

BIOLOGICAL RESOURCES ASSESSMENT

**270 & 140 SODA BAY ROAD [APN 008-001-09 & 008-001-08]
LAKE COUNTY, CALIFORNIA**

PREPARED FOR:

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270 Soda Bay Road
Kelseyville, California 95453

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PROJECT № CCC018



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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this reconnaissance-level Biological Resources Assessment (BRA) prepared by Pinecrest Research Corporation (PRC) is to evaluate the existence of special-status species (SSS) and/or habitats, as well as assess the potential for SSS listed in Appendix A to occur on or near the site of commercial cultivation activities, pursuant to applicable regulations from County of Lake and the State of California. This BRA also analyzes the potential for jurisdictional wetlands and other waters of the U.S. to exist onsite, and classifies landforms that may potentially convey sediment to waters of the U.S. including dry creeks, washes, swales, gullies, and other erosional features. Also included is a set of Best Management Practices (BMPs) that are adapted from a variety of sources including State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ and other state and local ordinances.

The original BRA for this project was prepared on July 21, 2019 and has since been updated in June 2024 to reflect a corrected watercourse classification. Updates were made to Figure 3 and Section 1.3.4 to reflect that the watercourse adjacent to the southwest property boundary is Class II instead of Class I.

1.2 PROJECT SUMMARY

The proposed project involves permitting of a commercial *Cannabis* cultivation facility on two parcels located at 270 and 140 Soda Bay Road in unincorporated Lake County between the towns of Lakeport and Kelseyville (Figure 1). The proposed cultivation area is located immediately south of and adjacent to the existing vineyard block, in a grassland area, near the border between the parcels. The parcels can be accessed via graded gravel road that extends to the north off of Soda Bay Road. The road is contained in a narrow strip of parcel approximately 22 feet wide by 550 feet long that is in good condition and connects Soda Bay Road with the parcel proper (Figure 8). There is one stream crossing onsite, a rail car bridge (Figure 7) that crosses Manning Creek, a perennial Class I watercourse (Figure 11). There are no areas that appear to be jurisdictional wetlands or streamcourses except for potential fringing wetland associated with the riparian corridor of Manning Creek. The project as designed should have no impact on sensitive species or habitats if the measures described in Appendix D are implemented to the greatest extent practicable.

1.3 LOCATION

1.3.1 Site Overview

The project site is located at 270 and 140 Soda Bay Road in unincorporated Lake County, 1.8 miles south of Lakeport, 4.2 miles northwest of Kelseyville, and 12 miles east of Hopland (Figure 1). The parcels are located in Section 31, Township 14 North, Range 9 West, on the USGS Lakeport 7.5 minute quad (Figure 2). The proposed cultivation area is located in the center of the parcels at latitude 39.0148, and longitude -122.9038. The northern parcel ("north parcel") is designated Assessor's Parcel Number (APN) 008-001-09, measures 31.9 acres, and is almost entirely planted to vineyard (Figure 10). The southern parcel ("south parcel") is designated APN 008-001-08, measures 21.41 acres, and is mostly annual grassland. Both parcels are split zoned AE/AO, are under the jurisdiction of the Central Valley (Region 5) Regional Water Quality Control Board (RWQCB), and the North-Central Region (District 2) of the California Department of Fish & Wildlife (CDFW).

1.3.2 Federal Critical Habitat

Federal Critical Habitat (FCH) is designated by the U.S. Fish & Wildlife Service (USFWS) and provides special protections for habitats considered important for long-term population persistence of endangered or threatened species. There is no FCH onsite for any animal or plant species. The nearest FCH is located 10.9 miles to the southeast of the project parcel for Slender Orcutt grass (*Orcuttia tenuis*) near Bogg's Lake. The next nearest species with designated FCH is Steelhead (*Oncorhynchus mykiss*) located 12 miles to the west in the Russian River near Hopland. There is no other FCH within 15 miles of the project parcel.

1.3.3 CNDDDB Occurrences

Special-status species (SSS) are those species that receive special protections under either local, State, or Federal law and include both State and Federally Endangered and Threatened species of animals and plants, as well as candidate listing species and other species or populations of special concern for which additional information is required. The California Natural Diversity Database (CNDDDB) provides information on most known SSS occurrences in the State of California. A description of the habitat requirements and likelihood of occurrence of potential SSS on the project parcel based the CNDDDB database, published scientific literature, and the expertise of PRC staff, is provided in Appendix A, with all SSS known from a 5 mile radius around the project parcel highlighted. Additionally, map-based representation of all of the SSS within a 5 mile radius around the project site is provided in Appendix B.

There is one known occurrence of special-status animal species whose polygon overlaps with the project parcel, an occurrence of Blennosperma vernal pool andrenid bee (*Andrena blennospermatis*) centered on the grassland just to the north of the project parcel, and whose polygon overlaps with the north parcel (Appendix C). The next nearest known occurrence of special-status animal species is Osprey (*Pandion haliaetus*), observed in 1993 on the bank of Clear Lake, located 0.2 miles north of the parcel. The next nearest known occurrences are three aquatic species known from Clear Lake approximately 0.2 miles north of the parcel: Clear Lake Hitch (*Lavinia exilicauda chi*), Sacramento perch (*Archoplites interruptus*), and Brownish dubiraphian riffle beetle (*Dubiraphia brunnescens*). The next nearest known animal species are American badge (*Taxidea taxus*) and tricolored blackbird (*Agelaius tricolor*), located 1.3 miles northwest of the parcel near Lakeport. The next nearest known occurrence of special status animal species is an indistinct locality of Western pond turtle (*Emys*

marmorata) somewhere in the USGS Kelseyville 7.5 minute quad, which comes as close as 1.7 miles southeast of the project parcel. There are also occurrences of Western pond turtle 5.4 miles south of the parcel in Adobe Creek.

The next nearest known occurrence of special status animal species is Red-bellied newt (*Taricha rivularis*) observed in 1960 located 3.1 miles east of the project parcel near Mostin Road. The next nearest known occurrence of special status animal species is California calasellus (*Calasellus californicus*) observed in 1932 located 3.4 miles southeast of the project parcel near Kelseyville. The next nearest known occurrence of special-status animal species is Foothill Yellow-Legged Frog (*Rana boylei*; FYLF) observed in 1956 located 4.8 miles north of the project parcel in McDowell Creek. There are no other special-status animal species known from within 5 miles of the project site.

There is one known occurrence of special-status plant species whose polygon overlaps with the project parcel, an occurrence of Serpentine cryptantha (*Cryptantha dissita*) observed in 1943, centered approximately 0.3 miles offsite to the west near Highway 29 (Appendix C). The next nearest known occurrence of special-status plant species is Colusa layia (*Layia septentrionalis*) observed in 2016 located 0.2 miles west of the project parcel along Highway 29. Also at this locality is an occurrence of Bent-flowered fiddleneck (*Amsinckia lunaris*) observed in 2011. The next nearest known occurrence of special-status plant species is Glandular Western flax (*Hesperolinon adenophyllum*) observed in 1978 located 0.5 miles southwest of the project parcel near Ackley Cutoff.

The next nearest known occurrence of special-status plant species is Watershield (*Brasenia schreberi*) observed in 1892 located 1.4 miles northwest of the project parcel near Kelseyville. The next nearest known occurrence of special-status plant species is Small-flowered calycadenia (*Calycadenia micrantha*) observed in 2003 located 1.8 miles south of the parcel near Manning Creek. The next nearest known occurrence of special-status plant species is Oregon checkerbloom (*Sidalcea oregana* ssp. *hydrophila*) observed in 1932 located 3.1 miles southeast of the parcel near Bell Hill Road. There are no other known occurrences within 3 miles of the project parcel (Appendix C).

1.3.4 Landforms & Water Features

The parcels encompass flat fields near the south shore of Clear Lake, to the east of the Manning Creek riparian corridor (Figures 1 & 3). The maximum elevation of the parcels is 1,365 feet above sea level near the northwest parcel boundary next to the vineyard pond (Figure 2). The minimum elevation is 1,335 feet above sea level in the far northeast corner of the parcel where the headwaters of a small Class II drainage abuts the parcel (Figure 2). Most of the parcel is flat, with slopes between 0% and 2%, as measured by Suunto PM5 handheld clinometer.

Precipitation falling onsite eventually mostly infiltrates locally due to the lack of upslope watersheds and the flat slope of the parcel. Water eventually flows west towards Manning Creek, a Class I perennial watercourse that flows west along the southern property boundary, then continues north along the western parcel boundary (Figure 3). After flowing offsite through fields and swamps for approximately 0.6 miles Manning Creek empties into Clear Lake (Figure 3). Some water in the far northeast corner of the parcel also drains into an unnamed channelized Class II watercourse that flows east for 0.12 miles before turning north and entering Clear Lake (Figure 3). An off-channel irrigation

reservoir exists in the northwest corner of the property that contains wetland emergent vegetation (Figure 3).

From the spillway of the Cache Creek Dam, Cache Creek flows east through the inner Coast Ranges for 51 miles before emerging into the Central Valley near Esparto. From there Cache Creek continues east for 28 miles before entering the Yolo Bypass west of the City of Sacramento. From there water flows south into the Sacramento River which flows south for approximately 40 miles before emptying into Suisun Bay and the Pacific Ocean.

1.3.5 Existing Structures

The parcel contains no residences or other permanent structures including storage sheds and outbuildings. There are utility poles onsite (Figure 6) and a rail car bridge (Figure 7) but no other development. There is also a vineyard stock/irrigation pond in the far northwest corner of the north parcel. Access is controlled by metal gate that extends across the rail car bridge (Figure 6). The dirt and gravel road is in good condition and encircles the two parcels, and also crosses the center of the property (Figure 10) near where the proposed cultivation area is to be located. The south parcel is mostly ruderal grassland and has a well located just to the northwest of the rail car bridge but does not look used currently and may not be functional. The north parcel is almost entirely planted with irrigated grapevines and is served by a well located in the northwest portion of the parcel near the irrigation pond. Irrigation is achieved via black 1" drip line.

1.3.6 Regional Land Uses

Land uses in the vicinity of the project parcel are primarily vineyards, orchards, irrigated hayfields, rural residences, light industrial development, and swamps. There is also the Mission Rancheria located immediately to the east. To the west is light industrial development. To the south is more vineyards and light commercial development, and to the north are hayfields and marshland and eventually the south shore of Clear Lake (Figure 1).

1.4 METHODS

1.4.1 Records Search & Literature Review

Based on a review of the literature and relevant databases, we compiled a list of special-status plant and animal species that are known to occur in Lake County or that occupy habitats that are known to be present on or near the project site (Appendix A). Sources of information referenced include the California Department of Fish & Wildlife (CDFW) *California Natural Diversity Database* (CNDDB 2019), U.S. Fish and Wildlife Service Environmental Conservation Online System (USFWS 2019), the California Native Plants Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2018), the CDFW *Habitat Relationships System* (HRS), and the knowledge of PEC staff familiar with the species and habitats of Lake County.

Additional information on sensitive habitats including wetlands was obtained from the USFWS National Wetlands Inventory (NWI 2019), and the County of Lake Geographic Information System Portal (Lake Co. 2019). Plant species included here are state or federal endangered or threatened species, and/or considered rare by CDFW, and/or are recognized as special-status species (SSS) by CNPS or CDFW. Animal species included here are designated as State or Federally Endangered or Threatened, and/or CDFW species of special concern (SSC), and/or CDFW fully protected species (FPS). In addition, nests of most native bird species, regardless of their regulatory status, are protected from take or harassment under the U.S. Migratory Bird Treaty Act (MBTA) and relevant sections of the California Fish & Wildlife Code.

1.4.2 Field Surveys

A wildlife and botanical survey was conducted at the site on May 29, 2019. The weather was sunny with a light breeze. The temperature at the time of the survey was 81 degF, with relative humidity of 43%, as measured by Kestrel 3000 handheld weather station. Approximately 6" of rain fell in the preceding month which is higher than average (NWS 2019), thus all of the vegetation was green and most perennial and annual plant species were flowering. Starting with the central, most easily accessible portion of the property closest to the proposed cultivation area, the entire project site was surveyed on foot by PRC biologist Dr. Christopher T. DiVittorio, recording the location and identity of all plant and animal species encountered. Plant voucher specimens were taken of any species that were not identifiable in the field, and that were not likely to be special-status. The vast majority of species were identifiable at the time of the survey, although some had to be identified based on vegetative parts. Photographs and voucher specimens were taken of any plants that were identified solely based on vegetative characters.

The field survey was conducted by dividing the outdoor portions of the parcel into zones and cataloging all of the species found in each zone. Each zone was surveyed by walking in parallel lines until the whole zone was covered. Notes were also taken in each zone documenting the general site characteristics and current land uses, as well as any surface erosional features that may require remediation. Botanical specimens were taken back to the laboratory for identification if identification was not possible in the field. If species were not flowering at the time of the survey and morphological characteristics indicated that the species may be special-status, notes were made for a follow-up visit. Birds and nests were identified by call and with binoculars. Vocalizations, scat, tracks, feathers, burrows, nests, and molts were used for identification of animals present onsite. Any onsite aquatic habitats were observed for a minimum of ten minutes without movement in order to observe animals that may hide when approached.

2.0 RESULTS

2.1 NATURAL COMMUNITIES IN THE EVALUATION AREA

Using field surveys, a review of published literature, and the knowledge of PRC staff, all of the natural communities present on and around the project site were assessed. Regionally, the dominant vegetation type is cultivated vineyards and orchards, lesser proportions of hayfields and light commercial (Figure 4). Along the banks of Clear Lake are freshwater emergent marsh habitat, and along the tributaries to Clear Lake are *Salix* riparian woodland.

2.2 NATURAL COMMUNITIES WITHIN THE PROJECT SITE

The parcel consists of approximately 50% developed vineyard, 35% mixed annual grassland, and 15% riparian woodland (Figure 5). The riparian corridor of Manning Creek is well developed and contains numerous riparian trees and a diverse understory. Aquatic insects and some algal mats were observed in the creek. The remainder of the parcel is either active vineyard with very low plant cover other than grapevines and so is not treated below separately from the *Bromus* annual grassland category. The specific community descriptions below are organized based on the zones that were surveyed, and the floristic results presented in Appendix B.

2.2.1 *Bromus* Annual Grassland

The majority of the parcel is ruderal grassland dominated by non-native species from the genera *Bromus* and *Festuca* (Figure 9). Non-native herbaceous species observed onsite include soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), Italian rye (*Festuca perennis*), Zorro fescue (*Festuca myuros*), wild oats (*Avena barbata*), dogstail grass (*Cynosurus echinatus*), little rattlesnake grass (*Briza minor*), foxtail chess (*Hordeum murinum*), hairgrass (*Aira caryophyllea*), Harding grass (*Phalaris aquatica*), medusahead (*Elymus caput-medusae*), nit grass (*Gastridium phleoides*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), prickly lettuce (*Lactuca serriola*), big heron bill (*Erodium botrys*), spring vetch (*Vicia sativa*), English plantain (*Plantago lanceolata*), field parsley (*Torilis arvensis*), Klamathweed (*Hypericum perforatum*), smooth cat's ear (*Hypochaeris glabra*), chickweed (*Stellaria media*), black mustard (*Brassica nigra*), sheep sorrel (*Rumex acetocella*), bur clover (*Medicago polymorpha*), wild geranium (*Geranium molle*), turkey mullein (*Croton setiger*), rose clover (*Trifolium hirtum*), sweet clover (*Melilotus albus*), pineapple weed (*Matricaria discoidea*), goat's beard (*Tragopogon dubius*), and Fuller's teasel (*Dipsacus fullonum*).

Native herbaceous species observed onsite include common yarrow (*Achillea millefolium*), harvest brodiaea (*Brodiaea elegans*), annual lupine (*Lupinus bicolor*), blue dicks (*Dichelostemma capitatum*), ladies' tobacco (*Gnaphalium californicum*), blue eyed grass (*Sisyrinchium bellum*), bird's foot trefoil (*Acmispon americanus*), Western buttercup (*Ranunculus occidentalis*), red ribbons (*Clarkia*

concinna), mugwort (*Artemisia douglasiana*), and willow herb (*Epilobium densiflorum*). Tree species observed along fencelines that are not part of the riparian zone surrounding Manning Creek include Valley oak (*Quercus lobata*) to 48", Black oak (*Quercus kelloggii*) to 26", and Interior live oak (*Quercus wislizeni*) to 20".

2.2.1 *Salix* Riparian Woodland

In addition to many of the species mentioned above, areas near the riparian corridor of Manning Creek (Figure 11) included canopy trees such as Oregon ash (*Fraxinus latifolia*), White alder (*Alnus rhombifolia*), Oregon oak (*Quercus garryana*), Narrowleaf willow (*Salix exigua*), Black willow (*Salix gooddingii*), and Pacific willow (*Salix lasiandra*). Herbaceous species in the riparian corridor include miner's lettuce (*Claytonia perfoliata*), common bedstraw (*Galium aparine*), Himalayan blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobium*), bracken fern (*Pteridium aquilinum*), California grape (*Vitis californica*), American vetch (*Vicia americana*), pennyroyal (*Mentha pulegium*), and California rose (*Rosa californica*).

2.3 WILDLIFE

Numerous wildlife species were observed both directly and indirectly. Species observed onsite include common crow (*Corvus brachyrhynchos*), mourning dove (*Zenaidura macroura*), blue heron (*Ardea herodias*), red-winged blackbird (*Agelaius phoeniceus*), California towhee (*Melospiza crissalis*), house sparrow (*Passer domesticus*), turkey vulture (*Cathartes aura*), gray squirrel (*Sciurus griseus*), pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), mule deer (*Odocoileus hemionus*), Western fence lizard (*Sceloporus occidentalis*), and Western bumblebee (*Bombus occidentalis*).

2.4 WETLANDS & STREAMS

Streams and watercourses onsite were classified according to the three-tier method used by the California Department of Forestry & Fire Protection (CALFIRE 2017) and included as a reference in Appendix E. Jurisdictional streamcourses are mapped in Figure 3. According to these criteria, there is one named perennial Class I watercourse, Manning Creek, that flows generally north by northwest along the western property line in a densely wooded riparian corridor. The channel bottom is downcut approximately 10 feet but the channel is stable and does not appear to be eroding and is composed of gravel and fines. The rail car bridge crosses Manning Creek in the far southeast corner of the parcel (Figure 7) and exhibits concrete footings that appear to be stable. There is a second jurisdictional watercourse in the far northeastern corner of the north parcel that runs briefly along the northern property line before passing offsite and quickly entering Clear Lake. There is also one artificial water feature, a vineyard settling/irrigation pond (Figure 3) measuring approximately 0.45 surface acres created by earthen berm and surrounded by trees.

Potential wetlands onsite were assessed based on the likelihood to satisfy the three-tier wetland delineation criteria used by the Army Corps of Engineers *Wetland Delineation Manual* (ACOE

1987). There are no locations onsite that appear to satisfy the ACOE criteria for wetlands, although a protocol-level wetland delineation was not performed. There are no locations onsite that appear to be jurisdictional wetlands based on the absence of any areas near the proposed cultivation areas that exhibit satisfactory cover of hydrophytic vegetation or that exhibit signs of wetland hydrology such as spring seeps or ponding. There is also no apparent wetland vegetation associated with the vineyard pond. There may however be fringing wetlands associated with the Manning Creek riparian corridor, although in any case these would be subsumed within the 150 foot setbacks required for Class I watercourses.

2.5 SOILS & LOCAL GEOMORPHOLOGY

The parent materials are typical of inner Coast Range mountains of the Lake County subtype, with highly dissected valleys cut into soft Franciscan sediments, with abundant volcanic extrusive and intrusive formations (USGS 1985). There are no serpentine or other ultramafic rock types onsite and no serpentine derived soils. There are no alkalai or vernal pool soil types onsite. Local formations the southwest portions of the site including the potential cultivation area and most of the riparian corridor are mapped as well-drained Still gravelly loam (#234/233), with lesser proportions of Cole (3%), Kelsey (2%), Lupoyoma (2%), and Talmage (2%) formations. It is considered prime farmland if irrigated, contains average proportion of hydric soils of 2%, and rarely floods. The soil order is classified as a fine-loamy, mixed, thermic Cumulic Haploxerol, composed of alluvium derived from sandstone and shale. Most of the remainder of the site including the north and eastern portions of the vineyard are mapped as Cole variant clay loam with a calcareous substratum (#125), with lesser proportions of Still (7%) and unnamed (7%) sediments.

3.0 SUMMARY & CONCLUSIONS

No special-status plant species were observed during the surveys performed at the site in May 2019. No impacts are predicted for any of the State or Federal special-status plant species in Appendix A based on lack of actual sightings, and lack of suitable habitat in the proposed cultivation activity areas. Activities are largely proposed to be limited to non-native dominate grassland with few native species. The occurrence of special-status plant species (Serpentine cryptantha) that overlaps with the project parcel was not observed onsite nor is it anticipated to find suitable habitat onsite due to the lack of serpentine derived soils or outcrops. Other species observed in the vicinity of the project parcel such as Colusa layia were also not observed during appropriately timed surveys. Furthermore, there are no wetlands, vernal pools, serpentine outcrops, or other special habitat types near the proposed cultivation area that possess a high likelihood of containing special-status plant species.

No special-status animal species were observed during the surveys performed at the site in May 2019. No impacts are predicted for any State or Federal special-status animal species in Appendix A due to the lack of actual observations and lack of suitable habitat near the proposed redevelopment sites. The nearest occurrence of Foothill yellow-legged frog (FYLF) is 4.8 miles west from the project parcel, although there is potential habitat in Manning Creek, although no animals are known from Manning Creek. Due to the existence of suitable amphibian breeding habitat in Manning Creek, and the existence of suitable estivation habitat in the south parcel, it is recommended that a monitor clear the area prior to ground disturbance and also monitor during grading. Other species that may exist onsite such as Western pond turtle and Vernal pool andrenid bee should not be impacted by the proposed cultivation due to lack of suitable habitat in the project area.

No impacts are predicted for sediment discharge to watercourses or wetlands due to the absence of water conveyances that could potentially transport sediment into waters of the US. The riparian corridor surrounding Manning Creek is very dense and there are no bare ground routes for sediment to travel; all routes for sediment to travel from the vineyard or proposed cultivation area pass through intact grass or other vegetation. The one area that might need remediation are the edges of the rail car bridge where the rail car meets the dirt roadway. These edges may need to be reinforced with native plantings and seeded with native grasses to prevent erosion during the rainy season. Additional erosion control measures described in Appendix D are recommended, and we encourage the use of native, locally-sourced vegetation along road cuts and anywhere soil stabilization is required in the future.

4.0 REGULATORY FRAMEWORK

4.1 FEDERAL ENDANGERED SPECIES ACT

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally-listed threatened and endangered species under the federal Endangered Species Act (FESA). The USFWS also maintains a list of 'proposed' species and candidate species that are not legally protected under the FESA, but are often included in their review of a project as they may become listed in the near future. The FESA protects listed animal species from harm or "take" which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. An activity can be defined as a "take" even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under FESA if they occur on federal lands. Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed threatened or endangered species (plants and animals) may be present in the project area and determine whether the proposed project may affect such species. Any activities that could result in the take of a federally-listed species will require formal consultation with the USFWS.

4.2 CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) protects any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed species (California Fish and Wildlife Code 2070). Take of state-listed species requires a permit from CDFW, which is granted only under strictly limited circumstances. Additionally, the CDFW maintains lists of "species of special concern" that are defined as animal species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed or proposed endangered or threatened species may be present in the project area and determine whether the proposed project may result in a significant impact on such species.

4.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in FESA and CESA and the section of the California Fish and Wildlife Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts, if it finds that the species meets the criteria of a threatened or endangered species.

4.4 CLEAN WATER ACT

Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, may also be subject to Corps jurisdiction. In general, a Corps permit must be obtained before placing fill in wetlands or other waters of the U.S. The type of permit depends on the acreage involved and the purpose of the proposed fill. Minor amounts of fill are sometimes covered by Nationwide Permits, which were established to streamline the permit process for projects with "minimal" impacts on wetlands or other waters of the U.S. An Individual Permit is required for projects that result in more than a minimal impact on jurisdictional areas. The Individual Permit process requires evidence that fill of jurisdictional areas has been minimized to the extent "practicable" and provides an opportunity for public review of the project.

4.5 CALIFORNIA WATER QUALITY REGULATORY PROGRAMS

Pursuant to Section 401 of the federal Clean Water Act and the state's Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards. The RWQCB sometimes asserts jurisdiction over wetlands that the Corps does not (e.g. certain isolated wetlands) and may impose mitigation requirements even if the Corps does not. The CDFW also exerts jurisdiction over the bed and banks of watercourses and water bodies according to provisions of Section 1601 to 1603 of the Fish and Wildlife Code. The Fish and Wildlife Code requires a Stream Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body.

5.0 REFERENCES

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FIGURE 1: REGIONAL LOCATION

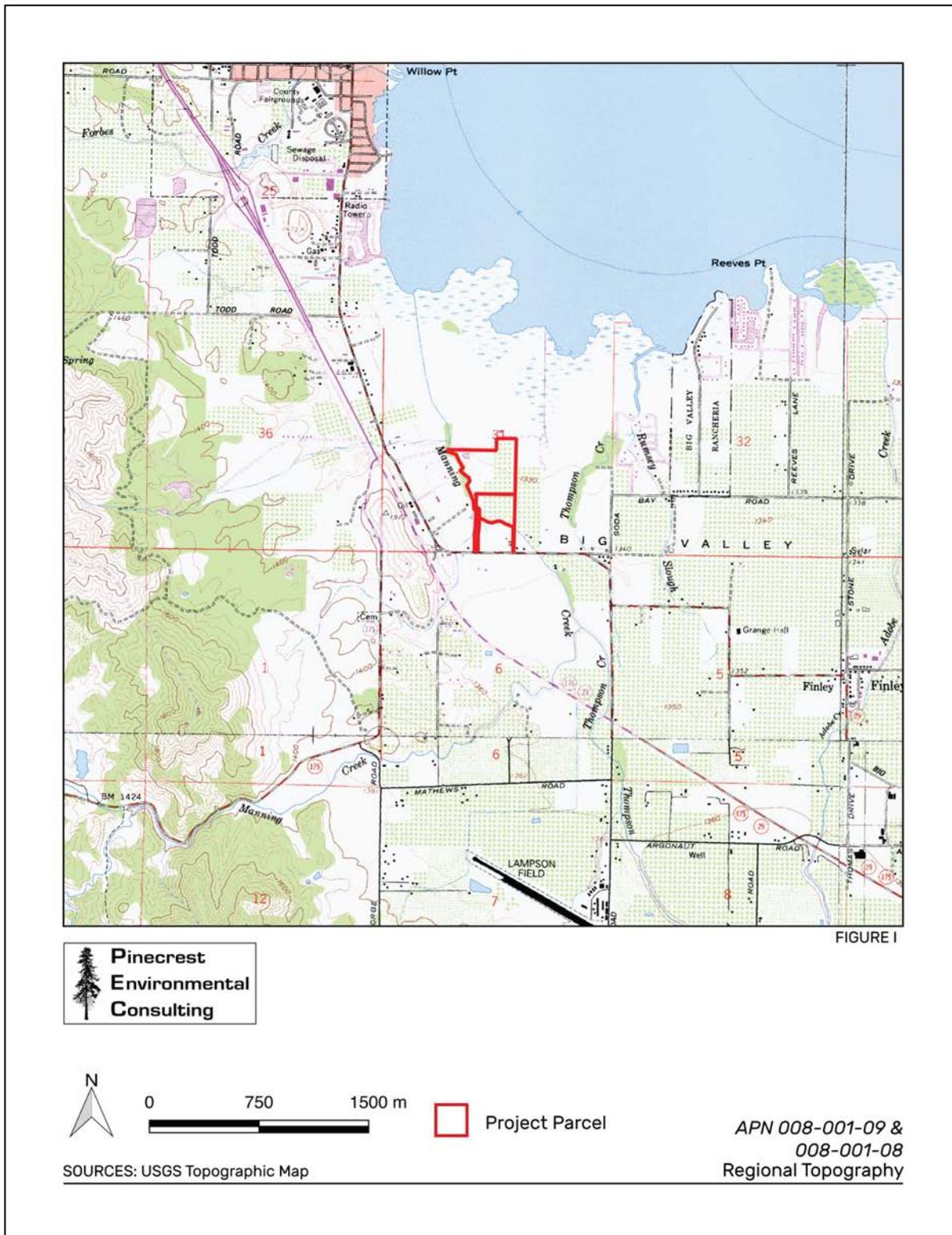


FIGURE 2: 40 FOOT CONTOURS

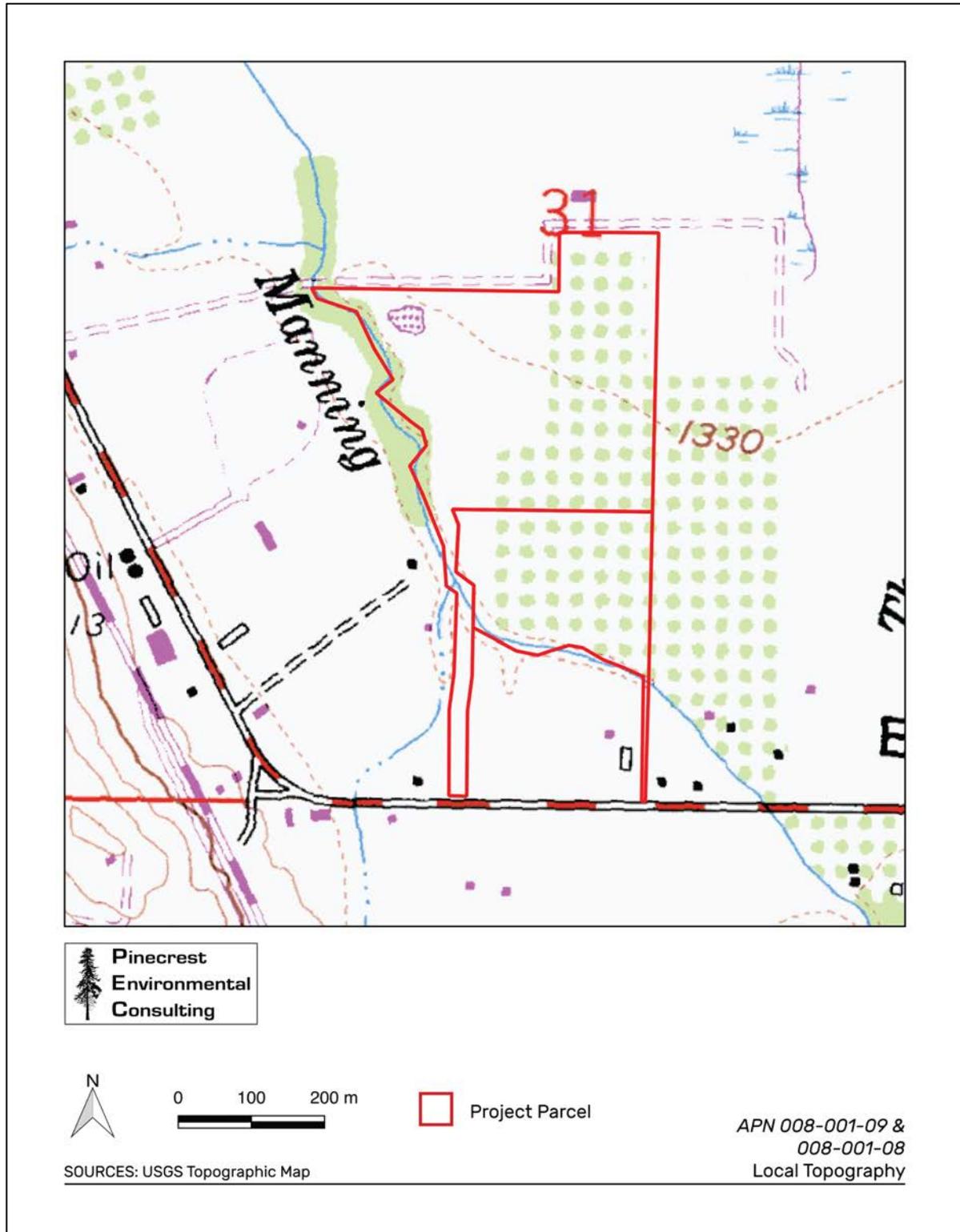


FIGURE 3: WATER FEATURES



FIGURE 4: REGIONAL COMMUNITY TYPES

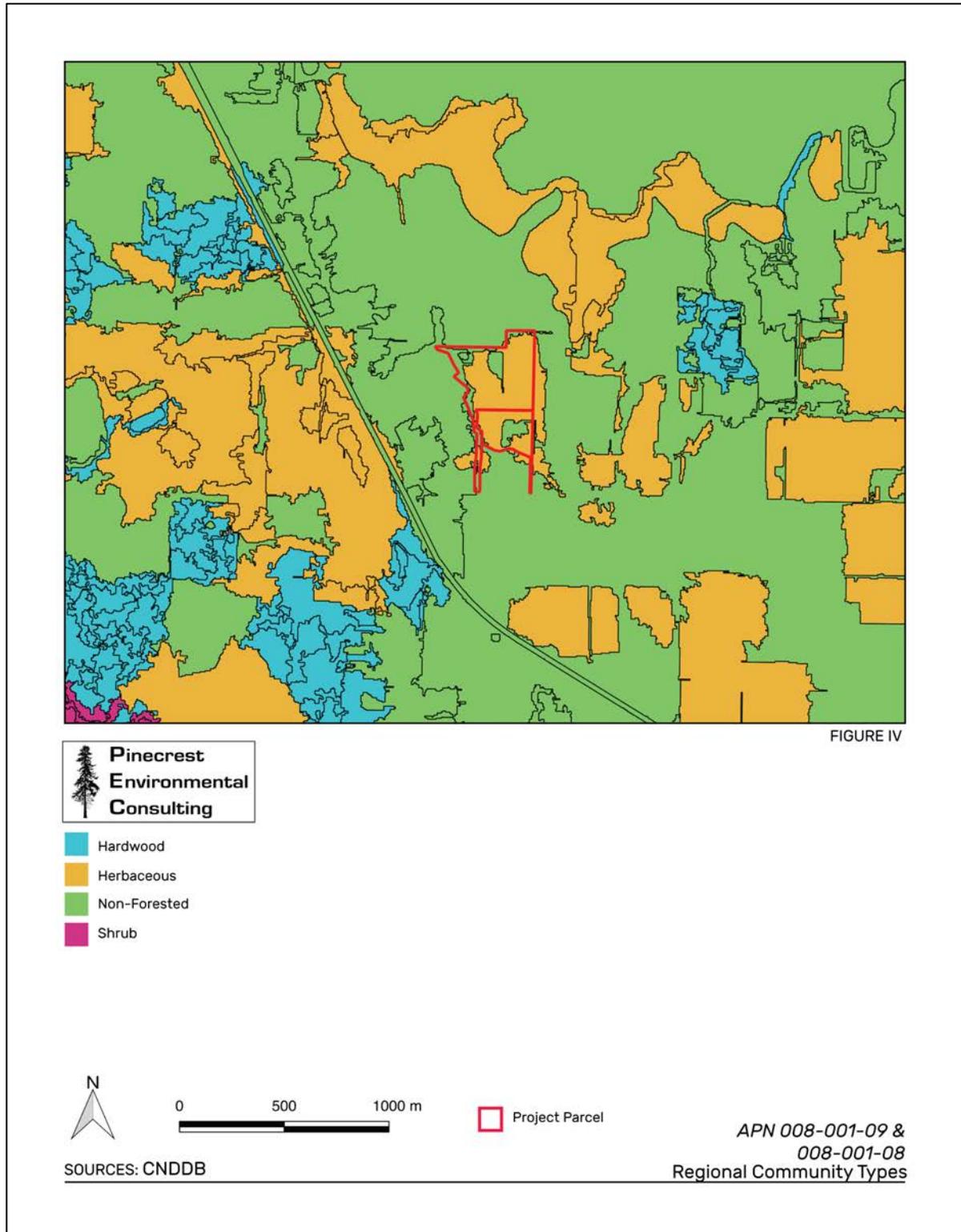


FIGURE IV

FIGURE 5: ONSITE PLANT COMMUNITIES

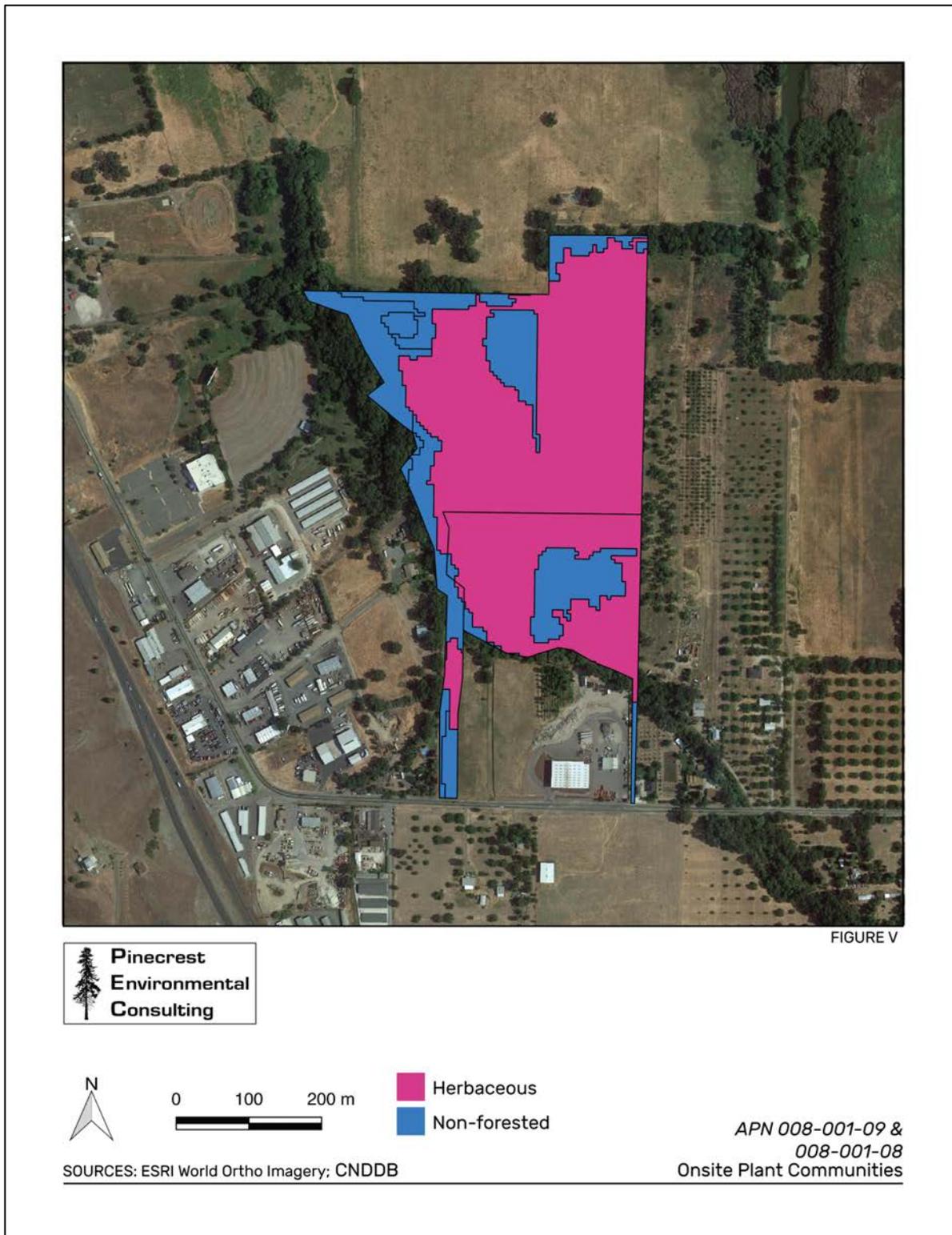


FIGURE 6: PHOTOGRAPH OF ACCESS GATE & UTILITY POLE



 **Pinecrest
Environmental
Consulting**
15701 1887-3039 #PinecrestEnvironmental
6425 Telegraph Ave., #110 Morris St. Suite 104
Oakland, CA 94609 Sebastopol, CA 95472

SOURCES: Pinecrest Environmental

APN 008-001-09 & 008-001-08
270 & 140 Soda Bay Road, Kelseyville, CA 95453

FIGURE 7: PHOTOGRAPH OF RAIL CAR BRIDGE



 **Pinecrest
Environmental
Consulting**
925.887.3039 #PinecrestEnvironmental.org
6425 Telegraph Ave., #110 Morris St. Suite 104
Oakland, CA 94609 Sebastopol, CA 95472

SOURCES: Pinecrest Environmental

APN 008-001-09 & 008-001-08
270 & 140 Soda Bay Road, Kelseyville, CA 95453

FIGURE 8: PHOTOGRAPH OF ACCESS ROAD



 **Pinecrest
Environmental
Consulting**
15701 187-3039 #PinecrestEnvironmental
6425 Telegraph Ave., #110 Morris St. Suite 104
Oakland, CA 94609 Sebastopol, CA 95472

SOURCES: Pinecrest Environmental

APN 008-001-09 & 008-001-08
270 & 140 Soda Bay Road, Kelseyville, CA 95453

FIGURE 9: PHOTOGRAPH OF ANNUAL GRASSLAND



 **Pinecrest
Environmental
Consulting**
1570 187-3039 @pinecrestenvironmental.org
6425 Telegraph Ave., #110 Morris St. Suite 104
Oakland, CA 94609 Sebastopol, CA 95472

SOURCES: Pinecrest Environmental

APN 008-001-09 & 008-001-08
270 & 140 Soda Bay Road, Kelseyville, CA 95453

FIGURE 10: PHOTOGRAPH OF VINEYARD ACCESS



 **Pinecrest
Environmental
Consulting**
1570 187-3039 #PinecrestEnvironmental.org
6425 Telegraph Ave., #110 Morris St. Suite 104
Oakland, CA 94609 Sebastopol, CA 95472

SOURCES: Pinecrest Environmental

APN 008-001-09 & 008-001-08
270 & 140 Soda Bay Road, Kelseyville, CA 95453

FIGURE 11: PHOTOGRAPH OF MANNING CREEK



SOURCES: Pinecrest Environmental

APN 008-001-09 & 008-001-08
270 & 140 Soda Bay Road, Kelseyville, CA 95453

APPENDIX A: SPECIAL-STATUS SPECIES CONSIDERED

The following is a list of special-status plant and animal species generated based on knowledge of the species and habitats of Lake County by PRC staff, from various State and Federal databases, and from the California Natural Diversity Database (CNDDDB). CNDDDB occurrences within 5 miles of the project site are shown in bold.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
PLANTS			
Adobe lily (<i>Fritillaria pluriflora</i>)	—/—/1B.2	Valley grasslands, foothill woodland	<u>Low</u> : Some grassland habitat exists onsite.
Alkalai milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	—/—/1B.2	Valley grasslands, alkali sinks	<u>None</u> : No suitable alkalai habitat exists onsite.
Anthony peak lupine (<i>Lupinus antoninus</i>)	—/—/1B.2	Montane forest	<u>None</u> : No suitable montane habitat exists onsite.
Baker's manzanita (<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i>)	—/—/1B.1	Serpentine chaparral	<u>None</u> : No serpentine habitat exists onsite.
Baker's meadowfoam (<i>Limnanthes bakeri</i>)	—/ST/1B.1	Vernal pools, freshwater wetland	<u>Very Low</u> : No suitable wetland habitat exists onsite.
Baker's navarretia (<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>)	—/—/1B.1	Vernal pools	<u>Very Low</u> : No vernal pool habitat exists onsite.
Beaked tracyina (<i>Tracyina rostrata</i>)	—/—/1B.2	Valley grassland, foothill woodland	<u>Very Low</u> : Some grassland habitat exists onsite.
Bent flowered fiddleneck (<i>Amsinckia lunaris</i>)	—/—/1B.2	Valley grassland, foothill woodland	<u>Medium</u>: Some suitable grassland habitat exists onsite. Nearest occurrence is 0.2 miles west of the parcel near CA-29.
Big scale balsamroot (<i>Balsamorhiza macrolepis</i>)	—/—/1B.2	Valley grassland, foothill woodland	<u>Low</u> : Some grassland habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Bogg's Lake hedge-hyssop (<i>Gratiola heterosepala</i>)	—/—/1B.2	Vernal pools, lake margins	None: No suitable wetland habitat exists onsite. Nearest occurrence is 3.5 miles southeast of the parcel near Kelseyville.
Bolander's horkelia (<i>Horkelia bolanderi</i>)	—/—/1B.2	Yellow pine forest, grassland	Very Low: No suitable forest habitat exists onsite.
Brandegee's eriastrum (<i>Eriastrum brandegeae</i>)	—/—/1B.1	Clearings in chaparral	None: No chaparral habitat exists onsite. Nearest occurrence is 4.7 miles southeast of the parcel near Kelseyville.
Bristly sedge (<i>Carex comosa</i>)	—/—/2B.1	Freshwater marsh, riparian	None: No suitable wetland habitat exists onsite.
Brownish beaked-rush (<i>Rhynchospora capitellata</i>)	—/—/2B.2	Freshwater marsh, riparian	None: No suitable wetland habitat exists onsite.
Burke's goldfields (<i>Lasthenia burkei</i>)	FE/SE/1B.1	Vernal pools	Very Low: No suitable vernal pool habitat exists onsite.
California alkalai grass (<i>Puccinellia simplex</i>)	—/—/1B.2	Alkalai sink	None: No alkalai wetland habitat exists onsite.
California beaked-rush (<i>Rhynchospora californica</i>)	—/—/1B.1	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
California satintail (<i>Imperata brevifolia</i>)	—/—/2B.1	Chaparral	None: No suitable chaparral habitat exists onsite.
Calistoga ceanothus (<i>Ceanothus divergens</i>)	—/—/1B.2	Chaparral	Very Low: No chaparral habitat exists onsite.
Cascade downingia (<i>Downingia willamettensis</i>)	—/—/2B.2	Vernal pool	Very Low: No vernal pool habitat exists onsite.
Clara Hunt's milk vetch (<i>Astragalus claranus</i>)	—/—/1B.1	Chaparral, grassland	Very Low: No chaparral habitat exists onsite.
Cobb Mountain lupine (<i>Lupinus sericatus</i>)	—/—/1B.2	Chaparral, pine forest	Very Low: No chaparral habitat exists onsite.
Colusa layia (<i>Layia septentrionalis</i>)	—/—/1B.2	Chaparral, valley grassland	High: Some suitable grassland habitat exists onsite. Nearest occurrence is 0.2 miles offsite to the west near CA-29.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Congested-headed hayfield tarplant (<i>Hemizonia congesta</i> ssp. <i>congesta</i>)	—/—/1B.2	Grassland, coastal scrub	<u>Very Low</u> : Some grassland habitat exists onsite.
Deep scarred cryptantha (<i>Cryptantha excavata</i>)	—/—/1B.1	Foothill woodland	<u>Very Low</u> : Some grassland habitat exists onsite.
Dimorphic snapdragon (<i>Antirrhinum subcordatum</i>)	—/—/4.3	Serpentine chaparral	<u>None</u> : No serpentine habitat exists onsite.
Drymaria-like western flax (<i>Hesperolinon drymarioides</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine outcrop habitat exists onsite.
Dwarf downingia (<i>Downingia pusilla</i>)	—/—/2B.2	Vernal pools, freshwater wetland	<u>None</u> : No vernal pool habitat exists onsite.
Dwarf soaproot (<i>Chlorogalum pomeridianum</i> var. <i>minus</i>)	—/—/1B.2	Serpentine chaparral	<u>None</u> : No serpentine chaparral habitat exists onsite.
Eel-grass pondweed (<i>Potamogeton zosteriformis</i>)	—/—/2B.2	Freshwater lakes, ponds	<u>None</u> : No suitable pond habitat exists onsite.
Few-flowered navarretia (<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i>)	FE/ST/1B.1	Vernal pools, grassland	<u>Medium</u>: Some grassland habitat exists onsite. Nearest occurrence is 4.7 miles southeast of the parcel near Kelseyville.
Franciscan onion (<i>Allium peninsulare</i> var. <i>franciscanum</i>)	—/—/1B.2	Grassland	<u>Very Low</u> : Some grassland habitat exists onsite.
Freed's jewelflower (<i>Streptanthus brachiatus</i> ssp. <i>hoffmanii</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine outcrop habitat exists onsite.
Geysers panicum (<i>Panicum acuminatum</i> var. <i>thermale</i>)	—/—/1B.2	Chaparral, wetlands	<u>Low</u> : No chaparral habitat exists onsite.
Glandular western flax (<i>Hesperolinon adenophyllum</i>)	—/—/1B.2	Chaparral	<u>Low</u>: No suitable chaparral habitat exists onsite. Nearest occurrence is 0.5 miles southwest of the parcel near Ackley Cutoff.
Grassleaf water plantain (<i>Alisma gramineum</i>)	—/—/2B.2	Wetland, riparian	<u>Low</u> : Some suitable riparian habitat exists onsite.
Green jewelflower (<i>Streptanthus hesperidis</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine outcrop habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Greene's narrow-leaved daisy (<i>Erigeron greenei</i>)	—/—/1B.2	Serpentine grassland	<u>None</u> : No serpentine habitat exists onsite.
Hall's harmonia (<i>Harmonia hallii</i>)	—/—/1B.2	Chaparral, grassland	<u>Low</u> : Some grassland habitat exists onsite.
Hoffman's bristly jewelflower (<i>Streptanthus glandulosus</i> spp. <i>hoffmanii</i>)	—/—/1B.3	Chaparral, foothill woodland	<u>Very Low</u> : Some chaparral habitat exists onsite.
Holly-leaved ceanothus (<i>Ceanothus purpureus</i>)	—/—/1B.2	Chaparral	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Hospital Canyon larkspur (<i>Delphinium californicum</i> ssp. <i>interius</i>)	—/—/1B.2	Foothill woodland	<u>Very Low</u> : Some woodland habitat exists onsite.
Jepson's coyote thistle (<i>Eryngium jepsonii</i>)	—/—/4.2	Wetlands and vernal pools	<u>Very Low</u> : No vernal pool habitat exists onsite.
Jepson's leptosiphon (<i>Leptosiphon jepsonii</i>)	—/—/1B.2	Chaparral, serpentine grassland	<u>None</u> : No serpentine chaparral habitat exists onsite.
Jepson's milk-vetch (<i>Astragalus rattanii</i> var. <i>jepsonianus</i>)	—/—/1B.2	Chaparral, serpentine grassland	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Kenwood marsh checkerbloom (<i>Sidalcea oregana</i> ssp. <i>valida</i>)	FE/SE/1B.1	Freshwater wetlands	<u>None</u> : No suitable wetland habitat exists onsite.
Konocti manzanita (<i>Arctostaphylos manzanita</i> ssp. <i>elegans</i>)	—/—/1B.3	Chaparral, foothill woodland	<u>Low</u>: No suitable chaparral habitat exists onsite. Nearest occurrence is 5.0 miles east of the parcel in Clear Lake State Park.
Kruckeberg's jewelflower (<i>Streptanthus morrisonii</i> ssp. <i>kruckebergii</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine outcrop habitat exists onsite.
Lake County stonecrop (<i>Sedella leiocarpa</i>)	—/—/1B.1	Rock outcrops	<u>Very Low</u> : No rock outcrop habitat exists onsite.
Lake County western flax (<i>Hesperolinon didymocarpum</i>)	—/SE/1B.2	Serpentine grasslands	<u>None</u> : No suitable serpentine habitat exists onsite.
Legenere (<i>Legenere limosa</i>)	—/—/1B.1	Vernal pool, freshwater wetland	<u>None</u> : No suitable vernal pool habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Loch Lomond button-celery (<i>Eryngium constancei</i>)	FE/SE/1B.1	Vernal pool, freshwater wetland	<u>None</u> : No suitable vernal pool habitat exists onsite.
Many-flowered navarretia (<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>)	FE/SE/1B.2	Vernal pools	<u>Very Low</u> : No vernal pool habitat exists onsite.
Marsh checkerbloom (<i>Sidalcea oregana</i> ssp. <i>hydrophila</i>)	—/—/1B.2	Freshwater wetland, riparian	<u>Medium</u> : Some suitable riparian habitat exists onsite. Nearest occurrence is 3.1 miles southeast of the parcel near Bell Hill Road.
Mayacamas popcornflower (<i>Plagiobothrys lithocaryus</i>)	—/—/A1	Foothill woodland, valley grassland	<u>Very Low</u> : Presumed extinct. Last observed 1884 located 1.5 miles north of the site near present-day Lakeport.
Milo Baker's lupine (<i>Lupinus milo-bakeri</i>)	—/—/1B.1	Foothill woodland	<u>None</u> : No suitable woodland habitat exists onsite.
Morrison's jewelflower (<i>Streptanthus morrisonii</i> ssp. <i>morrisonii</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine outcrop habitat exists onsite.
Mt. St. Helena morning-glory (<i>Calystegia collina</i> ssp. <i>oxyphylla</i>)	—/—/4.2	Serpentine chaparral	<u>None</u> : No serpentine habitat exists onsite.
Napa bluecurls (<i>Trichostema ruygtii</i>)	—/—/1B.2	Chaparral, grassland	<u>Medium</u> : Some grassland habitat exists onsite. Nearest occurrence is 3.4 miles southeast of the parcel near Kelseyville.
Napa checkerbloom (<i>Sidalcea hickmanii</i> ssp. <i>napensis</i>)	—/—/1B.1	Chaparral	<u>Very Low</u> : Some marginally suitable woodland habitat exists onsite.
Napa false indigo (<i>Amorpha californica</i> var. <i>napensis</i>)	—/—/1B.2	Forest, woodland	<u>Very Low</u> : Some marginally suitable woodland habitat exists onsite.
Narrow-anthered brodiaea (<i>Brodiaea leptandra</i>)	—/—/1B.2	Foothill woodland, grassland	<u>Very Low</u> : Some grassland habitat exists onsite.
North Coast semaphore grass (<i>Pleuropogon hooverianus</i>)	—/—/1B.1	Freshwater wetland, vernal pools	<u>None</u> : No suitable vernal pool habitat exists onsite.
Northern California black walnut (<i>Juglans hindsii</i>)	—/—/1B.1	Riparian	<u>Medium</u> : Some suitable riparian habitat exists onsite.
Northern meadow sedge (<i>Carex praticola</i>)	—/—/2B.2	Freshwater wetlands	<u>None</u> : No suitable wetland habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Nuttall's ribbon-leaved pondweed (<i>Potamogeton epihydrus</i>)	—/—/2B.2	Ponds and lakes	<u>None</u> : No suitable pond habitat exists onsite.
Oregon polemonium (<i>Polemonium carneum</i>)	—/—/2B.2	Coastal scrub, yellow pine forest	<u>None</u> : No suitable habitat exists onsite.
Oval-leaved viburnum (<i>Viburnum ellipticum</i>)	—/—/2B.3	Chaparral	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Pappose tarplant (<i>Centromadia parryi</i> ssp. <i>parryi</i>)	—/—/1B.2	Grassland, wetland	<u>Low</u> : Some grassland habitat exists onsite.
Pennell's bird's beak (<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>)	FE/SR/1B.2	Chaparral	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Peruvian dodder (<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>)	—/—/1B.2	Grassland, chaparral	<u>Very Low</u> : Parasitic plant, typical host plants not known from the property.
Pink creamsacs (<i>Castilleja rubicundula</i> var. <i>rubicundula</i>)	—/—/1B.2	Grasslands	<u>Low</u> : Some grassland habitat exists onsite.
Porter's navarretia (<i>Navarretia paradoxinota</i>)	—/—/1B.3	Grasslands, wetlands	<u>Very Low</u> : Some grassland habitat exists onsite.
Raiche's manzanita (<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i>)	—/—/1B.1	Serpentine chaparral	<u>None</u> : No serpentine chaparral habitat exists onsite.
Rincon Ridge ceanothus (<i>Ceanothus confusus</i>)	—/—/1B.1	Chaparral, foothill grassland	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Rincon Ridge manzanita (<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i>)	—/—/1B.1	Chaparral	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Round-leaved filaree (<i>California macrophylla</i>)	—/—/1B.2	Foothill grassland	<u>Low</u> : Some grassland habitat exists onsite.
Saline clover (<i>Trifolium hydrophilum</i>)	—/—/1B.2	Wetland, riparian	<u>None</u> : No suitable wetland habitat exists onsite.
San Joaquin spearscale (<i>Extriplex joaquinana</i>)	—/—/1B.2	Shadscale scrub, valley grassland	<u>None</u> : No alkalai scrub habitat exists.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Santa Rosa horkelia (<i>Horkelia tenuiloba</i>)	—/—/1B.2	Chaparral	<u>Low</u> : No suitable chaparral habitat exists onsite.
Sebastopol meadowfoam (<i>Limnanthes vinculans</i>)	FE/SE/1B.1	Freshwater wetland, vernal pools	<u>None</u> : No suitable vernal pool habitat exists onsite.
Serpentine cryptantha (<i>Cryptantha dissita</i>)	—/—/1B.2	Serpentine chaparral	<u>Very Low</u>: No serpentine habitat exists onsite. Nearest occurrence is 0.3 miles west of the project parcel.
Serpentine daisy (<i>Erigeron serpentinus</i>)	—/—/1B.3	Serpentine chaparral	<u>None</u> : No serpentine chaparral habitat exists onsite.
Sharsmith's western flax (<i>Hesperolinon sharsmithiae</i>)	—/—/1B.2	Chaparral	<u>Very Low</u> : No suitable chaparral habitat exists onsite.
Slender Orcutt grass (<i>Orcuttia tenuis</i>)	FT/SE/1B.1	Grassland, freshwater wetlands	<u>Very Low</u> : Some unsuitable grassland habitat exists onsite.
Small-flowered calycadenia (<i>Calycadenia micrantha</i>)	—/—/1B.2	Foothill grassland	<u>Medium</u>: Some suitable grassland habitat onsite. Nearest occurrence is 1.8 miles south of the parcel near Manning Creek.
Small groundcone (<i>Kopsiopsis hookeri</i>)	—/—/2B.3	Redwood forest	<u>None</u> : No suitable forest habitat exists onsite.
Snow Mountain buckwheat (<i>Eriogonum nervulosum</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine outcrop habitat exists onsite.
Socrates Mine jewelflower (<i>Streptanthus brachiatus</i> ssp. <i>brachiatus</i>)	—/—/1B.2	Serpentine outcrops	<u>None</u> : No serpentine habitat exists onsite.
Sonoma beardtongue (<i>Penstemon newberryi</i> var. <i>sonomensis</i>)	—/—/1B.3	Chaparral	<u>Very Low</u> : No chaparral habitat exists onsite.
Sonoma ceanothus (<i>Ceanothus sonomensis</i>)	—/—/1B.2	Chaparral	<u>Very Low</u> : No chaparral habitat exists onsite.
Thin-lobed horkelia (<i>Horkelia tenuiloba</i>)	—/—/1B.2	Chaparral	<u>Very Low</u> : Some chaparral habitat exists onsite.
Three-fingered morning glory (<i>Calystegia collina</i> ssp. <i>tridactylosa</i>)	—/—/1B.2	Serpentine grassland	<u>Very Low</u> : No serpentine habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Two-carpellate Western flax (<i>Hesperolinon bicarpellatum</i>)	—/—/1B.2	Chaparral	<u>Low</u> : No suitable chaparral habitat exists onsite.
Vine Hill ceanothus (<i>Ceanothus foliosus</i> var. <i>vineatus</i>)	—/—/1B.1	Chaparral	<u>Very Low</u> : Some chaparral habitat exists onsite.
Vine Hill manzanita (<i>Arctostaphylos densiflora</i>)	—/SE/1B.1	Chaparral	<u>Very Low</u> : Some chaparral habitat exists onsite.
Watershield (<i>Brasenia schreberi</i>)	—/—/2B.3	Pond, wetland	<u>None</u>: No pond habitat exists in the project area. Nearest occurrence is 1.5 miles north of the parcel near Lakeport.
White beaked-rush (<i>Rhynchospora alba</i>)	—/—/2B.2	Wetlands, freshwater marsh	<u>None</u> : No suitable wetland habitat exists onsite.
White flowered rein orchid (<i>Piperia candida</i>)	—/—/1B.2	Yellow pine forest	<u>None</u> : No suitable forest habitat exists onsite.
Wolly meadowfoam (<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>)	—/—/4.2	Vernal pools	<u>None</u> : No vernal pool habitat exists onsite.
MOSESSES, LICHENS & LIVERWORTS			
Angel's hair lichen (<i>Ramalina thrausta</i>)	—/—/2B.1	Old growth conifer and hardwood forests	<u>None</u> : No suitable forest habitat exists onsite.
Coastal triquetrella (<i>Triquetrella californica</i>)	—/—/1B.2	Forest, woodland	<u>Very Low</u> : Some woodland habitat exists onsite.
Elongate copper moss (<i>Mielichhoferia elongata</i>)	—/—/4.3	Forest, woodland	<u>Very Low</u> : Some woodland habitat exists onsite.
Methuselah's beard lichen (<i>Dolichousnea longissima</i>)	—/—/4.2	Old growth conifer and hardwood forests	<u>None</u> : No forest habitat exists onsite.
Slender silver moss (<i>Anomobryum julaceum</i>)	—/—/4.2	Rocky substrates in forests, riparian	<u>Very Low</u> : Some riparian habitat exists onsite.
Torren's grimmia (<i>Grimmia torenii</i>)	—/—/1B.3	Forest, woodland	<u>Very Low</u> : Some woodland habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
FISH			
Chinook Salmon Coastal California DPS (<i>Oncorhynchus kisutch</i>)	FT/SE/—	Freshwater streams, open ocean and estuaries	<u>None</u> : No suitable streams exist onsite.
Clear Lake Drainage Resident Rainbow trout (<i>Oncorhynchus mykiss</i>)	FE/SE/—	Freshwater streams, open ocean and estuaries	<u>Low</u> : Some suitable habitat exists onsite in Manning Creek, but not near the project area.
Clear Lake hitch (<i>Lavinia exilicauda chi</i>)	FE/SE/—	Freshwater lakes and streams	<u>Medium</u> : Some suitable habitat exists onsite in Manning Creek, but not near the project area. Nearest occurrence is 0.18 miles north of the parcel in Clear Lake.
Coho Salmon Central California Coast ESU (<i>Oncorhynchus kisutch</i>)	FE/SE/—	Freshwater streams, open ocean and estuaries	<u>None</u> : No suitable streams exist onsite.
Sacramento perch (<i>Archoplites interruptus</i>)	—/SSC/—	Low gradient sloughs and lakes	<u>Medium</u> : Some suitable habitat exists onsite in Manning Creek, but not near the project area. Nearest occurrence is 0.18 miles north of the parcel in Clear Lake.
Sacramento splittail (<i>Pogonichthys macrolepidotus</i>)	—/SSC/—	Low gradient freshwater streams	<u>None</u> : No suitable streams exist onsite.
Steelhead Central California Coast DPS (<i>Oncorhynchus mykiss irideus</i>)	FT/—/—	Freshwater streams, open ocean and estuaries	<u>None</u> : No suitable streams exist onsite.
Steelhead Northern California DPS (<i>Oncorhynchus mykiss irideus</i>)	FT/—/—	Freshwater streams, open ocean and estuaries	<u>None</u> : No suitable streams exist onsite.
AMPHIBIANS & REPTILES			
California giant salamander (<i>Dicamptodon ensatus</i>)	—/SSC/—	Wetlands and riparian areas	<u>Very Low</u> : No suitable wetland habitat exists onsite. Some poor quality estivation habitat onsite. Species is not known from the region.
California red-legged frog (<i>Rana draytonii</i>)	FT/SSC/—	Vernal pools, seasonal pools, stock ponds, and associated grasslands	<u>None</u> : No suitable pond or wetland habitat exists onsite for breeding. Some low quality estivation habitat exists.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
California tiger salamander (<i>Ambystoma californiense</i>)	FT/SSC/—	Ponds, streams, drainages, and associated uplands	<u>None</u> : No suitable pond or wetland habitat exists onsite. Some low quality estivation habitat exists onsite.
Foothill yellow-legged frog (<i>Rana boylei</i>)	—/SSC/—	Wetlands, riparian, streams and ponds	<u>Very Low</u> : Some suitable breeding habitat onsite in Manning Creek. Some poor quality estivation habitat in the grassland portion of the site. Nearest occurrence is 4.8 miles west of the project parcel in McDowell Creek.
Red bellied newt (<i>Taricha rivularis</i>)	—/SSC/—	Woodland streams, riparian corridors	<u>Very Low</u> : Some suitable stream habitat exists onsite, although not near the project area.
Western pond turtle (<i>Emys marmorata</i>)	—/SSC/—	Slow-moving creeks, streams, ponds, rivers, ditches.	<u>Low</u> : No pond habitat exists onsite however some poor quality stream habitat exists. Nearest occurrence is 1.7 miles south of the parcel somewhere in Kelseyville 7.5 minute quad. Also several localities 5.4 miles south in Adobe Creek, and others regionally.
INVERTEBRATES			
Behren's silverspot butterfly (<i>Speyeria zerene behrensii</i>)	FE/SSC/—	Coastal prairie	<u>None</u> : Requires blue violet to reproduce; none onsite.
Borax Lake cuckoo wasp (<i>Hedychridium milleri</i>)	—/SSC/—	Lakes and streams	<u>None</u> : No suitable lake or stream habitat exists onsite. Nearest occurrence is 10.8 miles east of the parcel in Borax Lake.
Brownish dubiraphian riffle beetle (<i>Dubiraphia brunnescens</i>)	—/SSC/—	Freshwater lakes and streams	<u>Low</u> : Some suitable habitat exists in Manning Creek. Nearest occurrence is 0.18 miles north of the parcel in Clear Lake.
California brackishwater snail (<i>Tryonia imitator</i>)	—/SSC/—	Brackish wetlands	<u>None</u> : No suitable wetland habitat exists onsite.
California floater (<i>Anodonta californiensis</i>)	—/SSC/—	Freshwater ponds, streams	<u>None</u> : No suitable stream habitat exists onsite.
California freshwater shrimp (<i>Syncaris pacifica</i>)	FE/SE/—	Freshwater ponds	<u>None</u> : No suitable pond habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
California linderiella (<i>Linderiella occidentalis</i>)	—/SSC/—	Vernal pools	<u>None</u> : No vernal pool habitat exists onsite.
Clear Lake pyrg (<i>Pyrgulopsis ventricosa</i>)	—/SSC/—	Freshwater streams	<u>None</u> : No suitable stream habitat exists onsite.
Crotch bumble bee (<i>Bombus crotchii</i>)	—/SSC/—	Grassland, chaparral	<u>Medium</u> : Some grassland habitat exists onsite.
Leech's skyline diving beetle (<i>Hydroporus leechi</i>)	—/SSC/—	Freshwater ponds	<u>None</u> : No suitable pond habitat exists onsite.
Myrtle silverspot butterfly (<i>Speyeria zerene myrtilae</i>)	FE/SSC/—	Coastal prairie, chaparral	<u>None</u> : Requires western dog violet for reproduction; none onsite.
Monarch butterfly California overwintering Population #1 (<i>Danaus plexippus</i>)	—/SSC/—	Large trees required for roosting.	<u>Low</u> : Some suitable trees for roosting onsite.
Obscure bumble bee (<i>Bombus caliginosus</i>)	—/SSC/—	Grassland, foothill woodland, chaparral	<u>Medium</u>: Some grassland habitat exists onsite. Nearest locality is 9.3 miles west of the project parcel near Parson's Creek.
Opler's longhorn moth (<i>Adela oplerella</i>)	—/SSC/—	Usually associated with <i>Platystemon</i> (creamcups)	<u>None</u> : No suitable host plants onsite.
Oregon floater (<i>Anodonta oregonensis</i>)	—/SSC/—	Large freshwater streams	<u>None</u> : No suitable stream habitat exists onsite.
Ricksecker's water scavenger beetle (<i>Hydrochara rickseckeri</i>)	—/SSC/—	Freshwater lakes and ponds	<u>None</u> : No suitable pond habitat exists onsite.
Sonoma zerene fritillary (<i>Speyeria zerene sonomensis</i>)	—/SSC/—	Grasslands and meadows with <i>Viola</i> plants	<u>None</u> : Requires <i>Viola</i> for reproduction; none onsite.
Western bumblebee (<i>Bombus occidentalis</i>)	—/SSC/—	Grassland	<u>Medium</u> : Some grassland habitat exists onsite.
Wilbur Springs shorebug (<i>Saldula usingeri</i>)	—/SSC/—	Ponds	<u>None</u> : No suitable pond habitat exists onsite.
Vernal pool andrenid bee (<i>Andrena blennospermatis</i>)	—/SSC/—	Upland areas near vernal pools	<u>Medium</u>: No suitable vernal pool habitat exists onsite although some grassland habitat exists. Nearest occurrence is immediately adjacent parcel to the north.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
BIRDS			
American peregrine falcon (<i>Falco peregrinus anatum</i>)	—/SSC/—	Forages in open grasslands, nests in trees	<u>Medium</u> : Some suitable nesting and foraging habitat exists.
Bank swallow (<i>Riparia riparia</i>)	FE/SE/—	Typically found near lakes and streams	<u>None</u> : No suitable stream habitat exists onsite.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	—/SSC/—	Forages over open lakes and streams	<u>Very Low</u> : No suitable foraging or nesting habitat exists onsite.
Bell's sage sparrow (<i>Artemisiospiza belli belli</i>)	—/SSC/—	Cliff faces near water	<u>Medium</u>: Some suitable woodland habitat exists onsite. Nearest locality is 5.8 miles south of the parcel near Highland Creek.
Black swift (<i>Cypseloides niger</i>)	—/SSC/—	Cliff faces near water	<u>None</u> : No suitable stream habitat exists onsite.
Burrowing owl (<i>Athene cucularia</i>)	—/SSC/—	Grasslands with ground squirrel burrows	<u>Very Low</u> : Some suitable grassland habitat exists but lacks ground squirrel burrows.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	FE/SE/—	Coastal salt marshes and mudflats	<u>None</u> : No suitable salt marsh habitat exists onsite.
California horned lark (<i>Eremophila alpestris actia</i>)	—/SSC/—	Herbaceous vegetation, chaparral	<u>None</u> : No suitable scrub or chaparral habitat exists onsite.
Cooper's hawk (<i>Accipiter cooperii</i>)	—/WL/—	Forages over open grassland.	<u>Low</u> : Some suitable foraging habitat exists onsite. No suitable nesting habitat.
Ferruginous hawk (<i>Buteo regalis</i>)	—/SSC/—	Forages over open grassland. Nests in old-growth trees.	<u>Low</u> : Little suitable foraging habitat exists onsite. No suitable nesting habitat.
Golden eagle (<i>Aquila chrysaetos</i>)	—/SSC/—	Forages over open grassland. Nests in old-growth trees.	<u>Low</u> : Some suitable foraging habitat. Some poor nesting habitat.
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	—/SSC/—	Forages over open grassland.	<u>Low</u> : Some suitable foraging and nesting habitat exists onsite.
Great blue heron (<i>Ardea herodias</i>)	—/SSC/—	Nests in trees, forages in wetlands and grasslands	<u>Low</u>: Some marginal foraging and nesting habitat exists onsite. Nearest occurrence is 7.1 miles north of the parcel near Nice-Lucerne Cutoff.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Great egret (<i>Ardea alba</i>)	—/SSC/—	Nests in trees, forages in wetlands and grasslands	<u>Low</u> : Some marginal foraging and nesting habitat exists onsite.
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	FT/SE/—	Old growth coniferous forest	<u>Very Low</u> : No suitable forest habitat exists onsite.
Northern goshawk (<i>Accipiter gentilis</i>)	—/SSC/—	Coniferous forest	<u>None</u> : No suitable forest habitat exists onsite.
Osprey (<i>Pandion haliaetus</i>)	—/WL/—	Areas with fish	<u>Low</u>: No suitable foraging habitat onsite. Some poor quality roosting habitat. No nesting habitat. Nearest occurrence is 0.17 miles north of the parcel on the shore of Clear Lake.
Prairie falcon (<i>Falco mexicanus</i>)	—/SSC/—	Forages over grasslands	<u>Medium</u> : Some suitable nesting and foraging habitat exists onsite.
Purple martin (<i>Progne subis</i>)	FE/SE/—	Insectivorous, nests in cavities	<u>Medium</u> : Some suitable nesting habitat onsite. Some suitable foraging habitat onsite.
Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	FE/SE/—	Mudflats and tidal sloughs	<u>None</u> : No suitable tidal habitat exists onsite.
Salt marsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	—/SSC/—	Forages in grasslands and nests in dense freshwater marshes	<u>Very Low</u> : No suitable nesting habitat exists. Some suitable foraging habitat.
Sharp-shinned hawk (<i>Accipiter striatus</i>)	—/SSC/—	Forest and woodland	<u>Very Low</u> : Some suitable nesting and foraging habitat exists onsite.
Tricolored blackbird (<i>Agelaius tricolor</i>)	—/SSC/—	Forages in grasslands and nests in freshwater marshes	<u>Low</u>: Some suitable nesting and foraging habitat exists onsite. Nearest known occurrence is 1.4 miles north of the parcel in Lakeport.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	—/SE/—	Woodland, riparian	<u>Low</u> : Some suitable nesting habitat exists. Some suitable foraging habitat.
White-tailed kite (<i>Elanus leucurus</i>)	—/CFP/—	Prefers to nest in marshes next to deciduous forests.	<u>Low</u> : Some suitable nesting and foraging habitat exists onsite.
Yellow breasted chat (<i>Icteria virens</i>)	—/SSC/—	Dense shrubby growth, grasslands	<u>Low</u> : Some suitable grassland habitat exists onsite.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Yellow rail (<i>Coturnicops noveboracensis</i>)	—/SSC/—	Breeds in marshes, forages in wet meadows	<u>None</u> : No suitable marsh habitat exists onsite.
Yellow warbler (<i>Coturnicops noveboracensis</i>)	—/SSC/—	Riparian, shrubland, farmland	<u>Low</u> : Some suitable riparian habitat exists onsite.
MAMMALS			
American badger (<i>Taxidea taxus</i>)	—/SSC/—	Open grassland habitats with plenty of prey	<u>Low</u> : Insufficient habitat complexity exists for this territorial animal. Nearest occurrence is 1.4 miles northwest of the project parcel in Lakeport.
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	—/SSC/—	Forages over open areas, roosts in trees or caves	<u>None</u> : Some suitable foraging habitat. No suitable roosts in project area.
Fisher (<i>Pekania pennanti</i>)	—/SSC/—	Forages and breeds primarily in forests	<u>Very Low</u> : No suitable forest habitat exists onsite. Nearest occurrence is 6.9 miles northwest of the parcel near Willow Creek.
Fringed myotis (<i>Myotis thysanodes</i>)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	<u>Very Low</u> : Some suitable foraging habitat. No suitable roosts in project area.
Hoary bat (<i>Lasiurus cinereus</i>)	—/SSC/—	Forages over open areas, roosts in trees or caves at high altitude	<u>Very Low</u> : Foraging limited to high altitudes. No suitable roosts in the project area.
Long-eared myotis (<i>Myotis evotis</i>)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	<u>Very Low</u> : Some suitable foraging habitat. No suitable roosts in project area.
Long-legged myotis (<i>Myotis volans</i>)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	<u>None</u> : Some foraging habitat. No suitable roosts in project area.
North American porcupine (<i>Erethizon dorsatum</i>)	—/SSC/—	Require rocky areas or trees for dens, abundant open space for foraging	<u>Very Low</u> : Some suitable foraging habitat. No suitable den habitat. Nearest occurrence is 9.2 miles southeast of the parcel along CA-29 near Ely Flat.
Pallid bat (<i>Antrozous pallidus</i>)	—/SSC/—	Common in open dry habitats with rocky areas for roosting	<u>Low</u> : Some foraging habitat exists. No suitable roosts in the project area. Nearest occurrence is 9.7 miles southwest near Pieta Creek.

Taxon	Status ¹ Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Silver haired bat (<i>Lasionycteris noctivagans</i>)	—/SSC/—	Nocturnal, migratory, solitary, roosts in tree cavities	Medium: Some suitable trees exist for roosting. Some foraging habitat exists. Nearest occurrence is 7.3 miles north of the project parcel near the town of Nice.
Sonoma tree vole (<i>Arborimus pomo</i>)	—/SSC/—	Old growth Douglas fir canopies	None: No suitable forest habitat exists onsite.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	—/SSC/—	Hibernate in mines or caves, roost in man made structures and caves	Very Low: Few man-made structures exist suitable for roosting. Some habitat for foraging. Nearest occurrence is 6.5 miles southwest of the parcel near McDowell Valley.
Western red bat (<i>Lasiurus blossevillii</i>)	—/SSC/—	Forages over open areas, roosts in trees or caves	Very Low: No suitable roosting habitat. Some suitable foraging habitat.
Yuma myotis (<i>Myotis yumanensis</i>)	—/SSC/—	Forages over open areas, roosts in trees or caves	Very Low: No suitable nesting habitat exists onsite. Some suitable foraging habitat exists onsite.
HABITATS			
Coastal & Valley Freshwater Marsh (CVFM)	—	—	None: No marsh habitat exists onsite.
Northern Hardpan Vernal Pool (NHVP)	—	—	None: No hardpan vernal pool habitat exists onsite.
Northern Vernal Pool (NVP)	—	—	None: No vernal pool habitat exists onsite.
Sycamore Alluvial Woodland (SAW)	—	—	None: No woodland habitat exists onsite.
Valley Needlegrass Grassland (VNG)	—	—	Low: Some grassland habitat exists onsite.
Valley Oak Woodland (VOW)	—	—	None: No valley oaks exist onsite.
Valley Sink Scrub (VSS)	—	—	None: No sink habitat exists onsite.

¹Status:

Federal

FE = Federally Endangered Species

FT = Federally Threatened Species

State

SE = State Endangered Species

ST = State Threatened Species

SSC = California Species of Special Concern

CFP = California Fully Protected Species

CNPS (applies to plants only)

List 1B = plants considered rare, threatened, or endangered in California and elsewhere

List 2B = plants rare, threatened or endangered in California, but more common elsewhere

List 3 = plant is likely rare but more information is required

List 4 = plants of limited distribution

²USFWS

APPENDIX B: SPECIES ENCOUNTERED

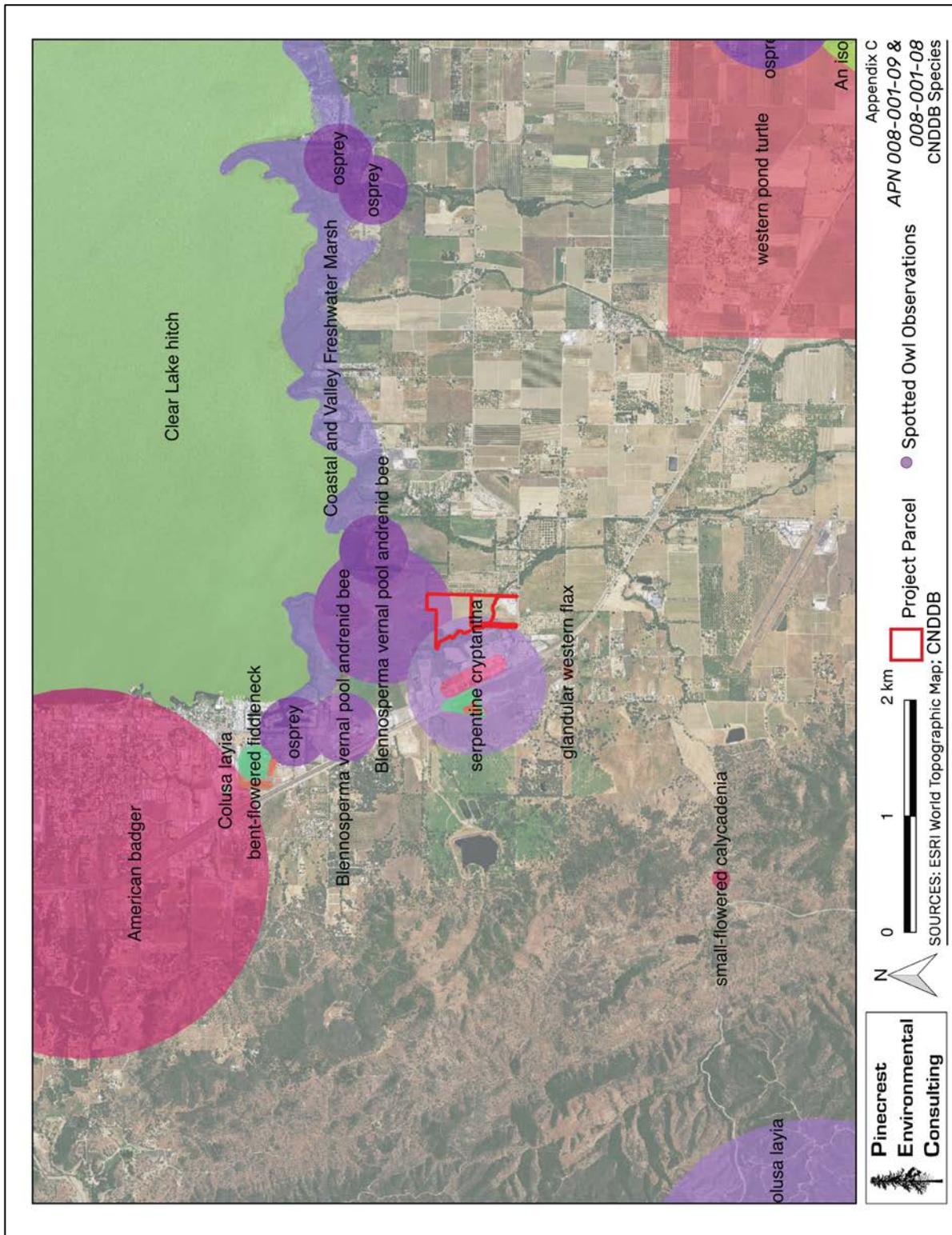
This list contains a list of all of the plants and animals observed onsite within the study area during the site visit on March 14, 2019. Any special-status species (SSS) are denoted in bold with an asterisk. No SSS species were directly observed at the time of the survey.

PLANTS
<i>Achillea millefolium</i>
<i>Acmispon americanus</i>
<i>Aira caryophylla</i>
<i>Alnus rhombifolia</i>
<i>Artemisia douglasiana</i>
<i>Avena barbata</i>
<i>Brassica nigra</i>
<i>Briza minor</i>
<i>Brodiaea elegans</i>
<i>Bromus diandrus</i>
<i>Bromus hordeaceus</i>
<i>Carduus pycnocephalus</i>
<i>Cirsium vulgare</i>
<i>Clarkia concinna</i>
<i>Claytonia perfoliata</i>
<i>Croton setiger</i>
<i>Cynosurus echinatus</i>
<i>Dichelostemma capitatum</i>
<i>Dipsacus fullonum</i>
<i>Elymus caput-medusae</i>
<i>Epilobium densiflorum</i>
<i>Erodium botrys</i>
<i>Festuca</i>
<i>Festuca myuros</i>
<i>Festuca perennis</i>
<i>Fraxinus latifolia</i>
<i>Galium aparine</i>
<i>Gastridium phleoides</i>
<i>Geranium molle</i>
<i>Gnaphalium californicum</i>
<i>Hordeum murinum</i>
<i>Hypericum perforatum</i>
<i>Hypochaeris glabra</i>
<i>Lactuca serriola</i>
<i>Lupinus bicolor</i>

<i>Matricaria discoidea</i>
<i>Medicago polymorpha</i>
<i>Melilotus albus</i>
<i>Mentha pulegium</i>
<i>Phalaris aquatica</i>
<i>Plantago lanceolata</i>
<i>Pteridium aquilinum</i>
<i>Quercus garryana</i>
<i>Quercus kelloggii</i>
<i>Quercus lobata</i>
<i>Quercus wislizeni</i>
<i>Ranunculus occidentalis</i>
<i>Rosa californica</i>
<i>Rubus armeniacus</i>
<i>Rumex acetocella</i>
<i>Salix exigua</i>
<i>Salix gooddingii</i>
<i>Salix lasiandra</i>
<i>Sisyrinchium bellum</i>
<i>Stellaria media</i>
<i>Torilis arvensis</i>
<i>Toxicodendron diversilobium</i>
<i>Tragopogon dubius</i>
<i>Trifolium hirtum</i>
<i>Vicia americana</i>
<i>Vicia sativa</i>
<i>Vitis californica</i>

ANIMALS
<i>Agelaius phoeniceus</i>
<i>Ardea herodias</i>
<i>Bombus occidentalis</i>
<i>Cathartes aura</i>
<i>Corvus brachyrhynchos</i>
<i>Melospiza crissalis</i>
<i>Microtus californicus</i>
<i>Odocoileus hemionus</i>
<i>Passer domesticus</i>
<i>Sceloporus occidentalis</i>
<i>Sciurus griseus</i>
<i>Thomomys bottae</i>
<i>Zenaidura macroura</i>

APPENDIX C: CNDDDB OCCURRENCES MAP



APPENDIX D: CANNABIS CULTIVATION BEST MANAGEMENT PRACTICES

Best management practices (BMPs) are designed to prevent, minimize, and control the discharge of waste and pollutants associated with site operations and maintenance for the aforementioned project. Many of these BMPs are considered enforceable conditions under State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ.

D.1 CANNABIS CULTIVATION

- Pesticide and fertilizer storage facilities shall be located outside of the riparian corridor setbacks for structures.
- Pesticide and fertilizer storage facilities shall not be located within 100 feet of a wellhead, or within 50 feet of identified wetlands.
- Pesticide and fertilizer storage facilities shall be adequate to protect pesticide and fertilizer containers from the weather.
- Store all bags and boxes of pesticides and fertilizers off the ground on pallets or shelves.
- If the structure does not have an impermeable floor, store all liquid pesticides and fertilizers on shelves capable of containing spills or provide appropriate secondary containment.
- Routinely check for leaks and spills.
- Have spill cleanup kit onsite to be able to respond to any leaks or spills.
- Inspect planting stock for pests and diseases prior to planting.
- Avoid planting stock with pests and disease and notify the supplier of the planting stock of the infestation.
- Comply with all pesticide laws and regulations as enforced by the California Department of Pesticide Regulation and County Agricultural Commissioner.
- For pesticides with the signal word CAUTION that have listed food uses, comply with all pesticide label directions as they pertain to personal protective equipment, application method, and rate, environmental hazards, longest reentry intervals and greenhouse and indoor use directions.
- For all other pesticides, use must comply with all label requirements including site and crop restrictions.
- Prior to the use of any registered pesticide on *Cannabis*, Operator Identification Number should be obtained from the County Agricultural Commissioner if required.
- Submit monthly pesticide use reports to the County Agricultural Commissioner if required.

- Prior to applying fertilizers, evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over fertilization.
- Apply fertilizers at label rates and no higher.
- Do not apply fertilizers in a way that will result in runoff that may contaminate ground or surface water or escape via airborne drift or fugitive dust.
- Observe riparian corridor setbacks for agricultural cultivation as applicable. These shall be maintained as “no touch” areas and demarcated with appropriate flagging.
- The removal of vegetation is prohibited within riparian setback areas.
- No equipment, vehicles, or other materials shall be stored in the riparian setback areas.
- Composting areas shall not be located in the riparian setback areas.
- Irrigation must be conducted in a manner that does not result in runoff from the cultivated area.
- Any water tanks or storage facilities must obtain permits from the local City or County planning department where required.
- The use of membrane based water bladders is prohibited.
- If using an irrigation system, inspect for and repair leaks prior to planting each year and continuously during the season.
- Irrigation systems shall be equipped with a backflow prevention devices and shutoff valves.
- Recycle or properly dispose of all plastic bags, containers, and irrigation materials.
- Properly dispose of green waste in a manner that does not discharge pollutants to a watercourse. This may be accomplished by composting, chipping, and/or shredding.
- The method of green waste disposal must be documented.
- Used growth medium (soil and other organic medium) shall be handled to minimize or prevent discharge of soil and residual nutrients and chemicals to watercourses. Proper disposal could include incorporating into garden beds, spreading on a stable surface and re-vegetating, storage in watertight dumpsters, or covering with tarps or plastic sheeting prior to proper disposal.
- The method of disposal of growth medium must be documented.
- Compost piles are to be located outside of riparian setbacks for agricultural cultivation and in a manner that will not discharge pollutants to a watercourse.
- If necessary, construct a berm or install fiber roll around compost area to prevent runoff or use straw wattles around perimeter.
- Cover compost piles with tarp or impermeable surface prior to fall rains and continuously throughout the rainy season.
- Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
- Avoid soil disturbance between November 1 and April 15 and during times of active precipitation.

- All exposed and disturbed soil must be covered with a minimum of 2 inches of mulch, such as straw, bark, wood chips, etc., by November 15. Alternatively, establish a thick cover crop over disturbed areas composed of native species.
- Erosion control materials shall be available on site at all times in the form of straw, mulch, wattles, silt fencing, erosion control fabrics, sand bags, or other materials adequate to cover areas of disturbed soil or incipient erosion events.
- In the event of a forecast storm event likely to produce runoff, apply mulch, wattles, or other erosion prevention measures to the disturbed areas prior to rain event.
- Any grading or drainage conducted as part of site preparation shall have permits from local County or City agencies if required.

D.2 EROSION & SEDIMENT CONTROL

- Erosion control and sediment detention devices and materials shall be incorporated into the cleanup/restoration work design and installed prior to the end of project work and before the beginning of the rainy season or any predicted rain events.
- Any continuing, approved project work conducted after October 15 shall have erosion control measures completed and up-to-date.
- All erosion control measures shall be inspected daily during severe rain events.
- Erosion control materials shall be, at minimum, stored on-site at all times during approved project work between May 1 and October 15.
- Approved project work within the 5-year flood plain shall not begin until all temporary erosion controls (straw bales or silt fences that are effectively keyed-in) are installed downslope of cleanup/restoration activities.
- Native species appropriate to the local habitat shall be used for all revegetation purposes. Non-invasive, non-persistent grass species (e.g., barley grass) may be used for their temporary erosion control benefits to stabilize disturbed slopes and prevent exposure of disturbed soils to rainfall.
- Upon work completion, all exposed soil present in and around the cleanup/restoration sites shall be stabilized within 7 days.
- The disturbed area will be minimized at all times to only that which is essential for the completion of the project.
- Provide temporary cover over disturbed areas that are not currently being worked on.
- Heavy equipment shall not be used in flowing water.
- Use of heavy equipment shall be avoided or minimized in a channel bottom with rocky or cobbled substrate.
- Heavy equipment shall not introduce chemicals or foreign sediment to the channel (e.g., remove mud from tracks or cover channel work area with plastic sheeting prior to heavy equipment entry).
- When heavy equipment is used, any woody debris and stream bank or streambed vegetation

- disturbed shall be replaced to a pre-project density with native species appropriate to the site.
- When possible, existing ingress or egress points shall be used or work shall be performed remotely from the top of the creek banks.
 - Divert runoff away from unprotected slopes or loose soils using a combination of mats, geotextiles, silt fencing, wattling, check dams, sediment basins, vegetated buffers, or rock armor.
 - Deploy appropriate erosion control measures such as silt fencing or straw wattles around all temporary exposed piles or soil or surface disturbances.
 - All temporary exposed piles or soil or surface disturbances shall have tarping and sand bags or other stabilization materials deployed in order to prevent discharge of sediments in the event of a rain or wind event.
 - Geotechnical fabric shall be deployed on all exposed dirt surfaces with a slope of greater than 15% and staked in place during ground disturbing activities, and silt fencing deployed on slopes of greater than 15% where appropriate.
 - Sand bags, straw bales, or other devices shall be placed at appropriate locations near and alongside the roadsides and swales in anticipation of large storm events.
 - Bioswales and cultivation areas including parking areas shall be maintained free of trash including empty soil and pesticide or fertilizer containers.
 - Locations of sediment sources shall be identified during rain events and mitigated where appropriate.
 - Protect ditch inlets and outlets from erosion using rock armor.
 - Silt fencing shall be installed downstream of rock piles, stockpiles, and temporary soils storage areas.
 - Desilting or retention basins shall be installed if the capacity of the natural percolation exceeds the inputs during routine storm events.
 - Sediment traps shall be used on all exposed driveway surfaces where natural vegetation is not able to be established.
 - Exposed unvegetated surfaces will be graveled where appropriate.
 - Rock placed for slope protection shall be the minimum necessary to avoid erosion, and shall be part of a design that provides for native plant revegetation and minimizes bank armoring.
 - Soil exposed as a result of project work, soil above rock riprap, and interstitial spaces between rocks shall be revegetated with native vegetation by live planting, seed casting, or hydroseeding prior to the rainy season of the year work is completed.
 - Avoidance of earthwork on steep slopes and minimization of cut/fill volumes, combined with proper compaction, shall occur to ensure the area is resilient to issues associated with seismic events and mass wasting. If cracks are observed, or new construction is anticipated, consultation with a qualified professional is recommended.
 - Culvert fill slopes shall be constructed at a 2:1 slope or shall be armored with rock.

- If it is necessary to conduct work in or near a live stream, the work space shall be isolated to avoid project activities in flowing water.
- Any spoils associated with site maintenance shall be placed in a stable location where it cannot enter a watercourse.
- Sidecasting shall be minimized and shall be avoided on unstable areas or where it has the potential to enter a watercourse.
- Entrance to the project site shall be maintained in a condition that will prevent tracking or flowing of sediment into the public right-of-way.
- All sediment spilled, dropped, washed, or tracked onto the public right-of-ways shall be removed immediately.
- When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-ways.
- When wheel washing is required, it shall be done in an area stabilized with crushed stone that drains into a sediment trap fitted with appropriate erosion control measures.
- To control surface water runoff in and around cultivation areas use fiber rolls or wattling and stake appropriately and perpendicular to the flow path.
- Cover crops should be utilized on all exposed slopes that are not able to be protected by other means.
- Cover crops should be native species as described in the associated biological resources report.
- Rip compacted soils prior to placing spoils to prevent the potential for ponding under the spoils that could result in spoil site failure and subsequent sedimentation.
- Compact and contour stored spoils to mimic the natural slope contours and drainage patterns to reduce the potential for fill saturation and failure.
- Ensure that spoil materials are free of woody debris, and not placed on top of brush, logs or trees.
- Inspect all roads and culverts regularly for blockages.

D.3 WATER USE & POLLUTION

- Ensure that all appropriate water rights permits are filed with the State Water Resources Control Board.
- Notify the California Department of Fish and Wildlife by submitting a Lake and Streambed Alteration (LSA) notification package if the proposed activities involve substantial diversion from or alteration of the bed or bank of a stream or other waterbody.
- Ensure that all water storage features are permitted from the Department of Water Rights if necessary.
- All refueling and pesticide and chemical storage and transfer shall occur greater than 100 feet away from any swales, creeks, or natural areas.

- All refueling and pesticide and chemical storage and transfer shall occur on top of an impermeable metal or other fabric mat that is no less than 2 inches high on all sides and capable of completely containing any spillage.
- Concrete truck and other vehicles shall not be washed out in natural areas or directly onto soil and shall be washed out into a metal or other impermeable basin and disposed of properly such that no water is discharged to the soil.
- All waste shall be kept in plastic drums with tight fitting lids so that water is not able to make contact with the contents and potentially leach to the environment.
- All pesticide sprays shall occur on windless nights for outdoor facilities.
- Chemical or fertilizer wastes shall never be disposed of into swales or creeks and shall be contained inside closed-roof facilities and designated with appropriate labeling until it is possible to dispose of properly.
- Septic leach fields and graywater mulch fields shall be maintained free of large vegetation and not used for aboveground storage that may impact their proper functioning.
- Chemical contamination (fuel, grease, oil, hydraulic fluid, solvents, etc.) of water and soils is prohibited during routine equipment operation and maintenance.
- The use or storage of petroleum-powered equipment shall be accomplished in a manner that prevents the potential release of petroleum materials into waters of the state (Fish and Game Code 5650).
- Schedule excavation and grading activities for dry weather periods.
- Designate a contained area for equipment storage, short-term maintenance, and refueling. Ensure it is located at least 50 feet from waterbodies.
- Inspect vehicles for leaks and repair immediately.
- Clean up leaks, drips and other spills immediately to avoid soil or groundwater contamination.
- Conduct major vehicle maintenance and washing offsite.
- Ensure that all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste offsite.
- Ensure that all construction debris is taken to appropriate landfills and all sediment disposed of in upland areas or offsite, beyond the 100-year floodplain.
- Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. If necessary for dust control, use only a minimal amount of water.
- Sweep up spilled dry materials immediately.
- Separate organic material (e.g., roots, stumps) from the dirt fill and store separately. Place this material in long-term, upland storage sites, as it cannot be used for fill.
- Spoils shall not be placed or stored in locations where soils are wet or unstable, or where slope stability could be adversely affected.
- Do not locate spoil piles in or immediately adjacent to wetlands and watercourses.

- Store spoil piles in a manner (e.g. cover pile with plastic tarps and surround base of pile with straw wattle) or location that would not result in any runoff from the spoil pile ending up in wetlands and watercourses.
- Keep temporary disposal sites out of wetlands, adjacent riparian corridors, and ordinary high water areas as well as high risk zones, such as 100-year floodplain and unstable slopes.
- Conduct operations on a size and scale that considers available water sources and other water use and users in the planning watershed.
- Implement water conservation measures such as rainwater catchment systems, drip irrigation, mulching, or irrigation water recycling where possible.
- Hauled water utilized for irrigation shall be documented via receipt or similar, and show the date, name, and license plate of the water hauler, and the quantity of water purchased.
- If using a water storage tank, do not locate the tank in a flood plain or next to equipment that generates heat. Locate the tank so it is easy to install, access, and maintain.
- Vertical tanks should be installed according to manufacturer's specifications and placed on firm, compacted soil that is free of rocks/sharp objects and capable of bearing the weight of the tank and its maximum contents.
- Install float valves on tanks to prevent them from overflowing.
- Place proper lining or sealing in ponds to prevent water loss.

D.4 ROAD MAINTENANCE & GENERAL CONSTRUCTION

- Always limit work to the appropriate work date windows considering wet weather, migratory bird and other biological and environmental constrains that may be placed on the project.
- Proper design and location of roads and other features is critical to ensuring that a road or other feature be adequately drained and is best accomplished through consultation with a qualified professional.
- Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
- If inspection identifies surface rills or ruts, then surfacing and drainage likely needs maintenance. Consultation should be made with a licensed professional to design appropriate erosion control strategies.
- Design of roads should allow for sheet flow of water and use water bars and rolling dips to break up slope length.
- Vehicle speed shall be kept to a maximum of 10 mph while onsite to minimize dust generation.
- All unvegetated and unpaved roadways and vehicle turnarounds shall be graveled to a depth of not less than 1" in order to prevent dust and sediment entrainment.

- Applicant will use geotechnical fabric or similar materials on exposed slopes, and distribute weed-free straw mulch wherever possible on exposed surfaces on the perimeter of all graded roads and graveled areas.
- Roads and the berms alongside all roads shall be maintained free of headcuts, gullies, stutter bumps, and other erosion features capable of discharging sediment to adjacent grassland areas.
- Roads will be graveled with clean rock whenever required to prevent dust and sediment erosion during the wet season.
- Whenever possible, road maintenance activities shall be performed from May 1 to October 15.
- Work performed outside of this window should take extra precautions for winter weather erosion control prevention beyond that which is described in this Plan.
- A 48 hour advance forecast for rain shall trigger a temporary cessation of work, and all soils piles will need to be covered and secured with sandbags or other materials.
- Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
- Whenever feasible, finished grades shall not exceed 1.5:1 side slopes. In circumstances where final grades cannot achieve 1.5:1 slope, additional erosion control or stabilization methods shall be applied as appropriate for the project location.
- Spoils and excavated material not used during project activities shall be removed and placed outside of 100-year floodplains.
- Upon completion of grading, slope protection of all disturbed sites shall be provided prior to the rainy season through a combination of permanent vegetative treatment, mulching, geotextiles, and/or rock, or equivalent.
- Position vehicles and other apparatus so as to not block emergency vehicle access.
- After construction is complete, all storm drain systems and culverts shall be inspected and cleared of accumulated sediment and debris.
- Sediment barriers including wattles and silt fencing should be checked for sediment accumulation following each significant rainfall and sediment removed or the feature replaced as needed.
- Road drainage shall be discharged to a stable location away from a watercourse.
- Use sediment control devices, such as check dams, sand/gravel bag barriers, and other acceptable techniques, when it is neither practical nor environmentally sound to disperse ditch water immediately before the ditch reaches a stream.
- Within areas with potential to discharge to a watercourse (i.e. within riparian areas of at least 200 feet of a stream) road surface drainage shall be filtered through vegetation, slash, or other appropriate material or settled into a depression with an outlet with adequate drainage.

D.5 SWALE & VEGETATION MANAGEMENT

- The work area shall be restored to pre-project work condition or better.
- Any stream bank area left barren of vegetation as a result of cleanup/restoration activities shall be stabilized by seeding, replanting, or other means with native trees, shrubs, and/or grasses appropriate to the site prior to the rainy season in the year work was conducted.
- Ensure that vegetated swales are properly formed, allow moderate velocity water passage without causing sediment entrainment, and are otherwise functioning properly.
- Create and expand vegetated bioswales where necessary, should additional construction or road maintenance be required, in order to maintain flow without scour.
- All bioswales and other drainage features requiring revegetation will be seeded with native vegetation and lawns and hedgerows maintained in good health and watered in dry years.
- Vegetation including grasses shall be mowed as necessary to create fire breaks and to prevent the accumulation of fuels that would be able to sustain a ground fire.
- All vegetation shall be surveyed on foot once a year by staff and new outbreaks of any invasive weeds identified by the California Invasive Plant Council as noxious or invasive to be removed by the owner or qualified landscaping professionals.
- Channels and swales that show evidence of overland flow and scour (e.g. bare of vegetation) shall be seeded with native grasses such as *Stipa pulchra*, *Hordeum brachyantherum*, *Elymus glaucus*, and *Bromus carinatus*, and kept vegetated at all times.
- If shrubs and non-woody riparian vegetation are disturbed, they shall be replaced with similar native species appropriate to the site.
- Disturbance to native shrubs, woody perennials or tree removal on the streambank or in the stream channel shall be avoided or minimized.
- If riparian trees over six inches dbh (diameter at breast height) are to be removed, they shall be replaced by native species appropriate to the site at a 3:1 ratio.
- Where physical constraints in the project area prevent replanting at a 3:1 ratio and canopy cover is sufficient for habitat needs, replanting may occur at a lesser replacement ratio.
- Vegetation planting for slope protection purposes shall be timed to require as little irrigation as possible for ensuring establishment by the commencement of the rainy season.
- The spread or introduction of exotic plant species shall be avoided to the maximum extent possible by avoiding areas with established native vegetation during cleanup/restoration activities, restoring disturbed areas with appropriate native species, and post-project monitoring and control of exotic species.
- Removal of invasive exotic species after construction activities is strongly recommended. Mechanical removal (hand tools, weed whacking, hand pulling) of exotics shall be done in preparation for establishment of native plantings.
- Where permanent soil stabilization is required a locally-appropriate mix of native grass species shall be used such as a mix containing *Nassella pulchra*, *Hordeum brachyantherum*, *Elymus glaucus*, and *Bromus carinatus* or as described in the site's Biological Resources Assessment.

- Entire cultivation site shall be seeded and maintained as a permanent non-tilled cover crop during non-usage times. Straw mulch shall be used where native seeding is not practicable.
- Use mulches (e.g. wood chips or bark) in cultivation areas that do not have ground cover to prevent erosion and minimize evaporative loss.
- Mulch shall be applied at a rate of 4000 lbs / acre and seeding shall be applied to achieve 70% cover in the first year or approximately 200 lbs / acre.
- Annual inspections for the purpose of assessing the survival and growth of revegetated areas and the presence of exposed soil shall be conducted for three years following project work.
- Dischargers and/or their consultant(s) or third party representative(s) shall note the presence of native/non-native vegetation and extent of exposed soil, and take photographs during each inspection.
- Dischargers and/or their consultant(s) or third party representative(s) shall provide the location of each work site, pre- and post-project work photos, diagram of all areas revegetated and the planting methods and plants used, and an assessment of the success of the revegetation program in the annual monitoring report as required under relevant state and local water board regulations.

D.6 IRRIGATION & CULTIVATION MANAGEMENT

- Cultivation-related waste shall be stored in a place where it will not enter a stream.
- Soil bags and other garbage shall be collected, contained, and disposed of at an appropriate facility, including for recycling where available.
- Pots shall be collected and stored where they will not enter a waterway or create a nuisance.
- Plant waste and other compostable materials be stored (or composted, as applicable) at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.
- Imported soil for cultivation purposes shall be minimized. In the event that containers (e.g. grow bags or grow pots) are used for cultivation, reuse of soil shall be maximized to the extent feasible.
- Spent growth medium (i.e. soil and other organic medium) shall be handled to minimize discharge of soil and residual nutrients and chemicals to watercourses. Proper handling of spent soil could include incorporating into garden beds, spreading on a stable surface and revegetation, storage in watertight dumpsters, covering with tarps or plastic sheeting prior to proper disposal.
- Trash containers of sufficient size and number shall be provided and properly serviced to contain the solid waste generated by the project.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.

- Use lined bins or dumpsters to reduce leaking of liquid waste. Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash. Consider using refuse containers that are bear-proof and/or secure from wildlife.
- Refuse shall be removed from the site on a frequency that does not result in nuisance conditions, transported in a manner that they remain contained during transport, and the contents shall be disposed of properly at a proper disposal facility.
- Ensure that human waste disposal systems do not pose a threat to surface or ground water quality or create a nuisance. Onsite treatment systems should follow applicable County ordinances for human waste disposal requirements, consistent with the applicable tier under the State Water Resources Control Board Onsite Waste Treatment System Policy.
- Install buffer strips, bioswales, or vegetation downslope of cultivation areas to filter runoff of chemicals from irrigation.
- Irrigate at rates to avoid or minimize runoff.
- Regularly inspect and repair leaks in mains and laterals, in irrigation connections, or at the ends of drip tape and feeder lines.
- Design irrigation system to include redundancy (i.e., safety valves) in the event that leaks occur, so that waste of water is prevented and minimized.
- Recapture and reuse irrigation runoff (tailwater) where possible, through passive (gravity-fed) or active (pumped) means.
- Construct retention basins for tailwater infiltration; percolation medium may be used to reduce pollutant concentration in infiltrated water. Constructed treatment wetlands may also be effective at reducing nutrient loads in water.
- Ensure that drainage and/or infiltration areas are located away from unstable or potentially unstable features.
- Regularly replace worn, outdated or inefficient irrigation system components and equipment.
- Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over-fertilization.
- All chemicals shall be stored in a manner, method, and location that ensures that there is no threat of discharge to waters of the State.
- Products shall be labeled properly and applied according to the label.
- Use integrated pest management strategies that apply pesticides only to the area of need, only when there is an economic benefit to the grower, and at times when runoff losses are least likely.
- Periodically calibrate pesticide application equipment.

- Use anti-backflow devices on water supply hoses, and other mixing/loading practices designed to reduce the risk of runoff and spills.
- Petroleum products shall be stored with a secondary containment system such as a pan or a tub
- Throughout the rainy season, any temporary containment facility shall have a permanent cover and side-wind protection, or be covered during non-working days and prior to and during rain events.
- Materials shall be stored in their original containers and the original product labels shall be maintained in place in a legible condition. Damaged or otherwise illegible labels shall be replaced immediately.
- Bagged and boxed materials shall be stored on pallets and shall not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials shall be covered during non-working days and prior to rain events.
- Have proper chemical and fertilizer storage instructions posted at all times in an open and conspicuous location.
- Prepare and keep a spill prevention and cleanup plan onsite when dealing with any hazardous materials.
- Keep ample supply of appropriate spill clean-up material near storage areas.
- Plant cover crops to boost soil fertility, improve soil texture, and protect from storm caused sediment runoff.

APPENDIX E: STREAM CLASSIFICATION CRITERIA

The following stream classification criteria were copied from the California Department of Forestry & Fire Protection *Forest Practice Rules* (CALFIRE 2017) and is widely used by many state and local agencies. Most state and local jurisdictions require setbacks of 50, 100, and 150 feet from Class III, II, and I streams, respectively, although greater setbacks may be required in some jurisdictions.

Watercourse – a natural or artificial channel through which water flows.

- Perennial watercourse (Class I*):
 1. In the absence of diversions, water is flowing for more than nine months during a typical year,
 2. Fish always or seasonally present onsite or includes habitat to sustain fish migration and spawning, and/or
 3. Spring: an area where there is concentrated discharge of ground water that flows at the ground surface. A spring may flow any part of the year. For the purpose of this Policy, a spring does not have a defined bed and banks.
- Intermittent watercourse (Class II*):
 1. In the absence of diversions, water is flowing for three to nine months during a typical year,
 2. Provides aquatic habitat for non-fish aquatic species,
 3. Fish always or seasonally present within 1,000 feet downstream, and/or
 4. Water is flowing less than three months during a typical year and the stream supports riparian vegetation.
- Ephemeral watercourse (Class III*): In the absence of diversion, water is flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life. Ephemeral watercourses typically have water flowing for a short duration after precipitation events or snowmelt and show evidence of being capable of sediment transport.
- Other watercourses (Class IV*): Class IV watercourses do not support native aquatic species and are man-made, provide established domestic, agricultural, hydroelectric supply, or other beneficial use.

*Except where more restrictive, stream class designations are equivalent to the Forest Practice Rules Water Course and Lake Protection Zone definitions (California Code of Regulations, title 14, Chapter 4, Forest Practice Rules, Subchapters 4, 5, and 6 Forest District Rules, Article 6 Water Course and Lake Protection).