BIOLOGICAL RESOURCES ASSESSMENT
FOR THE
CULTIVATION PROJECT AT
20150 BLACK BASS PASS, LOWER LAKE, CALIFORNIA

August 20, 2025

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1. INTRODUCTION

1.1. PROJECT LOCATION AND DESCRIPTION

Graening and Associates LLC conducted a biological resources assessment for a cannabis cultivation operation on a property at 20150 Black Bass Pass, Lower Lake (APN 012-052-02), in Lake County, California. The proposed cannabis cultivation will occur in two 1-acre fenced compounds (see Exhibits).

For this assessment, the Project Area was defined as the two 1-acre cultivation areas, and this 2-acre area was the subject of the impact analysis. The entire property was defined as the Study Area. The Study Area is defined to identify biological resources adjacent to the Project Area, 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.

The scope of services does not include other services that are not described in this Section, such as formal aquatic resource delineations or protocol-level surveys for special-status species.

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).

The State Water Resources Control Board's Order WQ 2019-0001-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities protects receiving water bodies from water-quality impacts associated with cannabis cultivation using a combination of Best

Management Practices, buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight.

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 does not have a specific ordinance protecting native trees. However, 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.

2. ENVIRONMENTAL SETTING

The Study Area 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 Study Area 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, 2022). The topography of the Study Area consists of rolling hills in a valley that has seasonal ponds in the middle. The elevation ranges from approximately 1760 to 1800 feet above mean sea level. Land used of the Property and immediate vicinity is rural residential, agricultural, cattle range, and opens space.

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).

This assessment incorporates the data and findings from:

- Botanical Survey Report For Apn:012-052-02, 20150 Black Bass Pass, Lower Lake, Lake County, CA. Prepared by Michael Weldon, Consulting Botanist. Naiad Biological Consulting. 10 pp.

  The survey results are reproduced here: "No CRPR 1 or 2 plants were encountered in the project area….No sensitive natural communities could be established during surveys due to the large amount of invasive grasses present, consistent with historic grazing….Although this report is based on a single late season survey and should not be considered seasonally comprehensive, no mitigations are recommended for any natural communities located within the project area. The cultivation sites and appurtenant roads are already existing and because of the low quality of the habitat within the project area due to historic grazing and associated invasive species, continued cultivation operations are unlikely to harm any special status plants or sensitive natural plant communities." (page 4)

- Botanical Survey Report For The Cultivation Project At 20150 Black Bass Pass, Lower Lake, California. Graening and Associates, LLC. 35 pp.

  The survey results are reproduced here: "*No special status plant species were detected during the surveys. It is unlikely that special status plant species are present within the Project Areas. Additional special status plant surveys are not deemed necessary. No sensitive natural communities will be adversely impacted by project implementation. No mitigation is necessary.*" (page 9)

3.2. FIELD SURVEY

The following field surveys were conducted:

- Dr. Geo Graening, May 21, 2025, wildlife and botanical surveys
- Previously, Michael Weldon, B.S. in Botany, Humboldt State University, on June 11, 2021, botanical survey

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. 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 (2020); CDFW (2020b,c); NatureServe 2020; and University of California at Berkeley (2020a,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, 2020c). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2020), Calflora (2020); CDFW (2020a,b,c); and University of California at Berkeley (2020a,b).

4. RESULTS

4.1. INVENTORY OF FLORA AND FAUNA FROM FIELD SURVEY

All plants detected during the field survey of the Study Area are listed in Appendix 2. The following animals were detected within the Study Area during the field survey: black-tailed deer (Odocoileus hemionus columbianus); Pacific tree frog (Pseudacris regilla); garter snake (Thamnophis sirtalis); northwestern fence lizard (*Sceloporus occidentalis occidentalis*); Botta's pocket gopher (*Thomomys bottae*); coyote (*Canis latrans*); dog (*Canis familiaris*); acorn woodpecker (*Melanerpes formicivorus*); California quail (*Callipepla californica*); common raven (*Corvus corax*), and common song birds.

4.2. VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES

4.2.1. Terrestrial Vegetation Communities

General vegetation communities occurring in the Project Area and surrounding Property boundary were mapped (see Exhibits). The following terrestrial natural communities occur in the Project Area (as categorized by CNPS 2025b):

- 11.000.00 Disturbed Habitat
    - 11.300.xx Disturbed Habitat
    - 12.000.xx Urban/Developed
- 18.000.00 Agriculture
    - 18.100.xx Orchards/Vineyards
    - 18.200.00 Intensive Agriculture
    - 18.310.xx Field/Pasture
    - 18.320.00 Row Crops

The surrounding Study Area contains:

- 37.000.00 Chaparral
- 42.000.000 Non-native Grassland
    - 42.020.03 Elymus caput-medusae
    - 42.027.00 Wild Oats and Annual Brome Grasslands
- 45.00.00 Meadows and seeps
    - 45,400.00 Freshwater seep
- 50,000.00 Bog and Marsh
    - 52.410.00 Coastal and Valley Freshwater Marsh
    - 52.440.00 Emergent Wetlands
- 71.000.00 Oak Woodlands and Forests

71.020.00 Blue oak woodland and forest

4.2.2. Critical Habitat and Special-status Habitat

Critical habitat for 1 federally-listed species occurs within the Project Area and the surrounding Study Area: Slender Orcutt Grass (*Orcuttia tenuis*). The CNDDB reported no special-status habitats within the Project Area, but the CNDDB did report the following special-status habitats within the surrounding Study Area: Northern Basalt Flow Vernal Pool. The Project Area does not contain any special-status habitats. However, the surrounding Study Area contains the following special-status habitats: Coastal and Valley Freshwater Marsh: and Northern Basalt Flow Vernal Pool.

4.2.3. 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 or near the Study Area although the open space within the Study Area allows for animal movement. No fishery resources exist in or near the Study Area. The Study Area 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 Study Area and vicinity was compiled based upon the following:

- Any previous and readily-available biological resource studies pertaining to the Study Area;
- 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.

The CNDDB was queried and any reported occurrences of special-status species were plotted in relation to the Study Area boundary using GIS software (see exhibits). The CNDDB reported no special-status species occurrences within the Project Area or the surrounding Property. Nearby, however, there are records for *Gratiola heterosepala, Orcuttia tenuis, Legenere limosa,* and *Navarretia leucocephala* ssp. *plieantha* (in vernal pools associated with Stienhart Lakes). Within a 10-mile buffer of the Property boundary, the CNDDB reported various special-status species occurrences, summarized in the table in the Appendix.

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 Study Area provides suitable habitat. The following listed species should be considered in the impact assessment:

- Northern Spotted Owl (*Strix occidentalis caurina*) Threatened
- Northwestern Pond Turtle (Actinemys marmorata) Proposed Threatened
- Monarch Butterfly (Danaus plexippus) Proposed Threatened
- Conservancy Fairy Shrimp (Branchinecta conservatio) Endangered
- Burke's Goldfields (*Lasthenia burkei*) Endangered
- Lake County Stonecrop (*Parvisedum leiocarpum)* Endangered
- Many-flowered Navarretia (*Navarretia leucocephala ssp. plieantha)* Endangered

- Slender Orcutt Grass (*Orcuttia tenuis*) Threatened

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 special-status species were detected within the Project Area or the surrounding Study Area.

4.3.3. Potential for Listed Species or Special-status Species to Occur in the Study Area

Project implementation will impact only ruderal/agricultural/developed habitats which have a very low potential for harboring special-status species due to the dominance of aggressive non-native grasses and forbs and disturbance regime from weed management.

Special-status plant species are highly likely to occur in the ponds, wetlands, and vernal pools in the Study Area. Special-status animals may also occur in these aquatic habitats, such as yellow-legged frog and western pond turtle.

4.4. POTENTIALLY-JURISDICTIONAL WATER RESOURCES

The USFWS National Wetland Inventory reported no water features within the Project Area, but several were reported in the adjacent Study Area (see Exhibits): Freshwater Emergent Wetland and riverine (which refer to the Stienhart lakes and tributary channels.

A preliminary assessment for the presence of potentially-jurisdictional water resources within the Study Area was also conducted during the field survey. The field survey determined that the Project Area does not contain any channels or wetlands. The following water features were detected within the larger Study Area during the field survey (see Exhibits):

- ponds
- emergent wetlands
- vernal pools
- ephemeral channels.

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?*

Project implementation will impact only ruderal/agricultural/developed habitats which have a very low potential for harboring special-status species due to the dominance of aggressive non-native grasses and forbs and disturbance regime from weed management. No special status plant species were detected during the two botanical surveys. It is unlikely that special status plant species are present within the Project Areas. Additional special status plant surveys are not deemed necessary.

Critical habitat for 1 federally-listed species occurs within the Project Area and the surrounding Study Area: Slender Orcutt Grass (*Orcuttia tenuis*). Slender Orcutt Grass is restricted to in vernal pool habitats, primarily those found on Northern Volcanic Ashflow and Northern Volcanic Mudflow soils (USFWS 2025). These pools typically fill with water during the winter and gradually dry out in the spring and summer. The plant is adapted to the unique conditions of these pools, requiring periods of inundation followed by drying. There are no vernal pools in the Project Area. There are vernal pools in the surrounding Study Area. Indirect effects (aquatic resource degradation) from project implementation is discussed in Section 5.2.3). The cultivation areas were designed with a 150-foot setback from all sensitive habitats, including vernal pools. The proposed project will have no effect on Slender Orcutt Grass. Nevertheless, USFWS should be given a courtesy notification about the project because development is proposed within lands designated broadly as critical habitat.

Special-status animals may also occur in these aquatic habitats (ephemeral channels, ponds, wetlands, and vernal pools), such as yellow-legged frog and western pond turtle. During the field survey, no listed species or special-status species were observed within the Project Area. State and federal databases do not report any listed species or special-status species. No direct impacts to known populations of listed species or special-status species are expected from implementation of the proposed project. However, special-status species could migrate into Project Areas between the time that the field survey was completed and the start of construction. This is a potentially significant impact before mitigation

Special-status bird species were reported in databases (CNDDB and USFWS) in the vicinity of the Project Area. The Project Area, 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

Because special-status species that occur in the vicinity could migrate onto the Project Area between the time that the field survey was completed and the start of construction, a pre-construction survey for special-status species should be performed by a qualified biologist to ensure that special-status species are not present. The focal species are yellow-legged frog and western pond turtle. If any listed species are detected, construction should be delayed, the appropriate wildlife agency (CDFW and/or USFWS) should be consulted, avoidance measures implemented, and project impacts and mitigation reassessed.

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?*

Project implementation will impact only ruderal/agricultural/developed habitats. No sensitive natural communities will be directly impacted by project implementation. The cultivation areas were designed with a 150-foot setback from all sensitive habitats. Indirect effects (aquatic resource degradation) from project implementation is discussed in Section 5.2.3).

The Project Area and surrounding Study Area are not within any designated listed species' critical habitat. The Project Area does not contain special-status habitats. The Study Area contains special-status habitats: wetlands and channels. However, the cultivation areas have been designed with setbacks from water resources of at least 100 feet. Project implementation will not impact any special-status habitats because of setbacks designed into the project.

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 Area. 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 cultivation areas have been designed with setbacks of least 150 feet away from all water resources. Because of these avoidance measures, no direct impacts to water resources will occur.

Potential indirect impacts to water resources could occur during construction by increased erosion and sedimentation in receiving water bodies due to soil disturbance. If the total area of ground disturbance from installation of the cultivation operation is 1 acre or more, the Cultivator must enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). Implementation of a stormwater pollution prevention plan, and erosion control plan, along with regular inspections, will ensure that construction activities do not pollute receiving waterbodies.

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 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.

Recommended Mitigation Measures

No impacts were identified, and therefore no mitigation measures are proposed.

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 or near the Study Area, the open space and the stream corridors in the Study Area facilitate animal movement and migrations. While the Study Area 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 Study Area 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 will not require the removal of trees protected by Lake County or CALFIRE. 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 Study Area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Recommended Mitigation Measures

No impacts were identified, and therefore no mitigation measures are proposed.

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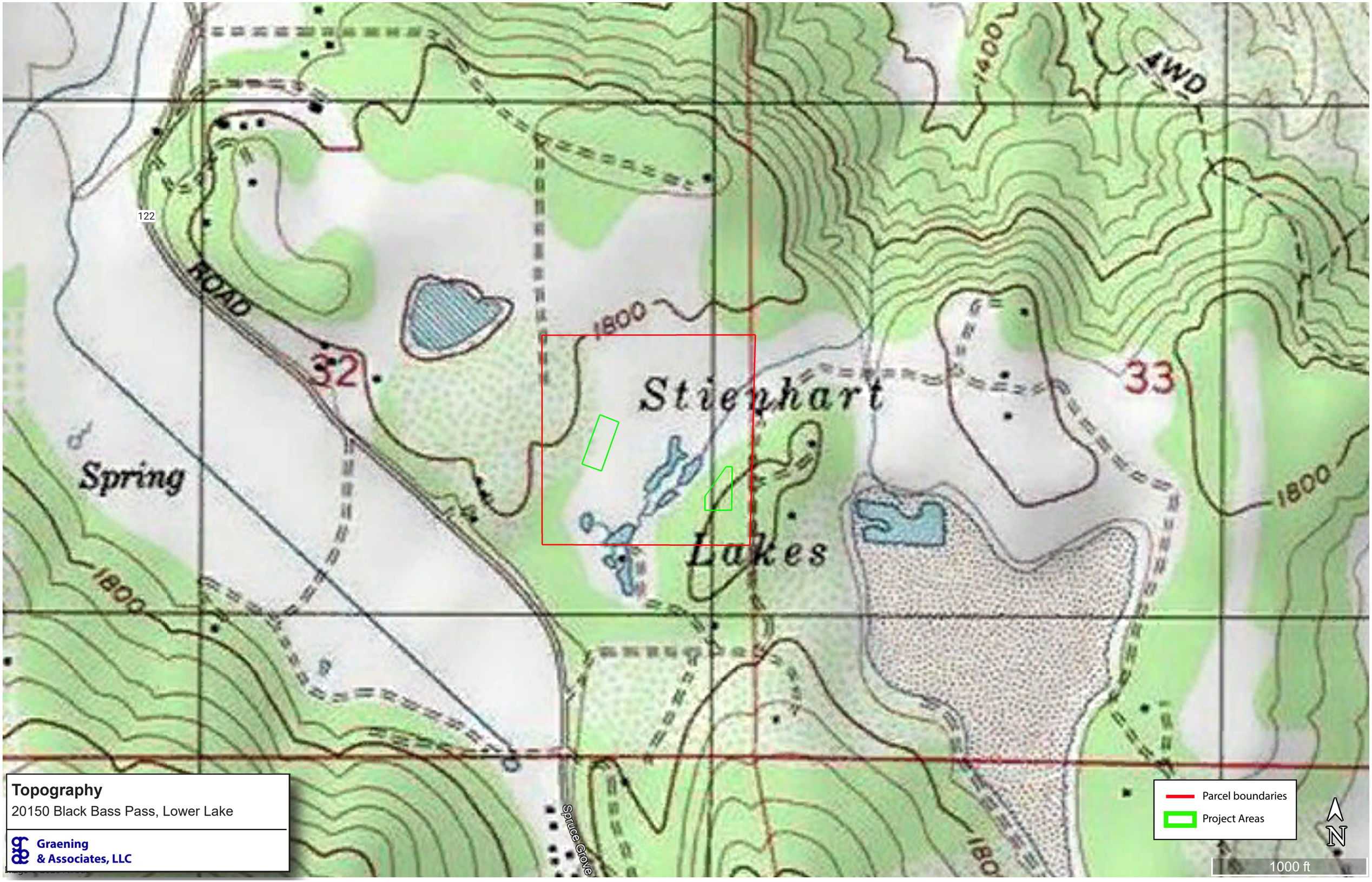
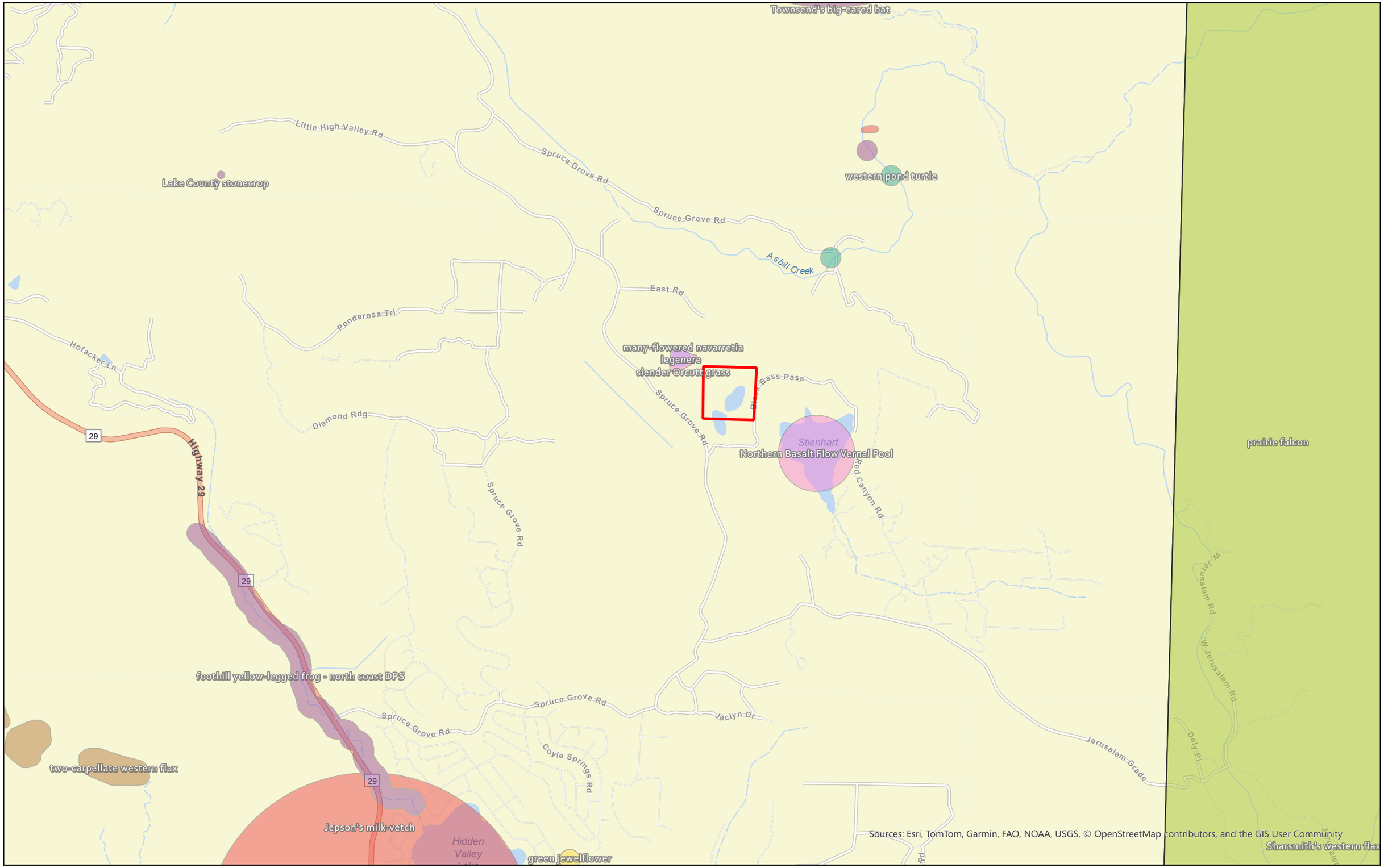
EXHIBITS

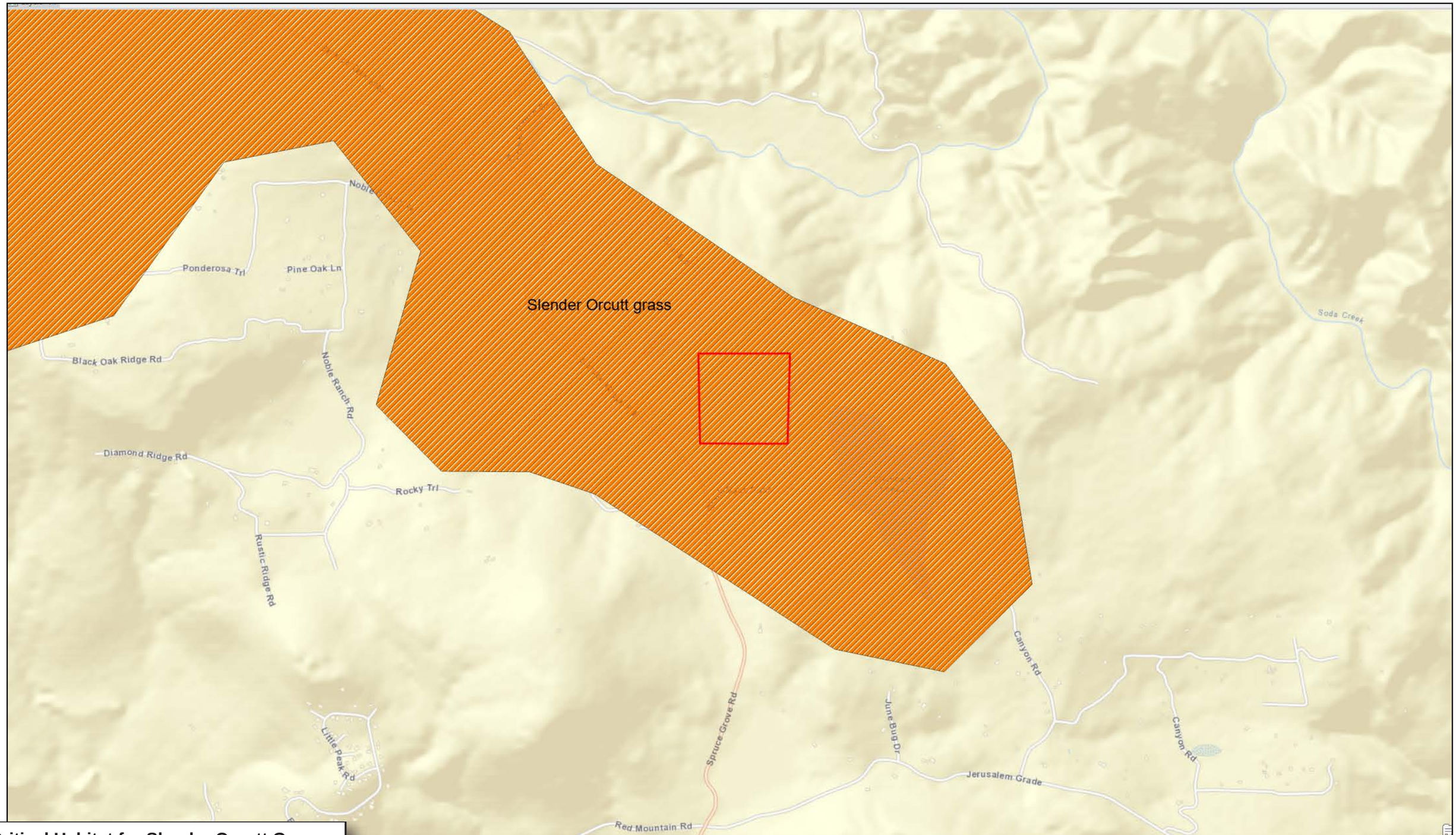


Topography

20150 Black Bass Pass, Lower Lake

Graening & Associates, LLC


Townsend's big-eared bat
Little High Valley Rd
Lake County stonecrop
Spruce Grove Rd
western pond turtle
Asbill Creek
East Rd
Ponderosa Trl
Hofacker Ln
many-flowered navarretia
legenere
slender Orcutt grass
Bass Pass
Diamond Rdg
29
Highway 29
Stienhart
Northern Basalt Flow Vernal Pool
Red Canyon Rd
prairie falcon
foothill yellow-legged frog - north coast DPS
Jaclyn Dr
Coyle Springs Rd
Jerusalem Grade
W Jerusalem Rd
Daly Pl
two-carpellate western flax
Jepson's milk-vetch
Hidden Valley
green jewelflower
Sharsmith's western flax
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

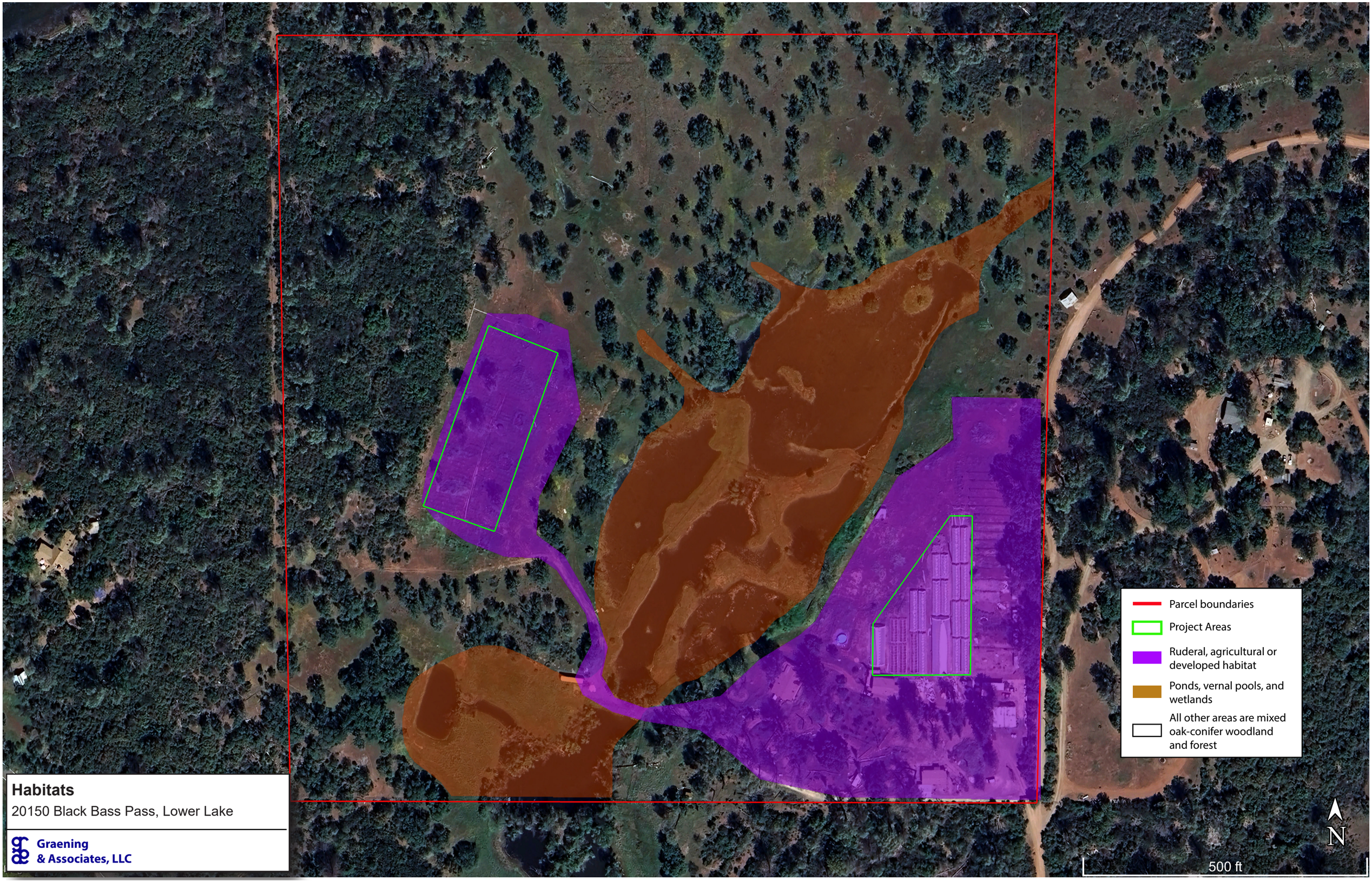


Critical Habitat for Slender Orcutt Grass

20150 Black Bass Pass, Lower Lake

Graening
& Associates, LLC

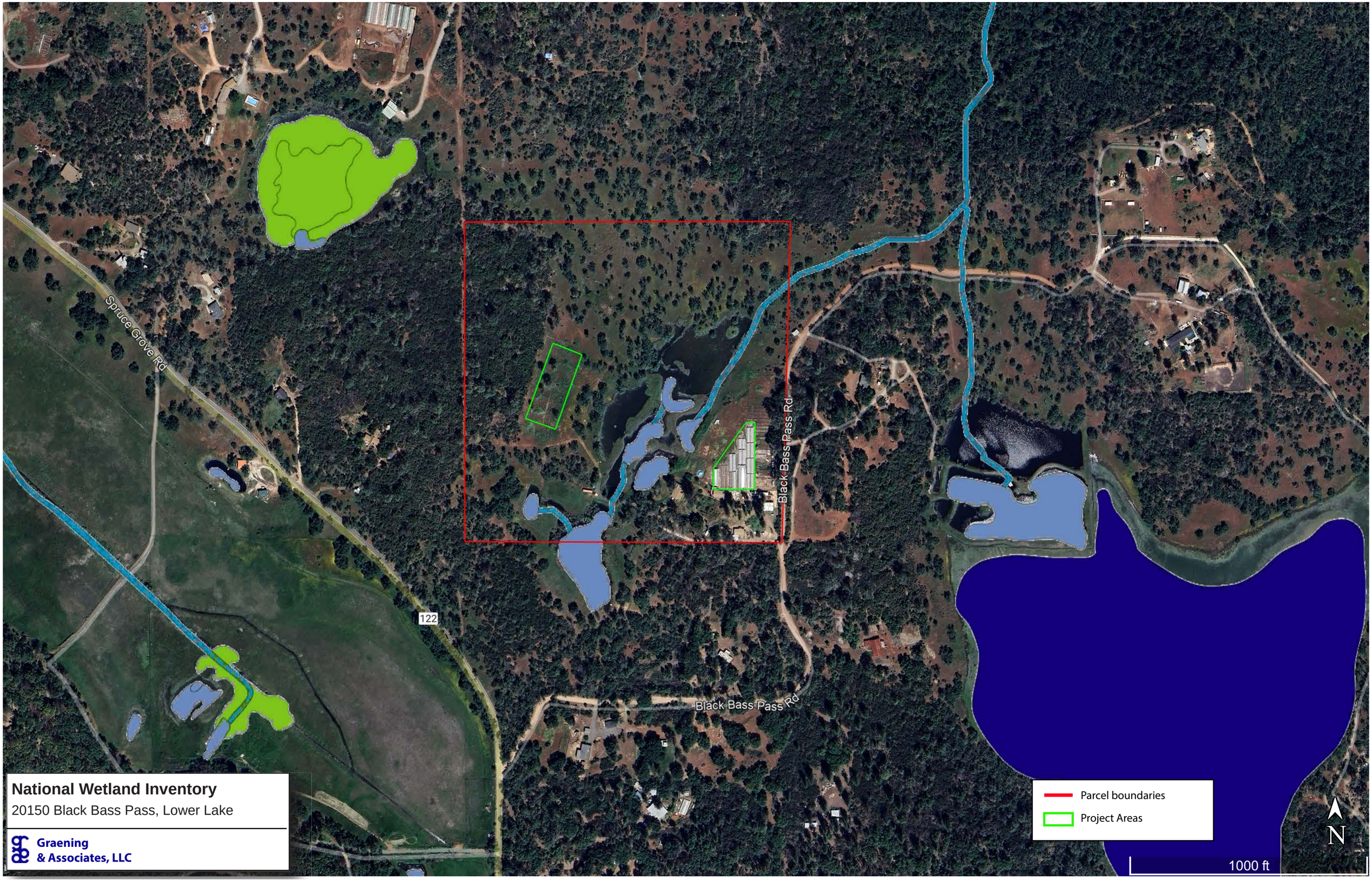
Parcel boundaries



Habitats

20150 Black Bass Pass, Lower Lake

Graening & Associates, LLC



National Wetland Inventory

20150 Black Bass Pass, Lower Lake

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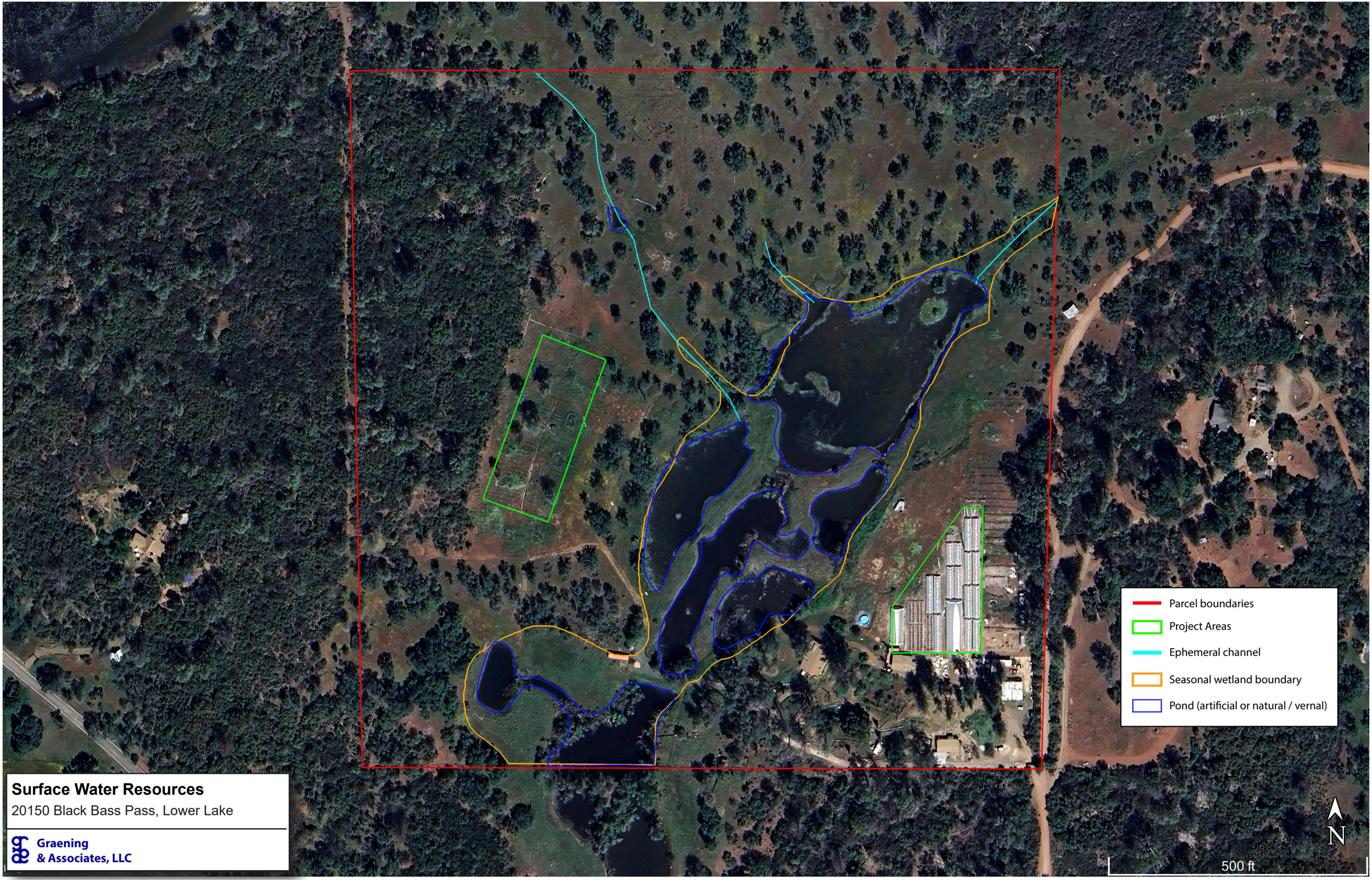
& Associates, LLC



Surface Water Resources

20150 Black Bass Pass, Lower Lake

Graening & Associates, LLC

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: 05/22/2025 18:15:58 UTC
Project Code: 2025-0100582
Project Name: cultivation project on Black Bass Pass

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: 2025-0100582
Project Name: cultivation project on Black Bass Pass
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/@38.8437547,-122.54162628316567,14z

Counties: Lake County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 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* 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	Threatened

REPTILES

NAME	STATUS
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered

FLOWERING PLANTS

NAME	STATUS
Burke's Goldfields *Lasthenia burkei* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338	Endangered
Lake County Stonecrop *Parvisedum leiocarpum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2263	Endangered
Many-flowered Navarretia *Navarretia leucocephala ssp. plieantha* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2491	Endangered
Slender Orcutt Grass *Orcuttia tenuis* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1063	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Slender Orcutt Grass *Orcuttia tenuis* https://ecos.fws.gov/ecp/species/1063#crithab	Final

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 IN THE PROJECT AREA ONLY

Common Name	Scientific Name
blow wives	*Achyrachaena mollis*
Slim oat	*Avena barbata*
Common mustard	*Brassica rapa*
Soft brome	*Bromus hordeaceus*
Italian thistle	*Carduus pycnocephalus*
Yellow starthistle	*Centaurea solstitialis*
Bull thistle	*Cirsium vulgare*
Turkey-mullein	*Croton setiger*
Coastal heron's bill	*Erodium cicutarium*
tarweed	*Hemizonia congesta*
hawkbit	*Leontodon saxatilis*
common mallow	*Malva neglecta*
Pineapple weed	*Matricaria discoidea*
Medusahead-rye	*Taeniatherum caput-medusae*
dandelion	*Taraxacum sp.*
hedgeparsley	*Torilis africana*
rose clover	*Trifolium hirtum*
Common mullein	*Verbascum thapsus*

APPENDIX 2B: CHECKLIST OF PLANTS DETECTED IN THE SURROUNDING STUDY AREA

Common Name	Scientific Name
blow wives	*Achyrachaena mollis*
American bird’s foot trefoil	*Acmispon americanus*
Chamise	*Adenostoma fasciculatum*
Shiver grass	*Aira caryophyllea*
water plantain	*Alisma sp.*
narrowleaf oninon	*Allium amplectens*
fiddleneck	*Amsinckia sp.*
Common manzanita	*Arctostaphylos manzanita*
Wild ginger	*Asarum caudatum*
Slim oat	*Avena barbata*
coyote brush	*Baccharis pilularis*
Common mustard	*Brassica rapa*
Rattlesnake grass	*Briza maxima*
little rattlesnake grass	*Briza minor*
Harvest brodiaea	*Brodiaea elegans*
Hairy chess	*Bromus commutatus*
Ripgut brome	*Bromus diandrus*
Soft brome	*Bromus hordeaceus*
Spanish brome	*Bromus madritensis*
Cheatgrass	*Bromus tectorum*
Diogenes' lantern	*Calochortus amabilis*
yellow mariposa lily	*Calochortus luteus*
chaparral false bindweed	*Calystegia occidentalis*
Italian thistle	*Carduus pycnocephalus*
buckbrush	*Ceanothus cuneatus*
blue blossom	*Ceanothus thyrsiflorus*
Deodar cedar	*Cedrus deodara*
Yellow starthistle	*Centaurea solstitialis*
branched centaury	*Centaurium pulchellum*
Birch leaf mountain mahogany	*Cercocarpus betuloides*
Soap root	*Chlorogalum pomeridianum*
Bull thistle	*Cirsium vulgare*
citrus	*Citrus spp.*
winecup clarkia	*Clarkia purpurea*
Turkey-mullein	*Croton setiger*
Italian cypress	*Cupressus sempervirens*
dodder	*Cuscuta sp.*
Dogtail grass	*Cynosurus echinatus*
Tall cyperus	*Cyperus eragrostis*
Californica damasonium	*Damasonium californicum*
Rattlesnake weed	*Daucus pusillus*
larkspur	*Delphinium sp.*
forktooth ookow	*Dichelostemma congestum*
Kellogg's monkeyflower	*Diplacus kelloggii*
Bristled downingia	*Downingia bicornuta var. bicornuta*
California lobelia	*Downingia elegans*

Common Name	Scientific Name
Common spikerush	*Eleocharis macrostachya*
spike rush	*Eleocharis palustris*
Medusa head	*Elymus caput-medusae*
willowherb	*Epilobium sp.*
fleabane	*Erigeron sp.*
yerba santa	*Eriodictyon californicum*
Coastal heron’s bill	*Erodium cicutarium*
coyote thistle	*Eryngium vaseyi*
common monkeyflower	*Erythranthe guttata*
Californica poppy	*Eschscholzia californica*
fig	*Ficus sp.*
California coffeeberry	*Frangula californica*
wall bedstraw	*Galium parisiense*
tarweed	*Hemizonia congesta*
Toyon	*Heteromeles arbutifolia*
sea barley	*Hordeum marinum*
Iris	*Iris sp.*
toad rush	*Juncus bufonius*
corkscrew rush	*Juncus effusus*
path rush	*Juncus tenuis*
goldfields	*Lasthenia californica*
winterpea	*Lathyrus hirsutus*
hawkbit	*Leontodon saxatilis*
dandelion	*Leontodon taraxacoides*
toadflax	*Linaria sp.*
Pink honeysuckle	*Lonicera hispidula*
Chaparral honeysuckle	*Lonicera interrupta*
bird's foot trefoil	*Lotus corniculatus*
Chaffweed pimpernel	*Lysimachia minima*
loosestrife	*Lythrum hyssopifolia*
common mallow	*Malva neglecta*
Pineapple weed	*Matricaria discoidea*
Pennyroyal	*Mentha pulegium*
Interwoven navarretia	*Navarretia intertexta*
white flower pincushion	*Navarretia leucocephala*
Olive	*Olea europaea*
woodsorrel	*Oxalis sp.*
Yellow flame	*Peltophorum sp.*
Harding grass	*Phalaris aquatica*
Ponderosa pine	*Pinus ponderosa*
Grey pine	*Pinus sabiniana*
Ribwort	*Plantago lanceolata*
Douglas’ mesamint	*Pogogyne douglasii*
Annual beard grass	*Polypogon monspeliensis*
pondweed	*Potamogeton sp.*
various stonefruits	*Prunus spp.*

Common Name	Scientific Name
dwarf woolyheads	*Psilocarphus brevissimus*
Blue oak	*Quercus douglasii*
Leather oak	*Quercus durata*
Black oak	*Quercus kelloggii*
Interior live oak	*Quercus wislizeni*
buttercup	*Ranunculus sp.*
Himalaya blackberry	*Rubus armeniacus*
California blackberry	*Rubus ursinus*
Curly dock	*Rumex crispus*
Humboldt's willow	*Salix humboldtiana*
Pacific willow	*Salix lasiandra*
rosemary	*Salvia rosmarinus*
Elderberry	*Sambucus nigra*
waxy checkerbloom	*Sidalcea glaucescens*
bluewitch nightshade	*Solanum umbelliferum*
California hedgenettle	*Stachys bullata*
Medusahead-rye	*Taeniatherum caput-medusae*
dandelion	*Taraxacum sp.*
Old Man's Beard	*Tillandsia sp.*
hedgeparsley	*Torilis africana*
Poison oak	*Toxicodendron diversilobum*
rose clover	*Trifolium hirtum*
fool's onion	*Triteleia hyacinthina*
Broadleaf cattail	*Typha latifolia*
Pepperwood	*Umbellularia californica*
California valerian	*Valeriana californica*
wooly mullein	*Verbascum phlomoides*
Common mullein	*Verbascum thapsus*
speedwell	*Veronica sp.*
Spring vetch	*Vicia sativa*
hairy vetch	*Vicia villosa*
grape	*Vitis vinifera*
Muehlenberg’s centaury	*Zeltnera muehlenbergii*

APPENDIX 3: SPECIES OCCURRENCE TABLE

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

Scientific Name	Common Name	Status*	General Habitat**	Microhabitat**
Amsinckia lunaris	bent-flowered fiddleneck	1B.2	CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.	50-500M.
Antrozous pallidus	pallid bat	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.
Aquila chrysaetos	golden eagle	CSSC	ROLLING FOOTHILLS, MOUNTAIN AREAS, SAGE-JUNIPER FLATS, & DESERT.	CLIFF-WALLED CANYONS PROVIDE NESTING HABITAT IN MOST PARTS OF RANGE; ALSO, LARGE TREES IN OPEN AREAS.
Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	1B.2	CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND, CHAPARRAL.	COMMONLY ON SERPENTINE IN GRASSLAND OR OPENINGS IN CHAPARRAL. 320-700M.
Balsamorhiza macrolepis	big-scale balsamroot	1B.2	VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND.	SOMETIMES ON SERPENTINE. 35-1000M.
Bombus pensylvanicus	American bumble bee	CSSC	GRASSLANDS	
Castilleja rubicundula var. rubicundula	pink creamsacs	1B.2	CHAPARRAL, MEADOWS AND SEEPS, VALLEY AND FOOTHILL GRASSLAND.	OPENINGS IN CHAPARRAL OR GRASSLANDS. ON SERPENTINE. 20-900M.
Centromadia parryi ssp. parryi	pappose tarplant	1B.2	COASTAL PRAIRIE, MEADOWS AND SEEPS, COASTAL SALT MARSH, VALLEY AND FOOTHILL GRASSLAND.	VERNALLY MESIC, OFTEN ALKALINE SITES. 2-420M.
Corynorhinus townsendii	Townsend's big-eared bat	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.
Emys marmorata	western pond turtle	FP	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
Erigeron greenei	Greene's narrow-leaved daisy	1B.2	CHAPARRAL.	SERPENTINE AND VOLCANIC SUBSTRATES, GENERALLY IN SHRUBBY VEGETATION. 75-1060M.
Eriogonum nervulosum	Snow Mountain buckwheat	1B.2	CHAPARRAL.	DRY SERPENTINE OUTCROPS, BALDS, AND BARRENS. 300-2100M.
Falco mexicanus	prairie falcon	CSSC	INHABITS DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY.	BREEDING SITES LOCATED ON CLIFFS. FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES.
Fritillaria pluriflora	adobe-lily	1B.2	CHAPARRAL, CISMONTANE WOODLAND, FOOTHILL GRASSLAND.	USUALLY ON CLAY SOILS; SOMETIMES SERPENTINE. 55-820M.
Gratiola heterosepala	Boggs Lake hedge-hyssop	CE	MARSHES AND SWAMPS (FRESHWATER), VERNAL POOLS.	CLAY SOILS; USUALLY IN VERNAL POOLS, SOMETIMES ON LAKE MARGINS. 5-2400M.
Grimmia torenii	Toren's grimmia	1B.3	preference for metavolcanic pillow basalts and some Franciscan Formation sandstones is so strict that G. torenii has not been found on other, more widespread, seemingly similar rock types where other Grimmia species thrive.	
Haliaeetus leucocephalus	bald eagle	CE	OCEAN SHORE, LAKE MARGINS, & RIVERS FOR BOTH NESTING & WINTERING. MOST NESTS WITHIN 1 MI OF WATER.	NESTS IN LARGE, OLD-GROWTH, OR DOMINANT LIVE TREE W/OPEN BRANCHES, ESPECIALLY PONDEROSA PINE. ROOSTS COMMUNALLY IN WINTE
Harmonia hallii	Hall's harmonia	1B.2	CHAPARRAL.	SERPENTINE HILLS AND RIDGES. OPEN, ROCKY AREAS WITHIN CHAPARRAL. 500-900M.
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	1B.2	GRASSLANDS	
Hesperolinon bicarpellatum	two-carpellate western flax	1B.2	SERPENTINE CHAPARRAL.	SERPENTINE BARRENS AT EDGE OF CHAPARRAL. 150-820M.
Hesperolinon didymocarpum	Lake County western flax	CE	CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.	SERPENTINE SOIL IN OPEN GRASSLAND AND NEAR CHAPARRAL. 330-365M.
Hesperolinon drymarioides	drymaria-like western flax	1B.2	CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.	SERPENTINE SOILS, MOSTLY WITHIN CHAPARRAL. 390-1000M.
Hesperolinon sharsmithiae	Sharsmith's western flax	1B.2	CHAPARRAL.	SERPENTINE SUBSTRATES. 270-300 M.
Lasionycteris noctivagans	silver-haired bat	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.
Lasiurus cinereus	hoary bat	CSSC	VARIOUS FOREST HABITATS	
Lasthenia burkei	Burke's goldfields	FE, CE	VERNAL POOLS, MEADOWS AND SEEPS.	MOST OFTEN IN VERNAL POOLS AND SWALES. 15-600 M.
Lavinia exilicauda chi	Clear Lake hitch	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.
Layia septentrionalis	Colusa layia	1B.2	CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.	SCATTERED COLONIES IN FIELDS AND GRASSY SLOPES IN SANDY OR SERPENTINE SOIL. 145-1095M.

Legenere limosa	legenere	1B.1	VERNAL POOLS. MANY HISTORICAL OCCURRENCES ARE EXTIRPATED.	IN BEDS OF VERNAL POOLS. 1-880M.
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	CHAPARRAL, CISMONTANE WOODLAND.	OPEN TO PARTIALLY SHADED GRASSY SLOPES. ON VOLCANICS OR THE PERIPHERY OF SERPENTINE SUBSTRATES. 100-500M.
Navarretia leucocephala ssp. bakeri	Baker's navarretia	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. 5-950M.
Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	FE, CT	VERNAL POOLS.	VOLCANIC ASH FLOW, AND VOLC SUBSTRATE VERNAL POOLS. 400-855 M.
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	FE, CE	VERNAL POOLS.	VOLCANIC ASH FLOW VERNAL POOLS. 30-950 M.
Navarretia paradoxinota	Porter's navarretia	1B.3	VERNAL POOLS.	
Orcuttia tenuis	slender Orcutt grass	FT, CE	VERNAL POOLS.	OFTEN IN GRAVELLY POOLS. 35-1760 M.
Potamogeton zosteriformis	eel-grass pondweed	2B.2	MARSHES AND SWAMPS.	PONDS, LAKES, STREAMS. 0-1860M.
Rana boylii pop. 1	foothill yellow-legged frog - north coast DPS	CSSC	PERMANENT AQUATIC HABITATS	
Saldula usingeri	Wilbur Springs shorebug	CSSC	REQUIRES SPRINGS/CREEKS WITH HIGH CONCENTRATIONS OF NA, CL, & LI.	FOUND ONLY ON WET SUBSTRATE OF SPRING OUTFLOWS.
Sedella leiocarpa	Lake County stonecrop	FE, CE	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.
Sidalcea keckii	Keck's checkerbloom	FE	CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND	GRASSY SLOPES IN BLUE OAK WOODLAND. 75-650 M.
Streptanthus brachiatus ssp. hoffmanii	Freed's jewelflower	1B.2	CHAPARRAL, CISMONTANE WOODLAND.	SERPENTINE ROCK OUTCROPS, PRIMARILY IN GEOTHERMAL DEVELOPMENT AREAS. 490-1220 M.
Streptanthus hesperidis	green jewelflower	1B.2	CHAPARRAL, CISMONTANE WOODLAND.	OPENINGS IN CHAPARRAL OR WOODLAND; SERPENTINE, ROCKY SITES. 130-760M.
Streptanthus morrisonii ssp. kruckebergii	Kruckeberg's jewelflower	1B.2	CISMONTANE WOODLAND.	SCATTERED SERPENTINE OUTCROPS NEAR THE LAKE/NAPA COUNTY LINE. 215-1035 M.
Taricha rivularis	red-bellied newt		STREAMS AND OTHER MOIST ENVIRONMENTS	
Trifolium hydrophilum	saline clover	1B.2	MARSHES AND SWAMPS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.	MESIC, ALKALINE SITES. 0-300M.

*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. CRPR Threat Ranks: 0.1 = seriously threatened in California; 0.2 = moderately threatened in California; 0.13 = not very threatened in California .

**Copied verbatim from CNDDB, unless otherwise noted.

APPENDIX 4: SITE PHOTOS

Biological Resources Assessment
20150 Black Bass Road
Lower Lake, Lake County, California

Prepared For:

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JANUARY 16, 2020

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This assessment is based on information available at the time of the study and on-site conditions that were observed on the date of the site visit referenced in the report. In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of the biologist with experience working with the species and habitats. For some threatened and endangered species, a site survey at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies.

EXECUTIVE SUMMARY

This report presents the results of a biological resources assessment conducted for property located at 20150 Black Bass Road in Lower Lake, Lake County, California. The property is located on Assessor Parcels APN 012-052-02 approximately 2.3 miles northeast of Hidden Valley Lake and is located on Sections 32 and 33 of the Middletown U.S.G.S. topographic map.

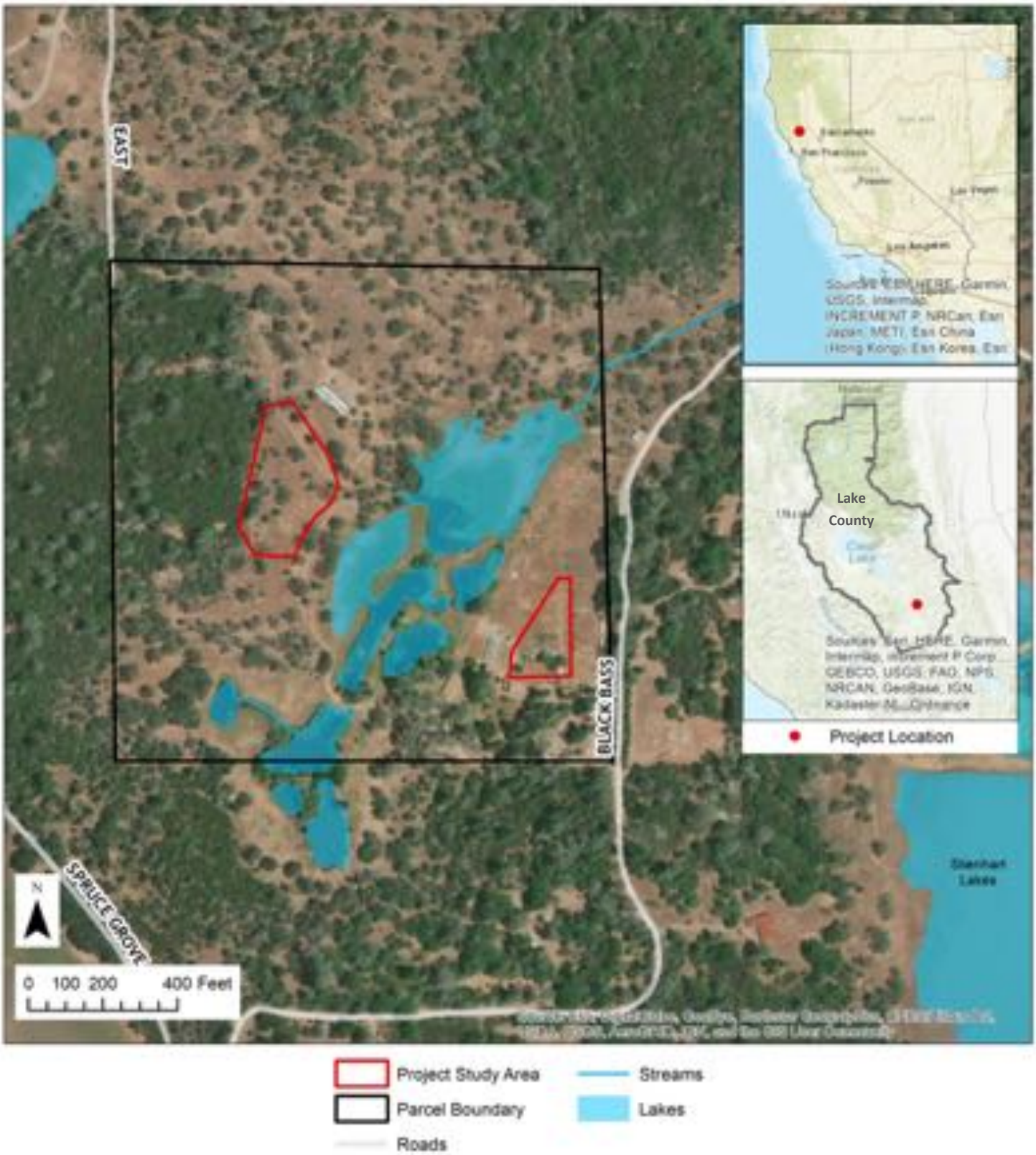
The purpose of the assessment is to identify special-status plant and wildlife species and sensitive habitats (including wetlands) that have the potential to occur on or in the vicinity of the study area to determine if the existing and proposed commercial cannabis operations at the site could potentially affect these resources. Based on information and data collected for the analysis, appropriate mitigation measures designed to minimize and/or avoid potential biological resource impacts are provided.

The property is accessed via a private drive from Black Bass Pass Road to a single-family residence. There are various outbuildings on the project site most of which are in disrepair. The cannabis project will include a 29,000 square foot mixed-light cultivation and a 70,000 square foot outdoor cultivation. The outdoor grow area is accessed via an existing dirt road that is located west of the residence pass an existing pond. The indoor cultivation will occur north of the residence in an already disturbed area.

No areas potentially subject to U.S. Army Corps of Engineers jurisdiction were identified within the limits of proposed grow areas as described in Section 2.0. The project site provides potential habitat for nesting birds, special-status bats, and potentially western pond turtle as described in Section 3.0. There is the potential for special-status plants to occur within the 70,000 square foot outdoor cultivation area as described in Section 3.0.

There is no critical habitat for plants or animals within the Study Area.

Figure 1: Location of Project Area
20150 Black Bass Road, Lower Lake, CA



Date: 1-14-2020
Data: Sol Ecology Inc., Lake Co.
Base: ESRI
GIS: AJG

SOL ECOLOGY
solecology.com

0 40 80 160

SCALE 1" = 80'

NOTES:

- PROPERTY LINES AND TOPOGRAPHIC INFORMATION IS APPROXIMATE AND WAS OBTAINED FROM PUBLICLY AVAILABLE INFORMATION.
- FOR ADJACENT PARCEL BOUNDARIES SEE APN MAP.
- AERIAL IMAGE IS USED AS REFERENCE AND MAY NOT DEPICT CURRENT PROPERTY DEVELOPMENT.

NOT FOR CONSTRUCTION

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Job: 1678-19 November 25, 2019

20150 BLACK BASS ROAD
CULTIVATION SITE EXHIBIT

ALEX YUSUPOV
3072 VICHY AVENUE, NAPA, CA 94558
APN 012-052-02

11/29/2019 12:02 PM Plotted by Kyle Gedrich Clients\1678-19 Alex Yusupov - 20150 Black Bass Pass Road, Lower Lake\CAD\Civil\Exhibits\1678-19 Site Plan Exhibit.dwg

1.0 INTRODUCTION

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The property is accessed via a private drive from Black Bass Pass Road to a single-family residence. There are various outbuildings on the project site most of which are in disrepair. The cannabis project will include a 29,000 square foot mixed-light cultivation and a 70,000 square foot outdoor cultivation. The outdoor grow area is accessed via an existing dirt road that located west of the residence and passes an existing pond. The indoor cultivation will occur north of the residence in an already disturbed area.

The results of the assessment follow.

2.0 WETLANDS ASSESSMENT

2.1 Corps of Engineers Jurisdictional Criteria Review

Unless exempt from regulation, all proposed discharges of dredged or fill material into waters of the United States require U.S. Army Corps of Engineers (Corps) authorization under Section 404 of the Clean Water Act (33 U.S.C. 1344) and Clean Water Act Section 401 authorization from the Regional Water Quality Control Board (RWQCB). Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), wetlands (excluding isolated wetlands for the Corps), and farmed wetlands.

The Corps identifies wetlands using a "multi-parameter approach" which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. The *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West*, which was released in early 2007 and revised in 2008 (version 2.0), is utilized when conducting jurisdictional wetland determinations in areas identified within the boundaries of the Arid West (U.S. Army Corps of Engineers, 2008).

The project site falls within the Arid West region and wetlands identified on the site were delineated using that guidance.

2.1.1 Potential Wetlands

Section 328.3 of the Federal Code of Regulations defines wetlands as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

EPA, 40 CFR 230.3 and CE, 33 CFR 328.3 (b)

The three parameters used to delineate wetlands are the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. According to the Corps Manual, for areas not considered "problem areas" or "atypical situations":

"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."

<u>Vegetation</u>

Plant species identified are assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL	Always found in wetlands	>99% frequency
FACW	Usually found in wetlands	67-99%
FAC	Equal in wetland or non-wetlands	34-66%
FACU	Usually found in non-wetlands	1-33%
UPL/NL	Upland/Not listed (upland)	<1%

The Corps Manual and Supplements require that a three-step process be conducted to determine if hydrophytic vegetation is present. The first step is the Dominance Test (Indicator 1); the second is the Prevalence Index (Indicator 2); the third is Morphological Adaptations (Indicator 3). The Dominance Test requires the delineator to apply the "50/20 rule". The dominant species are chosen independently from each stratum of the community. In general, dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are defined as the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total cover. If greater than 50 percent of

the dominant species has an OBL, FACW, or FAC status, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails the 50/20 rule and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1, but hydric soils and wetland hydrology are both present, the delineator must apply the Indicator 2, Prevalence Index. The Indicator 3, Morphological Adaptations, is rarely used in this region.

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation or oxidized root channels, or secondary indicators such as the FAC-neutral test or the presence of a shallow aquitard. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." Federal Register July 13, 1994, U.S. Department of Agriculture, NRCS

Soils formed over long periods under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. The supplement provides a list of the hydric soil indicators that are known to occur in region. Soil samples were collected and described according to the methods provided in the supplements. Soil chroma and values were determined using a Munsell soil color chart (Kollmorgen 1975). If any of the soil samples met one or more of the hydric soil indicators described in the supplement hydric soils were determined to be present.

2.1.2 Waters of the U.S. (Other Waters)

"Other waters" or "Waters of the United States" (WUS) other than wetlands are also potentially subject to Corps jurisdiction. WUS subject to Corps jurisdiction include ponds, lakes, rivers, streams (including ephemeral and intermittent streams), and all areas below the High Tide Line (HTL) subject to tidal influence. Jurisdiction in non-tidal areas extends to the ordinary high water mark (OHWM) defined as:

"*...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*"

Federal Register Vol. 51, No. 219, Part 328.3 (e). November 13, 1986

2.2 Central Valley Regional Water Quality Control Board

The Regional Water Quality Control Board regulates waters of the State pursuant to Sections 13260(a)(1) and 13050(e) of the State Water Code, and the Porter Cologne Act. In addition, anyone proposing to conduct a project that requires a federal permit or involves dredge or fill activities that may result in a discharge to U.S. surface waters and/or "Waters of the State" are required to obtain a Clean Water Act (CWA) Section 401 Water Quality Certification and/or Waste Discharge Requirements (Dredge/Fill Projects) from the Regional Water Quality Control Board, verifying that the project activities will comply with state water quality standards. The most common federal permit for dredge and fill activities is a CWA Section 404 permit issued by the Corps of Engineers (North Coast Regional Water Quality Control Board, 2007). In general, the RWQCB employs similar wetland delineation techniques for identifying wetland areas potentially subject to its regulation.

Section 401 of the CWA grants each state the right to ensure that the State's interests are protected on any federally permitted activity occurring in or adjacent to Waters of the State. In California, the Regional Water Quality Control Boards (Regional Board) are the agency mandated to ensure protection of the State's waters. So if a proposed project requires a U.S. Army Corps of Engineers CWA Section 404 permit, falls under other federal jurisdiction, and has the potential to impact Waters of the State, the Regional Water Quality Control Board will regulate the project and associated activities through a Water Quality Certification determination (Section 401) (North Coast Regional Water Quality Control Board, 2007).

However, if a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a fill discharge to "Waters of the State", the Regional Board has the option to regulate the project under it's state authority (Porter-Cologne) in the form of Waste Discharge Requirements or Waiver of Waste Discharge

Requirements (North Coast Regional Water Quality Control Board, 2007). Waters of the State include isolated wetlands, which are not regulated by the Corps.

2.3 California Department of Fish and Wildlife

Activities that result in the substantial modification of the bed, bank or channel of a stream or lake may require a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600-1607 of the California Fish and Game Code. On streams, creeks and rivers, the extent of CDFW jurisdiction extends from the top of bank to top of bank or the outer limits of the riparian canopy, whichever is wider.

2.4 Background review

Prior to conducting the on-site wetlands assessment within the study area, various background materials relating to the site were reviewed. These include aerials from Google earth and the Middletown U.S.G.S. 7.5-minute quadrangle. A large pond shown as Steinhart Lakes on Google earth was identified essentially mid-way between the two cultivation areas. Four other smaller ponds associated with Steinhart Lake were also identified (see Site Plan). In addition, a drainage located to the northwest of Steinhart Lake was identified. This drainage drains into Steinhart Lake. These areas are shown on the site plans prepared by BC Engineering.

Additionally, the Soil Survey of Lake County (web Soil Survey) was reviewed to determine if any of the soils on the project site are mapped as hydric soils. The presence of a hydric soil-mapping unit on a project site suggests the presence of potential wetland habitats and therefore is another tool used in potential wetland identification. Soils on the cannabis sites are mapped as Konocti Hambright complex 5 to 15 percent slopes. This soil is not listed as a hydric soil on the National Hydric Soils List.

2.5 Wetland Assessment and Results

On December 19, 2019 a wetland delineation was conducted on the two proposed cultivation sites. The parcels were walked to identify potential wetlands based on visual observation; if a potential wetland feature was identified (primarily by presence of hydrophytic vegetation or soil saturation or ponding or evidence of ponding such as algal matting) a data sample point was taken. No potential wetland features were identified within the cultivation sites.

The drainage northwest of Steinhart Lake is classified as a Class 3 watercourse and as such will have a 150-foot setback for all cannabis operations. The ponds associated with Steinhart Lake and Steinhart Lake are all classified as Class 1 watercourses and therefore

will have a 150-foot setback for cannabis operations as required by the State Water Resources Control Board.

Area proposed for indoor cultivation

Area proposed for outdoor cultivation

One of the ponds on the property located between the two proposed cannabis grows.
This area has a 150-foot setback as a Class 1 watercourse.

3.0 SPECIAL-STATUS SPECIES REGULATORY FRAMEWORK

Special-status plants and animals are legally protected under the State and Federal Endangered Species Acts or other regulations, and species that are considered rare by the scientific community. Special status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, and CDFW special status invertebrates are all considered special status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918. Under this legislation, destroying active nests, eggs, and young is illegal.

To obtain up-to-date conservation information U.S. Fish and Wildlife Service (USFWS) species lists were reviewed for federally listed species (including Proposed and Candidate species) and California Department of Fish and Wildlife (CDFW) species lists for State of California listed species were also reviewed. Special-status species also include those with California Rare Plant Rank (CRPR) 1A (Plants Presumed Extinct in California), CRPR 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere), or CRPR 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere), as

indicated by the CNPS *Inventory* (CNPS 2019). Impacts to these species must be reviewed under the provisions of the California Environmental Quality Act (CEQA) Guidelines.

Rare plants are defined here to include: (1) all plants that are federal- or state listed as rare, threatened, or endangered, or a candidate for listing; (2) all plants ranked by the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) as California Rare Plant Rank (CRPR) 1,2, 3, or 4. Locally rare species if present, are also included in this report.

3.1 Special-status Animals

3.1.1 Background Review

The California Department of Fish and Wildlife's Natural Diversity Database (CNDDB) was reviewed (Middletown and surrounding quadrangles) to identify special-status species potentially occurring on or in the vicinity of the project site. Species recorded as occurring within a 5-mile radius are illustrated on Figure 2.

3.1.2 Field Reconnaissance

Located in a rural part of Lake County and abutting large open spaces, the project site and environs may provide habitat for a variety of terrestrial wildlife including coyote, fox, rabbits, squirrels and skunks and a variety of avian species including downy woodpecker, Steller's jay, red-tailed hawk and turkey vulture.

On December 19, 2019 a reconnaissance level survey of the site was conducted. The focus of the survey was to identify whether suitable habitat elements for each of the special status species documented in the surrounding vicinity or in the range of the project site are present on the project site or not and whether the project would have the potential to result in impacts to any of these species and/or their habitats either on- or off-site. Habitat elements examined included the presence of: dispersal habitat, foraging habitat, refugia or estivation habitat, and breeding (or nesting) habitat.

3.1.3 Results

Five special-status wildlife species have been documented within five miles of the Project Site (Figure 2). Based on the biological communities present on the project site, the site has the potential to provide potential habitat for nesting birds and raptors and Townsend's big-eared bat (and other special-status bats). Western pond turtle could occur in the ponds associated with Steinhart Lake. The remaining species documented in the area are not likely to occur due to absence of suitable habitat within the cultivation areas.

Species that may potentially be impacted by the proposed projects are described below.

Nesting Birds

The grasslands, chaparral, and oak woodlands on and adjacent to the site provide potential nesting habitat for a variety of nesting birds and raptors. Birds and raptors are protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). Their nest, eggs, and young are also protected under California Fish and Wildlife Code (§3503, §3503.5, and §3800). In addition, raptors such as the white-tailed kite (*Elanus leucurus*) are "fully protected" under Fish and Wildlife Code (§3511). Fully protected raptors cannot be

taken or possessed (that is, kept in captivity) at any time. Nesting season for birds in California generally occurs between February 1st and August 15th.

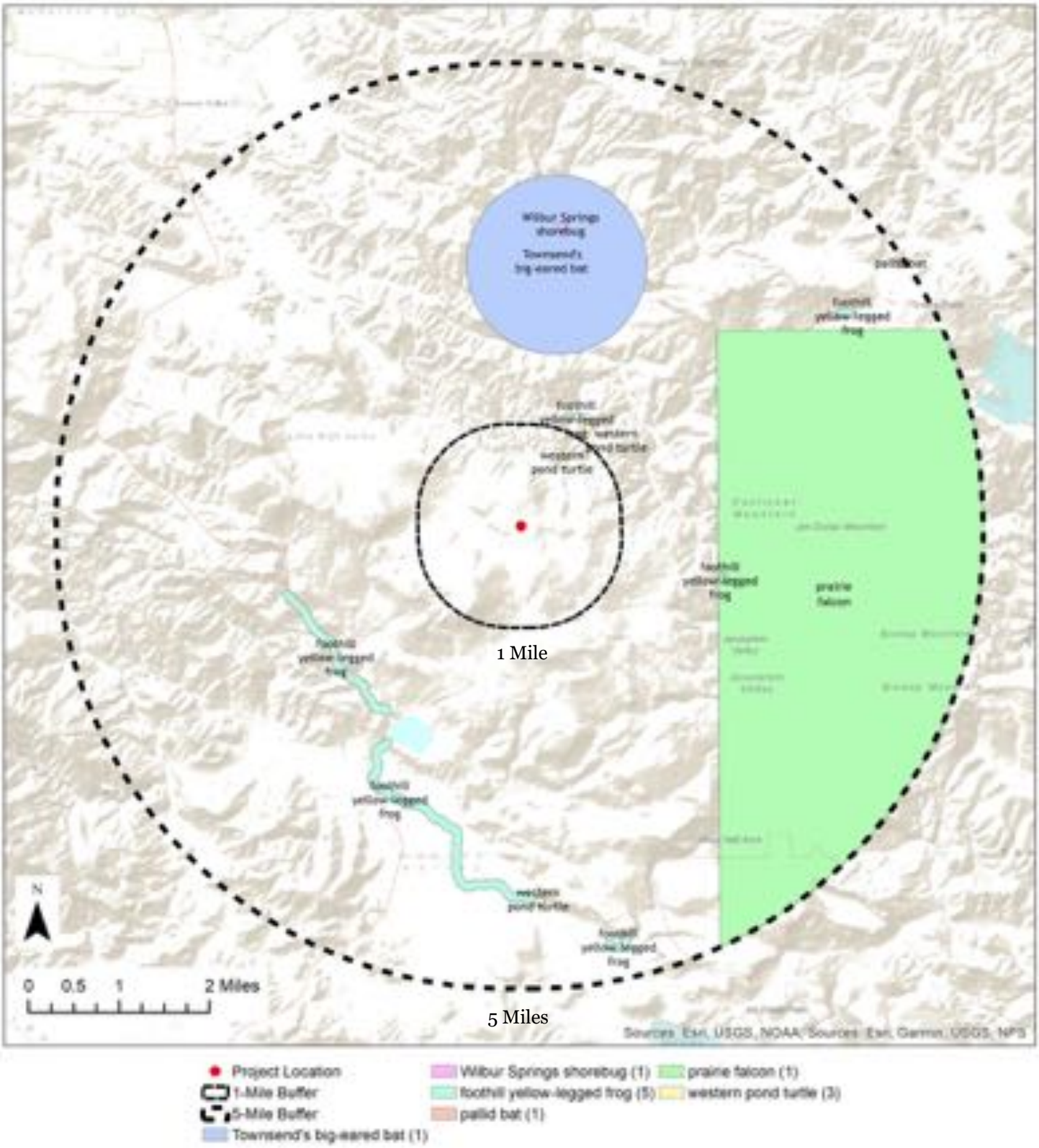
Special-status bats

The trees on and adjacent to the project site provide potential roosting habitat for various special-status bat species known to occur in the project region. These species include but are not limited to pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and long-eared myotis (*Myotis evotis*). These bat species are California Species of Special Concern and may roost in mature trees, snags, crevices, cavities, and foliage within this habitat. Maternity roosting for bats is April through September.

Western pond turtle

The Western pond turtle (*Emys marmorata)*(aka Pacific pond turtle) is the only native freshwater turtle in California. The species is considered a Species of Special Concern by the California Department of Fish and Wildlife. This turtle is uncommon to common in suitable aquatic habitat throughout California. Western pond turtle inhabits annual and perennial aquatic habitats including man-made habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks and sand. To escape periods of high water flow, high salinity, or prolonged dry conditions, Western pond turtle may move upstream and/or take refuge in vegetated, upland habitat for up to four months, though aquatic habitat is preferred (Rathbun et al. 2002). Western pond turtle nests from late April through July. This species requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 5 to 100 meters of suitable aquatic habitat (Rathbun et al. 1992). Females venture from water for several hours in the late afternoon or evening during the nesting season to excavate a nest, lay eggs, and bury the eggs to incubate and protect them. Hatchlings generally emerge in late fall but may overwinter in the nest and emerge in early spring of the following year. Western pond turtle is documented within 1 mile of the site. This species may be present in the Steinhart Lake and associated ponds.

Figure 2: Special Status Animal Species within 1 Mile and 5 Miles of the Project Site
20150 Black Bass Road, Lower Lake, CA



Date: 1-14-2020
Data: Sol Ecology Inc., Lake Co., CDFW

Base: ESRI
GIS: AJG

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stockpond located on the property. Upland areas surrounding the pond provide suitable nesting habitat.

3.1.4 Recommendations and Mitigation Measures

The following mitigation measures are recommended for minimizing potential impacts to special-status species potentially occurring on or in the vicinity of the project site. Additionally, best management practices are also provided in part as recommended by the California Department of Fish and Wildlife[1] for cannabis projects.

Nesting Birds

If project activities involve ground disturbance or tree removal during the breeding season (February 1 through August 31), a qualified biologist will conduct a breeding bird survey no more than 14 days prior to project activities to determine if any birds are nesting on the ground and in trees on and adjacent to the study area.

If active nests are found close enough to the site to affect breeding success, the biologist will establish an appropriate exclusion zone around the nest. This exclusion zone may be modified depending upon the species, nest location, and existing visual buffers. Once all young have become independent of the nest, vegetation removal and grading may take place in the former exclusion zone.

If initial work is delayed or there is a break in project activities of greater than 14 days within the bird-nesting season, then a follow-up nesting bird survey should be performed to ensure no nests have been established in the interim.

Maternity Roosting Bats

- If initial ground disturbance occurs during the bat maternity roosting season (April 1 through September 1), a qualified biologist will conduct a bat roost assessment of trees within 100 feet of the proposed construction.
- If the biologist determines there is potential for maternity roosting bats to be present within 100 feet of the Study area, nighttime emergence surveys should be performed to determine if maternity roosting bats are present.
- If bat maternity roosts are present, the biologist will establish an appropriate exclusion zone around the maternity roost.

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[1] Provided in email communication from Ms. Randi Logsdon, CDFW to Ms. Lucy Macmillan February 6, 2018.

Western pond turtle

Potential breeding habitat for Western pond turtle is present in the vicinity but will not be affected by the proposed project; upland habitat surrounding the stock pond may provide nesting habitat for pond turtle. To minimize potential impacts to tis species, the following measures are recommended:

- Work within 100 meters of the stock pond should be initiated outside the nesting season for pond turtle, which is from May to October 1. If work cannot be initiated outside the nesting season, then a pre-construction survey in all work areas within 100 meters of the lower pond is recommended. Alternatively, an exclusion fence may be placed between the pond and proposed activities if installed prior to May 1.

Best Management Practices

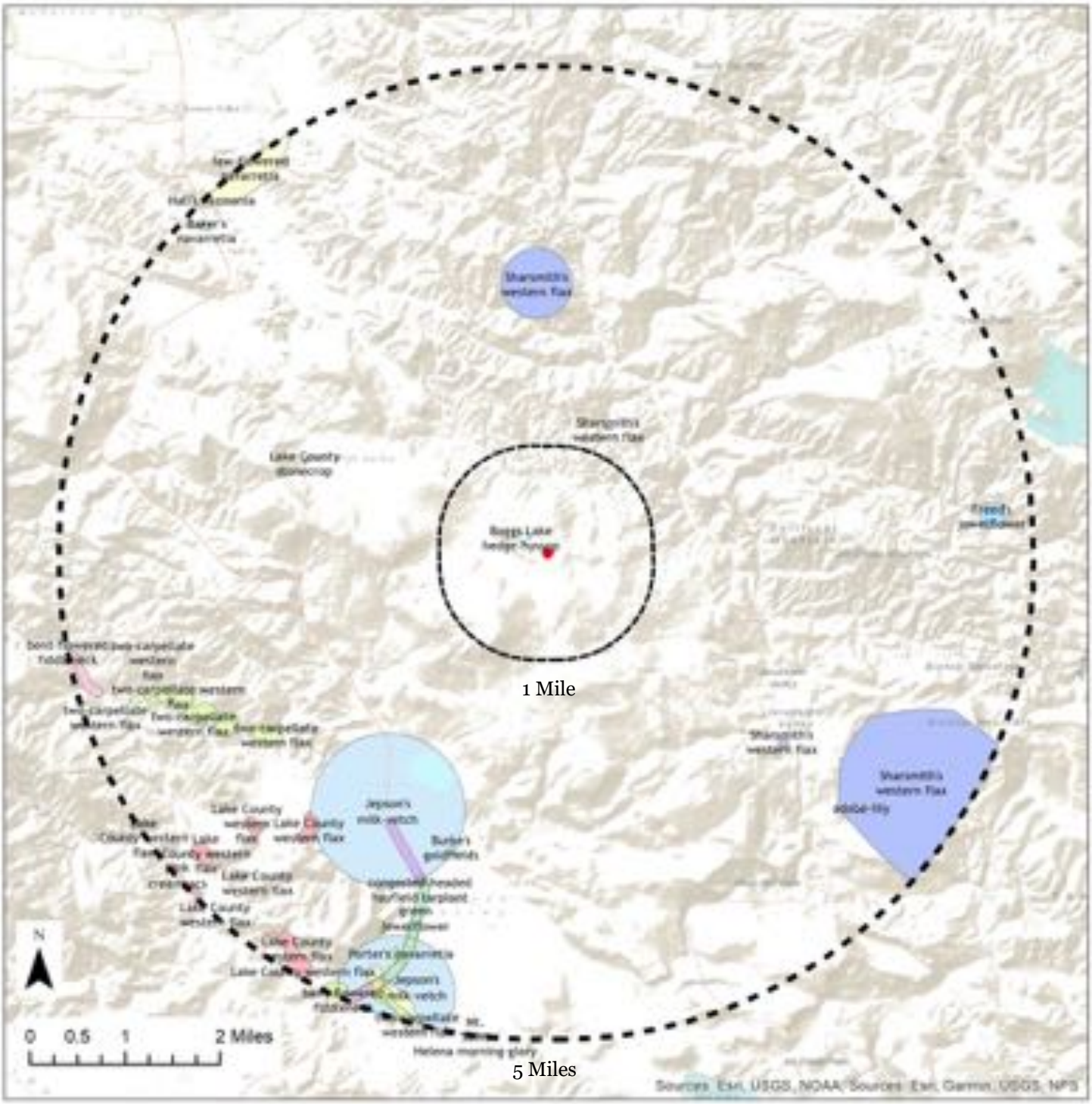
- If workers see wildlife, pause work so that wildlife may move out of the way.
- All equipment will be maintained such that there will be no leaks of automotive fluids such as gasoline, oils, or solvents.
- Hazardous materials such as fuels, oils, solvents, etc., will be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 200 feet from any aquatic habitat

3.2 Special-status Plants

A database query of the CNDDB and the CNPS Electronic Inventory within a 5-mile radius of the parcels were conducted to assess the potential for sensitive communities and/or special-status plant species that may have the potential to occur in the Project Area. These species are listed on Figure 3.

Based on a review of the literature and site evaluation on December 19, 2019, the 70,000 square foot outdoor grow cultivation area provides potential habitat for rare plant species associated with oak woodland habitats listed on the CNDDB for the 9-quadrangle search. Therefore, for activities that will result in the clearing of vegetation for cannabis operations or the installation of pots on the ground, it is recommended that protocol-level rare plant surveys be conducted by a qualified botanist the spring prior to ground disturbance. If rare plants are found, mitigation measures such as avoidance or transplanting may be required depending on the species. In addition, if rare plants are identified their location could be flagged for avoidance.

Figure 3: Special Status Plant Species within 1 Mile and 5 Miles of the Project Site
20150 Black Bass Road, Lower Lake, CA



- Project Location
- 1-Mile Buffer
- 5-Mile Buffer
- Baker's navarretia (1)
- Boggs Lake hedge-hyssop (1)
- Burke's goldfields (2)
- Freed's jewelflower (1)
- Hall's harmonia (2)
- Jepson's milk-vetch (2)
- Lake County stonecrop (1)
- Lake County western flax (5)
- Mt. Saint Helena morning-glory (1)
- Porter's navarretia (1)
- Sharsmith's western flax (4)
- adobe-lily (1)
- bent-flowered fiddleneck (2)
- congested-headed hayfield tarplant (1)
- few-flowered navarretia (1)
- green jewelflower (1)
- legenere (1)
- many-flowered navarretia (1)
- pink creamsacs (1)
- slender Orcutt grass (1)
- two-carpellate western flax (3)

Date: 1-14-2020
Data: Sol Ecology Inc., Lake Co., CDFW
Base: ESRI
GIS: AJG

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APPENDIX A – PLANT SPECIES OBSERVED 12/19/2019

Scientific name	Common Name
Arctostaphylos sp.	manzanita
Avena barbata	slim oat
Centaura solstitialis	star thistle
Hordeum sp.	barley
Pinus sabiniana	California foothill pine
Quercus sp.	Oak
Taeniatherum caput-medusae	Medusa head

APPENDIX B – CNDDB 9 QUADRANGLE SEARCH RECORDS

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Middletown (3812275) OR Lower Lake (3812285) OR Clearlake Highlands (3812286) OR Whispering Pines (3812276) OR Mount St. Helena (3812266) OR Detert Reservoir (3812265) OR Aetna Springs (3812264) OR Jericho Valley (3812274) OR Wilson Valley (3812284))

Middletown and Surrounding Quads Records Search

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Agelaius tricolor tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	747 1,120	955 S:3	0	1	0	0	0	2	0	3	3	0	0
Amorpha californica var. napensis Napa false indigo	G4T2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	1,600 2,400	76 S:2	0	0	0	0	0	2	1	1	2	0	0
Amsinckia lunaris bent-flowered fiddleneck	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCBBG-UC Berkeley Botanical Garden SB_UCSC-UC Santa Cruz	1,194 1,670	93 S:8	0	0	0	0	0	8	4	4	8	0	0
Antirrhinum subcordatum dimorphic snapdragon	G3 S3	None None	Rare Plant Rank - 4.3 USFS_S-Sensitive		49 S:1	0	0	0	0	0	1	1	0	1	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	460 2,450	420 S:7	0	0	1	0	0	6	7	0	7	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Aquila chrysaetos golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,100 2,080	321 S:3	3	0	0	0	0	0	3	0	3	0	0
Archoplites interruptus Sacramento perch	G2G3 S1	None None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern	1,326 1,326	5 S:1	0	0	0	0	1	0	1	0	0	1	0
Arctostaphylos manzanita ssp. elegans Konocti manzanita	G5T3 S3	None None	Rare Plant Rank - 1B.3	1,450 4,300	69 S:20	1	3	1	0	0	15	13	7	20	0	0
Arctostaphylos stanfordiana ssp. raichei Raiche's manzanita	G3T2 S2	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture		13 S:1	0	0	0	0	0	1	1	0	1	0	0
Astragalus rattanii var. jepsonianus Jepson's milk-vetch	G4T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	937 2,514	51 S:16	4	3	2	0	0	7	6	10	16	0	0
Balsamorhiza macrolepis big-scale balsamroot	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,300 1,300	51 S:1	0	0	0	0	0	1	1	0	1	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	700 2,000	181 S:2	0	0	0	0	0	2	2	0	2	0	0
Bombus occidentalis western bumble bee	G2G3 S1	None Candidate Endangered	USFS_S-Sensitive XERCES_IM-Imperiled	4,500 4,500	280 S:1	0	0	0	0	0	1	1	0	1	0	0
Brasenia schreberi watershield	G5 S3	None None	Rare Plant Rank - 2B.3		43 S:1	0	0	0	0	0	1	1	0	1	0	0
Brodiaea leptandra narrow-anthered brodiaea	G3? S3?	None None	Rare Plant Rank - 1B.2		39 S:3	0	0	0	0	0	3	3	0	3	0	0
Calystegia collina ssp. oxyphylla Mt. Saint Helena morning-glory	G4T3 S3	None None	Rare Plant Rank - 4.2	1,000 2,200	9 S:7	1	2	0	0	0	4	7	0	7	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Carex praticola northern meadow sedge	G5 S2	None None	Rare Plant Rank - 2B.2		14 S:1	0	0	0	0	0	1	1	0	1	0	0
Castilleja rubicundula var. rubicundula pink creamsacs	G5T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,075 2,200	38 S:5	1	0	0	0	0	4	1	4	5	0	0
Ceanothus confusus Rincon Ridge ceanothus	G1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	2,000 4,200	33 S:13	0	1	0	0	0	12	11	2	13	0	0
Ceanothus divergens Calistoga ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	3,100 4,200	26 S:4	0	1	1	0	0	2	4	0	4	0	0
Ceanothus purpureus holly-leaved ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2 SB_SBBG-Santa Barbara Botanic Garden	1,900 1,900	43 S:1	0	0	0	0	0	1	1	0	1	0	0
Ceanothus sonomensis Sonoma ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2 SB_SBBG-Santa Barbara Botanic Garden	700 2,050	30 S:3	0	0	0	0	0	3	3	0	3	0	0
Central Valley Drainage Rainbow Trout/Cyprinid Stream Central Valley Drainage Rainbow Trout/Cyprinid Stream	GNR SNR	None None		1,280 1,280	2 S:1	0	0	0	0	0	1	1	0	1	0	0
Centromadia parryi ssp. parryi pappose tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	500 1,300	39 S:2	0	0	0	0	0	2	1	1	2	0	0
Chlorogalum pomeridianum var. minus dwarf soaproot	G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	2,200 2,200	31 S:1	1	0	0	0	0	0	1	0	1	0	0
Clear Lake Drainage Resident Trout Stream Clear Lake Drainage Resident Trout Stream	GNR SNR	None None		2,250 2,300	3 S:2	0	2	0	0	0	0	2	0	2	0	0
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	G3 S2.1	None None		1,326 1,326	60 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	1,400 1,400	156 S:1	0	0	0	0	0	1	1	0	1	0	0
Corynorhinus townsendii Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	730 2,510	635 S:16	0	0	0	0	0	16	14	2	16	0	0
Cryptantha dissita serpentine cryptantha	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,400 2,400	10 S:2	0	0	0	0	0	2	1	1	2	0	0
Dicamptodon ensatus California giant salamander	G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	500 3,000	234 S:12	0	1	0	0	0	11	10	2	12	0	0
Downingia willamettensis Cascade downingia	G4 S2	None None	Rare Plant Rank - 2B.2	2,150 2,150	8 S:1	0	0	0	0	0	1	1	0	1	0	0
Dubiraphia brunnescens brownish dubiraphian riffle beetle	G1 S1	None None		1,330 1,330	1 S:1	0	0	0	0	0	1	1	0	1	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	300 1,800	1385 S:10	2	4	1	1	0	2	2	8	10	0	0
Eriastrum brandegeeae Brandegee's eriastrum	G1Q S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	1,351 1,890	6 S:3	1	1	1	0	0	0	0	3	3	0	0
Erigeron greenei Greene's narrow-leaved daisy	G3 S3	None None	Rare Plant Rank - 1B.2	700 1,150	20 S:4	0	0	0	0	0	4	3	1	4	0	0

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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Eriogonum nervulosum Snow Mountain buckwheat	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	1,460 3,000	9 S:4	2	1	0	0	0	1	3	1	4	0	0
Eryngium constancei Loch Lomond button-celery	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	1,520 2,800	4 S:3	0	1	0	1	0	1	2	1	3	0	0
Eryngium jepsonii Jepson's coyote-thistle	G2 S2	None None	Rare Plant Rank - 1B.2	700 700	19 S:1	0	0	0	0	0	1	0	1	1	0	0
Falco mexicanus prairie falcon	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	2,000 2,200	460 S:3	1	0	0	0	0	2	3	0	3	0	0
Falco peregrinus anatum American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	1,900 1,900	56 S:1	0	1	0	0	0	0	0	1	1	0	0
Fritillaria pluriflora adobe-lily	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden	780 2,200	112 S:18	4	6	0	0	0	8	11	7	18	0	0
Gratiola heterosepala Boggs Lake hedge-hyssop	G2 S2	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,800 1,900	99 S:3	1	2	0	0	0	0	3	0	3	0	0
Grimmia torenii Toren's grimmia	G2 S2	None None	Rare Plant Rank - 1B.3	1,640 2,200	13 S:2	0	0	0	0	0	2	1	1	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	1,100 1,100	327 S:2	0	1	0	0	0	1	1	1	2	0	0
Harmonia hallii Hall's harmonia	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	1,100 2,553	23 S:9	0	1	0	0	0	8	7	2	9	0	0
Hedychridium milleri Borax Lake cuckoo wasp	G1 S1	None None		1,350 1,350	1 S:1	0	0	0	0	0	1	1	0	1	0	0
Hemizonia congesta ssp. congesta congested-headed hayfield tarplant	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_UCBBG-UC Berkeley Botanical Garden	950 950	52 S:1	0	0	0	0	0	1	1	0	1	0	0
Hesperolinon adenophyllum glandular western flax	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2,400 2,400	48 S:1	0	0	0	0	0	1	0	1	1	0	0
Hesperolinon bicarpellatum two-carpellate western flax	G2 S2	None None	Rare Plant Rank - 1B.2	575 2,700	25 S:23	5	2	0	0	0	16	9	14	23	0	0
Hesperolinon didymocarpum Lake County western flax	G1 S1	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,080 1,300	6 S:6	0	2	2	0	0	2	5	1	6	0	0
Hesperolinon drymarioides drymaria-like western flax	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,800 2,650	24 S:2	0	1	0	0	0	1	1	1	2	0	0
Hesperolinon sharsmithiae Sharsmith's western flax	G2Q S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	600 1,600	32 S:14	2	4	1	0	0	7	9	5	14	0	0
Horkelia bolanderi Bolander's horkelia	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,700 2,600	13 S:8	1	5	0	0	1	1	3	5	7	1	0
Hydrochara ricksecker Ricksecker's water scavenger beetle	G2? S2?	None None		1,100 1,100	13 S:1	0	0	0	0	0	1	1	0	1	0	0
Hysterocarpus traskii pomo Russian River tule perch	G5T4 S4	None None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern	200 200	4 S:1	0	0	1	0	0	0	1	0	1	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Imperata brevifolia California satintail	G4 S3	None None	Rare Plant Rank - 2B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive		32 S:1	0	0	0	0	0	1	1	0	1	0	0
Juncus luciensis Santa Lucia dwarf rush	G3 S3	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	1,980 1,980	37 S:1	0	0	0	0	0	1	0	1	1	0	0
Lasionycteris noctivagans silver-haired bat	G5 S3S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	1,100 1,100	139 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasiurus blossevillii western red bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	1,980 1,980	128 S:1	0	0	0	0	0	1	0	1	1	0	0
Lasiurus cinereus hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	1,100 1,980	238 S:2	0	0	0	0	0	2	2	0	2	0	0
Lasthenia burkei Burke's goldfields	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden	1,000 1,900	35 S:4	0	3	0	1	0	0	0	4	4	0	0
Lavinia exilicauda chi Clear Lake hitch	G4T1 S1	None Threatened	AFS_VU-Vulnerable USFS_S-Sensitive	1,326 1,338	4 S:2	0	0	0	0	0	2	2	0	2	0	0
Layia septentrionalis Colusa layia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCBBG-UC Berkeley Botanical Garden	700 2,500	57 S:16	3	1	0	0	0	12	10	6	16	0	0
Legenere limosa legenere	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_UCBBG-UC Berkeley Botanical Garden	1,800 2,200	83 S:2	1	0	0	0	0	1	2	0	2	0	0

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Leptosiphon jepsonii Jepson's leptosiphon	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	400 2,800	51 S:11	0	1	0	0	0	10	3	8	11	0	0
Limnanthes floccosa ssp. floccosa woolly meadowfoam	G4T4 S3	None None	Rare Plant Rank - 4.2 SB_UCBBG-UC Berkeley Botanical Garden	2,200 2,200	54 S:1	1	0	0	0	0	0	1	0	1	0	0
Limnanthes vinculans Sebastopol meadowfoam	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden	380 380	46 S:1	0	1	0	0	0	0	1	0	1	0	0
Lupinus sericatus Cobb Mountain lupine	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	800 3,700	46 S:25	0	1	2	0	1	21	23	2	24	1	0
Mielichhoferia elongata elongate copper moss	G5 S3S4	None None	Rare Plant Rank - 4.3 USFS_S-Sensitive	1,500 1,500	20 S:1	0	0	0	0	0	1	0	1	1	0	0
Myotis evotis long-eared myotis	G5 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_M-Medium Priority	1,980 1,980	139 S:1	0	0	0	0	0	1	0	1	1	0	0
Myotis thysanodes fringed myotis	G4 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	1,980 1,980	86 S:1	0	0	0	0	0	1	1	0	1	0	0
Navarretia leucocephala ssp. bakeri Baker's navarretia	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	1,100 2,806	58 S:5	0	0	1	0	0	4	5	0	5	0	0
Navarretia leucocephala ssp. pauciflora few-flowered navarretia	G4T1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	1,800 2,800	10 S:7	0	3	1	0	0	3	4	3	7	0	0
Navarretia leucocephala ssp. plieantha many-flowered navarretia	G4T1 S1	Endangered Endangered	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	1,800 3,000	8 S:5	2	0	2	0	0	1	2	3	5	0	0

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Navarretia myersii ssp. deminuta small pincushion navarretia	G2T1 S1	None None	Rare Plant Rank - 1B.1	1,087 1,087	1 S:1	0	1	0	0	0	0	1	0	1	0	0
Navarretia paradoxinota Porter's navarretia	G2 S2	None None	Rare Plant Rank - 1B.3	575 1,155	9 S:7	0	0	0	1	0	6	1	6	7	0	0
Navarretia rosulata Marin County navarretia	G2 S2	None None	Rare Plant Rank - 1B.2	620 960	15 S:2	0	0	0	0	0	2	2	0	2	0	0
Northern Basalt Flow Vernal Pool Northern Basalt Flow Vernal Pool	G3 S2.2	None None		1,750 1,900	28 S:2	0	0	0	0	0	2	2	0	2	0	0
Northern Interior Cypress Forest Northern Interior Cypress Forest	G2 S2.2	None None		1,600 2,320	22 S:4	0	0	1	0	0	3	4	0	4	0	0
Northern Vernal Pool Northern Vernal Pool	G2 S2.1	None None		1,200 1,200	20 S:1	0	0	0	0	0	1	1	0	1	0	0
Northern Volcanic Ash Vernal Pool Northern Volcanic Ash Vernal Pool	G1 S1.1	None None		2,600 2,600	2 S:1	0	0	0	0	0	1	1	0	1	0	0
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	G5T2T3Q S2S3	Threatened None	AFS_TH-Threatened	500 500	44 S:1	1	0	0	0	0	0	0	1	1	0	0
Orcuttia tenuis slender Orcutt grass	G2 S2	Threatened Endangered	Rare Plant Rank - 1B.1 SB_UCBBG-UC Berkeley Botanical Garden	1,840 1,840	100 S:1	0	1	0	0	0	0	1	0	1	0	0
Panicum acuminatum var. thermale Geysers panicum	G5T2Q S2	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2,400 2,700	11 S:2	0	1	0	0	1	0	1	1	1	1	0
Pekania pennanti fisher - West Coast DPS	G5T2T3Q S2S3	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	3,210 3,210	743 S:1	0	1	0	0	0	0	0	1	1	0	0
Penstemon newberryi var. sonomensis Sonoma beardtongue	G4T2 S2	None None	Rare Plant Rank - 1B.3	1,400 4,600	11 S:9	3	0	0	0	0	6	8	1	9	0	0
Potamogeton zosteriformis eel-grass pondweed	G5 S3	None None	Rare Plant Rank - 2B.2		20 S:1	0	0	0	0	0	1	1	0	1	0	0
Progne subis purple martin	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,050 3,177	71 S:4	0	4	0	0	0	0	2	2	4	0	0

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Pyrgulopsis ventricosa Clear Lake pyrg	G1 S1	None None	IUCN_CR-Critically Endangered	2,020 2,300	2 S:2	0	0	0	0	0	2	1	1	2	0	0
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	238 2,600	2468 S:48	9	9	3	2	0	25	20	28	48	0	0
Saldula usingeri Wilbur Springs shorebug	G1 S1	None None		1,400 1,400	4 S:1	0	0	0	0	0	1	1	0	1	0	0
Sedella leiocarpa Lake County stonecrop	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	1,700 2,100	5 S:5	0	3	0	0	1	1	3	2	4	1	0
Serpentine Bunchgrass Serpentine Bunchgrass	G2 S2.2	None None		660 2,100	22 S:2	0	1	1	0	0	0	2	0	2	0	0
Sidalcea keckii Keck's checkerbloom	G2 S2	Endangered None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	825 2,200	50 S:4	0	0	0	0	0	4	1	3	4	0	0
Sidalcea oregana ssp. hydrophila marsh checkerbloom	G5T2 S2	None None	Rare Plant Rank - 1B.2	2,000 3,000	35 S:3	0	0	0	0	0	3	3	0	3	0	0
Sidalcea oregana ssp. valida Kenwood Marsh checkerbloom	G5T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_UCBBG-UC Berkeley Botanical Garden	380 380	2 S:1	0	0	1	0	0	0	1	0	1	0	0
Streptanthus brachiatus ssp. brachiatus Socrates Mine jewelflower	G2T1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2,000 2,000	10 S:2	1	0	0	0	0	1	1	1	2	0	0
Streptanthus brachiatus ssp. hoffmanii Freed's jewelflower	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,600 3,400	13 S:12	4	6	0	0	0	2	11	1	12	0	0
Streptanthus hesperidis green jewelflower	G2 S2	None None	Rare Plant Rank - 1B.2	800 2,440	19 S:8	0	0	0	0	0	8	8	0	8	0	0
Streptanthus morrisonii ssp. elatus Three Peaks jewelflower	G2T1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	800 2,400	7 S:7	0	2	0	0	0	5	5	2	7	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Streptanthus morrisonii ssp. kruckebergii Kruckeberg's jewelflower	G2T1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	800 2,180	5 S:4	0	1	0	0	0	3	4	0	4	0	0
Streptanthus vernalis early jewelflower	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2,000 2,000	1 S:1	0	0	0	0	0	1	0	1	1	0	0
Stuckenia filiformis ssp. alpina slender-leaved pondweed	G5T5 S2S3	None None	Rare Plant Rank - 2B.2	600 600	21 S:1	0	0	0	0	0	1	1	0	1	0	0
Stygobromus cherylae Barr's amphipod	G1 S1	None None		260 260	1 S:1	0	0	0	0	0	1	0	1	1	0	0
Taricha rivularis red-bellied newt	G4 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	250 4,000	136 S:5	0	0	0	0	0	5	3	2	5	0	0
Trachykele hartmani serpentine cypress wood-boring beetle	G1 S1	None None		1,420 3,000	3 S:2	0	0	0	0	0	2	2	0	2	0	0
Trichostema ruygtii Napa bluecurls	G1G2 S1S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	2,200 2,200	19 S:1	0	0	0	0	0	1	1	0	1	0	0
Trifolium hydrophilum saline clover	G2 S2	None None	Rare Plant Rank - 1B.2	1,100 1,100	49 S:1	0	0	0	0	0	1	1	0	1	0	0
Vandykea tuberculata serpentine cypress long-horned beetle	G1 S1	None None		630 760	2 S:2	0	0	0	0	0	2	2	0	2	0	0
Viburnum ellipticum oval-leaved viburnum	G4G5 S3?	None None	Rare Plant Rank - 2B.3	1,960 1,960	39 S:1	0	0	1	0	0	0	0	1	1	0	0
Wildflower Field Wildflower Field	G2 S2.2	None None		560 560	5 S:1	0	0	0	0	0	1	1	0	1	0	0

BOTANICAL SURVEY REPORT

APN: 012-052-02

20150 BLACK BASS PASS

LOWER LAKE, LAKE COUNTY, CA

06/12/21

Prepared For:

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SPECIAL STATUS NATIVE PLANT POPULATIONS

AND NATURAL COMMUNITIES SURVEY REPORT

SUMMARY INFORMATION

Legal description:	Sections 32 and 33, T12N, R6W, MD.B.&M.
APN:	012-052-02
USGS 7.5' Quad:	Middletown (3812275)
Project size:	2 acres
Dates of survey:	June 11, 2021
Surveyed by:	Michael Weldon
Field survey effort:	2 hours
Results:	**No CRPR 1 or 2 plants were observed**

1. Introduction

This botanical survey report summarizes the results of a survey conducted on a project area located at 20150 Black Bass Pass Road, Lower Lake, California (APN 012-052-02). The survey was performed to identify special status plants and sensitive plant communities that could be impacted by cannabis cultivation operations in accordance with the California Environmental Quality Act (CEQA) using the California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

2. Definitions

Special Status Plants

Special status plants include taxa that are listed under the Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) in addition to plants which meet the definition of rare or endangered under the California Environmental Quality Act (CEQA). This includes plants with California Rare Plant Ranks (CRPR) 1A, 1B, 2A, 2B or other species that warrant consideration based on local or biological significance.

Special Status Plant Communities

Special status plant communities are communities with limited distribution that may be vulnerable to environmental impacts. The global (G) and state (S) rarity rankings for currently recognized vegetation alliances

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are provided on the CDFW *Natural Communities List* (CDFW 2020). The list is based on the vegetation classification in *A Manual of California Vegetation, 2nd Edition* (Sawyer et al, 2009). Natural communities with S ranks of 3 or lower are considered of special concern. However, they may not warrant protection under CEQA unless they are considered high quality. Human disturbance, invasive species, logging and grazing are common factors considered when judging whether the stand is high quality and warrants protection.

3. Environmental Setting

Project Location

The project area is located on the Middletown USGS 7.5' quadrangle, sections 32 and 33 of T12N, R6W, MD.B.&M.

Soil, Topography, and Hydrology

Data from *Web Soil Survey* for the survey area do not indicate any unique soil types that would provide habitat for rare plants such as serpentinite or peat.

The survey area is situated along Black Bass Pass Road approximately 0.2 miles west of Stienhart Lakes and approximately 2.3 miles northeast of Hidden Valley Lake. It is located in the Asbill Creek watershed (5512.300302). There is one existing culvert within the appurtenant road system crossing a class 1 watercourse.

The project area is on a flat with a very slight south aspect ranging from ~ 1760 to ~ 1800 feet in elevation.

4. Survey Methodology

Scoping

The *California Natural Diversity Database* (CDFW 2021) and the CNPS *Inventory of Rare and Endangered Plants* (CNPS 2021) website applications were used to generate a list of special status plants that could potentially occur within the project area. The scoping list was refined to omit species for which suitable habitat does not exist in the project area to allow surveyors to focus on species with higher potential to be located during surveys. This list includes CRPR 1 and 2 plants that have been observed within a 9-quad search centered on the Middletown quadrangle. USGS quadrangles within the 9-quad search areas include: Clearlake Highlands, Lower Lake, Wilson Valley, Whispering Pines, Middletown, Jericho Valley, Mount St. Helena, Detert Reservoir and Aetna Springs. The results of the project scoping are presented below in Table 1. The list may also include plants that are known to occur in this region and for which similar habitat exists within the project area.

Reference Populations

Reference populations were used to determine the timing of seasonally appropriate surveys. When access to suitable reference populations was unavailable, iNaturalist observations were used. The following reference populations of rare plants were used for this project:

- *Amsinckia lunaris* located approximately 5 miles east of the project area was observed in bloom via iNaturalist on May 27, 2021.

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- *Navarretia leucocephala var. plieantha* located approximately 7.5 miles northwest of the project area was observed in bloom via iNaturalist on May 2, 2021.
- *Amorpha californica var. napensis* located approximately 23 miles southeast of the project area was observed in fruit but identifiable on June 11, 2021.

Factors Affecting Accuracy of Surveys

The likelihood of false negative survey results is low, but may still be possible for a number of reasons:

- Drought conditions exist and may have precluded some sensitive plants from blooming or shortened their bloom period.
- The bloom periods of the reference populations might not accurately represent the bloom periods of target plants within the survey area due to differences in elevation or proximity to the coast, etc. There are likely other reference populations that would more accurately predict the bloom period of target rare plants within the survey area, but in choosing reference populations, accessibility of those populations must also be taken into account.
- Grazing by herbivores could remove the identifiable portions of the plants before they are located. The property has no livestock but there is ample habitat for deer within the survey area.

Survey

The botanical surveys were conducted by Michael Weldon, B.S. in Botany, Humboldt State University. In addition to his educational experience at HSU where he was trained in field identification of native plant species, Mr. Weldon has been performing botanical surveys for James L. Able Forestry Consultants, Inc. for three years and has an additional three years of experience conducting botanical field work for the National Park Service and Forest Service, including Redwood National Park, Six Rivers National Forest and the North Coast and Cascades Network Exotic Plant Management Team. Mr. Weldon also completed a California Native Plant Society workshop on *Carex* identification in March of 2019 and is a member of the CNPS.

Surveys were floristic in nature and conducted in a manner consistent with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). Per the protocols, surveys were conducted by a qualified botanist with an average survey rate of no more than 10 acres per hour.

Botanical surveys were conducted throughout the areas proposed for cannabis cultivation and the associated road system. Surveys were conducted in an intuitive meander focused on areas likely to provide habitat for rare plant species and/or potentially affected (directly or indirectly) by cultivation operations. These areas include but are not limited to: existing permanent and seasonal roads, new road construction, road points and crossings, forest openings (i.e. meadows, landings, and cut banks), springs and watercourses.

Plants were identified to the lowest taxonomic level necessary to ensure that they were not a species of concern. If a species could not be identified on site, it was keyed using the references cited at the end of this report. Refer to Figure 1 for the survey routes.

Survey Results

Special Status Plants: No CRPR 1 or 2 plants were encountered in the project area. A list of all plants observed during the surveys is provided in Table 2.

Special Status Plant Communities: The project area habitat is typical of valley and foothill grasslands (VFGRs) and chaparral (Chpl) within the Inner Northern Coast Ranges (NCoRI). The surrounding area on the parcel outside of the project area is consistent with broadleaf upland forest consisting of blue oak (*Quercus kelloggii)*, interior live oak (*Quercus wislizeni)* and black oak (*Quercus kelloggii)* with a smaller component of grey pine (*Pinus sabiniana)* and ponderosa pine (*Pinus ponderosa)*. No sensitive natural communities could be established during surveys due to the large amount of invasive grasses present, consistent with historic grazing. The pond located between the cultivation sites contains vernally mesic habitat along its margins but is unlikely to host sensitive plant species due to the historic grazing that occurred on the property prior to cannabis cultivation.

Mitigation Recommendations: Although this report is based on a single late season survey and should not be considered seasonally comprehensive, no mitigations are recommended for any natural communities located within the project area. The cultivation sites and appurtenant roads are already existing and because of the low quality of the habitat within the project area due to historic grazing and associated invasive species, continued cultivation operations are unlikely to harm any special status plants or sensitive natural plant communities.

5. References

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Table 1: Rare Plant Scoping List													
USGS 7.5' Quads: Clearlake Highlands (381286), Lower Lake (3812285), Wilson Valley (3812284), Whispering Pines (3812276), Middletown (3812275), Jericho Valley (3812274), Mount St. Helena (3812266), Detert Reservoir (3812265), Aetna Springs (3812264)					**Blooming Period**								
Scientific Name	**Common Name**	**CRPR/ CESA/FESA**	**Elevation (meters)**	**Habitats**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**
Amorpha californica var. napensis	Napa false indigo	1B.2	50-2000	BUFrs (openings), Chpl, CMWld									
Amsinckia lunaris	Bend-flowered fiddleneck	1B.2	3-500	CBScr, CMWld, VFGRs									
Arctostaphylos manzanita ssp. Elegans	Konocti manzanita	1B.3	395-1615	Chpl, CMWld, LMFrs		(Jan)		(Jul)					
Arctostaphylos standfordiana ssp. raichei	Raiche's manzanita	1B.1	450-1035	Chpl, LMFrs (openings)									
Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	1B.2	295-700	Chpl, CMWld, VFGrs									
Balsamorhiza macrolepis	Big-scale balsamroot	1B.2	45-1555	Chpl, CMWld, VFGrs									
Brodiaea leptandra	Narrow-anthered brodiaea	1B.2	110-915	BUFrs, Chpl, CMWld, LMFrs, VFGrs									
Carex praticola	Northern meadow sedge	2B.2	0-3200	Mdws (mesic)									
Downingia willamettensis	Cascade downingia	2B.2	15-1110	CMWld (lake margins), VFGrs (lake margins), VrPl						(Sep)			
Eriastrum brandegeeae	Brandegee's eriastrum	1B.1	425-840	Chpl, CMWld									
Eryngium constancei	Lock Lomond button-celery	1B.1	460-855	VrPl									
Fritillaria pluriflora	Adobe-lily	1B.2	60-705	Chpl, CMWld, VFGrs									
Gratiola heterosepala	Boggs Lake hedge-hyssop	1B.2	10-2375	MshSw (Lake margins), VrPl									
Hemizonia congesta ssp. congesta	Congested-headed hayfield tarplant	1B.2	20-560	VFGrs									
Horkelia bolanderi	Bolander's horkelia	1B.2	450-1110	Chpl, LMFrs, MDWs, VFGrs					(May)				
Imperata brevifolia	California satintail	2B.1	0-1215	Chpl, CBScr, Mojave desert scrub, Mdws (often alkali), RpScr									
Juncus luciensis	Santa Lucia dwarf rush	1B.2	300-2040	Chpl, Great Basin scrub, LMFrs, Mdws, VrPl									
Lasthenia burkei	Burke's goldfields	1B.1	15-600	Mdws (mesic), VrPl									

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Table 1: Rare Plant Scoping List (cont'd)													
USGS 7.5' Quads: Clearlake Highlands (381286), Lower Lake (3812285), Wilson Valley (3812284), Whispering Pines (3812276), Middletown (3812275), Jericho Valley (3812274), Mount St. Helena (3812266), Detert Reservoir (3812265), Aetna Springs (3812264)					**Blooming Period**								
Scientific Name	**Common Name**	**CRPR/ CESA/FESA**	**Elevation (meters)**	**Habitats**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**
Legenere limosa	Legenere	1B.1	1-880	VrPl									
Lomatium repostum	Napa lomatium	1B.2	90-1030	Chpl, CMWld									
Lupinus sericatus	Cobb Mountain lupine	1B.2	275-1525	BUFrs, Chpl, CMWld, LMFrs									
Navarretia leucocephala ssp. bakeri	Baker's navarretia	1B.2	5-1740	CMwld, LMFrs, Mdws, VFGrs, VrPl									
Navarretia leucocephala ssp. pauciflora	Few-flowered navarretia	1B.1	400-855	VrPl (Volcanic Ash)									
Navarretia leucocephala ssp. plieantha	Many-flowered navarretia	1B.2	30-950	VrPl (Volcanic Ash)									
Orcuttia tenuis	Slender Orcutt grass	1B.1	35-1760	VrPl								(Oct)	
Trichostema ruygtii	Napa bluecurls	1B.2	30-680	Chpl, CMWld, LMFrs, VFGrs, VrPl									
Viburnum ellipticum	Oval-leaved viburnum	2B.3	215-1400	Chpl, CMWld, LMFrs									

Key To Habitats: BgFn=Bogs Fens, BUFrs= Broad-Leaved Upland Forest, CBScr=Coastal Bluff Scrub, CCFrs=Closed Cone Coniferous Forest, Chpl=Chaparral, CmWld= Cismontane Woodland, CoDu=Coastal Dunes, CoPrr=Coastal Prairie, CoScr= Coastal Scrub, LCFrs= Lower Montane Coniferous Forest, Mdws= Meadows, MshSw= Marsh, Swamp, NCFrs= North Coast Coniferous Forest, RpScr=Riparian Scrub, RpFrs= Riparian Forest, UCFrs= Upper Montane Coniferous Forest, VFGrs=Valley Foothill Grassland, VrPl=Vernal Pools. ***Note:*** Grey shading denotes months in which species are likely to be blooming and readily identifiable.

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Table 2: List of plant species encountered during surveys.

Tree Species:

Species	Common Name	Special Status
Pinus ponderosa	Ponderosa pine	
Pinus sabiniana	Grey pine	
Quercus douglasii	Blue oak	
Quercus kelloggii	Black oak	
Quercus wislizeni	Interior live oak	
Salix lasiandra	Pacific willow	
Umbellularia californica	Pepperwood	

Brush species:

Species	Common Name	Special Status
Adenostoma fasciculatum	Chamise	
Arctostaphylos manzanita	Common manzanita	
Frangula californica	California coffeeberry	
Heteromeles arbutifolia	Toyon	
Quercus durata	Leather oak	
Rubus armeniacus	Himalaya blackberry	CAL-IPC: High
Toxicodendron diversilobum	Poison oak	

Herbaceous species:

Species	Common Name	Special Status
Acmispon americanus	American bird's foot trefoil	
Asarum caudatum	Wild ginger	
Brassica rapa	Common mustard	CAL-IPC: Limited
Brodiaea elegans	Harvest brodiaea	
Carduus pycnocephalus	Italian thistle	CAL-IPC: Moderate
Centaurea solstitialis	Yellow starthistle	CAL-IPC: High
Chlorogalum pomeridianum	Soap root	
Cirsium vulgare	Bull thistle	CAL-IPC: Moderate
Croton setiger	Turkey-mullein	
Damasonium californicum	Californica damasonium	
Downingia bicornuta var. bicornuta	Bristled downingia	
Erodium cicutarium	Coastal heron's bill	CAL-IPC: Limited
Eschscholzia californica	Californica poppy	
Lonicera hispidula	Pink honeysuckle	
Matricaria discoidea	Pineapple weed	
Mentha pulegium	Pennyroyal	Cal-IPC: Moderate
Navarretia intertexta	Interwoven navarretia	
Plantago lanceolata	Ribwort	CAL-IPC: Limited
Pogogyne douglasii	Douglas' mesamint	

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Rumex crispus	Curly dock	Cal-IPC: Limited
Verbascum Thapsus	Common mullein	CAL-IPC: Limited
Vicia sativa	Spring vetch	
Zeltnera muehlenbergii	Muehlenberg's centaury	

Grasses and Graminoids:

Species	Common Name	Special Status
Aira caryophyllea	Shiver grass	
Avena barbata	Slim oat	CAL-IPC: Moderate
Briza maxima	Rattlesnake grass	CAL-IPC: Limited
Bromus commutatus	Hairy chess	
Bromus diandrus	Ripgut brome	CAL-IPC: Moderate
Bromus hordeaceus	Soft brome	CAL-IPC: Limited
Bromus tectorum	Cheatgrass	CAL-IPC: High
Cynosurus echinatus	Dogtail grass	CAL-IPC: Moderate
Cyperus eragrostis	Tall cyperus	
Eleocharis macrostachya	Common spikerush	
Elymus caput-medusae	Medusa head	CAL-IPC: High
Phalaris aquatica	Harding grass	CAL-IPC: Limited
Polypogon monspeliensis	Annual beard grass	CAL-IPC: Limited
Typha latifolia	Broadleaf cattail	