Attachment 6

BIOLOGICAL RESOURCES ASSESSMENT
FOR THE
POVERTY FLATS RANCH CULTIVATION PROJECT AT
10535 HIGH VALLEY ROAD, CLEARLAKE OAKS, CALIFORNIA

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1. INTRODUCTION

1.1. PROJECT LOCATION AND DESCRIPTION

A biological resources assessment was conducted on a 197-acre property at 10535 High Valley Road, Clearlake Oaks(see Exhibits). The proposed project is the creation of cannabis cultivation areas and supporting facilities (see Exhibits). For this assessment, the Project Area was defined as all of the combined smaller project areas (i.e., the proposed cultivation areas, proposed buildings and storage containers, road improvements, etc.), and this 16-acre area was the subject of the impact analysis. The entire 197-acre property was defined as the Study Area. The Study Area is defined to identify biological resources adjacent to the Project Areas, and is the area subject to potential indirect effects from Project implementation.

1.2. SCOPE OF ASSESSMENT

This assessment provides information about the biological resources within the Study Area, the regulatory environment affecting such resources, any potential Project-related impacts upon these resources, and finally, to identify mitigation measures and other recommendations to reduce the significance of these impacts. The specific scope of services performed for this assessment consisted of the following tasks:

- Compile all readily-available historical biological resource information about the Study Area;
- Spatially query state and federal databases for any occurrences of special-status species or habitats within the Study Area and vicinity;
- Perform a reconnaissance-level field survey of the Study Area, including photographic documentation;
- Inventory all flora and fauna observed during the field survey;
- Characterize and map the habitat types present within the Study Area, including any potentially-jurisdictional water resources;
- Evaluate the likelihood for the occurrence of any special-status species;
- Assess the potential for the Project to adversely impact any sensitive biological resources;
- Recommend mitigation measures designed to avoid or minimize Project-related impacts; and
- Prepare and submit a report summarizing all of the above tasks.

1.3. REGULATORY SETTING

The following section summarizes some applicable regulations of biological resources on real property in California.

1.3.1. Special-status Species Regulations

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service implement the Federal Endangered Species Act of 1973 (FESA) (16 USC §1531 et seq.). Threatened and endangered species on the federal list (50 CFR §17.11, 17.12) are protected from “take” (direct or indirect harm), unless a FESA Section 10 Permit is granted or a FESA Section 7 Biological Opinion with incidental take provisions is rendered. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the project area and determine whether the proposed project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC §1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant and

would require mitigation. Species that are candidates for listing are not protected under FESA; however, USFWS advises that a candidate species could be elevated to listed status at any time, and therefore, applicants should regard these species with special consideration.

The California Endangered Species Act of 1970 (CESA) (California Fish and Game Code §2050 *et seq*., and CCR Title 14, §670.2, 670.51) prohibits "take" (defined as hunt, pursue, catch, capture, or kill) of species listed under CESA. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Section 2081 establishes an incidental take permit program for state-listed species. Under CESA, California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of threatened and endangered species designated under state law (CFG Code 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to requirements of CESA, an agency reviewing proposed projects within its jurisdiction must determine whether any state-listed species may be present in the Study Area and determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation.

California Fish and Game Code Sections 4700, 5050, and 5515 designates certain mammal, amphibian, and reptile species "fully protected", making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The California Native Plant Protection Act of 1977 (CFG Code §1900 *et seq*.) requires CDFW to establish criteria for determining if a species or variety of native plant is endangered or rare. Section 19131 of the code requires that landowners notify CDFW at least 10 days prior to initiating activities that will destroy a listed plant to allow the salvage of plant material.

Many bird species, especially those that are breeding, migratory, or of limited distribution, are protected under federal and state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbances must be reduced or eliminated during the nesting cycle. California Fish and Game Code (§3503, 3503.5, and 3800) prohibits the possession, incidental take, or needless destruction of any bird nests or eggs. Fish and Game Code §3511 designates certain bird species "fully protected", making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The Bald and Golden Eagle Protection Act (16 USC §668) specifically protects bald and golden eagles from harm or trade in parts of these species.

California Environmental Quality Act (CEQA) (Public Resources Code §15380) defines "rare" in a broader sense than the definitions of threatened, endangered, or fully protected. Under the CEQA definition, CDFW can request additional consideration of species not otherwise protected. CEQA requires that the impacts of a project upon environmental resources must be analyzed and assessed using criteria determined by the lead agency. Sensitive species that would qualify for listing but are not currently listed may be afforded protection under CEQA. The CEQA Guidelines (§15065) require that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines (§15380) provide for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Plant species on the California Native Plant Society (CNPS) Lists 1A, 1B, or 2 are typically considered rare under CEQA. California "Species of Special Concern" is a category conferred by CDFW on those species that are indicators of regional habitat changes or are considered potential future protected species. While they do not have statutory protection, Species of Special Concern are typically considered rare under CEQA and thereby warrant specific protection measures.

1.3.2. Water Resource Protection

Real property that contains water resources are subject to various federal and state regulations and activities occurring in these water resources may require permits, licenses, variances, or similar authorization from federal, state and local agencies, as described next.

The Federal Water Pollution Control Act Amendments of 1972 (as amended), commonly known as the Clean Water Act (CWA), established the basic structure for regulating discharges of pollutants into "waters of the United States". Waters of the US includes essentially all surface waters, all interstate waters and their tributaries, all impoundments of these waters, and all wetlands adjacent to these waters. CWA Section 404 requires approval prior to dredging or discharging fill material into any waters of the US, especially wetlands. The permitting program is designed to minimize impacts to waters of the US, and when impacts cannot be avoided, requires compensatory mitigation. The US Army Corps of Engineers (USACE) is responsible for administering Section 404 regulations. Substantial impacts to jurisdictional wetlands may require an Individual Permit. Small-scale projects may require only a Nationwide Permit, which typically has an expedited process compared to the Individual Permit process. Mitigation of wetland impacts is required as a condition of the CWA Section 404 Permit and may include on-site preservation, restoration, or enhancement and/or off-site restoration or enhancement. The characteristics of the restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

Under CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity will comply with State water quality standards. The California State Water Resources Control Board is responsible for administering CWA Section 401 regulations.

Section 10 of the Rivers and Harbors Act of 1899 requires approval from USACE prior to the commencement of any work in or over navigable Waters of the US, or which affects the course, location, condition or capacity of such waters. Navigable waters of the United States are defined as waters that have been used in the past, are now used, or are susceptible to use, as a means to transport interstate or foreign commerce up to the head of navigation. Rivers and Harbors Act Section 10 permits are required for construction activities in these waters.

California Fish and Game Code (§1601 - 1607) protects fishery resources by regulating "*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake*." CDFW requires notification prior to commencement, and issuance of a Lake or Streambed Alteration Agreement, if a proposed project will result in the alteration or degradation of ''waters of the State". The limit of CDFW jurisdiction is subject to the judgment of the Department; currently, this jurisdiction is interpreted to be the "stream zone", defined as "*that portion of the stream channel that restricts lateral movement of water*" and delineated at "*the top of the bank or the outer edge of any riparian vegetation, whichever is more landward*". CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Streambed Alteration Agreement. Projects that require a Streambed Alteration Agreement may also require a CWA 404 Section Permit and/or CWA Section 401 Water Quality Certification.

For construction projects that disturb one or more acres of soil, the landowner or developer must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

1.3.3. Tree Protection

At the State level, in areas inside timberland, any tree removal is subject to the conditions and requirements set forth in the Z'berg-Nejedly Forest Practice Act and the California Forest Practice Rules. If development of a project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

Lake County protects native trees in several ways. Under the Cannabis Ordinance 3084, Section 4, Subsection iii) Prohibited Activities (a) Tree Removal, Lake County restricts tree removal as follows:

> *"The removal of any commercial tree species as defined by the California Code of Regulations section 895.1, Commercial Species for the Coast Forest District and Northern Forest District, and the removal of any true oak species (Quercus species) or Tan Oak (Notholithocarpus species) for the purpose of developing a cannabis cultivation site should be avoided and minimized. This shall not include the pruning of any such tree species for the health of the tree or the removal of such trees if necessary for safety or disease concerns."*

During the permitting process, Lake County requires mitigation for the removal of protected trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1.

The Oak Woodlands Protection Act and the County of Lake identify mitigation standards and requirements for projects that remove oak woodlands. Under the Oak Woodlands Protection Act, Lake County shall require one or more oak woodland alternatives "to mitigate the significant effect of the conversion of oak woodlands." Alternatives to mitigate the significant effect of the conversion of oak woodlands: replace removed trees at a rate of 3:1 and maintain trees pursuant to Section 4526 of Senate Bill No. 1334 terminating seven years after the trees are planted.

2. ENVIRONMENTAL SETTING

The Property is located within the Inner North Coast Range geographic subregion, which is contained within the Northwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately-cold winters. The Property and vicinity is in climate Zone 14 "Northern California's Inland Areas with Some Ocean Influence", with maritime air moderating temperatures that would otherwise be hotter in summer and colder in the winter (Sunset, 2021). In 2018, the Ranch Fire burned a significant portion of the Property.

The topography of the Property is variable, and consists of mountain slopes, ridgetops, and valleys. The elevation ranges from approximately 1,850 feet to 2,700 feet above mean sea level. Drainage runs to the southeast into High Valley, and eventually flows into Clear Lake. The land uses of the Property and vicinity are undeveloped open space, private estates with gardens or corrals, and grazing and timber land.

3. METHODOLOGY

3.1. PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Any readily-available previous biological resource studies pertaining to the Study Area or vicinity
- Aerial photography of the Study Area (current and historical)

- United States Geologic Service 7.5 degree-minute topographic quadrangles of the Study Area and vicinity
- USFWS National Wetland Inventory
- USDA Natural Resources Conservation Service soil survey maps
- California Natural Diversity Database (CNDDB), electronically updated monthly by subscription
- USFWS species list (IPaC Trust Resources Report).

3.2. FIELD SURVEY

Consulting biologist Tim Nosal, MS. conducted a field assessment on October 28, 2020, and again on April 27, 2024. Variable-intensity pedestrian surveys were performed, and modified to account for differences in terrain, vegetation density, and visibility. All visible fauna and flora observed were recorded in a field notebook, and identified to the lowest possible taxon. Survey efforts emphasized the search for any special-status species that had documented occurrences in the CNDDB within the vicinity of the Study Area and those species on the USFWS species list (Appendix 1).

When a specimen could not be identified in the field, a photograph or voucher specimen (depending upon permit requirements) was taken and identified in the laboratory using a dissecting scope where necessary. Dr. Graening holds the following scientific collection permits: CDFW Scientific Collecting Permit No. SC-006802; and CDFW Plant Voucher Specimen Permit 09004. Tim Nosal holds CDFW Plant Voucher Specimen Permit 2081(a)-16-102-V. Taxonomic determinations were facilitated by referencing museum specimens or by various texts, including the following: Powell and Hogue (1979); Pavlik (1991); (1993); Brenzel (2012); Stuart and Sawyer (2001); Lanner (2002); Sibley (2003); Baldwin et al. (2012); Calflora (2021); CDFW (2021b,c); NatureServe 2021; and University of California at Berkeley (2021a,b).

The locations of any special-status species sighted were marked on aerial photographs and/or georeferenced with a geographic positioning system (GPS) receiver. Habitat types occurring in the Study Area were mapped on aerial photographs, and information on habitat conditions and the suitability of the habitats to support special-status species was also recorded. The Study Area was also informally assessed for the presence of potentially-jurisdictional water features, including riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats

3.3. MAPPING AND OTHER ANALYSES

Locations of species' occurrences and habitat boundaries within the Study Area were digitized to produce the final habitat maps. The boundaries of potentially jurisdictional water resources within the Study Area were identified and measured in the field, and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities (assemblages of plant species growing in an area of similar biological and environmental factors), were classified by Vegetation Series (distinctive associations of plants, described by dominant species and particular environmental setting) using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 1995). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the US Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFW's California Wildlife Habitat Relationships System (CDFW, 2021c). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2021), Calflora (2021); CDFW (2021a,b,c); and University of California at Berkeley (2021a,b).

4. RESULTS

4.1. INVENTORY OF FLORA AND FAUNA FROM FIELD SURVEY

All plants detected during the field survey of the Property are listed in Appendix 2. The following animals were detected within the Property during field surveys on October 28, 2020, and/or April 27, 2024:

northwestern fence lizard (*Sceloporus occidentalis occidentalis*); striped racer (*Coluber lateralis lateralis*); black-tailed jackrabbit (*Lepus californicus*); Botta's pocket gopher (*Thomomys bottae*); California ground squirrel (*Otospermophilus beecheyi*); Columbian black-tailed deer (*Odocoileus hemionus columbianus*); coyote (*Canis latrans*); dog (*Canis lupis familiaris*); western gray squirrel (*Sciurus griseus*); acorn woodpecker (*Melanerpes formicivorus*); American crow (*Corvus brachyrhynchos*); American goldfinch (*Spinus tristis*); American kestrel (*Falco sparverious*); Anna's hummingbird (*Calypte anna*); ash throated flycatcher (*Myiarchus cinerascens*); Bewick's wren (*Thryomanes bewickii*); blue-gray gnatcatcher (*Polioptila caerulea*); bushtit (*Psaltriparus minimus*); California quail (*Callipepla californica*); California scrub jay (*Aphelocoma californica*); California towhee (*Melozone crissalis*); common raven (*Corvus corax*); northern flicker (*Colaptes auratus*); Nuttall's woodpecker (*Picoides nuttallii*); oak titmouse (*Baeolophus inornatus*); Orange-crowned warbler (*Vermivora celata*); red-tailed hawk (*Buteo jamaicensis*); sparrow (Emberizidae); spotted towhee (*Pipilo maculatus*); white-breasted nuthatch (*Sitta carolinensis*); Wilson's warbler (*Cardellina pusilla*); and wrentit (*Chamaea fasciata*).

No federally-listed species were detected. No special-status species were detected.

4.2. VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES

4.2.1. Terrestrial Vegetation Communities

The Property contains the following terrestrial vegetation communities (and are mapped in the Exhibits):

Chaparral (Chamise): In 2018, the Ranch Fire burned a significant portion of the Property. The shrub-covered slopes and ridges across the Property were particularly impacted. However, many of these species are adapted to fire and are readily recolonizing areas that burned. Stands of chaparral within the Property are dominated by chamise (*Adenostoma fasciculatum*). Other shrubs commonly found in the chaparral include wedgeleaf ceanothus (*Ceanothus cuneatus*), yerba santa (*Eriodictyon californicum*) and toyon (*Heteromeles arbutifolia*). The relatively open canopy has allowed for the development of an understory of grasses and herbs including slender wild oat (*Avena barbata*), sixweeks rattail fescue (*Festuca myuros*), Madrid brome (*Bromus madritensis*), nit grass (*Gastridium phleoides*), Pacific fescue (*Festuca macrostachya*), western everlasting (*Anaphalis margaritacea*), Maltese star thistle (*Centaurea melitensis*) and wavy-leaved soap plant (*Chlorogalum pomeridianum*). This vegetation type can be classified as the Holland Type "Chamise Chaparral" or as "37.101.00 Chamise chaparral" (CDFW 2020).

Blue Oak Woodland: Tree-dominated habitats are found throughout the hills of the Property. Upland areas dominated by oaks can be further described as a blue oak woodland. The blue oak woodland consists of blue oak (*Quercus douglasii*) as the primary species in the canopy, along with gray pine (*Pinus sabiniana*). Additional trees found along the watercourses include interior live oak (Quercus wislizeni), California black oak (Quercus kelloggii) and California buckeye (Aesculus californicus). Shrubs commonly encountered within the woodland include common manzanita (Arctostaphy*los manzanita* ssp. *manzanita*), western redbud (*Cercis occidentalis*), toyon and poison oak (*Toxicodendron diversilobum*). The herbaceous understory is dominated by grasses such as dogtail grass (*Cynosurus echinoides*), blue wildrye (*Elymus glaucus*), wild oat

(*Avena fatua*), purple needlegrass (*Stipa pulchra*) and bromes (*Bromus* spp.). This vegetation type can be classified as the Holland Type "Blue Oak Woodland" or as "71.020.00 Blue Oak Woodland" (CDFW 2020)".

Ruderal/Disturbed. These areas consist of disturbed or converted natural habitat that is now either in ruderal state, graded, or urbanized with gravel roads, or structure and utility placement. Vegetation within this habitat type consists primarily of nonnative weedy or invasive species or ornamental plants lacking a consistent community structure. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages.

4.2.2. Wildlife Habitat Types

Wildlife habitat types were classified using CDFW's Wildlife Habitat Relationship System. The Property contains the following wildlife habitat types: Mixed Chaparral; Oak Woodland; Annual Grassland; Riverine; Urban; and Barren.

4.2.3. Critical Habitat and Special-status Habitat

No critical habitat for any federally-listed species occurs within the Project Areas or the surrounding Property. The CNDDB reported no special-status habitats within the Project Areas or surrounding Property. The CNDDB reported the following special-status habitats in a 10-mile radius outside of the Property: Clear Lake Drainage Cyprinid/Catostomid Stream; Clear Lake Drainage Seasonal Lakefish Spawning Stream; Northern Basalt Flow Vernal Pool; Coastal and Valley Freshwater Marsh and Great Valley Mixed Riparian Forest. No special-status habitats were detected within the Project Areas or surrounding Property during the field surveys other than ephemeral channels.

4.2.4. Habitat Plans and Wildlife Corridors

Wildlife movement corridors link remaining areas of functional wildlife habitat that are separated primarily by human disturbance, but natural barriers such as rugged terrain and abrupt changes in vegetation cover are also possible. Wilderness and open lands have been fragmented by urbanization, which can disrupt migratory species and separate interbreeding populations. Corridors allow migratory movements and act as links between these separated populations.

No designated wildlife corridors exist within the Project Areas or surrounding Property. No fishery resources exist in or near the s. The Property is not located within any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

4.3. LISTED SPECIES AND OTHER SPECIAL-STATUS SPECIES

For the purposes of this assessment, "special status" is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered in California by the California Native Plant Society (CNPS); this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

4.3.1. Reported Occurrences of Listed Species and Other Special-status Species

A list of special-status plant and animal species that have occurred within the Property and vicinity was compiled based upon the following:

- Any previous and readily-available biological resource studies pertaining to the Property;
- Informal consultation with USFWS by generating an electronic Species List (Information for Planning and Conservation website at https://ecos.fws.gov/ipac/); and
- A spatial query of the CNDDB using the standard 9 quadrangle boundary
- A query of the California Native Plant Society's database *Inventory of Rare and Endangered Plants of California* (online edition).

The CNDDB was queried and any reported occurrences of special-status species were plotted in relation to the Property boundary using GIS software (see exhibits).

The CNDDB reported no special-status species occurrences within the Project Areas or the surrounding Property. Within a 10-mile buffer of the Property boundary, the CNDDB reported several special-status species occurrences, summarized in the table in the Appendix along with any additional CNPS species.

A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System (see Appendix 1). This list is generated using a regional and/or watershed approach and does not necessarily indicate that the Property provides suitable habitat. The following listed species should be considered in the impact assessment:

- BIRDS
    - Northern Spotted Owl Strix occidentalis caurina Threatened
- REPTILES
    - Northwestern Pond Turtle Actinemys marmorata Proposed Threatened
- INSECTS
    - Monarch Butterfly Danaus plexippus Candidate
- FLOWERING PLANTS
    - Burke's Goldfields Lasthenia burkei Endangered

Migratory birds should also be considered in the impact assessment.

4.3.2. Listed Species or Special-status Species Observed During Field Survey

During the field survey, no listed species were detected within the Project Areas or the surrounding Property. During the field survey, no special-status species was observed within the Project Areas, but one special-status plant was detected within the surrounding Property: bristly Leptosiphon (*Leptosiphon acicularis*). The location is about 100 feet away from the western-most cultivation area, and across a dirt road from the cultivation area (see Exhibits). This plant is ranked by CNPS as List 4, which is "Watch List: Plants of limited distribution." Because it is not ranked by CNPS as 1, 2, or 3, it is not considered significant under CEQA.

4.3.3. Potential for Listed Species or Special-status Species to Occur in the Project Areas

See the Appendix for a complete table of Special-status Species and their potential to occur in the Project Areas. Soils found within the Property are derived from alluvium, sandstone, shale, quartz diorite, granodiorite, schist, greenstone, conglomerate and mudstone. No soils derived from volcanic or serpentine parent materials are mapped in or adjacent to the Property. Special-status plants have a moderate potential to occur in the chaparral and woodland habitats. Special-status animals have a low potential to occur in the chaparral and oak woodland habitats. However, special-status animals have a moderate potential to occur in the ephemeral channels.

4.4. POTENTIALLY-JURISDICTIONAL WATER RESOURCES

The USFWS National Wetland Inventory reported no water features within the Project Areas, but the Inventory did report 1 water feature within the Property (see Exhibits): a riverine feature, which corresponds to the channel that flows through the southern portion of the Property.

A preliminary assessment for the presence of potentially-jurisdictional water resources within the Property was also conducted during the field survey. The field survey determined that the Project Areas do not contain any channels or wetlands. The following water features were detected within the larger Property during the field survey (see Exhibits): unnamed ephemeral channels. There are no vernal pools or other isolated wetlands in the Property.

5. IMPACT ANALYSES AND MITIGATION MEASURES

This section establishes the impact criteria, then analyzes potential Project-related impacts upon the known biological resources within the Study Area, and then suggests mitigation measures to reduce these impacts to a less-than-significant level.

5.1. IMPACT SIGNIFICANCE CRITERIA

The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. As defined by CEQA, the Project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

5.2. IMPACT ANALYSIS

The following discussion evaluates the potential for Project-related activities to adversely affect biological resources. The Project boundaries were digitized and then overlaid on the habitat map using GIS to quantify potential impacts. Historical aerial photos were also analyzed for changes in land use.

5.2.1. Potential Direct / Indirect Adverse Effects Upon Special-status Species

- *Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Areas are located primarily in ruderal habitat, but some project areas are located in chaparral and woodland habitat, which will be impacted by project implementation. Special-status plants have a moderate potential to occur in chaparral and woodland habitat because rare plant species have been reported in similar habitats in the region by the CNDDB. A botanical survey was performed for this assessment. No special-status plants were observed within the Project Areas. A rare plant was detected outside of the project areas, but this population will not be impacted by project implementation. No known special-status plant populations will be impacted by project implementation.

No special-status animal species have a moderate or high potential to occur in Project Areas. Special-status animals have a moderate potential to occur in the ephemeral channels. However, the project

areas were designed with setbacks of at least 100 feet from all channels No direct impacts to special-status animals are expected from implementation of the proposed project.

Special-status bird species were reported in databases (CNDDB and USFWS) in the vicinity of the Project Areas. The Project Areas, and adjacent trees and utility poles, contain suitable nesting habitat for various bird species. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by tree removal and indirectly impacted by noise, vibration, and other construction-related disturbance. Therefore, Project construction is considered a potentially significant adverse impact to nesting birds.

Recommended Mitigation Measures

If construction activities would occur during the nesting season (typically February through August), a pre-construction survey for the presence of special-status bird species or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFW and/or USFWS should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. With the implementation of this mitigation measure, adverse impacts upon special-status bird species and nesting birds would be reduced to a less-than-significant level.

5.2.2. Potential Direct / Indirect Adverse Effects Upon Special-status Habitats or Natural Communities or Corridors

- *Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Areas and surrounding Property are not within any designated listed species' critical habitat. The Project Areas do not contain special-status habitats. The nearest special-status habitats are the ephemeral channels. However, the project areas were designed with setbacks of at least 100 feet from all channels. Project implementation will not impact any special-status habitats.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.3. Potential Direct / Indirect Adverse Effects on Jurisdictional Water Resources

- *Will the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

There are no water resources within the Project Areas. There are several water resources within the surrounding Property: ephemeral channels. Potential direct impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation or the filling of wetlands or channels. However, the project areas have been designed with 100-foot setbacks from channels and are situated on flat ridgetops. Because of these avoidance measures, no direct impacts to water resources will occur.

Potential indirect impacts to water resources could occur during construction or operation of the project. During construction of the proposed project, surface water quality has the potential to be degraded from storm water transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling. This is a potentially significant impact. However, the landowner and its designated general contractor must enroll under the State Water Quality Control Board's Construction General Permit prior to the initiation of construction. In conjunction with enrollment under this Permit, a Storm Water Pollution Prevention Plan, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. Implementation of these measures mandated by law would reduce potential construction-related impacts to water quality to a less-than-significant level. No mitigation is necessary.

Potential adverse impacts to water resources could occur during operation of cultivation activities resources by discharge of sediment or other pollutants (fertilizers, pesticides, human waste, etc.) into receiving waterbodies. However, the project proponent must file a Notice of Intent and enroll in Cannabis Cultivation Order WQ 2019-0001-DWQ. Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices (BMPs), buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight.

Cultivators who enroll in the State Water Board's Waste Discharge Requirements for Cannabis Cultivation Order WQ 2019-0001-DWQ must comply with the Minimum Riparian Setbacks, as summarized in the following table. The Project would be considered to have a significant adverse impact on jurisdictional water resources if it would be non-compliant with these requirements. The minimum riparian setbacks apply to all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel powered pump locations, water storage areas, and chemical toilet placement).

The proposed project is compliant with the setback requirements of Cannabis Cultivation Order WQ 2019-0001-DWQ.

Minimum Riparian Setbacks

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g. lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established riparian zone vegetation

Recommended Mitigation Measures

No impacts were identified, and therefore no mitigation measures are proposed. It is recommended that a formal delineation of jurisdictional waters be performed before construction work, or ground disturbance, is performed within 50 feet of any wetland or channel. Aquatic permits are required to alter or disturb any wetland or channel.

5.2.4. Potential Impacts to Wildlife Movement, Corridors, etc.

- *Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Although no mapped wildlife corridors (such as the California Essential Habitat Connectivity Area layer in CNDDB) exist within the Property, the open space and the stream corridors on the Property facilitate animal movement and migrations. While the Property may be used by wildlife for movement or migration, the Project would not have a significant impact on this movement because it would not block movement and the majority of the open space in the Property would still be available.

Implementation of the proposed project would necessitate erection of security fences around the cultivation compounds. These fences do not allow animal movement and may act as a local barrier to wildlife movement. However, the fenced cultivation areas are surrounded by open space, allowing wildlife to move around these fenced areas. Thus, implementation of the proposed project is a less than significant impact upon wildlife movement. Implementation of the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.5. Potential Conflicts with Ordinances, Habitat Conservation Plans, etc.

- *Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Construction of the project may require the removal of trees protected by Lake County and CALFIRE. This is a potentially significant impact before mitigation.

The project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved governmental habitat conservation plan. The Property is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Recommended Mitigation Measures

During the permitting process, Lake County requires mitigation for the removal of protected trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1.

If development of the project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

6. REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition, thoroughly revised and expanded. University of California Press, Berkeley, California. 1,600 pp.

Brenzel, K.N. 2012. Sunset Western Garden Book, 9th edition. Time Home Entertainment, Inc. New York, New York. 768 pp.

Calflora. 2021. Calflora, the on-line gateway to information about native and introduced wild plants in California. Internet database available at http://calflora.org/.

California Department of Fish and Wildlife. 2021a. RareFind, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California. (updated monthly by subscription service)

California Department of Fish and Wildlife, 2021b. California's Plants and Animals. Habitat Conservation Planning Branch, California Department of Fish and Wildlife, Sacramento, California. http://www.dfg.ca.gov/hcpb/species/search_species.shtml.

California Department of Fish and Wildlife. 2021c. California's Wildlife. California Wildlife Habitat Relationships System, Biogeographic Data Branch, California Department of Fish and Wildlife. Internet database available at http://www.dfg.ca.gov/whdab/html/cawildlife.html.

California Department of Fish and Wildlife. 2021d. California Essential Connectivity Project., Habitat Conservation Planning Branch, California Department of Fish and Wildlife. Internet database available at https://wildlife.ca.gov/Data/BIOS.

California Department of Fish and Wildlife. 2021e. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. Vegetation Classification and Mapping Program. Available on the Internet at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

California Native Plant Society. 2021. Inventory of Rare and Endangered Plants. Rare Plant Scientific Advisory Committee, David P. Tibor, convening editor. California Native Plant Society. Sacramento, California. Internet database available at http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi. 92 pp.

Lanner, R. M. 2002. Conifers of California. Cachuma Press, Los Olivos, California. 274 pp.

Natural Resources Conservation Service. 2021. Web Soil Survey. National Cooperative Soil Survey, U.S. Department of Agriculture. NRCS Soils Website (Internet database and digital maps) available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

NatureServe. 2021. NatureServe Explorer: An online encyclopedia of life. NatureServe, Arlington, Virginia. Internet database available at http://www.natureserve.org/explorer.

Pavlik, B. M., P. C. Muick, S. G. Johnson, and M. Popper. 1991. Oaks of California. Cachuma Press and the California Oak Foundation. Los Olivos, California. 184 pp.

Sawyer, J. O., and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, California. Available electronically at http://davisherb.ucdavis.edu/cnpsActiveServer/index.html.

Sibley, D. A. 2003. The Sibley Field Guide to Birds of Western North America. Alfred A. Knopf, Inc., New York, New York.

Stuart, J. D., and J. O. Sawyer. 2001. Trees and Shrubs of California. California Natural History Guides. University of California Press, Berkeley, California. 467 pp.

University of California at Berkeley. 2021a. Jepson Online Interchange for California Floristics. Jepson Flora Project, University Herbarium and Jepson Herbarium, University of California at Berkeley. Internet database available at http://ucjeps.berkeley.edu/interchange.html.

University of California at Berkeley. 2021b. CalPhotos. Biodiversity Sciences Technology Group, University of California at Berkeley. Internet database available at http://calphotos.berkeley.edu/

United States Fish and Wildlife Service. 2021. Wetlands Digital Data. National Wetlands Inventory Center. Digital maps downloaded from the Internet at https://www.fws.gov/wetlands/.

EXHIBITS

POVERTY FLATS RANCH
PRELIMINARY GRADING PLANS
APN: 006-004-22

VICINITY MAP
NOT TO SCALE

DIRECTIONS TO SITE:
FROM CLEARLAKE OAKS, CA
–NORTHEAST ON SR–20E (0.3 MILES) TOWARDS LAKE STREET/LAKELAND STREET
–TURN LEFT AND TAKE HIGH VALLEY ROAD (5.4 MILES)
–THE PRIVATE DRIVEWAY FOR 10535 HIGH VALLEY ROAD WILL BE ON THE LEFT

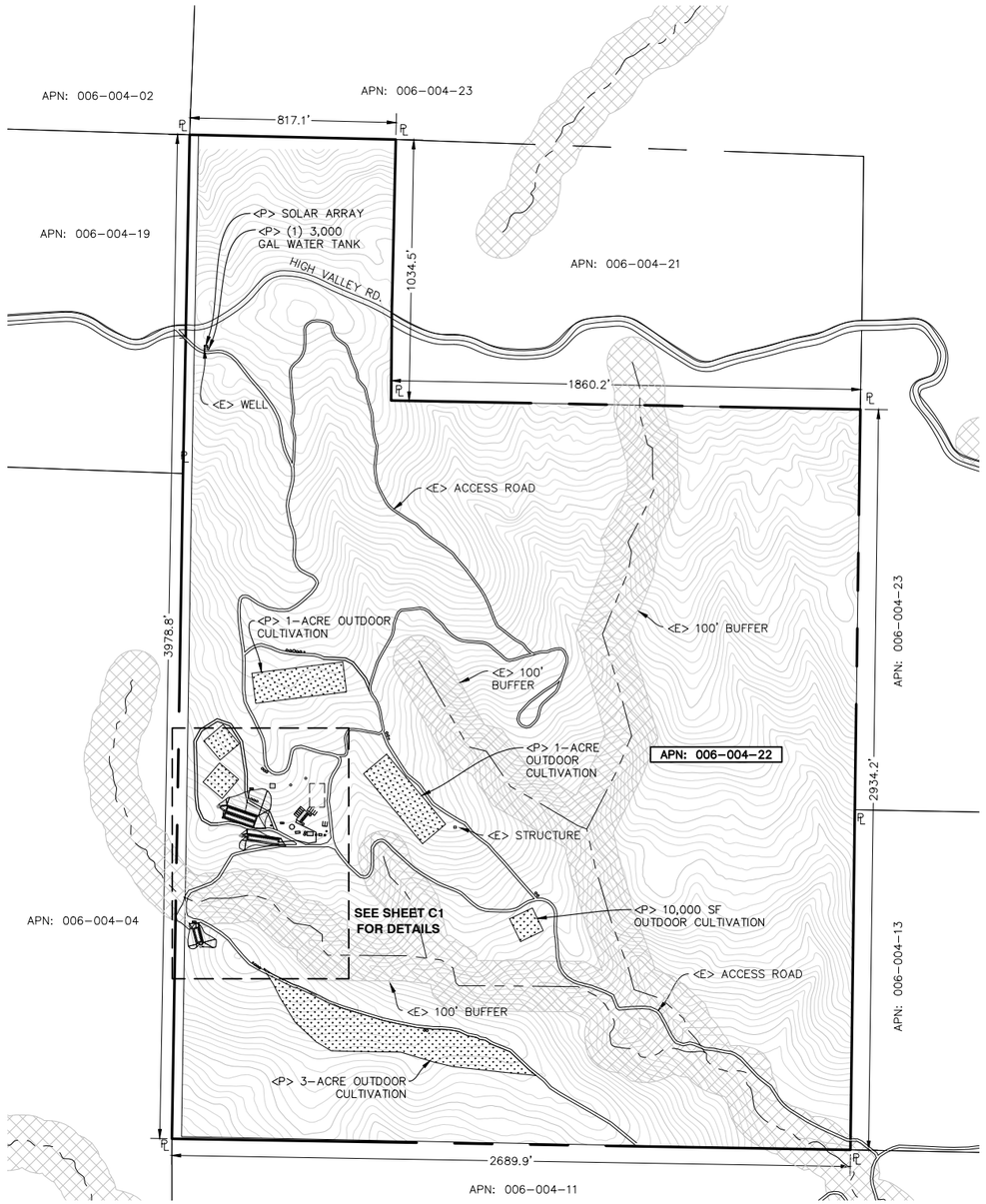
UNAUTHORIZED CHANGES & USES:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL AND THE COUNTY OF HUMBOLDT HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONALS.

GENERAL CONSTRUCTION NOTES:

1. ALL NOTES ON THESE PLANS SHALL APPLY TO NEW CONSTRUCTION.
2. DRAWING SCALE AS NOTED. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
3. FOLLOW MANUFACTURERS INSTALLATION REQUIREMENTS FOR ALL SPECIFIED HARDWARE, FIXTURES, AND MANUFACTURED ITEMS.
4. DURING CONSTRUCTION, MEANS OF EGRESS SHALL BE MAINTAINED PER 2023 CALIFORNIA FIRE CODE.
5. ALL MATERIALS AND WORKMANSHIP SHALL BE ACCORDING TO PROVISIONS OF THE STANDARD SPECIFICATIONS AND STANDARD PLANS, CALIFORNIA DEPARTMENT OF TRANSPORTATION, 2016 OR CURRENT VERSION. EROSION & SEDIMENT CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH THE LAKE COUNTY LAND USE AND DEVELOPMENT ORDINANCE.
6. ALL WORK SHALL BE PERFORMED BY A STATE OF CALIFORNIA LICENSED CONTRACTOR.
7. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FROM LAKE COUNTY AND OTHER APPLICABLE AGENCIES.
8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES AT JOB SITE BEFORE PRECEDING, AND SHALL CONTACT THE ENGINEER IMMEDIATELY WITH ANY DISCREPANCIES.
9. UNDERGROUND SERVICE ALERT (USA) – CALL TOLL FREE 1–800–642–2444 AT LEAST 48 HOURS PRIOR TO EXCAVATION.
10. PRIOR TO PERMIT CLOSE OUT LCBD REQUIRES A CERTIFICATION LETTER FROM ENGINEER. THE CERTIFICATION LETTER WILL STATE ACCEPTANCE OF EROSION CONTROL MEASURES, CERTIFICATION OF PLACEMENT AND COMPACTION OF FILL MATERIAL, AND COMPLETION OF WORK.
11. ENGINEER MAY MODIFY LOCATION, QUANTITY, AND TYPE OF EROSION CONTROL MEASURES AT TIME OF GRADING DEPENDING ON SITE CONDITIONS AS THE PROJECT PROCEEDS.
12. CONTRACTOR SHALL HOLD ON–SITE PRE–CONSTRUCTION MEETING WITH ENGINEER PRIOR TO ANY WORK. THROUGHOUT CONSTRUCTION, ENGINEER SHALL REVIEW AND APPROVE PROPOSED CONSTRUCTION REVISIONS AS REQUESTED BY CONTRACTOR AND AS REQUIRED BY THE LAKE COUNTY BUILDING DEPARTMENT.
13. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF PROJECT CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
14. HOURS OF CONSTRUCTION FOR ON AND OFF–SITE IMPROVEMENTS SHALL BE RESTRICTED TO MONDAY THRU FRIDAY FROM 7AM TO 6PM, SATURDAY FROM 9AM TO 5PM, WITH NO CONSTRUCTION ACTIVITY ON SUNDAY OR AS ALLOWED PER CURRENT LAKE COUNTY CODE. ALL PROPOSED USES MUST COMPLY WITH THE NOISE STANDARDS IDENTIFIED IN FIGURE 3–2 OF THE GENERAL PLAN.
15. NO GRADING SHALL OCCUR BETWEEN OCTOBER 15TH AND APRIL 15TH WITHOUT PRIOR APPROVAL OF THE COUNTY OF LAKE.
16. AN ENCROACHMENT PERMIT IS REQUIRED BY THE DEPARTMENT OF PUBLIC WORKS FOR ALL IMPROVEMENT WORK WITHIN THE LAKE COUNTY RIGHT OF WAY.
17. TRAFFIC CONTROL SHALL BE IMPLEMENTED PER THE CURRENT VERSION OF THE MUTCD.
18. THE INFORMATION AND ELEVATIONS PERTAINING TO EXISTING OVERHEAD AND UNDERGROUND FACILITIES AS SHOWN HEREIN, ARE FROM RECORD INFORMATION ONLY AND ARE PRESENTED HERE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL EXISTING FACILITIES PRIOR TO EXCAVATION AND CONSTRUCTION IN ANY AREA. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND DEVELOPER OF ANY APPARENT DISCREPANCIES IN THE RECORD INFORMATION SHOWN HEREIN.
19. THE FOLLOWING WORK REQUIRES AN INSPECTION BEFORE PROCEEDING:
    –SEWER, WATER AND SUBDRAIN LINES PRIOR TO BACKFILL.
    –SUBGRADE, PRIOR TO LAYING BASE OR FILL MATERIAL.
    –FOUNDATION EXCAVATION.
    –BASE, PRIOR TO LAYING ASPHALT.
    –ANY OTHER REQUIRED BY BUILDING PERMIT.
20. THE CONTRACTOR SHALL REMOVE FROM THE SITE AND LAWFULLY DISPOSE OF ALL DELETERIOUS MATERIAL (BROKEN CONCRETE, ASPHALT PAVEMENT, BASE MATERIAL, ROCKS, STUMPS, ROOTS, LIMBS, ETC.) TO AN APPROVED DISPOSAL SITE.
21. UNLESS SPECIFICALLY AGREED TO OTHERWISE BETWEEN THE CONTRACTOR AND THE OWNER, THE OWNER IS RESPONSIBLE FOR PAYING FOR ALL SOIL COMPACTION TESTS AND OR OTHER TESTS THAT ARE REQUIRED BY THESE PLANS.
22. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE DURING CONSTRUCTION.



PLOT PLAN
22x34 SHEET: 1"=300'
11x17 SHEET: 1"=600'
0 150 300 600

PROJECT INFORMATION:

APPLICANT:
KURT "RUSTY" BARTHEL
24760 E BRIGHT AVE.
WELCHES, OR 97067

PROPERTY OWNER:
KURT R BARTHEL AND TRUSTEES
24760 E BRIGHT AVE.
WELCHES, OR 97067

APPLICANTS AGENT:
NORTHPOINT CONSULTING GROUP, INC
1117 SAMOA BLVD.
ARCATA, CA 95521
(707) 798–6438

SITE ADDRESS:
APN: 006–004–22
10535 HIGH VALLEY RD
CLEARLAKE OAKS, CA 95423

ZONING = RL

WATER	= PRIVATE
SEWER	= PRIVATE

PROPERTY SIZE
APN: 006–004–22 = ±196.70 ACRES

EARTHWORK QUANTITIES:

TOTAL CUT	= 6,200 CU.YD.
TOTAL FILL	= 1,250 CU.YD.
TOTAL IMPORT (AGGREGATE)	= 550 CU.YD.
TOTAL EXPORT	= 0 CU.YD.

GENERAL NOTES:

1. DRAWING SCALE AS NOTED. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. THIS IS NOT A BOUNDARY SURVEY. HOWEVER, EAST BOUNDARY INFORMATION BY STEWART LAND SERVICES, PLS 9644, DATED 02–09–2024. NORTHPOINT CONSULTING GROUP, INC. HAS NOT VERIFIED THIS PROPERTY BOUNDARY.
3. PRIOR TO THE START OF CONSTRUCTION A PRE–SITE MEETING BETWEEN OWNER, ENGINEER, AND CONTRACTOR SHALL OCCUR.

SITE GRADING NOTES:

1. CONTRACTOR SHALL COMPLY WITH ANY AND ALL GRADING PERMIT REQUIREMENTS ADMINISTERED BY THE COUNTY OF LAKE.
2. CUT AND FILL SLOPES SHALL BE 2:1 (H:V) MAXIMUM, UNLESS OTHERWISE SHOWN ON THE PLANS.
3. FINISHED GRADING SHALL BE AS INDICATED ON THE PLANS.
4. TOPSOIL AND ALL UNSUITABLE MATERIAL SHALL BE REMOVED FROM ALL AREAS TO RECEIVE CONCRETE, ASPHALT, OR FILL, UNSUITABLE MATERIAL INCLUDES SOILS WITH HIGH ORGANIC MATERIAL, DARKER TOPSOILS AND OVER SATURATED SOILS.
5. ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90%, EXCEPT WHERE 95% RELATIVE COMPACTION REQUIRED WITHIN 24" OF FINISH GRADE AS SPECIFIED IN SECTION 19–5.03 OF CALTRANS STANDARD SPECIFICATIONS.
6. ALL GROUND BARED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE EROSION CONTROL TREATMENT AS SPECIFIED IN THE SOIL LOSS & POLLUTION PREVENTION PLAN.
7. ALL EXPORT MATERIAL SHALL BE TAKEN TO A PROPER DISPOSAL SITE.

Avoid cutting underground utility lines. It's costly.
before you Dig Call
1–800–227–2600
UNDERGROUND SERVICE (USA)

SHEET INDEX:

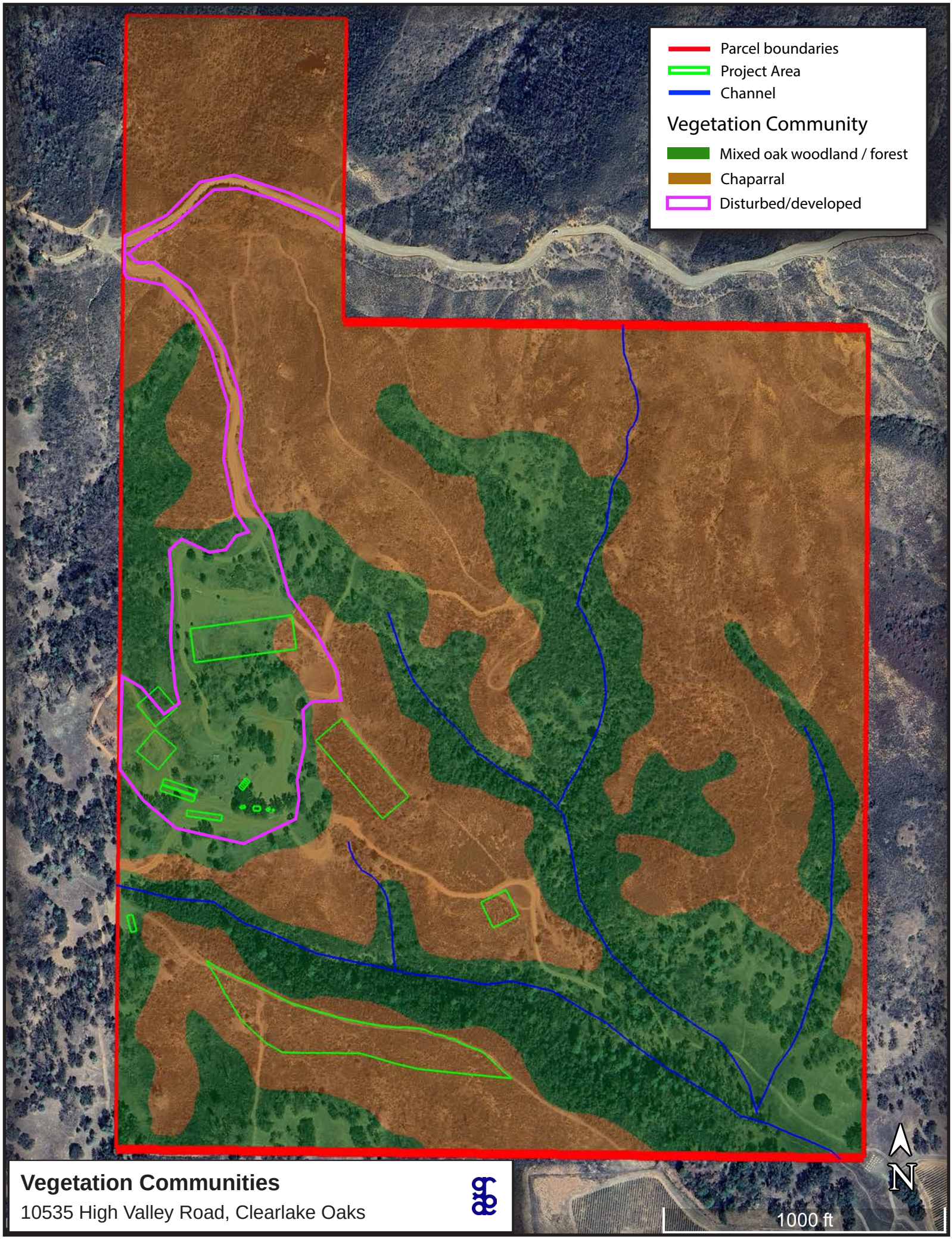
REVISIONS	DATE	DRAWN BY

NORTHPOINT CONSULTING GROUP, INC.
1117 Samoa Blvd., Arcata, CA 95521

POVERTY FLATS RANCH - PRELIMINARY GRADING PLANS
10535 HIGH BALLEY RD., CLEARLAKE OAKS, CA 95423
PLOT PLAN, VICINITY MAP, AND PROJECT NOTES

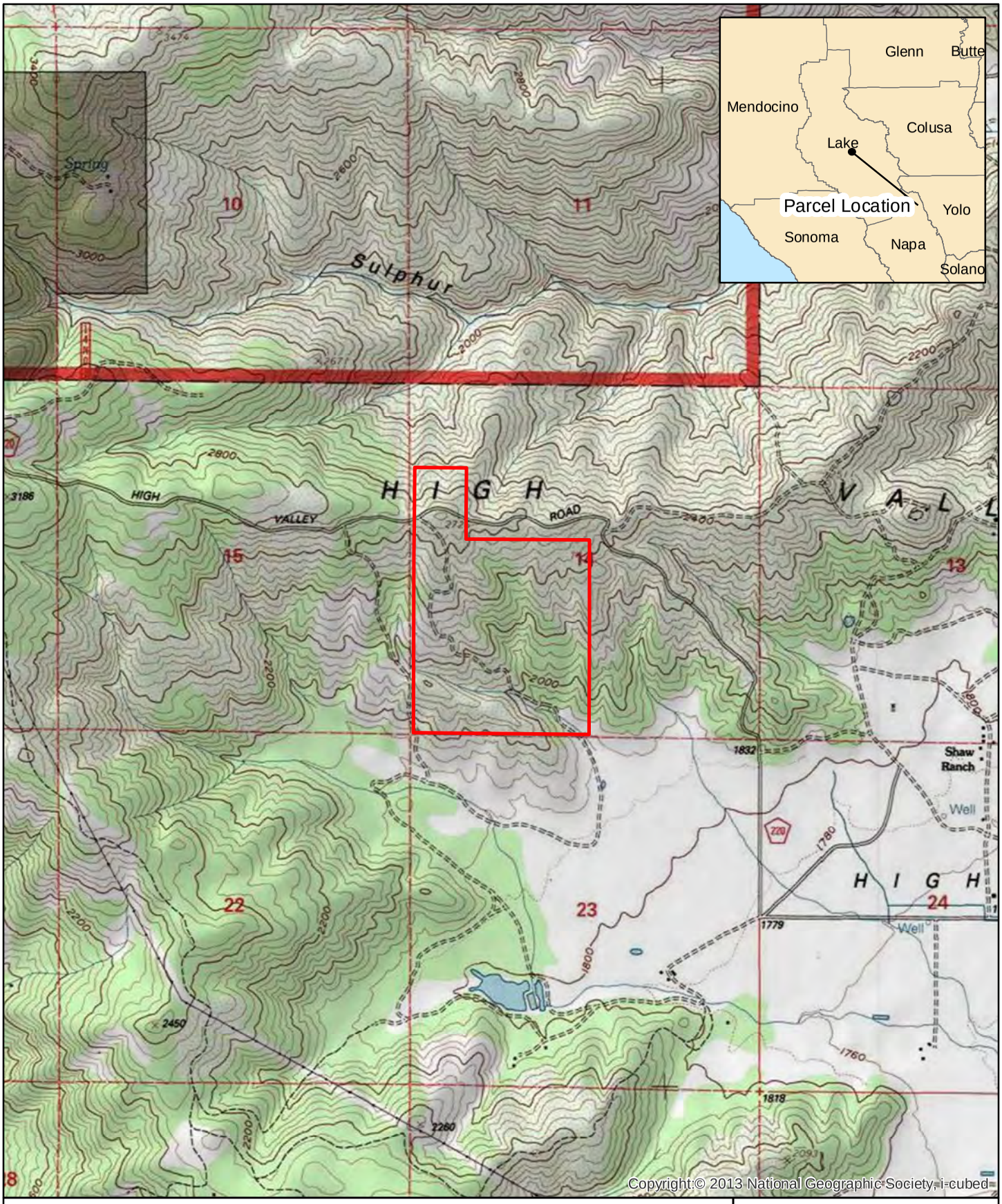
PROJ. MGR.: AD
DRAWN BY: TJS
DATE: 10/17/23
SCALE: AS SHOWN
SHEET C0
21–126

April 15, 2024 – 10:52 Dwg Name: P:\Barthel, Rusty – Barthel–High Valley – 21–126\CAD\BARTHEL – GRADING.dwg Updated By: TaryGelt



Vegetation Communities

10535 High Valley Road, Clearlake Oaks



Parcel Location

0 0.5 1 Kilometers

0 0.5 1 Miles

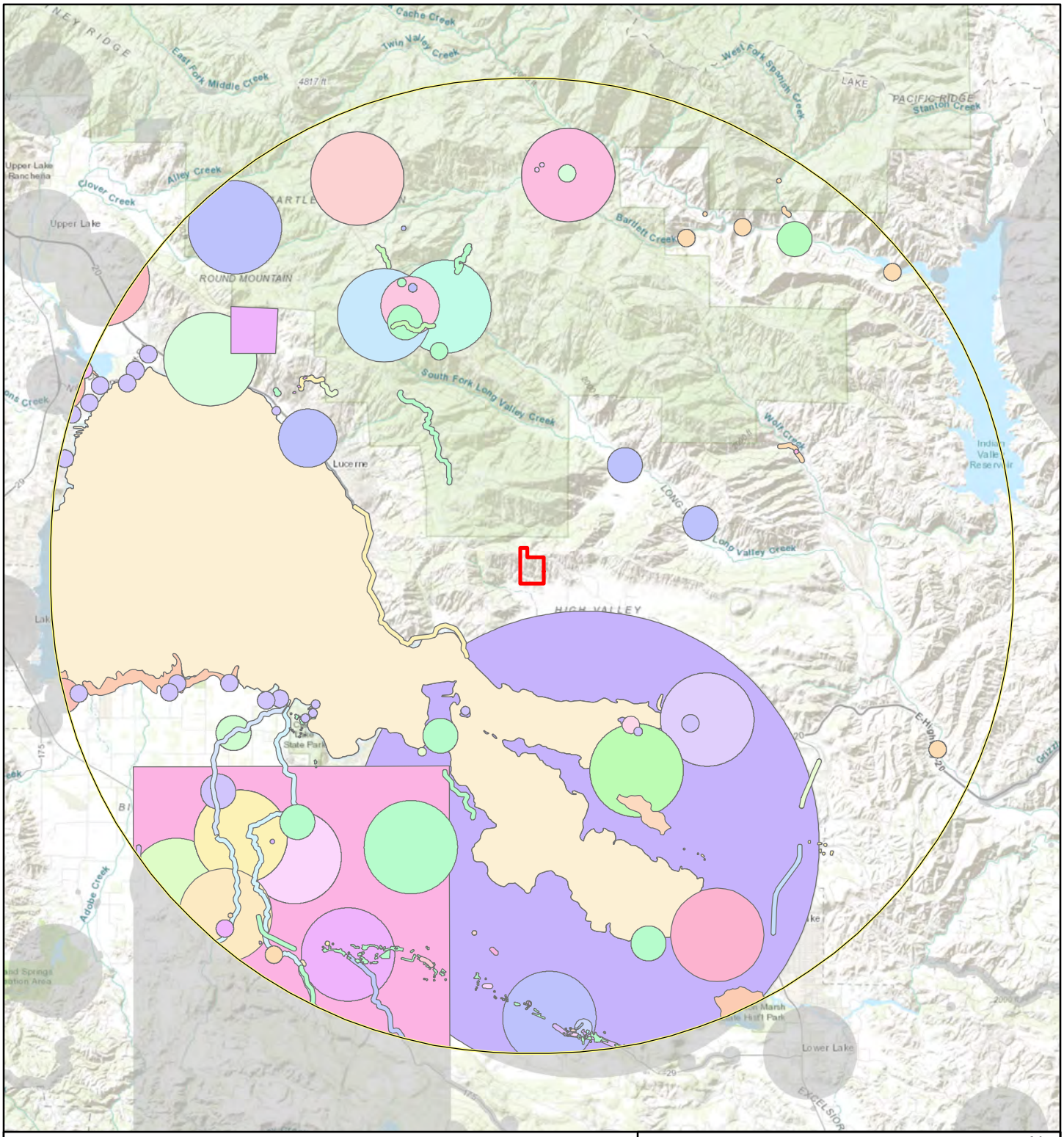
1:24,000

10535 High Valley Rd
Parcel Location Map

Natural Investigations Company

Map Date 10/14/2020

Clearlake Oaks 1996 Quadrangle:Township 14N, Range 8W, Secion 14



Parcel Location 10 Mile Buffer

1:190,000 1 inch = 3 miles

0 3 6 Miles

N

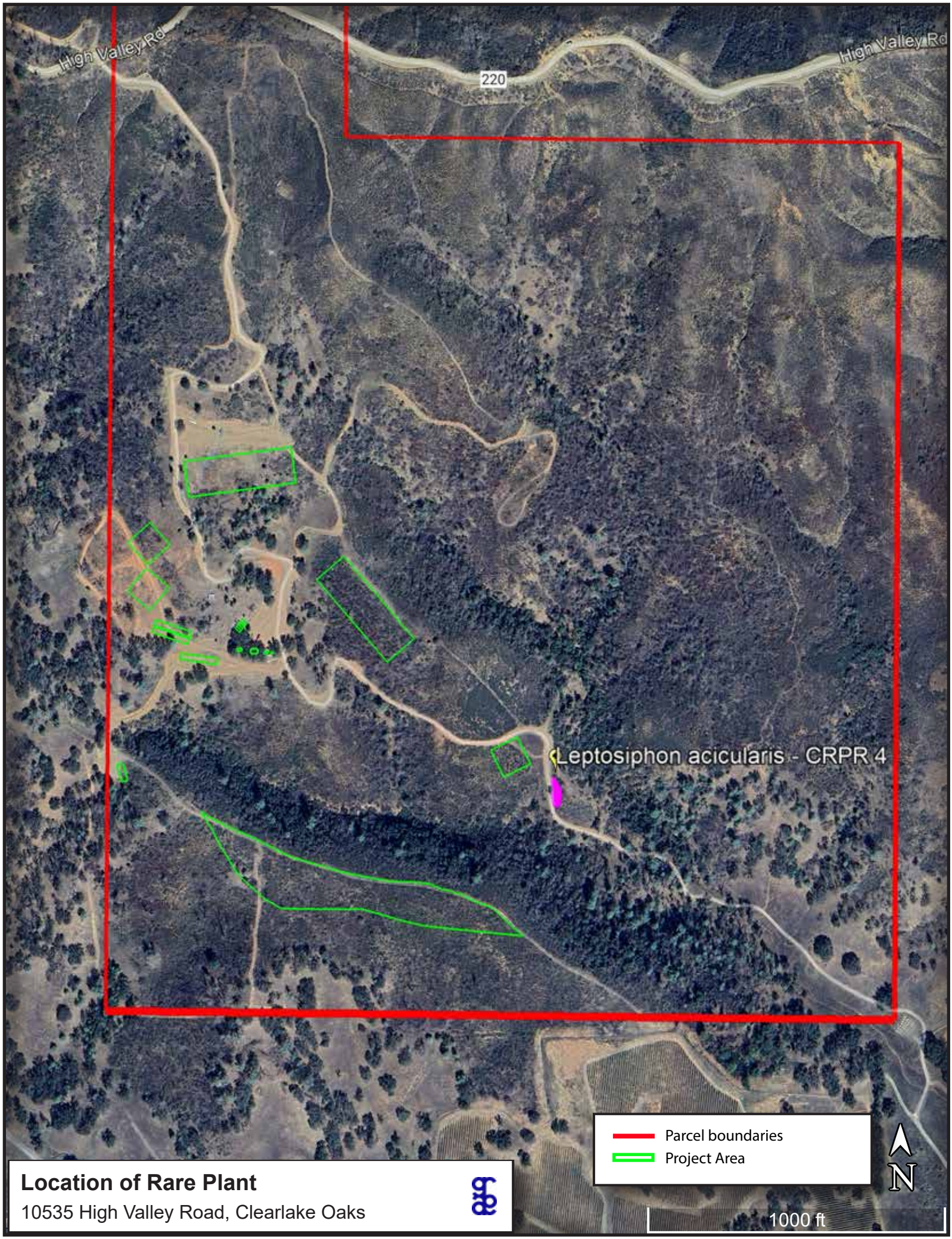
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist inshowing features discussed in an attached document. Natural Investigations Company can not guarantee the accuracy and content of electronic files.The master file is stored by Natural Investigations Company and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.Data Sources: California Department of Fish and Wildlife. 2020. RareFind 5.x, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California.
(updated monthly by subscription service)

Special-Status Species Occurrences Map

10535 High Valley Rd

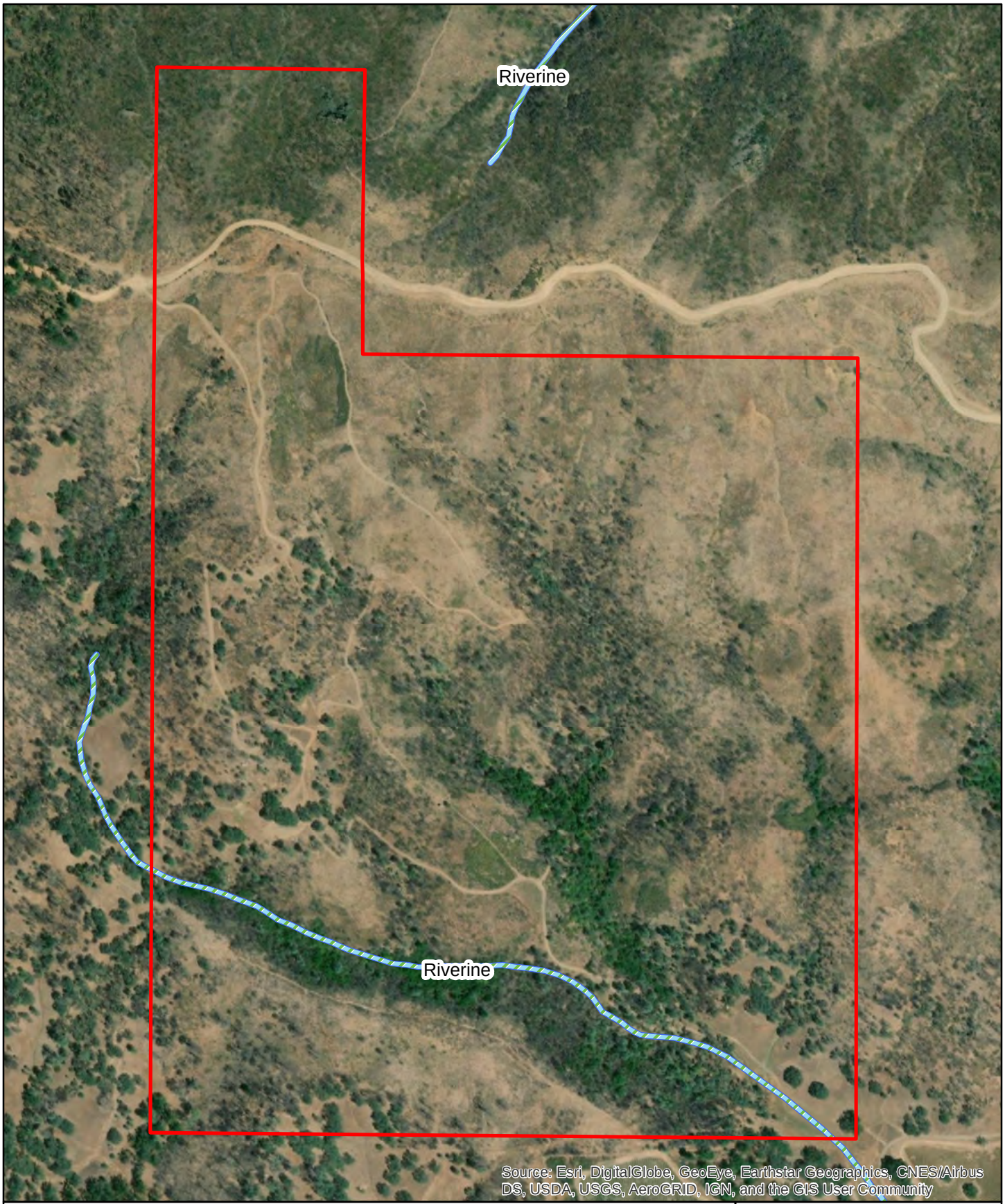
Clearlake Oaks 1996 Quadrangle:Township 14N, Range 8W, Secion 14

NATURAL INVESTIGATIONS CO.
WWW.NATURALINVESTIGATIONS.COM



Location of Rare Plant

10535 High Valley Road, Clearlake Oaks



Parcel Location

Wetlands and Channels

0 150 300 Meters

0 600 1,200 Feet

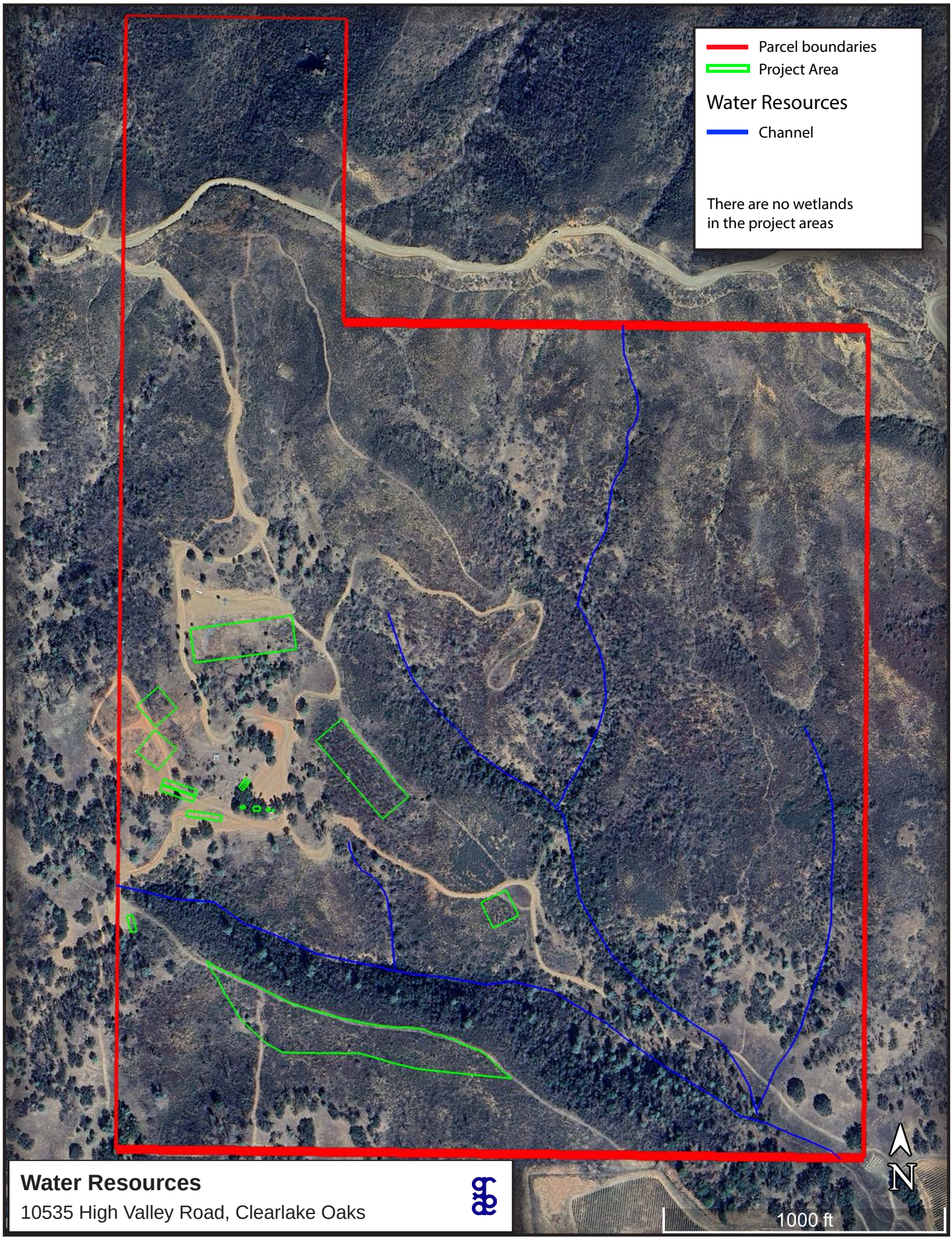
1:6,000

10535 High Valley Rd
National Wetlands Inventory
Features Map

Natural Investigations Company

Map Date 10/14/2020

Clearlake Oaks 1996 Quadrangle:Township 14N, Range 8W, Secion 14



Water Resources

10535 High Valley Road, Clearlake Oaks

APPENDIX 1: USFWS SPECIES LIST

United States Department of the Interior

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

In Reply Refer To: 05/02/2024 17:04:44 UTC
Project Code: 2024-0085074
Project Name: Poverty Flats project

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

To Whom It May Concern:

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

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

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

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

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

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

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

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

PROJECT SUMMARY

Project Code: 2024-0085074
Project Name: Poverty Flats project
Project Type: Field Crop Planting/Production
Project Description: cultivation project
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.06167395,-122.7181858008316,14z

Counties: Lake County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

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

BIRDS

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/1123

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata*	Proposed Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1111

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

FLOWERING PLANTS

NAME	STATUS
Burke's Goldfields *Lasthenia burkei*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4338

CRITICAL HABITATS

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

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

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: G.O. Graening
Address: 343 Carpenter Hill Road
City: Folsom
State: CA
Zip: 95630
Email ggraening@gmail.com
Phone: 9164525442

APPENDIX 2: CHECKLIST OF PLANTS DETECTED ON THE PROPERTY

Appendix 2:
Plants Observed at 10535 High Valley Road, Clearlake Oaks
on October 28, 2020, and April 27, 2024

Common Name	**Scientific Name**
Deerweed	*Acmispon glaber*
Hill lotus	*Acmispon parviflorus*
Chilean trefoil	*Acmispon wrangelianus*
Chamise	*Adenostoma fasciculatum*
California buckeye	*Aesculus californicus*
Mountain dandelion	*Agoseris heterophylla*
Mountain dandelion	*Agoseris sp.*
Bentgrass	*Agrostis sp.*
Silver hairgrass	*Aira caryophyllea*
Pearly everlasting	*Anaphalis margaritacea*
Western lady's mantle	*Aphanes occidentalis*
Common manzanita	*Arctostaphylos manzanita ssp. manzanita*
Gamble's dwarf milkvetch	*Astragalus gambelianus*
Common sandweed	*Athysanus pusillus*
Slender wild oat	*Avena barbata*
Wild oat	*Avena fatua*
Coyote brush	*Baccharis pilularis*
Brodiaea	*Brodiaea sp.*
California brome	*Bromus carinatus*
Ripgut brome	*Bromus diandrus*
Soft chess	*Bromus hordeaceus*
Madrid brome	*Bromus madritensis*
Red maids	*Calandrinia ciliata*
Golden fairy lantern	*Calochortus amabilis*
Italian thistle	*Carduus pycnocephalus*
Valley tassels	*Castilleja attenuata*
California mustard	*Caulanthus lasiophyllus*
Wedge leaf ceanothus	*Ceanothus cuneatus*
Maltese star thistle	*Centaurea melitensis*
Yellow star thistle	*Centaurea solstitialis*
Sticky mouse-eared chickweed	*Cerastium glomeratum*
Western redbud	*Cercis occidentalis*
Birchleaf mountain mahogany	*Cercocarpus betuloides*
Wavy leaf soap plant	*Chlorogalum pomeridianum*
Bull thistle	*Cirsium vulgare*
Clarkia	*Clarkia sp.*
Pipestems	*Clematis lasiantha*
Sand pygmy weed	*Crassula connata*
Cryptantha	*Cryptantha sp.*
Dogtail grass	*Cynosurus echinatus*

Common Name	Scientific Name
Rattlesnake weed	*Daucus pusillus*
Bush monkeyflower	*Diplacus aurantiacus*
Blue dicks	*Dipterostemon capitatus*
Canyon dudleya	*Dudleya cymosa ssp. cymosa*
Golden ear drops	*Ehrendorferia chrysantha*
Medusa-head grass	*Elymus caput-medusae*
Blue wildrye	*Elymus glaucus*
Tall willowherb	*Epilobium brachycarpum*
Yerba santa	*Eriodictyon californicum*
Buckwheat	*Eriogonum sp.*
Wooly sunflower	*Eriophyllum lanatum*
Broad leaved filaree	*Erodium botrys*
Red-stemmed filaree	*Erodium cicutarium*
California poppy	*Eschscholzia californica*
Brome fescue	*Festuca bromoides*
Pacific fescue	*Festuca microstachys*
Rattail sixweeks grass	*Festuca myuros*
Italian ryegrass	*Festuca perennis*
Fescue	*Festuca sp.*
Bedstraw	*Galium aparine*
Wall bedstraw	*Galium parisiense*
Climbing bedstraw	*Galium porrigens*
Bedstraw	*Galium sp.*
Nit grass	*Gastridium phleoides*
Cutleaf geranium	*Geranium dissectum*
Bird's eye gilia	*Gilia tricolor*
Venus' looking glass	*Githopsis specularioides*
Hayfield tarplant	*Hemizonia congesta ssp. luzulifolia*
Toyon	*Heteromeles arbutifolia*
Wall barley	*Hordeum murinum*
Goldwire	*Hypericum concinnum*
Klamath weed	*Hypericum perforatum*
Smooth cat's-ear	*Hypochaeris glabra*
Iris	*Iris sp.*
Rush	*Juncus sp.*
Prickly lettuce	*Lactuca serriola*
California goldfields	*Lasthenia californica*
Wild pea	*Lathyrus sp.*
Hawkbit	*Leontodon saxatilis*
Field pepperweed	*Lepidium campestre*
Shining peppergrass	*Lepidium nitidum*
Bristly leptosiphon	*Leptosiphon acicularis (CRPR Rank 4.2)*
True babystars	*Leptosiphon bicolor*
Whisker brush	*Leptosiphon ciliatus*
Leptosiphon	*Leptosiphon sp.*

Common Name	Scientific Name
California cottonrose	*Logfia filaginoides*
Narrowleaf cottonrose	*Logfia gallica*
Lomatium	*Lomatium sp.*
Pink honeysuckle	*Lonicera hispidula*
Chaparral honeysuckle	*Lonicera interrupta*
Miniature lupine	*Lupinus bicolor*
Sky lupine	*Lupinus nanus*
Lupine	*Lupinus sp.*
Common madia	*Madia elegans*
Slender madia	*Madia gracilis*
Tarplant	*Madia sp.*
Pineapple weed	*Matricaria discoidea*
California burclover	*Medicago polymorpha*
California melic grass	*Melica californica*
Slender cottonweed	*Micropus californicus*
Silverpuffs	*Microseris sp.*
Coyote mint	*Monardella villosa*
Holly leaf navarretia	*Navarretia atractyloides*
Skunkweed	*Navarretia squarrosa*
Bird's-foot cliff brake	*Pellaea mucronata*
Foothill penstemon	*Penstemon heterophyllus*
Goldback fern	*Pentagramma triangularis*
Yampah	*Perideridia sp.*
Windmill pink	*Petrorhagia dubia*
Phacelia	*Phacelia sp.*
Gray pine	*Pinus sabiniana*
Popcornflower	*Plagiobothrys sp.*
Dwarf plantain	*Plantago erecta*
English plantain	*Plantago lanceolata*
Shortspur seablush	*Plectritis congesta ssp. brachystemon*
Annual bluegrass	*Poa annua*
Bulbous bluegrass	*Poa bulbosa*
One-sided bluegrass	*Poa secunda*
Rabbit's-foot grass	*Polypogon monspeliensis*
Wooly marbles	*Psilocarphus brevissimus*
California scrub oak	*Quercus berberidifolia*
Blue oak	*Quercus douglasii*
California black oak	*Quercus kelloggii*
Interior live oak	*Quercus wislizeni var. wislizeni*
Hollyleaf redberry	*Rhamnus ilicifolia*
Fragrant sumac	*Rhus aromatica*
Purple sanicle	*Sanicula bipinnatifida*
Pacific sanicle	*Sanicula crassicaulis*
Rye	*Secale cereale*
Blue-eyed grass	*Sisyrinchium bellum*

Common Name	Scientific Name
Parish's purple nightshade	*Solanum parishii*
Chickweed	*Stellaria media*
Wire lettuce	*Stephanomeria sp.*
Purple needlegrass	*Stipa pulchra*
Needlegrass	*Stipa sp.*
Bristly jewelflower	*Streptanthus glandulosus*
Fringepod	*Thysanocarpus curvipes*
Tall sock-destroyer	*Torilis arvensis*
Poison-oak	*Toxicodendron diversilobum*
Death camas	*Toxicoscordion sp.*
Notch-leaved clover	*Trifolium bifidum*
Tree clover	*Trifolium ciliolatum*
Olive clover	*Trifolium columbinum*
Cowbag clover	*Trifolium depauperatum var. depauperatum*
Hop clover	*Trifolium dubium*
Rose clover	*Trifolium hirtum*
Small headed clover	*Trifolium microcephalum*
California bay	*Umbellularia californica*
Spring vetch	*Vicia sativa*
Winter vetch	*Vicia villosa*
California grape	*Vitis californicus*
Smooth mule ears	*Wyethia glabra*
Common Name	**Scientific Name**
Deerweed	*Acmispon glaber*
Hill lotus	*Acmispon parviflorus*
Chilean trefoil	*Acmispon wrangelianus*
Chamise	*Adenostoma fasciculatum*
California buckeye	*Aesculus californicus*
Mountain dandelion	*Agoseris heterophylla*
Mountain dandelion	*Agoseris sp.*
Bentgrass	*Agrostis sp.*
Silver hairgrass	*Aira caryophyllea*
Pearly everlasting	*Anaphalis margaritacea*
Western lady's mantle	*Aphanes occidentalis*
Common manzanita	*Arctostaphylos manzanita ssp. manzanita*
Gamble's dwarf milkvetch	*Astragalus gambelianus*
Common sandweed	*Athysanus pusillus*
Slender wild oat	*Avena barbata*
Ripgut brome	*Bromus diandrus*
Soft chess	*Bromus hordeaceus*
Madrid brome	*Bromus madritensis*
Red maids	*Calandrinia ciliata*
Golden fairy lantern	*Calochortus amabilis*
Italian thistle	*Carduus pycnocephalus*

Common Name	Scientific Name
Valley tassels	*Castilleja attenuata*
California mustard	*Caulanthus lasiophyllus*
Wedge leaf ceanothus	*Ceanothus cuneatus*
Maltese star thistle	*Centaurea melitensis*
Yellow star thistle	*Centaurea solstitialis*
Sticky mouse-eared chickweed	*Cerastium glomeratum*
Birchleaf mountain mahogany	*Cercocarpus betuloides*
Wavy leaf soap plant	*Chlorogalum pomeridianum*
Clarkia	*Clarkia sp.*
Pipestems	*Clematis lasiantha*
Sand pygmy weed	*Crassula connata*
Cryptantha	*Cryptantha sp.*
Dogtail grass	*Cynosurus echinatus*
Rattlesnake weed	*Daucus pusillus*
Bush monkeyflower	*Diplacus aurantiacus*
Blue dicks	*Dipterostemon capitatus*
Canyon dudleya	*Dudleya cymosa ssp. cymosa*
Tall willowherb	*Epilobium brachycarpum*
Yerba santa	*Eriodictyon californicum*
Buckwheat	*Eriogonum sp.*
Wooly sunflower	*Eriophyllum lanatum*
Broad leaved filaree	*Erodium botrys*
Red-stemmed filaree	*Erodium cicutarium*
California poppy	*Eschscholzia californica*
Pacific fescue	*Festuca microstachys*
Rattail sixweeks grass	*Festuca myuros*
Italian ryegrass	*Festuca perennis*
Bedstraw	*Galium aparine*
Wall bedstraw	*Galium parisiense*
Climbing bedstraw	*Galium porrigens*
Nit grass	*Gastridium phleoides*
Cutleaf geranium	*Geranium dissectum*
Bird’s eye gilia	*Gilia tricolor*
Venus’ looking glass	*Githopsis specularioides*
Toyon	*Heteromeles arbutifolia*
Wall barley	*Hordeum murinum*
Klamath weed	*Hypericum perforatum*
Smooth cat’s-ear	*Hypochaeris glabra*
Iris	*Iris sp.*
California goldfields	*Lasthenia californica*
Field pepperweed	*Lepidium campestre*
Shining peppergrass	*Lepidium nitidum*
Bristly leptosiphon	*Leptosiphon acicularis* *(CRPR Rank 4.2)*
True babystars	*Leptosiphon bicolor*

Common Name	Scientific Name
Whisker brush	*Leptosiphon ciliatus*
Leptosiphon	*Leptosiphon sp.*
California cottonrose	*Logfia filaginoides*
Narrowleaf cottonrose	*Logfia gallica*
Lomatium	*Lomatium sp.*
Pink honeysuckle	*Lonicera hispidula*
Chaparral honeysuckle	*Lonicera interrupta*
Miniature lupine	*Lupinus bicolor*
Sky lupine	*Lupinus nanus*
Tarplant	*Madia sp.*
Pineapple weed	*Matricaria discoidea*
California melic grass	*Melica californica*
Slender cottonweed	*Micropus californicus*
Silverpuffs	*Microseris sp.*
Coyote mint	*Monardella villosa*
Holly leaf navarretia	*Navarretia atractyloides*
Bird's-foot cliff brake	*Pellaea mucronata*
Foothill penstemon	*Penstemon heterophyllus*
Goldback fern	*Pentagramma triangularis*
Windmill pink	*Petrorhagia dubia*
Phacelia	*Phacelia sp.*
Gray pine	*Pinus sabiniana*
Popcornflower	*Plagiobothrys sp.*
Dwarf plantain	*Plantago erecta*
Shortspur seablush	*Plectritis congesta ssp. brachystemon*
Annual bluegrass	*Poa annua*
Bulbous bluegrass	*Poa bulbosa*
One-sided bluegrass	*Poa secunda*
Wooly marbles	*Psilocarphus brevissimus*
Blue oak	*Quercus douglasii*
Interior live oak	*Quercus wislizeni var. wislizeni*
Hollyleaf redberry	*Rhamnus ilicifolia*
Purple sanicle	*Sanicula bipinnatifida*
Pacific sanicle	*Sanicula crassicaulis*
Parish's purple nightshade	*Solanum parishii*
Chickweed	*Stellaria media*
Wire lettuce	*Stephanomeria sp.*
Purple needlegrass	*Stipa pulchra*
Needlegrass	*Stipa sp.*
Bristly jewelflower	*Streptanthus glandulosus*
Fringepod	*Thysanocarpus curvipes*
Poison-oak	*Toxicodendron diversilobum*
Notch-leaved clover	*Trifolium bifidum*
Tree clover	*Trifolium ciliolatum*

Common Name	**Scientific Name**
Olive clover	*Trifolium columbinum*
Cowbag clover	*Trifolium depauperatum var. depauperatum*
Hop clover	*Trifolium dubium*
Rose clover	*Trifolium hirtum*
Small headed clover	*Trifolium microcephalum*
Spring vetch	*Vicia sativa*
Winter vetch	*Vicia villosa*
Smooth mule ears	*Wyethia glabra*

APPENDIX 3: SITE PHOTOS

APPENDIX 4: SPECIAL-STATUS SPECIES TABLE AND POTENTIAL TO OCCUR

Special-status Species Reported by CNDDB and CNPS in the Vicinity of the Study Area

Common Name Scientific Name	Status*	General Habitat**	Microhabitat**
ANIMALS			
Red-bellied newt *Taricha rivularis*	CSSC	Found in coastal woodlands and redwood forests along the coast of Northern California	A stream or river dweller. Larvae retreat into vegetation and under stones during the day.
Foothill yellow-legged frog *Rana boylii*	CCT/CSSC	Partly-shaded, shallow streams & riffles with a rocky substrate in a variety of habitats.	Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
Double-crested cormorant *Phalacrocorax auritus*	CWL	Colonial nester on coastal cliffs, offshore islands, & along lake margins in the interior of the state.	Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.
Great blue heron *Ardea herodias*	CSSC	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes.	Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.
Osprey *Pandion haliaetus*	CWL	Ocean shore, bays, fresh-water lakes, and larger streams.	Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT/CE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.
Tricolored blackbird *Agelaius tricolor*	CT/CSSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony.
Clear Lake hitch *Lavinia exilicauda chi*	CT	Found only in Clear Lake, Lake Co, and associated ponds. Spawns in streams flowing into Clear Lake.	Adults found in the limnetic zone. Juveniles found in the nearshore shallow-water habitat hiding in the vegetation.
Sacramento perch *Archoplites interruptus*	CSSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley.	Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.
Silver-haired bat *Lasionycteris noctivagans*	CSSC	Primarily a coastal & montane forest dweller feeding over streams, ponds & open brushy areas.	Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes & rarely under rocks. Needs drinking water.
Townsend's big-eared bat *Corynorhinus townsendii*	CSSC	Throughout California in a wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls & ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
Pallid bat *Antrozous pallidus*	CSSC	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting.	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
North American porcupine *Erethizon dorsatum*	CSSC	Coast ranges, Klamath Mountains, southern Cascades, Modoc Plateau, Sierra Nevada and Transverse Ranges.	Montane conifer and wet meadow habitats.
Humboldt marten *Martes caurina humboldtensis*	CE/CSSC	Occurs only in the coastal redwood zone from the Oregon border south to Sonoma county.	Associated with late-successional coniferous forests, prefer forests with low, overhead cover.
Fisher - West Coast DPS *Pekania pennanti*	CT/CSSC	Intermediate to large-tree stages of coniferous forests & deciduous-riparian areas with high percent canopy closure.	Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.
Western pond turtle *Emys marmorata*	CSSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, be	Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-layin

An isopod *Calasellus californicus*	CSSC	Known from Lake, Napa, Marin, Santa Cruz and Santa Clara counties.	
Brownish dubiraphian riffle beetle *Dubiraphia brunnescens*	CSSC	Aquatic; known only from the NE shore of Clear Lake, Lake County.	Inhabits exposed, wave-washed willow roots.
Obscure bumble bee *Bombus caliginosus*	CSSC	Open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests.	Food plants include *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Trifolium, Rubus* and *Vaccinium.*
Blennosperma vernal pool andrenid bee *Andrena blennospermatis*	CSSC	This bee is oligolectic on vernal pool *Blennosperma*.	Bees nest in the uplands around vernal pools.
Borax Lake cuckoo wasp *Hedychridium milleri*	CSSC	Endemic to central California. Only collection is from the type locality.	External parasite of wasp and bee larva.
ANIMALS			
Big-scale balsamroot *Balsamorhiza macrolepis*	1B.2	Chaparral, valley and foothill grassland, cismontane woodland.	Sometimes on serpentine. 90-1555 m.
Small-flowered calycadenia *Calycadenia micrantha*	1B.2	Chaparral, valley and foothill grassland, meadows and seeps.	Rocky talus or scree; sparsely vegetated areas. Occasionally on roadsides; sometimes on serpentine. 5-1500 m.
Greene's narrow-leaved daisy *Erigeron greenei*	1B.2	Chaparral.	Serpentine and volcanic substrates, generally in shrubby vegetation. 80-1005 m.
Burke's goldfields *Lasthenia burkei*	FE/FE/1B.1	Vernal pools, meadows and seeps.	Most often in vernal pools and swales. 15-600 m.
Colusa layia *Layia septentrionalis*	1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 145-1095m.
Bent-flowered fiddleneck *Amsinckia lunaris*	1B.2	Cismontane woodland, valley and foothill grassland.	50-500m.
Watershield *Brasenia schreberi*	2B.3	Freshwater marshes and swamps.	Aquatic from water bodies both natural and artificial in California.
Lake County stonecrop *Sedella leiocarpa*	FE/FE/1B.1	Valley and foothill grassland, vernal pools, cismontane woodland.	Level areas that are seasonally wet and dry out in late spring; substrate usually of volcanic origin. 365-790 m.
Raiche's manzanita *Arctostaphylos stanfordiana ssp. raichei*	1B.1	Chaparral, lower montane coniferous forest.	Rocky, serpentine sites. Slopes and ridges. 450-1000 m.
Konocti manzanita *Arctostaphylos manzanita ssp. elegans*	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest.	Volcanic soils. 395-1615 m.
Anthony Peak lupine *Lupinus antoninus*	1B.2	Upper montane coniferous forest, lower montane coniferous forest.	Open areas with surrounding forest; rocky sites. 1220-2285 m.
Napa bluecurls *Trichostema ruygtii*	1B.2	Cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest.	Often in open, sunny areas. Also has been found in vernal pools. 30-590m.
Woolly meadowfoam *Limnanthes floccosa ssp. floccosa*	4.2	Chapparal, cismontane woodland, valley and foothill grassland, vernal pools.	Vernally wet areas, ditches, and ponds. 60-1335 m.
Glandular western flax *Hesperolinon adenophyllum*	1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	Serpentine soils; generally found in serpentine chaparral. 150-1315 m.
Two-carpellate western flax *Hesperolinon bicarpellatum*	1B.2	Serpentine chaparral.	Serpentine barrens at edge of chaparral. 60-1005 m.
Marsh checkerbloom *Sidalcea oregana ssp. hydrophila*	1B.2	Meadows and seeps, riparian forest.	Wet soil of streambanks, meadows. 1100-2300 m.
Brandegee's eriastrum *Eriastrum brandegeeae*	1B.1	Chaparral, cismontane woodland.	On barren volcanic soils; often in open areas. 425-840 m.
Tracy's eriastrum *Eriastrum tracyi*	CR/3.2	Chaparral, cismontane woodland.	Gravelly shale or clay; often in open areas. 315-760 m.

Baker's navarretia *Navarretia leucocephala ssp. bakeri*	1B.1	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest.	Vernal pools and swales; adobe or alkaline soils. 5-1740 m.
Few-flowered navarretia *Navarretia leucocephala ssp. pauciflora*	FE/FT/1B.1	Vernal pools.	Volcanic ash flow, and volcanic substrate vernal pools. 400-855 m.
Rincon Ridge ceanothus *Ceanothus confusus*	1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland.	Known from volcanic or serpentine soils, dry shrubby slopes. 75-1065 m.
Bolander's horkelia *Horkelia bolanderi*	1B.2	Lower montane coniferous forest, chaparral, meadows, valley and foothill grassland.	Grassy margins of vernal pools and meadows. 450-1100 m.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	CE/1B.2	Marshes and swamps (freshwater), vernal pools.	Clay soils; usually in vernal pools, sometimes on lake margins. 10-2375 m.
Indian Valley brodiaea *Brodiaea rosea*	CE/3.1	Closed cone coniferous forest, chaparral, cismontane woodland and valley and foothill grassland	Found on serpentine soils. 335-1450 m.
Eel-grass pondweed *Potamogeton zosteriformis*	2B.2	Marshes and swamps.	Ponds, lakes, streams. 0-1860 m.

*Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; FC = Candidate for Federal listing; CE = California State listed as endangered; CT = California State listed as threatened; CSSC = California species of special concern; CRPR (California Rare Plant Rank) List 1A = Plants presumed extinct in California by; CRPR List 1B = Plants designated rare, threatened or endangered in California and elsewhere; CRPR List 2A = Plants presumed extirpated in California but common elsewhere; CRPR 2B = Plants rare threatened or endangered in California, but more common elsewhere; CRPR 3 Review List: Plants about which more information is needed and CRPR 4 = Watch List: Plants of limited distribution. CRPR Threat Ranks: 0.1 = seriously threatened in California; S2 = moderately threatened in California; S3 = not very threatened in California .

**Copied verbatim from CNDDB, unless otherwise noted.