

BIOTIC RESOURCES ASSESSMENT

**6699 PALMER CREEK ROAD [APN 069-040-026]
SONOMA COUNTY, CALIFORNIA**

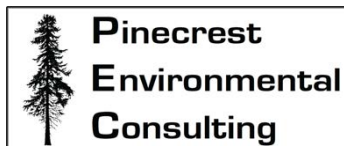
Submitted to:

Evergreen Acres LLC
483 San Andreas Drive
Novato, CA 94945

Prepared by:

Pinecrest Environmental Consulting
6425 Telegraph Avenue #8
Oakland, California 94609
(510) 881-3039

Project No. PAL001



February 20, 2019

TABLE OF CONTENTS

| | |
|---|-----------|
| 1.0 INTRODUCTION | 3 |
| 1.1 PURPOSE | 3 |
| 1.2 LOCATION | 3 |
| 1.2.1 <i>Site Overview</i> | 3 |
| 1.2.2 <i>Landforms & Water Features</i> | 4 |
| 1.2.3 <i>Existing Structures</i> | 4 |
| 1.2.4 <i>Regional Land Uses</i> | 5 |
| 1.2.5 <i>Potential Cultivation Areas</i> | 5 |
| 1.3 METHODS..... | 6 |
| 1.3.1 <i>Records Search & Literature Review</i> | 6 |
| 1.3.2 <i>Field Surveys</i> | 6 |
| 2.0 RESULTS | 8 |
| 2.1 NATURAL COMMUNITIES IN THE EVALUATION AREA | 8 |
| 2.2 NATURAL COMMUNITIES WITHIN THE PROJECT SITE..... | 8 |
| 2.2.1 <i>Annual Grassland & Potential Cultivation Areas</i> | 8 |
| 2.2.2 <i>Mixed Oak & Conifer Woodland</i> | 9 |
| 2.3 WILDLIFE | 9 |
| 2.4 WETLANDS & STREAMS | 10 |
| 2.4.1 <i>Jurisdictional Streamcourses & Classification</i> | 10 |
| 2.4.2 <i>Jurisdictional Wetlands</i> | 10 |
| 2.5 BIOTIC HABITAT | 10 |
| 4.0 REGULATORY FRAMEWORK | 13 |
| 4.1 FEDERAL ENDANGERED SPECIES ACT..... | 13 |
| 4.2 CALIFORNIA ENDANGERED SPECIES ACT | 13 |
| 4.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT | 13 |
| 4.4 CLEAN WATER ACT | 14 |
| 4.5 CALIFORNIA WATER QUALITY REGULATORY PROGRAMS | 14 |
| 5.0 REFERENCES | 15 |

| | |
|--|-----------|
| FIGURE 1: REGIONAL LOCATION | 16 |
| FIGURE 2: 40 FOOT CONTOURS | 17 |
| FIGURE 3: BUFFERS & SETBACKS | 18 |
| FIGURE 4: REGIONAL COMMUNITY TYPES | 19 |
| FIGURE 5: ONSITE PLANT COMMUNITIES | 20 |
| FIGURE 6: PHOTOGRAPH OF ACCESS ROAD | 21 |
| FIGURE 7: PHOTOGRAPH OF POTENTIAL CULTIVATION AREA 1 | 22 |
| FIGURE 8: PHOTOGRAPH OF POTENTIAL CULTIVATION AREA 2 | 23 |
| FIGURE 9: PHOTOGRAPH OF POTENTIAL CULTIVATION AREA 3 | 24 |
| FIGURE 10: PHOTOGRAPH OF WATER STORAGE | 25 |
| FIGURE 11: PHOTOGRAPH OF OAK-BAY FOREST | 26 |
| FIGURE 12: PHOTOGRAPH OF BARN AND NORTHERN PASTURES | 27 |
| FIGURE 13: PHOTOGRAPH OF CLASS III STREAMCHANNEL | 28 |
| FIGURE 14: PHOTOGRAPH OF "SPRING" | 29 |
| | |
| APPENDIX A: SPECIAL-STATUS SPECIES CONSIDERED | 30 |
| APPENDIX B: SPECIES ENCOUNTERED | 44 |
| APPENDIX C: CNDDB OCCURRENCES MAP | 47 |
| APPENDIX D: BIOTIC HABITAT | 49 |

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this Biotic Assessment is to evaluate the existence of special-status species and/or habitats, as well as assess the potential for special-status species listed in Appendix A to occur on or near the site of proposed *Cannabis* cultivation activities, pursuant to Sonoma County Ordinance No. 6189, Section 26-88-254(f)(8). This Biotic Assessment also analyzes the potential for jurisdictional wetlands and other waters of the U.S. to exist onsite, as well as identify landforms that may potentially convey sediment to waters of the U.S. including dry creeks, washes, swales, gullies, and other erosional features. This reconnaissance-level biological assessment shall not be substituted for protocol-level surveys for any of the special-status plants or animals considered here, nor is it intended to be used as a protocol-level wetland delineation or for the purposes of delineating wetlands or streambeds.

1.2 LOCATION

1.2.1 Site Overview

The project site is located at 6699 Palmer Creek Road in unincorporated Sonoma County, 5.7 miles southwest of Healdsburg, 7.2 miles northeast of Cazadero, and 8.2 miles northwest of Windsor (Figure 1). The parcel is assigned Assessor's Parcel Number 069-040-026, is 34.04 acres, is zoned Resources & Rural Development (RRD), is located in Groundwater Availability Zone 4, is not subject to a Williamson Act contract, and is under the jurisdiction of the North Coast Regional Water Quality Control Board (RWQCB).

There are no County-designated Riparian Corridors (RC) on the project parcel. The nearest RC is located immediately offsite to the north, associated with Palmer Creek, a Class I fish bearing stream (Figure 3). There are additionally two other small drainages onsite. One is composed of a single Class III channel that flows north along the west property boundary and contains several small Class III branches (Figure 3, 13, 14). The other drainage is somewhat larger and flows north and drains the eastern half of the property, beginning with two Class III drainages that merge just before the crossing under Palmer Creek Road, after which it becomes a Class II stream before the offsite confluence with Palmer Creek (Figure 3).

There is no County-designated Valley Oak Habitat (VOH) onsite. The nearest VOH is approximately 3 miles to the northeast associated with Mill Creek, a tributary of the Russian River. There is a small amount of County-designated Biotic Habitat (BH) onsite in the far southeastern corner of the parcel associated with a vein of serpentine rocks that extends southeast from The Cedars (Figure 3). This region is located on the extreme southeast corner of the parcel in steep densely forested terrain and is inaccessible by vehicle.

There is no State or Federal Critical Habitat for any species onsite. The nearest Critical Habitat is associated with the Central California Coast Steelhead Distinct Population Segment (DPS) approximately 100 feet offsite to the north associated with Palmer Creek. There is also Critical Habitat for Marbled Murrelet approximately 3 miles to the west in the Austin Creek State Recreation Area.

1.2.2 Landforms & Water Features

Hydrologically, the parcel sits in the northern Russian River watershed. The parcel is drained by a series of Class III drainages that flow north offsite into Palmer Creek, which is a tributary to Mill Creek, which is a tributary to the Russian River (Figure 1). The parcel sits on a generally north-facing slope overlooking the Palmer Creek watershed, which flows east from the project site for 1.9 miles before the confluence with Mill Creek (Figure 2). Mill Creek then flows east for approximately 6 miles through dense riparian forest before passing through vineyards on the floodplain of the Russian River, and eventually entering the Russian River channel just south of Healdsburg (Figure 2). The Russian River then flows south and west for another 35 miles before the confluence with the Pacific Ocean at Jenner.

There are two small drainages that drain the parcel. One is composed of a single Class III channel that flows north along the west property boundary and contains several small Class III branches (Figure 3 & 13). None of this streamchannel exhibits riparian vegetation or bed or bank morphology or evidence of downcutting or scour, and is incapable of supporting aquatic invertebrates, thus is Class III (Figures 13 & 14). There is a piece of corrugated metal placed over a small dug-out section of streamchannel that had historically been called a "spring" (Figure 14), however this feature is not actually a spring and would be classified as an in-stream diversion because the collection box is fed by upstream overland or shallow subsurface water sources, not subterranean groundwater percolation from an aquifer, as shown by water flowing over the top of the corrugated metal piece (Figure 14). There is also no well casing, well completion report, and the dug-out section is completely full of sediment at this time. Thus, the feature on this portion of the drainage should not be called a spring since the source of the water is from overland runoff and not underground aquifers.

The second drainage is somewhat larger and drains the eastern half of the property. This drainage begins as two Class III forks that flow north before joining together just south of Palmer Creek Road (Figure 3). The channel at this point does not show riparian vegetation or bed and bank morphology and does not support aquatic invertebrates and thus would be classified as Class III. Further downstream the combined channels enter an approximately 48" diameter corrugated metal culvert under Palmer Creek Road, after which it flows to Palmer Creek for another approximately 300 yards as a Class II stream (Figure 3).

1.2.3 Existing Structures

Existing structures onsite are limited to one old (greater than 60 years) wood barn located in the northern portion of the parcel, at the southwest corner of the junction of Palmer Creek Road and Big Spring Drive (Figure 12). There is also one modern shed located farther south to the east of Big Spring Drive located in a small clearing in the forest. There was a house on a graded pad just to the

south of the open pastures and to the west of Big Springs Road, that fell down and was demolished some years ago (Figure 9). Roads onsite are in good condition and limited to approximately 0.37 miles of Palmer Creek Road, as well as approximately 0.34 miles of Big Springs Road. The portion of Palmer Creek Road from Mill Creek Road to the project parcel is private and not allowed access to the general public, although there is no locked gate until you reach the turnoff to Big Springs Road to the south. Roads are packed dirt and gravel and generally in good condition and free from erosion, and do not exhibit rutting or headcutting on the roadside drainage ditches (Figure 6).

1.2.4 Regional Land Uses

The majority of the property is undeveloped (Figure 4). The current owners are long-term multigenerational tenants and expressed an interest in maintaining the property in the family. The historic use of the grazing pastures near the historic wood barn in the northern portion of the parcel is as grazing land, although the area has not been commercially grazed in many years. Land uses in the immediate vicinity of the project parcel are predominantly rural residences with some vineyards, with a primary cover of dense second-growth Douglas fir and oak forest with increasing proportion of Coast redwood near the riparian zones.

Towards the west the habitats become more mesic and the ridges higher until reaching the Pacific Ocean. Farther to the east the habitat becomes increasingly xeric and passes through several small towns set into steep incised canyons before emerging in the Santa Rosa Plain near Graton. To the south and north the habitat continues to be predominantly steeply incised canyons with chaparral and Douglas fir on south facing slopes, and secondary Coast redwood forest on the north facing slopes. Historically there was a high proportion of the land under grazing, however the proportion of land being actively grazed in this part of the County is decreasing. Likewise, the predominant industry in this region was logging until depletion of the forest reserves caused the elimination of the local logging industry.

1.2.5 Potential Cultivation Areas

There are three primary areas that appear suitable for cultivation (Figures 7-9). The first two areas are in historically cleared and grazed grassland in the northern portion of the parcel around the barn structure and the intersection of Palmer Creek Road and Big Springs Drive (Figures 7 & 8). These abandoned pasture areas are each approximately 0.8 acre in size and have sun exposure that would be appropriate for cultivation of plants. The other level pad onsite is in the location of a former structure that was demolished (Figure 9). This previously graded flat pad is approximately 0.14 acre in size and is situated to the east of the unnamed seasonal creek onsite, and just to the north (downslope) from the water storage tank (Figure 10).

1.3 METHODS

1.3.1 Records Search & Literature Review

Based on a review of the literature and all relevant databases, we compiled a list of special-status plant and animal species that are known to occur within 5 miles of the project site, 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 Natural Diversity Database (CNDDB 2018), U.S. Fish and Wildlife Service Environmental Conservation Online System (USFWS 2018), the California Native Plants Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2018), and the knowledge of PEC staff familiar with the species and habitats of Sonoma County.

Additional information on sensitive habitats including wetlands was obtained from the USFWS National Wetlands Inventory (NWI 2018), the Sonoma County Vegetation Mapping and Lidar Program (SCWA 2018), and the County of Sonoma Permit and Resource Management Geographical Information Systems (GIS) databases (PRMD 2018).

Plant species included here are State or Federally Endangered or Threatened, and/or considered Rare by CDFW, and/or are recognized as special-status species by the CNPS or CDFW. Animal species included here are designated as State or Federally Endangered or Threatened, and/or California Species of Special Concern, and/or Fully Protected species by the CDFW. In addition, nests of most native bird species, regardless of their regulatory status, are protected from take or harassment under the Migratory Bird Treaty Act (MBTA) and California Fish and Wildlife Code.

1.3.2 Field Surveys

A wildlife and botanical survey was conducted at the site on April 12, 2018 and again on February 4, 2019. For the April 2018 site visit the temperature was normal for this time of year, approximately 55 degF in the morning, holding constant throughout the afternoon. The weather was partly cloudy with occasional rain showers and no wind. Rain totalling approximately 1" fell in the preceding week and vegetation was green and many species were flowering. For the February 2019 site visit the weather was cold, approximately 45 degF, and raining. Approximately 6" of rain had fallen in the previous month and all vegetation was green. At each time point, starting with the northern, most easily accessible portion of the property, the entire project site was surveyed on foot by 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 surveys. Photographs 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, knowledge of PEC staff, and a search of the Sonoma County Vegetation Map (SCWA 2018) within five miles of the project area ("Biological Resources Evaluation Area"), all of the natural communities present around the project site were assessed. Regionally, the dominant vegetation type is annual grassland, Coast redwood and Douglas fir woodland, and rural residences (Figure 4). The onsite communities consist of rural residential development, vineyard, and Coast redwood and Douglas fir forest along the north and west facing slopes (Figure 5). South and east facing slopes contain higher proportions of chaparral and grassland.

2.2 NATURAL COMMUNITIES WITHIN THE PROJECT SITE

The community descriptions below are organized based on the zones that were surveyed, and the floristic results presented in Appendix B. Overall, the parcel consists of open abandoned pastures in the northern half, and closed-canopy Douglas fir-California bay-Coast live oak forest in the southern half. The nearest occurrences of special-status plant species from the CNDDDB database are The Cedars manzanita (*Arctostaphylos bakeri* spp. *sublaevis*) approximately 0.5 miles offsite to the west associated with a serpentine outcrop near Rocky Mountain, and Small groundcone (*Kopsiopsis hookeri*) approximately 1.5 miles west of the project site near McCray Mountain. Neither of these species were found onsite at the time of the survey, and no appropriate habitat for these species exists inside the project area.

2.2.1 Annual Grassland & Potential Cultivation Areas

The majority of the northern portion of the parcel is covered by mixed annual and perennial grassland, with a species composition characteristic of formerly grazed pastures and orchards (Figures 7 & 8). Species encountered in this area include slender oats (*Avena barbata*), coast hedge nettle (*Stachys chamissonis*), broad leaf filaree (*Erodium botrys*), crane's bill geranium (*Geranium molle*), birds foot trefoil (*Acmispon americanus*), smooth brome (*Bromus racemosus*), bristly dogs tail (*Cynosurus echinatus*), meadow barley (*Hordeum murinum*), Zorro fescue (*Festuca myuros*), sweet cherry (*Prunus avium*), reed canarygrass (*Phalaris arundinacea*), French broom (*Genista monspessulana*), coyote brush (*Baccharis pilularis*), blue wildrye (*Elymus glaucus*), common plantain (*Plantago major*), bicolored lupine (*Lupinus bicolor*), Fuller's teasel (*Dipsacus sativa*), dense sedge (*Carex densa*), medusahead (*Elymus caput-medusae*), Italian rye (*Festuca perennis*), purple dead nettle (*Lamium purpureum*), Pacific bentgrass (*Agrostis avenacea*), California wildrye (*Danthonia californica*), rattlesnake grass (*Briza maxima*), velvet grass (*Holcus lanatus*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Western blue eyed grass (*Sisyrinchium californicum*), chickweed (*Stellaria media*), field mustard (*Brassica rapa*), cultivated radish

(*Raphanus sativus*), alfalfa (*Medicago sativa*), bog rush (*Juncus effusus*), white clover (*Trifolium repens*), rose clover (*Trifolium hirtum*), spring vetch (*Vicia sativa*), Italian thistle (*Carduus pycnocephalus*), ladies' tobacco (*Gnaphalium californicum*), smooth cat's ear (*Hypochaeris glabra*), bull thistle (*Cirsium vulgare*), curly dock (*Rumex crispus*), sheep sorrel (*Rumex acetocella*), grapevine (*Vitis vinifera*), common manzanita (*Arctostaphylos manzanita*), hedge parsley (*Torilis arvensis*), sow thistle (*Sonchus asper*), prickly lettuce (*Lactuca serriola*), silver hairgrass (*Aira caryophyllea*), Himalayan blackberry (*Rubus armeniacus*), hayfield tarweed (*Hemizonia congesta*), field buttercup (*Ranunculus arvensis*), horse flax (*Erigeron bonariensis*), white sweetclover (*Melilotus albus*), and Coast dandelion (*Agoseris apargioides*).

2.2.2 Mixed Oak & Conifer Woodland

Plant species occupying the north and west facing slopes are characteristic of mixed California bay (*Umbellularia californica*), Douglas fir (*Pseudotsuga menziesii*), Black oak (*Quercus kelloggii*) woodland that also includes Coast redwood (*Sequoia sempervirens*), and isolated madrone (*Arbutus menziesii*), Monterey pine (*Pinus radiata*), incense cedar (*Calocedrus decurrens*), and Coast live oak (*Quercus agrifolia*) individuals in the more mesic drainages. Other species in the closed-canopy portion of the property include woodland star (*Lithophragma affine*), houndstongue (*Cynoglossum grande*), California buttercup (*Ranunculus californicus*), bitter cress (*Cardamine hirsuta*), sword fern (*Polystichum californicum*), torrent sedge (*Carex nudata*), goldback fern (*Pentagramma triangularis*), baby blue eyes (*Nemophila menziesii*), poison oak (*Toxicodendron diversilobium*), hazelnut (*Corylus cornuta*), Baltic rush (*Juncus balticus*), Douglas' iris (*Iris douglasiana*), pricklefruit buttercup (*Ranunculus muricatus*), bur chervil (*Anthriscus caucalis*), soap plant (*Chlorogalum pomeridianum*), common yarrow (*Achillea millefolium*), notch leaf clover (*Trifolium bifidum*), round leaved miner's lettuce (*Claytonia perfoliata*), pennyroyal (*Mentha pulegium*), California strawberry (*Fragaria vesca*), common bedstraw (*Galium aparine*), California bedstraw (*Galium californicum*), slender rush (*Juncus tenuis*), and bracken fern (*Pteridium aquilinum*).

2.3 WILDLIFE

The nearest occurrences of special status animal species from the CNDDDB database are California giant salamander (*Dicamptodon ensatus*) offsite 0.4 miles to the west associated with Palmer Creek, and North American porcupine located 1.0 miles to the north associated with Mill Creek. No individuals of either of these species were seen onsite, nor were any of the other special status species in Appendix A seen at the time of the survey. While some habitat for North American porcupine exists in the study area, there is no riparian habitat suitable for California giant salamander onsite although estivation habitat may exist.

Wildlife observed onsite included runways of California vole (*Microtus californicus*), excavation mounds from pocket gopher (*Thomomys bottae*), calls from Pacific tree frog (*Pseudacris regilla*), and scat from coyote (*Canis latrans*). Other animals seen onsite included Western fence lizard (*Sceloporus occidentalis*), turkey vulture (*Cathartes aura*), wild turkey (*Meleagris gallopavo*), house sparrow (*Passer domesticus*), American crow (*Corvus brachyrhynchos*), rough skinned newt (*Taricha granulosa*), Stellar's jay (*Cyanocitta stelleri*), and a small brown bird that was unable to be identified.

2.4 WETLANDS & STREAMS

2.4.1 Jurisdictional Streamcourses & Classification

There are two small drainages that flow north across the parcel before separately entering Palmer Creek to the (Figure 3). The small of these drainages flows north along the western property boundary and is composed of a single Class III channel with several small Class III branches (Figure 3). None of these streamchannels exhibit riparian vegetation, bed and bank morphology, or evidence of downcutting or scour, and is incapable of supporting aquatic invertebrates, thus is Class III (Figures 3, 13, 14).

Inside this Class III streamchannel is a piece of corrugated metal placed over a small dug-out pit of soil and rock that had historically been called a "spring", however this feature is not actually a spring because the collection box is fed by upstream overland or shallow subsurface water sources, not subterranean groundwater from an aquifer, as shown by water flowing over the top of the corrugated metal piece (Figure 13). There is also no well casing or well completion report, and the dug-out section is completely full of sediment at this time thus there is no depth to the well or spring. Thus, the feature on this portion of the drainage should not be called a spring since the source of the water is from overland runoff and not underground aquifers and it has no depth. On a side note the metal should probably be removed since it is in the streamchannel.

The second drainage is somewhat larger and drains the eastern half of the property. This drainage begins as two Class III forks that flow north before joining together just south of Palmer Creek Road (Figure 3). These channels do not exhibit riparian vegetation or bed and bank morphology and do not support aquatic invertebrates and thus are Class III. Further downstream the combined channels enter an approximately 48" diameter corrugated metal culvert under Palmer Creek Road, after which it flows to Palmer Creek for another approximately 300 yards as a Class II stream (Figure 3).

2.4.2 Jurisdictional Wetlands

There are no locations onsite that appear to qualify as wetlands subject to ACOE jurisdiction. The one exception to this would be potential fringing wetlands that may exist in association with some of the stream channels, although no project activities will infringe upon the riparian setbacks so a formal wetland delineation of riparian areas is not recommended. There are furthermore no habitats with vegetation or hydrology consistent with freshwater swamps or other wetlands associated around the potential cultivation or activity areas.

2.5 BIOTIC HABITAT

There is a small portion of County-designated Biotic Habiata (BH) in the far southeast portion of the parcel. This BH is part of an east-west trending belt of serpentine soils that runs parallel to and just north of the crest of Rocky Mountain Ridge (Appendix D1). This serpentine vein runs all the way

from the hills east of Windsor, through the mountains north of the Russian River corridor and terminates in a very large deposit that comprises The Cedars serpentine area (Appendix D2). The mapped outcrop refers to the underlying geology and in this portion of the parcel the serpentine soils are buried beneath a substantial amount of organic matter, and obscured from view by a continuous forest canopy. Almost all of the serpentine endemic and special-status species are found in openings in the canopy where serpentine soils are so strong that the normal vegetation of trees cannot grow. In these serpentine barrens is where many of the special status species are found, thus the forest habitat in the southwest corner of the parcel is not appropriately high quality to contain any of the serpentine special status species known from this area. Furthermore, the location of the mapped BH is in the portion of the parcel farthest away from the proposed development and is inaccessible except by foot.

3.0 SUMMARY & CONCLUSIONS

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 project area. No impacts to State or Federal special-status animal species in Appendix A are predicted due to the lack of actual observations and lack of suitable habitat near the project site. The proposed cultivation areas are located either in abandoned pastureland, or on previously graded pads, both of which have low habitat value and few cracks or burrows for estivating animals. Despite this, occurrences of California giant salamander are recorded from within 0.5 miles of the project site and some seasonal stream habitat exists onsite, thus preconstruction surveys should be performed prior to any grading onsite.

Cultivation activities are not expected to have any adverse impact on wetlands or waters of the U.S. due to the lack of such features onsite and the lack of such features in the immediate vicinity of the project site. The Class III stream with the "spring" is around 50 feet from the cultivation area and this is an appropriate setback distance considering the creek is not used for drinking water and is Class III and intermittent. The most likely impact on waters would likely come from the access road, which should be maintained free from erosion or headcutting by graveling and installing erosion prevention waddling and gravel where appropriate. Due to the location of the site immediately adjacent to Critical Habitat for steelhead and Coho salmon, all effort should be made such that no sediment enters Palmer Creek in the future either due to construction activities or road traffic.

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 before project activities commence.

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

- Baldwin, B.G., et al. 2012. *The Jepson Manual: Vascular Plants of California*. University of California Press, Berkeley, CA.
- California Department of Fish and Wildlife (CDFW). 2018. *California Natural Diversity Database*. CDFW Wildlife and Habitat Data Analysis Branch, Sacramento, CA. <https://www.wildlife.ca.gov/data>. Accessed on April 10, 2018.
- California Native Plant Society (CNPS). 2018. *Inventory of Rare and Endangered Plants*. CNPS, Sacramento, CA. Accessed on April 10, 2018.
- Sawyer, J.O., T. Keeler-Wolf, J. Evens. 2009. *Manual of California Vegetation*. California Native Plant Society Press, Sacramento, CA.
- Sonoma County Permit and Resource Management Department (PRMD). 2018. *Geographical Information Systems (GIS) databases*. County of Sonoma, Santa Rosa, CA. Accessed on April 10, 2018.
- Sonoma County Water Agency (SCWA). 2018. *Sonoma County Vegetation Mapping and Lidar Program*. Sonoma County Agricultural Preservation and Open Space District. <http://sonomavegmap.org/>. SCWA, Santa Rosa, CA. Accessed on April 10, 2018.
- U.S. Fish and Wildlife Service (USFWS). 2018. *Environmental Conservation Online System*. USFWS, Washington, DC. <https://ecos.fws.gov/ecp/>. Accessed on April 10, 2018.
- U.S. Fish and Wildlife Service (USFWS). 2018. *National Wetlands Inventory*. USFWS, Washington, DC. <https://www.fws.gov/wetlands/>. Accessed on April 10, 2018.

FIGURE 1: REGIONAL LOCATION

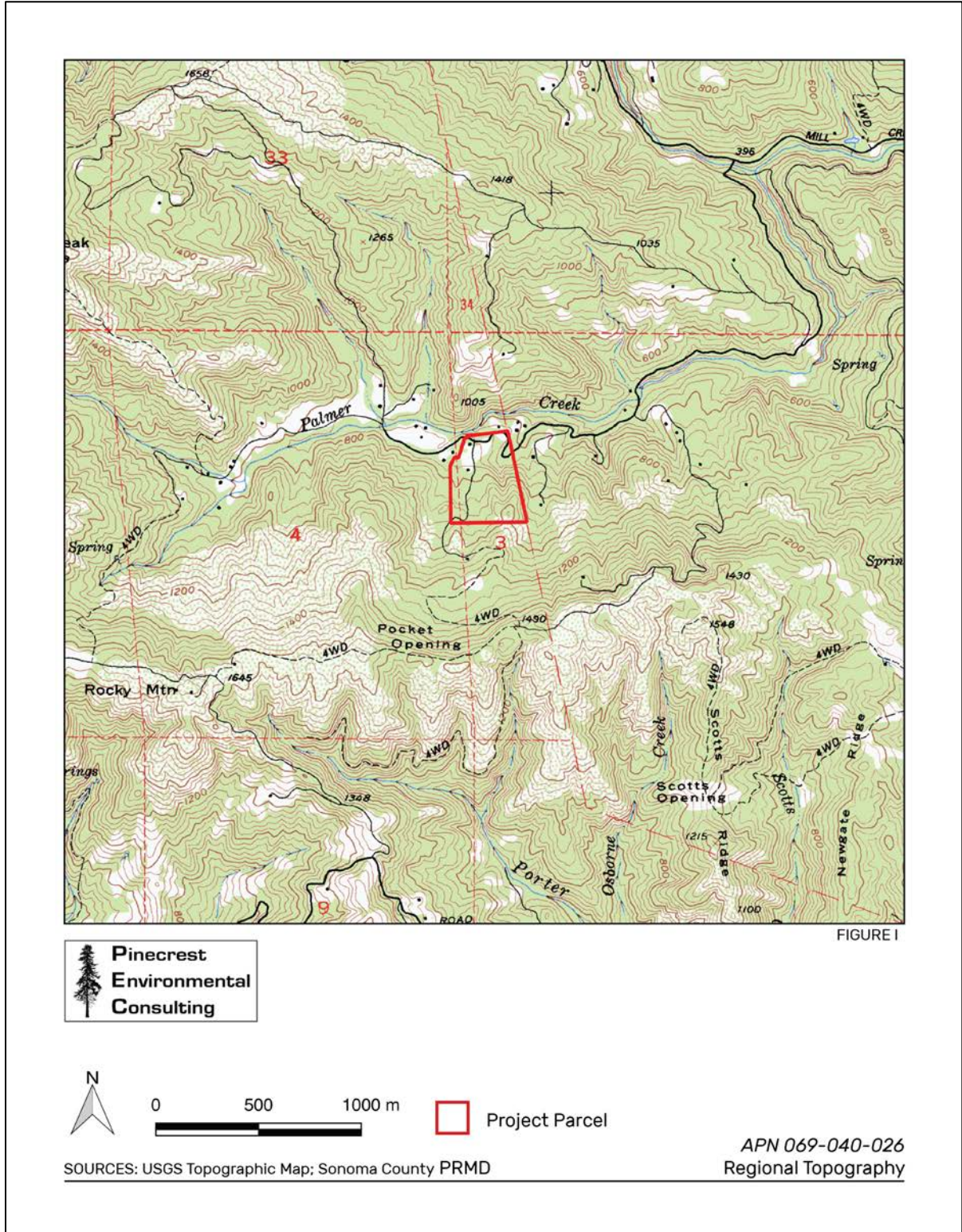


FIGURE 2: 40 FOOT CONTOURS

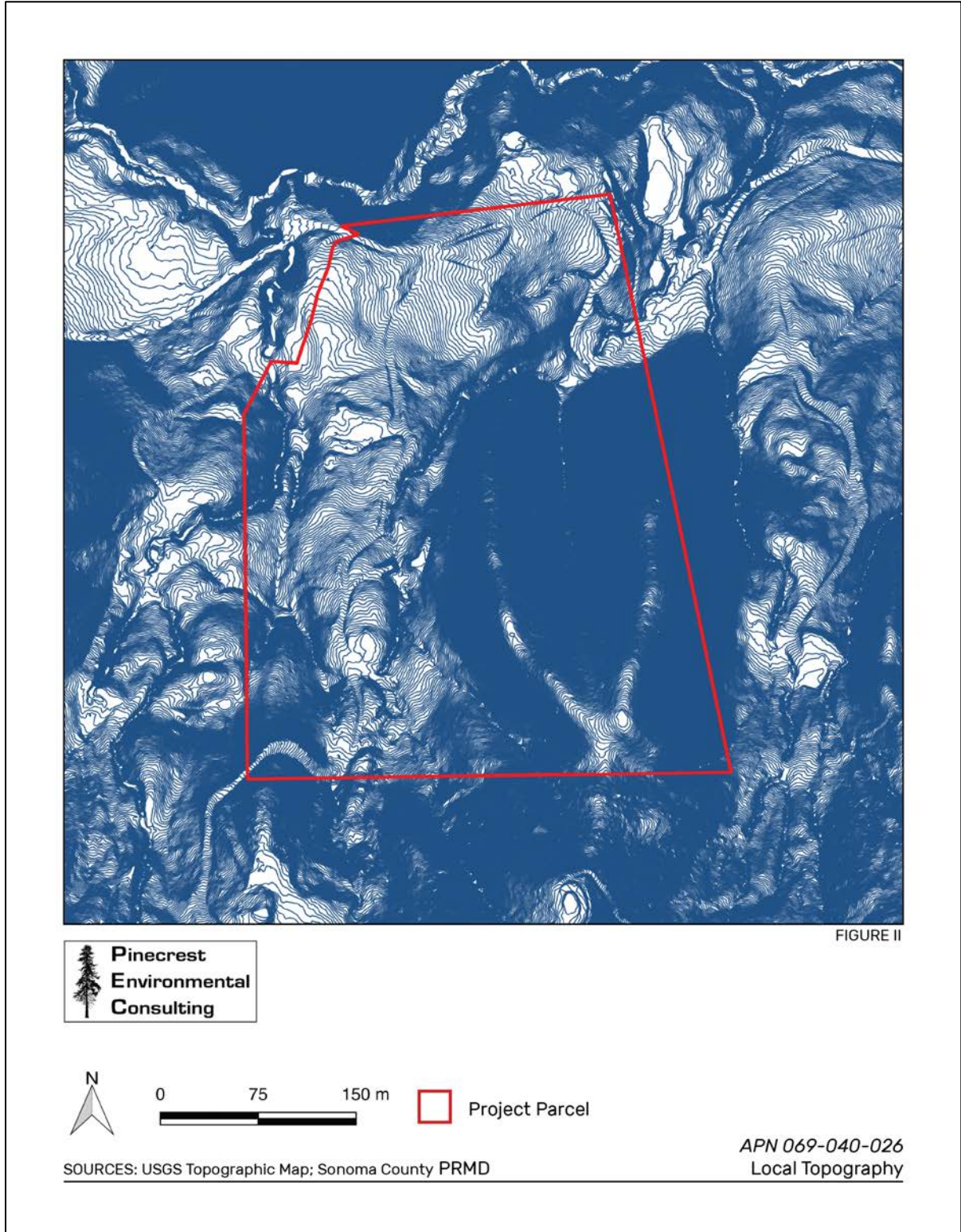


FIGURE 3: BUFFERS & SETBACKS

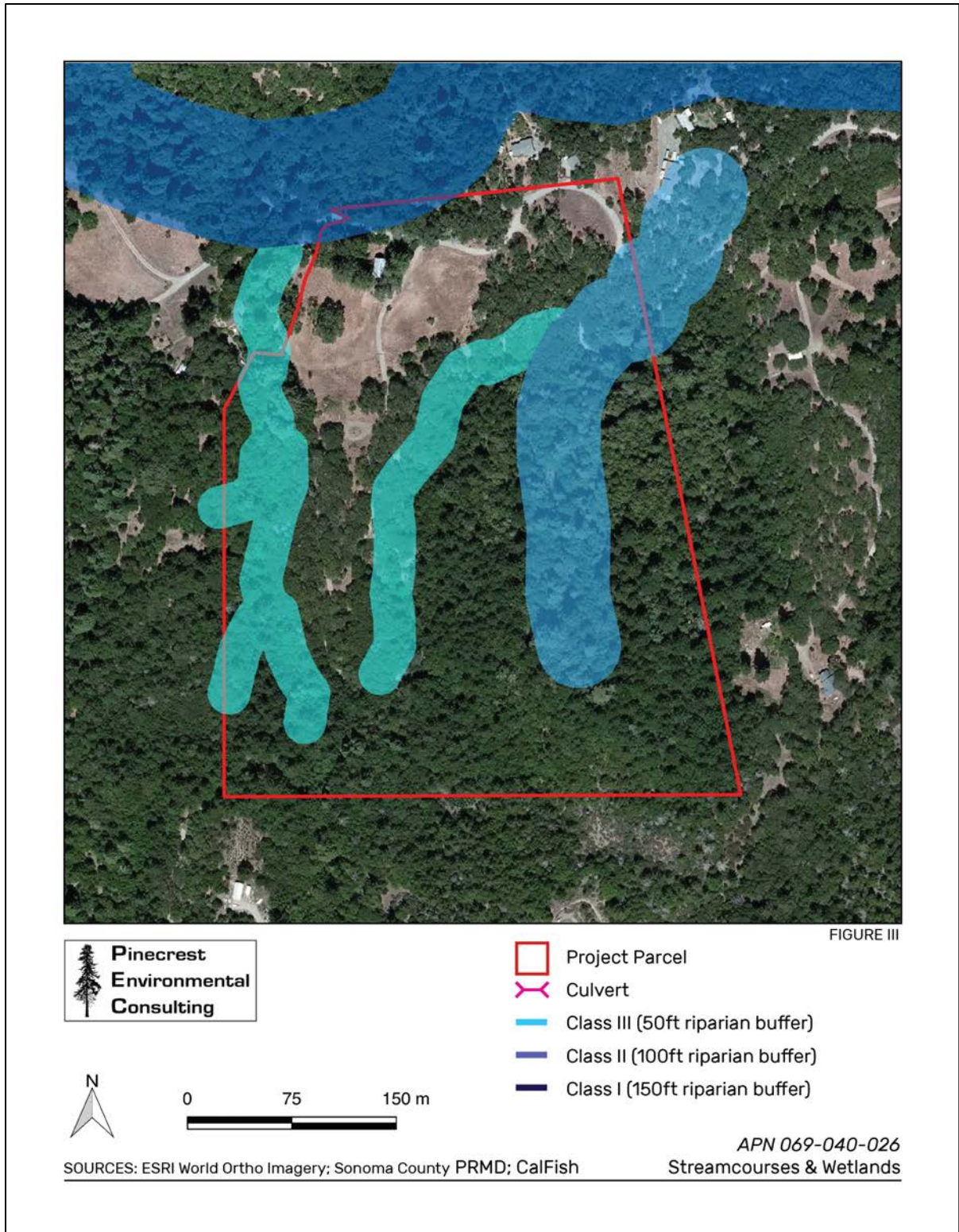


FIGURE 4: REGIONAL COMMUNITY TYPES

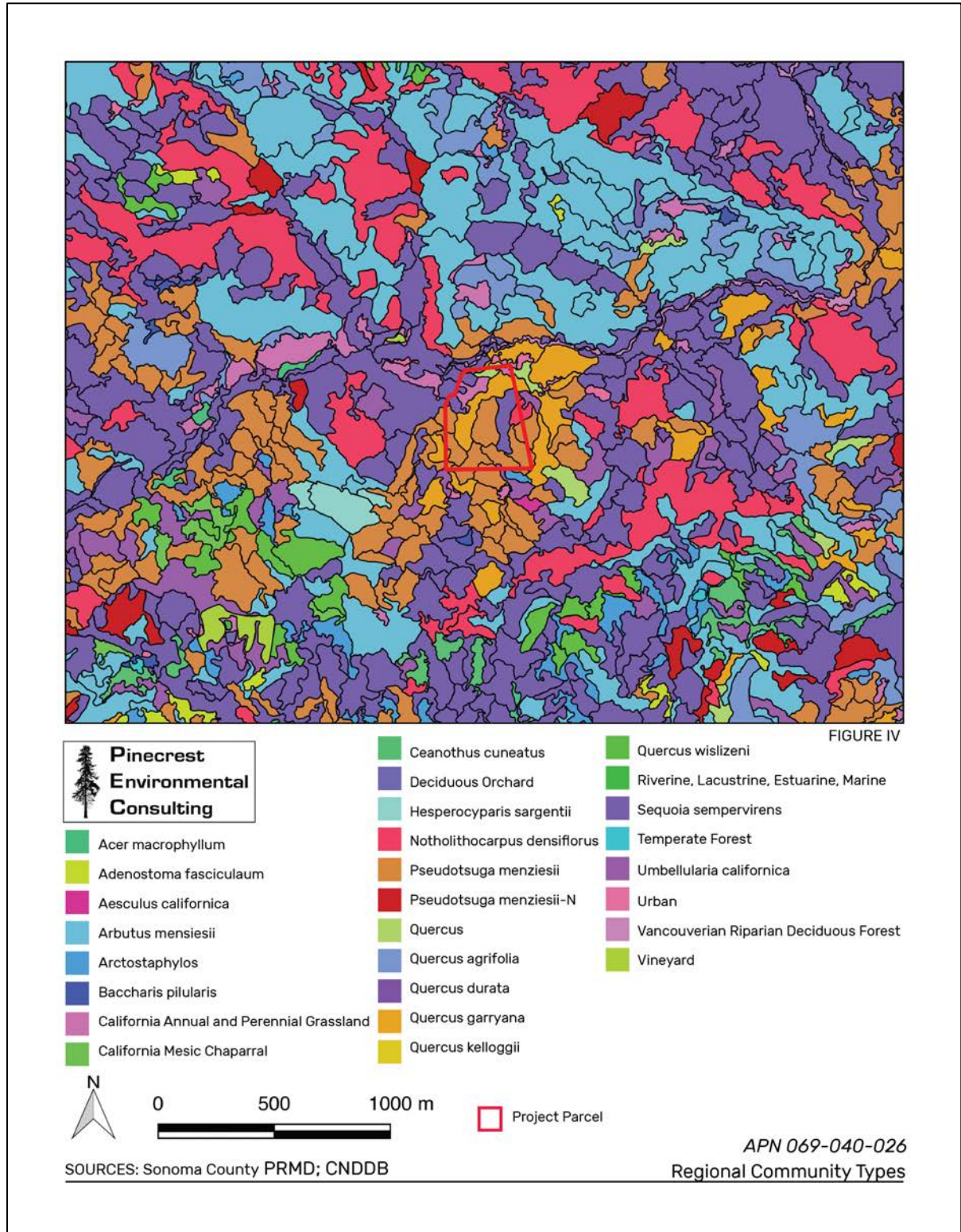


FIGURE 5: ONSITE PLANT COMMUNITIES

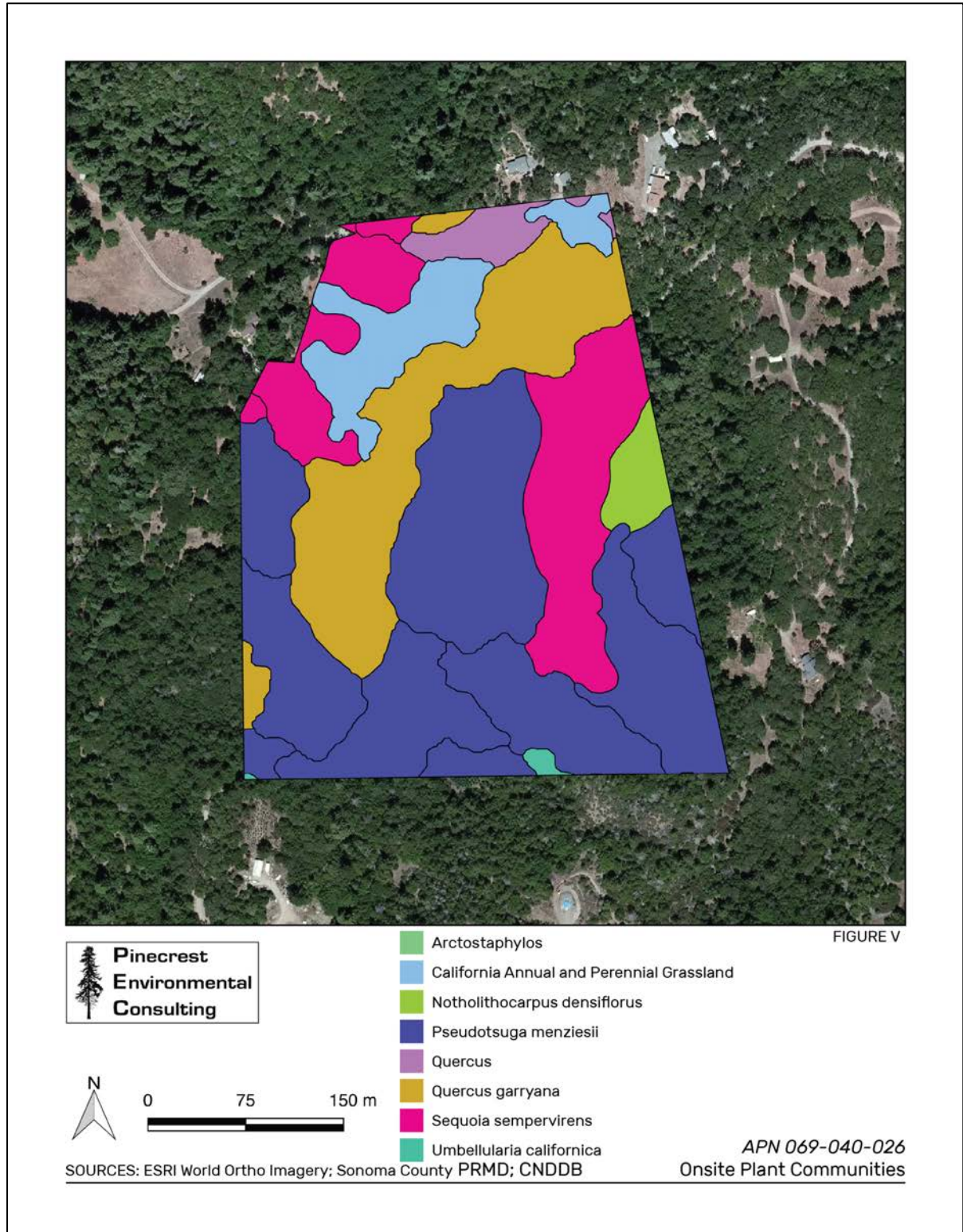


FIGURE 6: PHOTOGRAPH OF ACCESS ROAD



FIGURE VI



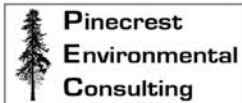
SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Access Road

FIGURE 7: PHOTOGRAPH OF POTENTIAL CULTIVATION AREA 1



FIGURE VII



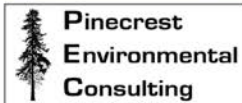
SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Potential Cultivation Area 1

FIGURE 8: PHOTOGRAPH OF POTENTIAL CULTIVATION AREA 2



FIGURE VIII



SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Potential Cultivation Area 2

FIGURE 9: PHOTOGRAPH OF POTENTIAL CULTIVATION AREA 3



FIGURE IX



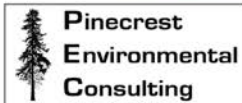
SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Potential Cultivation Area 3

FIGURE 10: PHOTOGRAPH OF WATER STORAGE



FIGURE X



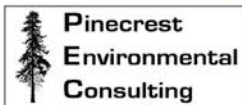
SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Existing Water Storage

FIGURE 11: PHOTOGRAPH OF OAK-BAY FOREST



FIGURE XI



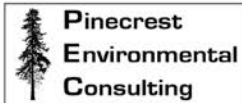
SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Oak-Bay Forest

FIGURE 12: PHOTOGRAPH OF BARN AND NORTHERN PASTURES



FIGURE XII



SOURCES: Pinecrest Environmental

APN 069-040-026
Photograph of Barn and Northern Pastures

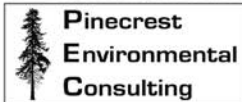
FIGURE 13: PHOTOGRAPH OF CLASS III STREAMCHANNEL



SOURCES: Pinecrest Environmental

APN 069-040-026
Class III Streamcourse

FIGURE 14: PHOTOGRAPH OF "SPRING"



SOURCES: Pinecrest Environmental

APN 069-040-026
Class III Streamcourse & "Well"

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 Sonoma County by PEC 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 | | | |
| 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. |
| Baker's goldfields (<i>Lasthenia californica</i> ssp. <i>bakeri</i>) | —/—/1B.2 | Coastal grasslands | <u>Low</u> : Some grassland habitat exists onsite. |
| Baker's larkspur (<i>Delphinium bakeri</i>) | —/—/1B.1 | Coastal scrub | <u>Very Low</u> : No coastal scrub habitat exists onsite. |
| Baker's manzanita (<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i>) | —/—/1B.1 | Serpentine chaparral, mixed evergreen forest | <u>Low</u> : Some serpentine chaparral habitat exists in the vicinity of the parcel. |
| Baker's navarretia (<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>) | —/—/1B.1 | Vernal pools, riparian woodland | <u>None</u> : No vernal pools exist onsite. |
| Bent flowered fiddleneck (<i>Amsinckia lunaris</i>) | —/—/1B.2 | Valley grassland, foothill woodland | <u>Low</u> : Some grassland habitat exists onsite. |
| Big scale balsamroot (<i>Balsamorhiza macrolepis</i>) | —/—/1B.2 | Valley grassland | <u>Low</u> : Some grassland habitat exists onsite. |
| Big tarplant (<i>Blepharizonia plumosa</i>) | —/—/1B.1 | Foothill woodland, chaparral | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Blasdale's bent grass (<i>Agrostis blasdalei</i>) | —/—/1B.2 | Coastal prairie | <u>Low</u> : Some grassland habitat exists onsite. |
| Blue coast gilia (<i>Gilia capitata</i> ssp. <i>chamissonis</i>) | —/—/1B.1 | Coastal sand dunes | <u>None</u> : No sand dune 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 | Freshwater marsh, riparian | <u>None</u> : No marsh habitat exists onsite. |
| Bristly sedge (<i>Carex comosa</i>) | —/—/2B.1 | Freshwater marsh, riparian | <u>Very Low</u> : No marsh habitat exists onsite. |
| Brownish beaked-rush (<i>Rhynchospora capitellata</i>) | —/—/2B.2 | Freshwater marsh, riparian | <u>Very Low</u> : No marsh habitat exists onsite. |
| Burke's goldfields (<i>Lasthenia burkei</i>) | FE/SE/1B.1 | Vernal pools | <u>None</u> : No vernal pool habitat exists onsite. |
| California alkalai grass (<i>Puccinellia simplex</i>) | —/—/1B.2 | Grassland, riparian | <u>None</u> : No alkalai habitat exists onsite. |
| California beaked-rush (<i>Rhynchospora californica</i>) | —/—/1B.1 | Freshwater wetlands | <u>Very Low</u> : No suitable wetland habitat exists onsite. |
| Calistoga ceanothus (<i>Ceanothus divergens</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>) | —/—/1B.1 | Valley grassland | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Clara Hunt's milk vetch (<i>Astragalus claranus</i>) | —/—/1B.1 | Chaparral, grassland | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Coast lily (<i>Lilium maritimum</i>) | —/—/1B.1 | Coastal prairie | <u>Very Low</u> : Some grassland habitat exists onsite, although site is not coastal. |
| Coastal bluff morning glory (<i>Calystegia purpurata</i> ssp. <i>saxicola</i>) | —/—/1B.2 | Coastal prairie | <u>Low</u> : Some grassland habitat exists onsite. |
| Cobb Mountain lupine (<i>Lupinus sericatus</i>) | —/—/1B.2 | Chaparral, pine forest | <u>Very Low</u> : Some pine forest exists onsite. |
| Colusa layia (<i>Layia septentrionalis</i>) | —/—/1B.2 | Chaparral, valley grassland | <u>Low</u> : Some grassland habitat exists onsite; no chaparral habitat onsite. |
| Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congdonii</i>) | —/—/1B.1 | Valley grassland, wetlands | <u>Low</u> : Some grassland habitat exists onsite. |
| Congested hayfield tarplant (<i>Hemizonia congesta</i> ssp. <i>congesta</i>) | —/—/1B.2 | Grassland, coastal scrub | <u>Low</u> : Some grassland habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|---|---------------------------------------|--|---|
| Contra Costa goldfields (<i>Lasthenia conjugens</i>) | FE/—/1B.1 | Vernal pool | <u>None</u> : No vernal pool habitat exists onsite. |
| Cunningham marsh cinquefoil (<i>Potentilla uliginosa</i>) | —/—/1A | Freshwater marsh | <u>None</u> : No marsh habitat exists onsite. |
| Deceiving sedge (<i>Carex saliniformis</i>) | —/—/1B.2 | Coastal prairie | <u>Very Low</u>: Some grassland habitat exists onsite. |
| Dwarf downingia (<i>Downingia pusilla</i>) | —/—/2B.2 | Vernal pool, freshwater wetland | <u>None</u> : No vernal pool habitat exists onsite. |
| Dwarf soaproot (<i>Chlorogalum pomeridianum</i> var. <i>minus</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u>: No chaparral habitat exists onsite. |
| Fragrant fritillary (<i>Fritillaria liliacea</i>) | —/—/1B.2 | Freshwater wetland, coastal prairie | <u>Low</u> : No marsh habitat exists onsite. |
| Franciscan onion (<i>Allium peninsulare</i> var. <i>franciscanum</i>) | —/—/1B.2 | Coastal prairie | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Golden larkspur (<i>Delphinium luteum</i>) | FE/SR/1B.1 | Chaparral, coastal prairie | <u>Low</u> : Some grassland and chaparral habitat exists onsite. |
| Greene's narrow-leaved daisy (<i>Erigeron greenei</i>) | —/—/1B.2 | Serpentine grassland | <u>Very Low</u>: Some serpentine habitat exists in the vicinity of the parcel. |
| Hoffman's bristly jewelflower (<i>Streptanthus glandulosus</i> spp. <i>hoffmanii</i>) | —/—/1B.3 | Chaparral, foothill woodland | <u>Very Low</u>: No chaparral habitat exists onsite. |
| Holly-leaved ceanothus (<i>Ceanothus purpureus</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u>: No chaparral habitat exists onsite. |
| Hospital Canyon larkspur (<i>Delphinium californicum</i> ssp. <i>interius</i>) | —/—/1B.2 | Foothill woodland | <u>Low</u> : Some riparian habitat exists onsite. |
| Jepson's coyote thistle (<i>Eryngium jepsonii</i>) | —/—/4.2 | Wetlands and vernal pools | <u>None</u> : No vernal pool habitat exists onsite. |
| Jepson's leptosiphon (<i>Leptosiphon jepsonii</i>) | —/—/1B.2 | Chaparral, serpentine grassland | <u>Very Low</u>: No chaparral exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|--------------------------------------|--|
| 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>Very Low</u> : Some woodland habitat exists onsite. |
| Legenere (<i>Legenere limosa</i>) | —/—/1B.1 | Freshwater wetland, valley grassland | <u>None</u> : No suitable wetland habitat exists onsite. |
| Loch Lomond button-celery (<i>Eryngium constancei</i>) | FE/SE/1B.1 | Vernal pools | <u>None</u> : No vernal pool habitat exists onsite. |
| Many-flowered navarretia (<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>) | —/—/1B.2 | Vernal pools | <u>None</u> : No vernal pool habitat exists onsite. |
| Maple leaved checkerbloom (<i>Sidalcea malachroides</i>) | —/—/4.2 | Coastal prairie, coniferous forest | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Marin checkerbloom (<i>Sidalcea hickmanii</i> ssp. <i>viridis</i>) | —/—/1B.1 | Chaparral | <u>Very Low</u>: No chaparral habitat exists onsite. |
| Marin knotweed (<i>Polygonum marinense</i>) | —/—/3.1 | Coastal salt marsh | <u>None</u> : No coastal salt marsh habitat exists onsite. |
| Marsh microseris (<i>Microseris paludosa</i>) | —/—/1B.2 | Northern coastal scrub | <u>None</u> : No scrub habitat exists onsite, and this species prefers coastal habitats. |
| Marsh pea (<i>Lathyrus palustris</i>) | —/—/2B.1 | Coastal prairie | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Morrison's jewelflower (<i>Streptanthus morrisonii</i> ssp. <i>morrisonii</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u>: No chaparral habitat exists onsite. |
| Mt. St. Helena morning-glory (<i>Calystegia collina</i> ssp. <i>oxyphylla</i>) | —/—/4.2 | Serpentine chaparral | <u>None</u> : Some serpentine habitat exists in the vicinity of the parcel. |
| Napa checkerbloom (<i>Sidalcea hickmanii</i> ssp. <i>napensis</i>) | —/—/1B.1 | Chaparral | <u>Very Low</u> : Some woodland habitat exists onsite. |
| Napa false indigo (<i>Amorpha californica</i> var. <i>napensis</i>) | —/—/1B.2 | 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 |
|---|---------------------------------------|---|---|
| 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>Very Low</u> : No vernal pool habitat exists onsite. |
| Oregon polemonium (<i>Polemonium carneum</i>) | —/—/2B.2 | Coastal scrub, yellow pine forest | <u>Very Low</u> : Some forest habitat exists onsite. |
| Oval-leaved viburnum (<i>Viburnum ellipticum</i>) | —/—/2B.3 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Pacific gilia (<i>Gilia capitata</i> ssp. <i>pacifica</i>) | —/—/1B.2 | Coastal prairie, woodland, chaparral | <u>Low</u>: Some grassland exists, although this species prefers coastal habitats. |
| Pappose tarplant (<i>Centromadia parryi</i> ssp. <i>parryi</i>) | —/—/1B.2 | Grassland, chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Pennell's bird's beak (<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Perennial goldfields (<i>Lasthenia californica</i> ssp <i>macrantha</i>) | —/—/1B.2 | Northern coastal scrub | <u>Very Low</u>: Some grassland 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. |
| Petaluma popcornflower (<i>Plagiobothrys mollis</i> var. <i>vestitus</i>) | —/—/1A | Coastal salt marsh | <u>None</u> : No coastal salt marsh habitat exists onsite. |
| Pink sand verbena (<i>Abronia umbellata</i> var. <i>breviflora</i>) | —/—/1B.1 | Coastal sand dunes | <u>None</u> : No sand dune habitat exists onsite. |
| Pitkin Marsh lily (<i>Lilium pardalinum</i> ssp. <i>pitkinense</i>) | FE/SE/1B.1 | Freshwater wetlands | <u>None</u> : No marsh habitat exists onsite. |
| Pitkin Marsh paintbrush (<i>Castilleja uliginosa</i>) | FE/SE/1A | Freshwater wetlands | <u>None</u> : No marsh habitat exists onsite. |
| Point Reyes checkerbloom (<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>) | —/—/1B.2 | Coastal salt marsh | <u>None</u> : No salt marsh habitat exists onsite. |
| Point Reyes salty bird's beak (<i>Chloropyron maritimum</i> ssp. <i>palustre</i>) | —/—/1B.2 | Coastal salt marsh | <u>None</u> : No salt marsh habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|--------------------------------------|---|
| Purple-stemmed checkerbloom (<i>Sidalcea malviflora</i> spp. <i>purpurea</i>) | —/—/1B.2 | Wetlands | Very Low: No suitable wetland habitat exists onsite. |
| Raiche's red ribbons (<i>Clarkia concinna</i> spp. <i>raichei</i>) | —/—/1B.1 | Coastal scrub | <u>None:</u> No coastal scrub habitat exists onsite. |
| Rincon Ridge ceanothus (<i>Ceanothus confusus</i>) | —/—/1B.1 | Chaparral | <u>Very Low:</u> No chaparral habitat exists onsite. |
| Rincon Ridge manzanita (<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i>) | —/—/1B.1 | Chaparral | Very Low: No chaparral habitat exists onsite. |
| Round-headed beaked-rush (<i>Rhynchospora globularis</i>) | —/—/2B.1 | Freshwater wetlands, riparian | <u>Very Low:</u> No suitable wetland 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>Very Low:</u> Some riparian habitat exists onsite. |
| San Joaquin spearscale (<i>Extriplex joaquinana</i>) | —/—/1B.2 | Shadscale scrub, valley grassland | <u>Low:</u> No alkalai scrub habitat exists. |
| Santa Cruz clover (<i>Trifolium buckwestiorum</i>) | —/—/1B.1 | Coastal scrub | Very Low: No coastal scrub habitat exists onsite. |
| Santa Cruz microseris (<i>Stebbinsoseris decipiens</i>) | —/—/1B.2 | Coastal scrub | <u>None:</u> No coastal scrub habitat exists onsite. |
| Sebastopol meadowfoam (<i>Limnanthes vinculans</i>) | FE/SE/1B.1 | Freshwater wetland, vernal pools | <u>None:</u> No vernal pool habitat exists onsite. |
| Serpentine daisy (<i>Erigeron serpentinus</i>) | —/—/1B.3 | Chaparral | Low: Some chaparral habitat exists onsite. |
| Short-leaved evax (<i>Hesperavax sparsiflora</i> v. <i>brevifolia</i>) | —/—/1B.2 | Coastal prairie | <u>Very Low:</u> Some grassland habitat exists onsite. |
| Small groundcone (<i>Kopsiopsis hookeri</i>) | —/—/2B.3 | Redwood forest | Medium: Some redwood forest habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|---|--|
| Soft salty bird's beak (<i>Chloropyron molle</i> ssp. <i>molle</i>) | FE/ST/1B.2 | Coastal salt marsh | <u>None</u> : No salt marsh habitat exists onsite. |
| Sonoma alopecurus (<i>Alopecurus aequalis</i> v. <i>sonomensis</i>) | FE/—/1B.1 | Freshwater wetland, vernal pools | <u>None</u> : No suitable wetland habitat exists onsite. |
| Sonoma beardtongue (<i>Penstemon newberryi</i> v. <i>sonomensis</i>) | —/—/1B.3 | Chaparral | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Sonoma ceanothus (<i>Ceanothus sonomensis</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Sonoma spineflower (<i>Chorizanthe valida</i>) | —/—/1B.1 | Coastal prairie | <u>Low</u> : Some grassland habitat exists onsite. |
| Sonoma sunshine (<i>Blennosperma bakeri</i>) | —/—/1B.1 | Valley grassland, freshwater wetland | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Supple daisy (<i>Erigeron supplex</i>) | —/—/1B.2 | Coastal prairie | <u>Very Low</u> : Some grassland habitat exists onsite. |
| Swamp harebell (<i>Campanula californica</i>) | —/—/1B.2 | Coastal prairie, freshwater wetlands | <u>None</u> : No marsh habitat exists on site, and this species prefers coastal habitats. |
| The Cedars fairy lantern (<i>Calochortus raichei</i>) | —/—/1B.2 | Hardpan chaparral | <u>Low</u>: No hardpan chaparral habitat exists onsite although occurrences are known from the vicinity. No individuals observed during 2018 surveys. |
| The Cedars manzanita (<i>Arctostaphylos bakeri</i> ssp. <i>sublaevis</i>) | —/—/1B.2 | Hardpan chaparral | <u>Low</u>: No hardpan chaparral habitat exists onsite although occurrences are known from the vicinity. No individuals observed during 2018 surveys. |
| Thin-lobed horkelia (<i>Horkelia tenuiloba</i>) | —/—/1B.2 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Thurber's reed grass (<i>Calamagrostis crassiglumis</i>) | —/—/2B.1 | Coastal scrub, freshwater wetland | <u>Very Low</u> : No suitable wetland habitat exists in the project area. |
| Two-fork clover (<i>Trifolium amoenum</i>) | —/—/1B.1 | Grassland, wetland | <u>Low</u> : Some grassland habitat exists onsite. |
| Vine Hill ceanothus (<i>Ceanothus foliosus</i> var. <i>vineatus</i>) | —/—/1B.1 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|---|--|
| Vine Hill clarkia (<i>Clarkia imbricata</i>) | FE/SE/1B.1 | Chaparral, grassland | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Vine Hill manzanita (<i>Arctostaphylos densiflora</i>) | —/SE/1B.1 | Chaparral | <u>Very Low</u> : No chaparral habitat exists onsite. |
| Western leatherwood (<i>Dirca occidentalis</i>) | —/—/1B.2 | Foothill woodland, chaparral | <u>Low</u> : Some woodland habitat exists onsite. |
| White beaked-rush (<i>Rhynchospora alba</i>) | —/—/2B.2 | Wetlands, riparian | <u>Very Low</u> : Some riparian habitat exists onsite. |
| White flowered rein orchid (<i>Piperia candida</i>) | —/—/1B.2 | Yellow pine forest | <u>Very Low</u> : Some forest habitat exists onsite. |
| Wolly headed gilia (<i>Gilia capitata</i> ssp. <i>tomentosa</i>) | —/—/1B.1 | Coastal prairie | <u>Very Low</u> : Some grassland habitat exists onsite. |
| MOSESSES, LICHENS & LIVERWORTS | | | |
| Angel's hair lichen (<i>Ramalina thrausta</i>) | —/—/2B.1 | Old growth conifer and hardwood forests | <u>Medium</u> : Some secondary Douglas fir forest exists onsite. |
| Methuselah's beard lichen (<i>Dolichousnea longissima</i>) | —/—/4.2 | Old growth conifer and hardwood forests | <u>Medium</u> : Some secondary Douglas fir forest exists onsite. |
| Slender silver moss (<i>Anomobryum julaceum</i>) | —/—/4.2 | Rocky substrates in forests | <u>Low</u> : Some forest habitat exists onsite. |
| Coastal triquetrella (<i>Triquetrella californica</i>) | —/—/1B.2 | Forest, woodland | <u>Low</u> : Some forest habitat exists onsite. |
| FISH | | | |
| 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. |
| Gualala roach (<i>Lavinia symmetricus parvipinnis</i>) | —/SSC/— | Freshwater streams | <u>None</u> : No suitable streams exist onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|--|---|
| Longfin smelt (<i>Spirinchus thaleichthys</i>) | FT/ST/— | Estuaries and coastal lakes | None: No estuary habitat exists onsite. |
| Navarro roach (<i>Lavinia symmetricus navarroensis</i>) | —/SSC/— | 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. |
| Tidewater goby (<i>Eucyclogobius newberryi</i>) | FE/SSC/— | Brackish coastal lagoons and streams | <u>None</u> : No brackish coastal lagoons exist onsite. |
| AMPHIBIANS & REPTILES | | | |
| California giant salamander (<i>Dicamptodon ensatus</i>) | —/SSC/— | Wetlands and riparian areas | <u>Medium</u>: No suitable breeding or estivation habitat, however individuals may migrate through parcel as occurrences exist 0.5 miles offsite. No individual observed onsite during 2018 surveys. |
| California red-legged frog (<i>Rana draytonii</i>) | FT/SSC/— | Vernal pools, seasonal pools, stock ponds, and associated grasslands | <u>None</u>: No suitable wetland habitat exists in the project area, no nearby occurrences. |
| California tiger salamander (<i>Ambystoma californiense</i>) | FT/SSC/— | Ponds, streams, drainages, and associated uplands | <u>None</u> : No suitable wetland habitat exists onsite. |
| Foothill yellow-legged frog (<i>Rana boylei</i>) | —/SSC/— | Wetlands, riparian, streams and ponds | <u>None</u>: No suitable stream habitat exists in the project area. |
| Red bellied newt (<i>Taricha rivularis</i>) | —/SSC/— | Woodland streams, riparian corridors | <u>None</u>: No suitable stream habitat exists in the project area. |
| Western pond turtle (<i>Emys marmorata</i>) | —/SSC/— | Slow-moving creeks, streams, ponds, rivers, ditches; sandy banks and fields for nesting | <u>None</u>: No pond habitat exists in the project area. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|---|---------------------------------------|--|--|
| INVERTEBRATES | | | |
| Behren's silverspot butterfly (<i>Speyeria zerene behrensii</i>) | FE/SSC/— | Coastal prairie | <u>None</u> : Requires blue violet to reproduce; none onsite. |
| 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 in the project area. |
| California freshwater shrimp (<i>Syncaris pacifica</i>) | FE/SE/— | Freshwater ponds, streams | <u>None</u>: No suitable vernal pool habitat exists onsite. |
| California linderiella (<i>Linderiella occidentalis</i>) | —/SSC/— | Vernal pools | <u>None</u> : No vernal pool habitat exists onsite. |
| Crotch bumble bee (<i>Bombus crotchii</i>) | —/SSC/— | Grassland and 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 myrtleae</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>None</u> : Site is not near the coast. |
| Obscure bumble bee (<i>Bombus caliginosus</i>) | —/SSC/— | Grassland, foothill woodland, chaparral | <u>Medium</u>: Some grassland habitat exists onsite. |
| Opler's longhorn moth (<i>Adela oplerella</i>) | —/SSC/— | Usually associated with <i>Platystemon</i> (creamcups) | <u>Very Low</u> : No suitable host plants onsite. |
| Oregon floater (<i>Anodonta oregonensis</i>) | —/SSC/— | High order freshwater streams | <u>None</u> : No suitable stream habitat exists onsite. |
| Ricksecker's water scavenger beetle (<i>Hydrochara rickseckeri</i>) | —/SSC/— | Freshwater ponds | <u>None</u> : No pond habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|---|---------------------------------------|--|--|
| Tomales isopod (<i>Caecidotea tomalensis</i>) | —/SSC/— | Ponds and streams | <u>None</u> : No pond or stream habitat exists onsite. |
| Western bumblebee (<i>Bombus occidentalis</i>) | —/SSC/— | Grassland | <u>Medium</u> : Some grassland habitat exists onsite. |
| Vernal pool adrenid bee (<i>Andrena blennospermatis</i>) | —/SSC/— | Upland areas near vernal pools | <u>None</u> : No vernal pool habitat exists onsite. |
| BIRDS | | | |
| American peregrine falcon (<i>Falco peregrinus anatum</i>) | —/SSC/— | Forages in open grasslands, nests in trees | <u>Very Low</u> : No suitable nesting or foraging habitat exists. |
| Bank swallow (<i>Riparia riparia</i>) | FE/SE/— | Migratory, typically found near lakes and streams | <u>None</u>: No suitable stream habitat exists onsite. |
| Black swift (<i>Cypseloides niger</i>) | —/SSC/— | Cliff faces near water | <u>None</u> : No suitable stream habitat exists onsite. |
| Burrowing owl (<i>Athene cunicularia</i>) | —/SSC/— | Grasslands | <u>Low</u> : Some suitable grassland habitat exists onsite. |
| 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 and nesting habitat onsite. |
| Double crested cormorant (<i>Phalacrocorax auritus</i>) | —/SSC/— | Coastal rivers and lakes. | <u>None</u>: No suitable foraging or nesting habitat onsite. |
| Ferruginous hawk (<i>Buteo regalis</i>) | —/SSC/— | Forages over open grassland. Nests in old-growth trees. | <u>Low</u> : Some suitable foraging and nesting habitat onsite. |
| Golden eagle (<i>Aquila chrysaetos</i>) | —/SSC/— | Forages over open grassland. Nests in old-growth trees. | <u>Very Low</u> : Little suitable foraging habitat exists onsite. No suitable nesting habitat. |
| Grasshopper sparrow (<i>Ammodramus savannarum</i>) | —/SSC/— | Forages over open grassland. | <u>Low</u> : Some suitable foraging habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|---|---------------------------------------|---|--|
| Great egret (<i>Ardea alba</i>) | FE/SE/— | Nests in trees, forages in wetlands and grasslands | <u>Low</u> : No suitable foraging habitat exists onsite. |
| Marbled murrelet (<i>Brachyramphus marmoratus</i>) | FT/SE/— | Old growth forest | <u>Low</u>: Forest is low stature and not old growth, although occurrences exist to the west near Austin Creek. |
| 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. |
| San Pablo song sparrow (<i>Melospiza melodia samuelis</i>) | —/SSC/— | Forages in grasslands and nests in dense freshwater marshes | <u>Very Low</u> : No suitable nesting habitat exists. Some suitable foraging habitat. |
| Tricolored blackbird (<i>Agelaius tricolor</i>) | —/SSC/— | Forages in grasslands and nests in dense freshwater marshes | <u>Medium</u> : Some suitable nesting habitat exists onsite. Some suitable foraging habitat onsite. |
| Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) | —/SE/— | Woodland, riparian | <u>Very Low</u> : No suitable nesting habitat exists. Some suitable foraging habitat exists. |
| White-tailed kite (<i>Elanus leucurus</i>) | —/CFP/— | Nests in marshes adjacent to deciduous forests. | <u>Very Low</u> : No suitable nesting habitat. Some suitable foraging habitat. |
| MAMMALS | | | |
| American badger (<i>Taxidea taxus</i>) | —/SSC/— | Open grassland habitats with plenty of prey. Prefers complex topography for burrows and cover. | <u>Medium</u>: No individuals observed onsite although occurrences nearby and habitat contains suitable complexity. |
| Big free-tailed bat (<i>Nyctinomops macrotis</i>) | —/SSC/— | Forages over open areas, roosts in trees or caves | <u>Low</u> : Some suitable foraging habitat available. |
| Fringed myotis (<i>Myotis thysanodes</i>) | —/SSC/— | Roosts in caves or buildings and forages in open habitats | <u>Low</u> : Some foraging habitat exists in the project area. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|---|--|
| Hoary bat (<i>Lasiurus cinereus</i>) | —/SSC/— | Forages over open areas, roosts in trees or caves. | <u>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>Low</u> : Some foraging habitat exists; some suitable roosts in the project area. |
| Long-legged myotis (<i>Myotis volans</i>) | —/SSC/— | Roosts in caves or buildings and forages in open habitats | <u>Low</u> : Some foraging habitat exists; some suitable roosts in the project area. |
| North American porcupine (<i>Erethizon dorsatum</i>) | —/SSC/— | Require rocky areas or trees for dens, abundant open space for foraging. | <u>Medium</u>: No individuals observed onsite although occurrences nearby and habitat contains suitable complexity. |
| Pallid bat (<i>Antrozous pallidus</i>) | —/SSC/— | Common in open dry habitats with rocky areas for roosting. | <u>Medium</u> : Some foraging habitat exists; some suitable roosts in the project area. |
| Sonoma tree vole (<i>Arborimus pomo</i>) | —/SSC/— | Old growth Douglas fir canopies. | <u>Very Low</u> : Some fragmented secondary 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, forages at night. | <u>Low</u>: Some man-made structures exist onsite that are suitable for roosting. Some habitat for foraging exists. |
| Western red bat (<i>Lasiurus blossevillii</i>) | —/SSC/— | Forages over open areas, roosts in trees or caves. | <u>Very Low</u> : No suitable nesting habitat exists, some suitable foraging habitat exists. |
| Yuma myotis (<i>Myotis yumanensis</i>) | —/SSC/— | Forages over open areas, roosts in trees or caves. | <u>Very Low</u> : No suitable nesting habitat exists, some suitable foraging habitat exists. |
| HABITATS | | | |
| Coastal & Valley Freshwater Marsh (CVFM) | — | — | <u>None</u> : No wetland habitat exists onsite. |
| Coastal Brackish Marsh (CVFM) | — | — | <u>None</u> : No brackish marshes exist onsite. |
| Northern Coastal Salt Marsh (NCSM) | — | — | <u>None</u> : No salt marsh habitat exists onsite. |

| Taxon | Status ¹ Fed/State/CNPS | Habitat | Potential to Occur Within the Project Area |
|--|---------------------------------------|---------|---|
| Northern Hardpan Vernal Pool (NHVP) | — | — | <u>None</u> : No vernal pool habitat exists onsite. |
| Northern Vernal Pool (NVP) | — | — | <u>None</u> : No vernal pool habitat exists onsite. |
| Sycamore Alluvial Woodland (SAW) | — | — | <u>None</u> : No woodland habitat exists onsite. |
| Valley Needlegrass Grassland (VNG) | — | — | <u>Low</u> : Some grassland habitat exists onsite. |
| Valley Sink Scrub (VSS) | — | — | <u>None</u> : No sink habitat exists onsite. |

¹ Status:

Federal

FE = Federally Endangered Species

FT = Federally Threatened Species

State

SE = State Endangered Species

ST = State Threatened Species

SR = State Rare (applies to plants only)

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 4 = plants of limited distribution

² USFWS

APPENDIX B: SPECIES ENCOUNTERED

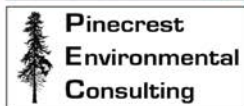
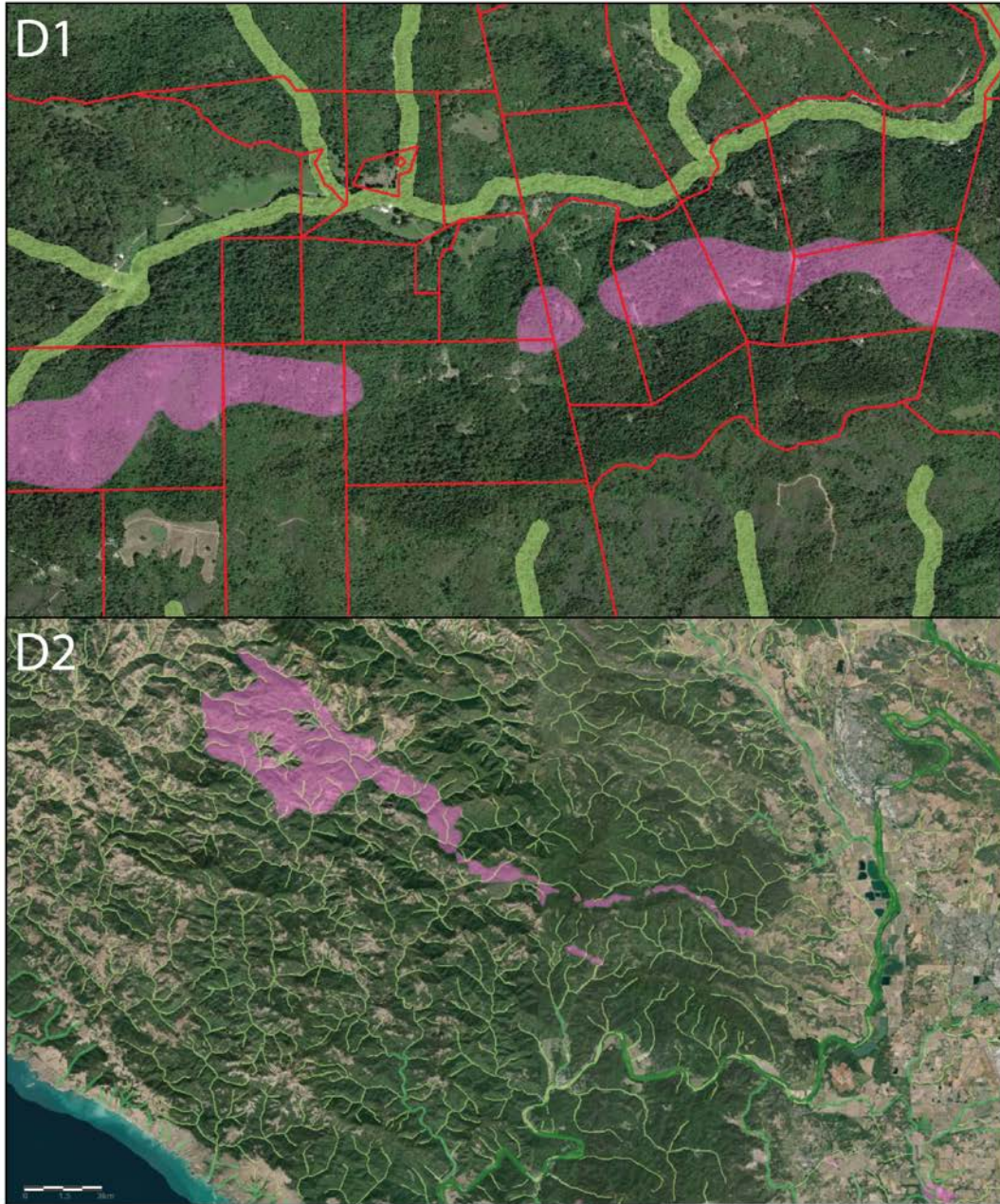
| PLANTS |
|---------------------------------|
| <i>Achillea millefolium</i> |
| <i>Acmispon americanus</i> |
| <i>Agoseris apargioides</i> |
| <i>Agrostis avenacea</i> |
| <i>Aira caryophyllea</i> |
| <i>Anthriscus caucalis</i> |
| <i>Arbutus menziesii</i> |
| <i>Arctostaphylos manzanita</i> |
| <i>Avena barbata</i> |
| <i>Baccharis pilularis</i> |
| <i>Brassica rapa</i> |
| <i>Briza maxima</i> |
| <i>Bromus diandrus</i> |
| <i>Bromus hordeaceus</i> |
| <i>Bromus racemosus</i> |
| <i>Calocedrus decurrens</i> |
| <i>Cardamine hirsuta</i> |
| <i>Carduus pycnocephalus</i> |
| <i>Carex densa</i> |
| <i>Carex nudata</i> |
| <i>Chlorogalum pomeridianum</i> |
| <i>Cirsium vulgare</i> |
| <i>Claytonia perfoliata</i> |
| <i>Corylus cornuta</i> |
| <i>Cynoglossum grande</i> |
| <i>Cynosurus echinatus</i> |
| <i>Danthonia californica</i> |
| <i>Dipsacus sativa</i> |
| <i>Elymus caput-medusae</i> |
| <i>Elymus glaucus</i> |
| <i>Erigeron bonariensis</i> |
| <i>Erodium botrys</i> |
| <i>Festuca myuros</i> |
| <i>Festuca perennis</i> |
| <i>Fragaria vesca</i> |
| <i>Galium aparine</i> |
| <i>Galium californicum</i> |
| <i>Genista monspessulana</i> |
| <i>Geranium molle</i> |
| <i>Gnaphalium californicum</i> |
| <i>Hemizonia congesta</i> |

| |
|------------------------------------|
| <i>Holcus lanatus</i> |
| <i>Hordeum murinum</i> |
| <i>Hypochaeris glabra</i> |
| <i>Iris douglasiana</i> |
| <i>Juncus balticus</i> |
| <i>Juncus effusus</i> |
| <i>Juncus tenuis</i> |
| <i>Lactuca serriola</i> |
| <i>Lamium purpureum</i> |
| <i>Lithophragma affine</i> |
| <i>Lupinus bicolor</i> |
| <i>Medicago sativa</i> |
| <i>Melilotus albus</i> |
| <i>Mentha pulegium</i> |
| <i>Nemophila menziesii</i> |
| <i>Pentagramma triangularis</i> |
| <i>Phalaris arundinacea</i> |
| <i>Pinus radiata</i> |
| <i>Plantago major</i> |
| <i>Polystichum californicum</i> |
| <i>Prunus avium</i> |
| <i>Pseudotsuga menziesii</i> |
| <i>Pteridium aquilinum</i> |
| <i>Quercus agrifolia</i> |
| <i>Quercus kelloggii</i> |
| <i>Ranunculus arvensis</i> |
| <i>Ranunculus californicus</i> |
| <i>Ranunculus muricatus</i> |
| <i>Raphanus sativus</i> |
| <i>Rubus armeniacus</i> |
| <i>Rumex acetocella</i> |
| <i>Rumex crispus</i> |
| <i>Sequoia sempervirens</i> |
| <i>Sisyrinchium californicum</i> |
| <i>Sonchus asper</i> |
| <i>Stachys chamissonis</i> |
| <i>Stellaria media</i> |
| <i>Torilis arvensis</i> |
| <i>Toxicodendron diversilobium</i> |
| <i>Trifolium bifidum</i> |
| <i>Trifolium hirtum</i> |
| <i>Trifolium repens</i> |
| <i>Umbellularia californica</i> |
| <i>Vicia sativa</i> |
| <i>Vitis vinifera</i> |

| ANIMALS |
|--------------------------------|
| <i>Canis latrans</i> |
| <i>Cathartes aura</i> |
| <i>Corvus brachyrhynchos</i> |
| <i>Cyanocitta stelleri</i> |
| <i>Meleagris gallopavo</i> |
| <i>Microtus californicus</i> |
| <i>Passer domesticus</i> |
| <i>Pseudacris regilla</i> |
| <i>Sceloporus occidentalis</i> |
| <i>Taricha granulosa</i> |
| <i>Thomomys bottae</i> |

APPENDIX C: CNDDDB OCCURRENCES MAP

APPENDIX D: BIOTIC HABITAT



SOURCES: Pinecrest Environmental

APPENDIX D
Locations of Serpentine Outcrops in Northwest Sonoma County

APN 069-040-026
6699 Palmer Creek Road