferous forest, north coast coniferous forest, upper montane coniferous forest/sometimes serpentine, sometimes roadsides. Elevation ranges from 100 to 6270 feet (30 to 1910 meters). Blooms Apr-Aug (Sep).	Moderate Potential. The Project Area contains broadleafed forest within the elevation range of the species.	Not Observed. No further actions recommended for this species.
Sebastopol meadowfoam <i>Limnanthes vinculans</i>	FE, SE, Rank 1B.1	Meadows and seeps, valley and foothill grassland, vernal pools/vernally mesic. Elevation ranges from 50 to 1000 feet (15 to 305 meters). Blooms Apr-May.	No Potential. The Project Area does not contain marshy areas or wet meadows in valley oak savanna.	No further actions are recommended for this species.
Napa lomatium <i>Lomatium repostum</i>	Rank 4.3	Chaparral, cismontane woodland/serpentine. Elevation ranges from 300 to 2720 feet (90 to 830 meters). Blooms Mar-Jun.	No Potential. The Project Area does not contain serpentine.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Cobb Mountain lupine <i>Lupinus sericatus</i>	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 900 to 5000 feet (275 to 1525 meters). Blooms Mar-Jun.	Unlikely Potential. The Project contains broadleafed upland forest within the elevation range of the species; however the canopy is closed and the soil is not rocky or gravelly.	No further actions are recommended for this species.
Mt. Diablo cottonweed <i>Micropus amphibolus</i>	Rank 3.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland/rocky. Elevation ranges from 150 to 2710 feet (45 to 825 meters). Blooms Mar-May.	Unlikely Potential. The Project Area does not have rocky grasslands or bare patches on soil.	No further actions are recommended for this species.
green monardella <i>Monardella viridis</i>	Rank 4.3	Broadleafed upland forest, chaparral, cismontane woodland. Elevation ranges from 330 to 3310 feet (100 to 1010 meters). Blooms Jun-Sep.	Moderate Potential. The Project Area contains broadleafed upland forest within the elevation range of the species.	Not Observed. No further actions recommended for this species.
few-flowered navarretia <i>Navarretia leucocephala</i> <i>ssp. pauciflora</i>	FE, ST, Rank 1B.1	Vernal pools (volcanic ash flow). Elevation ranges from 1310 to 2810 feet (400 to 855 meters). Blooms May-Jun.	No Potential. The Project Area does not contain vernal pools.	No further actions are recommended for this species.
Sonoma beardtongue <i>Penstemon newberryi</i> <i>var. sonomensis</i>	Rank 1B.3	Chaparral (rocky). Elevation ranges from 2300 to 4490 feet (700 to 1370 meters). Blooms Apr-Aug.	No Potential. The Project Area does not contain chaparral.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
Lobb's aquatic buttercup <i>Ranunculus lobbii</i>	Rank 4.2	Cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools/mesic. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms Feb-May.	Unlikely Potential. The Project Area does not contain saturated areas within the grasslands.	No further actions are recommended for this species.
green jewelflower <i>Streptanthus hesperidis</i>	Rank 1B.2	Chaparral (openings), cismontane woodland/serpentine, rocky. Elevation ranges from 430 to 2490 feet (130 to 760 meters). Blooms May-Jul.	No Potential. The Project Area does not contain chaparral or woodland with serpentine or rocky soils.	No further actions are recommended for this species.
Suisun Marsh aster <i>Symphyotrichum lentum</i>	Rank 1B.2	Marshes and swamps (brackish and freshwater). Elevation ranges from 0 to 10 feet (0 to 3 meters). Blooms (Apr), May-Nov.	No Potential. The Project Area does not contain marshes or swamps and is outside the elevation range of the species.	No further actions are recommended for this species.
Napa bluecurls <i>Trichostema ruygtii</i>	Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, vernal pools. Elevation ranges from 100 to 2230 feet (30 to 680 meters). Blooms Jun-Oct.	Unlikely Potential. The Project Area contains grassland however the grass is dense and tall, likely precluding the species. Additionally, the Project Area does not contain volcanic soils.	No further actions are recommended for this species.
two-fork clover <i>Trifolium amoenum</i>	FE, Rank 1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine). Elevation ranges from 20 to 1360 feet (5 to 415 meters). Blooms Apr-Jun.	Unlikely Potential. The grasslands within the Project Area are tall and ruderal and do not represent typical habitat for the species.	No further actions are recommended for this species.

SPECIES	STATUS	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RESULTS
saline clover <i>Trifolium hydrophilum</i>	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 980 feet (0 to 300 meters). Blooms Apr-Jun.	Unlikely Potential. The Project Area does not contain alkaline grassland or swamps.	No further actions are recommended for this species.
dark-mouthed triteleia <i>Triteleia lugens</i>	Rank 4.3	Broadleafed upland forest, chaparral, coastal scrub, lower montane coniferous forest. Elevation ranges from 330 to 3280 feet (100 to 1000 meters). Blooms Apr-Jun.	Moderate Potential. The Project Area contains broadleafed upland forest within the elevation range of the species.	Not Observed. No further actions recommended for this species.
oval-leaved viburnum <i>Viburnum ellipticum</i>	Rank 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 710 to 4590 feet (215 to 1400 meters). Blooms May-Jun.	Moderate Potential. The Project Area contains somewhat steep ravine that is heavily wooded with a dense understory which contains known associated species.	Not Observed. No further actions recommended for this species.

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
BCC	USFWS Birds of Conservation Concern
SE	State Endangered
ST	State Threatened
SSC	CDFW Species of Special Concern
SSI	CDFW Special-Status Invertebrate
CFP	CDFW Fully Protected Animal
WBWG	Western Bat Working Group High or Medium Priority species
Rank 1A	CRPR Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	CRPR Rank 1B: Plants rare, threatened or endangered in California and elsewhere
Rank 2B	CRPR Rank 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3	CRPR Rank 3: Plants about which CNPS needs more information (a review list)
CRPR Threat Ranks:	
.1	Seriously threatened
.2	Fairly threatened
.3	Not very threatened in California

Potential to Occur:

No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Results and Recommendations:

Present. Species was observed on the site or has been recorded (i.e. CNDDDB, other reports) on the site recently.

Not Present. Species is assumed to not be present due to a lack of key habitat components.

Not Observed. Species was not observed during surveys.

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APPENDIX B

Plant Species Observed in the Project Area

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Appendix B. Plant Species Observed in the Project Area on June 6 and July 12, 2016

Family	Scientific Name	Common Name	Origin	Rarity Status	CAL-IPC Status	Wetland Status (AW 2016)
Agavaceae	<i>Chlorogalum pomeridianum</i>	Amole lily	native	-	-	-
Anacardiaceae	<i>Toxicodendron diversilobum</i>	Poison oak	native	-	-	FACU
Apiaceae	<i>Perideridia</i> sp.	-	-	-	-	-
Apiaceae	<i>Sanicula bipinnatifida</i>	Purple sanicle	native	-	-	-
Apiaceae	<i>Torilis arvensis</i>	Field hedge parsley	non-native (invasive)	-	Moderate	-
Asteraceae	<i>Agoseris grandiflora</i>	Giant mountain dandelion	native	-	-	-
Asteraceae	<i>Baccharis pilularis</i>	Coyote brush	native	-	-	-
Asteraceae	<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	non-native	-	-	-
Asteraceae	<i>Centaurea solstitialis</i>	Yellow starthistle	non-native (invasive)	-	High	-
Asteraceae	<i>Helminthotheca echinoides</i>	Bristly ox-tongue	non-native (invasive)	-	-	FAC
Asteraceae	<i>Hypochaeris glabra</i>	Smooth cats ear	non-native (invasive)	-	Limited	-
Asteraceae	<i>Hypochaeris radicata</i>	Hairy cats ear	non-native (invasive)	-	Moderate	FACU
Asteraceae	<i>Lactuca serriola</i>	Prickly lettuce	non-native (invasive)	-	-	FACU
Asteraceae	<i>Leontodon saxatilis</i>	Hawkbit	non-native	-	-	FACU
Asteraceae	<i>Logfia gallica</i>	Narrowleaf cottonrose	non-native	-	-	-
Asteraceae	<i>Madia gracilis</i>	Gumweed	native	-	-	-
Asteraceae	<i>Sonchus asper</i> ssp. <i>asper</i>	Sow thistle	non-native (invasive)	-	-	FAC
Asteraceae	<i>Tragopogon porrifolius</i>	Salsify	non-native	-	-	-
Asteraceae	<i>Wyethia angustifolia</i>	Narrow leaved mule ears	native	-	-	FACU

Family	Scientific Name	Common Name	Origin	Rarity Status	CAL-IPC Status	Wetland Status (AW 2016)
Boraginaceae	<i>Amsinckia</i> sp.	-	-	-	-	-
Brassicaceae	<i>Raphanus sativus</i>	Jointed charlock	non-native (invasive)	-	Limited	-
Caprifoliaceae	<i>Lonicera hispidula</i>	Pink honeysuckle	native	-	-	FACU
Caprifoliaceae	<i>Symphoricarpos mollis</i>	Snowberry	native	-	-	FACU
Caryophyllaceae	<i>Silene gallica</i>	Common catchfly	non-native	-	-	-
Caryophyllaceae	<i>Spergularia rubra</i>	Purple sand spurry	non-native	-	-	FAC
Convolvulaceae	<i>Convolvulus arvensis</i>	Field bindweed	non-native (invasive)	-	-	-
Cyperaceae	<i>Carex densa</i>	Sedge	native	-	-	OBL
Cyperaceae	<i>Carex tumulicola</i>	Split awn sedge	native	-	-	FACU
Cyperaceae	<i>Cyperus eragrostis</i>	Tall cyperus	native	-	-	FACW
Dryopteridaceae	<i>Dryopteris arguta</i>	Wood fern	native	-	-	-
Ericaceae	<i>Arbutus menziesii</i>	Madrono	native	-	-	-
Euphorbiaceae	<i>Croton setiger</i>	Turkey-mullein	native	-	-	-
Fabaceae	<i>Acmispon americanus</i> var. <i>americanus</i>	Spanish lotus	native	-	-	UPL
Fabaceae	<i>Lupinus formosus</i> var. <i>formosus</i>	Western lupine	native	-	-	-
Fabaceae	<i>Trifolium glomeratum</i>	Clustered clover	non-native	-	-	-
Fabaceae	<i>Trifolium hirtum</i>	Rose clover	non-native (invasive)	-	Limited	-
Fabaceae	<i>Trifolium striatum</i>	Knotted clover	non-native	-	-	-
Fabaceae	<i>Vicia hirsuta</i>	Hairy vetch	non-native	-	-	-
Fabaceae	<i>Vicia sativa</i>	Spring vetch	non-native	-	-	FACU
Fagaceae	<i>Quercus agrifolia</i>	Coast live oak	native	-	-	-

Family	Scientific Name	Common Name	Origin	Rarity Status	CAL-IPC Status	Wetland Status (AW 2016)
Fagaceae	<i>Quercus douglasii</i>	Blue oak	native	-	-	-
Fagaceae	<i>Quercus garryana</i>	Oregon oak	native	-	-	UPL
Gentianaceae	<i>Zeltnera muehlenbergii</i>	Muehlenberg's centaury	native	-	-	FAC
Geraniaceae	<i>Erodium cicutarium</i>	Coastal heron's bill	non-native (invasive)	-	Limited	-
Geraniaceae	<i>Geranium molle</i>	Crane's bill geranium	non-native (invasive)	-	-	-
Geraniaceae	<i>Geranium robertianum</i>	Robert's geranium	non-native (invasive)	-	-	FACU
Juncaceae	<i>Juncus patens</i>	Rush	native	-	-	FACW
Lamiaceae	<i>Mentha pulegium</i>	Pennyroyal	non-native (invasive)	-	Moderate	OBL
Lamiaceae	<i>Stachys rigida</i>	Rough hedgenettle	native	-	-	FACW
Lauraceae	<i>Umbellularia californica</i>	California bay	native	-	-	FAC
Liliaceae	<i>Calochortus luteus</i>	Yellow mariposa	native	-	-	-
Lythraceae	<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	non-native	-	-	OBL
Myrsinaceae	<i>Lysimachia arvensis</i>	Scarlet pimpernel	non-native	-	-	FAC
Onagraceae	<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	Purple clarkia	native	-	-	-
Onagraceae	<i>Epilobium campestre</i>	Smooth boisduvalia	native	-	-	OBL
Onagraceae	<i>Epilobium ciliatum</i>	Slender willow herb	native	-	-	FACW
Onagraceae	<i>Epilobium densiflorum</i>	Willow herb	native	-	-	FACW
Orobanchaceae	<i>Bellardia trixago</i>	Mediterranean lineseed	non-native (invasive)	-	Limited	-
Papaveraceae	<i>Eschscholzia californica</i>	California poppy	native	-	-	-

Family	Scientific Name	Common Name	Origin	Rarity Status	CAL-IPC Status	Wetland Status (AW 2016)
Plantaginaceae	<i>Plantago lanceolata</i>	Ribwort	non-native (invasive)	-	Limited	FAC
Poaceae	<i>Aira caryophyllea</i>	Silvery hairgrass	non-native (invasive)	-	-	FACU
Poaceae	<i>Avena barbata</i>	Slim oat	non-native (invasive)	-	Moderate	-
Poaceae	<i>Avena fatua</i>	Wild oats	non-native (invasive)	-	Moderate	-
Poaceae	<i>Brachypodium distachyon</i>	Purple false brome	non-native (invasive)	-	Moderate	-
Poaceae	<i>Briza maxima</i>	Rattlesnake grass	non-native (invasive)	-	Limited	-
Poaceae	<i>Briza minor</i>	Little rattlesnake grass	non-native	-	-	FAC
Poaceae	<i>Bromus carinatus</i> var. <i>carinatus</i>	California brome	native	-	-	-
Poaceae	<i>Bromus diandrus</i>	Ripgut brome	non-native (invasive)	-	Moderate	-
Poaceae	<i>Bromus hordeaceus</i>	Soft chess	non-native (invasive)	-	Limited	FACU
Poaceae	<i>Cynosurus echinatus</i>	Dogtail grass	non-native (invasive)	-	Moderate	-
Poaceae	<i>Danthonia californica</i>	California oatgrass	native	-	-	FAC
Poaceae	<i>Elymus glaucus</i>	Blue wildrye	native	-	-	FACU
Poaceae	<i>Elymus triticoides</i>	Beardless wild rye	native	-	-	FAC
Poaceae	<i>Festuca bromoides</i>	Brome fescue	non-native	-	-	FACU
Poaceae	<i>Festuca perennis</i>	Italian rye grass	non-native	-	-	FAC
Poaceae	<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Barley	non-native	-	-	FAC
Poaceae	<i>Paspalum dilatatum</i>	Dallis grass	non-native	-	-	FAC

Family	Scientific Name	Common Name	Origin	Rarity Status	CAL-IPC Status	Wetland Status (AW 2016)
Poaceae	<i>Phalaris aquatica</i>	Harding grass	non-native (invasive)	-	Moderate	FACU
Poaceae	<i>Stipa miliacea</i> var. <i>miliacea</i>	Smilo grass	non-native	-	-	-
Poaceae	<i>Stipa pulchra</i>	Purple needle grass	native	-	-	-
Polygonaceae	<i>Rumex acetosella</i>	Sheep sorrel	non-native (invasive)	-	Moderate	FACU
Polygonaceae	<i>Rumex pulcher</i>	Fiddleleaf dock	non-native	-	-	FAC
Rosaceae	<i>Fragaria vesca</i>	Wild strawberry	native	-	-	UPL
Rosaceae	<i>Heteromeles arbutifolia</i>	Toyon	native	-	-	-
Rosaceae	<i>Rubus ursinus</i>	California blackberry	native	-	-	FAC
Rubiaceae	<i>Galium murale</i>	Tiny bedstraw	non-native	-	-	-
Rubiaceae	<i>Sherardia arvensis</i>	Field madder	non-native	-	-	-
Themidaceae	<i>Brodiaea elegans</i> ssp. <i>elegans</i>	Harvest brodiaea	native	-	-	FACU
Themidaceae	<i>Triteleia laxa</i>	Ithuriel's spear	native	-	-	-
Vitaceae	<i>Vitis vinifera</i>	Cultivated grape	non-native	-	-	-

Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2016)

FE: Federal Endangered
FT: Federal Threatened
SE: State Endangered
ST: State Threatened
SR: State Rare

Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere

Rank 1B: Plants rare, threatened, or endangered in California and elsewhere

Rank 2A: Plants presumed extirpated in California, but more common elsewhere

Rank 2B: Plants rare, threatened, or endangered in California, but more common elsewhere

Rank 3: Plants about which we need more information – a review list

Rank 4: Plants of limited distribution – a watch list

Invasive Status: California Invasive Plant Inventory (Cal-IPC 2016)

High: Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.

Moderate: Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited-moderate distribution ecologically

Limited: Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically

Assessed: Assessed by Cal-IPC and determined to not be an existing current threat

Wetland Status: National List of Plant Species that Occur in Wetlands, California – Region 10 (Lichvar 2016)

OBL: Almost always a hydrophyte, rarely in uplands

FACW: Usually a hydrophyte, but occasionally found in uplands

FAC: Commonly either a hydrophyte or non-hydrophyte

FACU: Occasionally a hydrophyte, but usually found in uplands

UPL: Rarely a hydrophyte, almost always in uplands

NL: Rarely a hydrophyte, almost always in uplands

NI: No information; not factored during wetland delineation

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APPENDIX C

Representative Photographs of the Project Area

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Photo 1. Wild oats grassland among mixed oak forest within the center section of the Project Area.



Photo 2. A patch of mature oaks and oak forest within the grasslands near the southern most portion of the Project Area. Planting of vineyard would encircle these oaks and none would be removed during construction.



Photo 3. The grasslands to the right of the photo are proposed to be developed into vineyard. Vineyards will not encroach on or remove any of the oak forest seen within this photo.



Photo 4. Wild oats grasslands within the Project Area located near the northeast most portion of the Project Area.



Photo 5. Example of purple needle grass grassland. This biological community occurs in several small patches within the wild oats grasslands.



Photo 6. Photograph showing seasonal wetland located in a swale in the south east section of the Project Area.