

BOTANICAL SURVEY REPORT FOR THE POVERTY FLATS RANCH CULTIVATION PROJECT AT 10535 HIGH VALLEY ROAD, CLEARLAKE OAKS, CALIFORNIA

May 8, 2024

Prepared by:

Graening and Associates, LLC 343 Carpenter Hill Road, Folsom CA 95630

1. PROJECT LOCATION AND DESCRIPTION

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

2. BOLOGICAL SETTING

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

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

3. SURVEY METHODOLOGY

Survey methodology followed the following protocols:

- California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.
- U.S. Fish and Wildlife Service. 1996. Guidelines for conducting and reporting botanical inventories for federally listed, proposed and candidate plants. Sacramento Fish and Wildlife Office, Sacramento, California. 2 pp.
- California Native Plant Society. 2001. CNPS botanical survey guidelines.

3.1. PRELIMINARY DATA GATHERING AND RESEARCH

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

- Aerial photography of the Project Area (current and historical)
- United States Geologic Service 7.5 degree-minute topographic quadrangles
- USFWS National Wetland Inventory
- USDA Natural Resources Conservation Service soil survey maps
- California Natural Diversity Database (CNDDB), electronically updated monthly by subscription
- California Native Plant Society's database *Inventory of Rare and Endangered Plants of California* (online edition).

The following reference sites were visited: Deemed not necessary.



3.2. FIELD SURVEYS

Dates of botanical field surveys (indicating the botanical field surveyor(s) that surveyed each area on each survey date), and total person-hours spent:

- Tim Nosal, Ms., October 28, 2020, majority of day;
- Tim Nosal, Ms., April 27, 2024, majority of day

Note: The qualifications of the botanical field surveyors and report authors are summarized at the end of this report.

Description of Survey Area: The survey area all of the combined smaller project areas (i.e., the proposed cultivation areas, proposed buildings and storage containers, road improvements, etc.), and this is about 16 acres combined.

Note: A map of the survey area relative to the project area is shown in the Exhibits.

A variable-intensity pedestrian survey was performed, and modified to account for differences in terrain, vegetation density, and visibility. All visible taxa observed were recorded in a field notebook. Survey efforts emphasized the search for any special-status species that had documented occurrences in the CNDDB within the vicinity of the Project Area and those species on the CNPS or USFWS species lists.

Taxa were identified to the taxonomic level necessary to determine whether or not they are a special status plant. When a specimen could not be identified in the field, a photograph was taken and/or a specimen was pressed and identified in the laboratory using a dissecting scope where necessary. Dr. Graening holds the following scientific collection permits: CDFW Scientific Collecting Permit No. SC-006802; and CDFW Plant Voucher Specimen Permit 09004. Tim Nosal holds CDFW Plant Voucher Specimen Permit 2081(a)-16-102-V. Taxonomic determinations were facilitated by referencing museum specimens or by various texts, including the following: Powell and Hogue (1979); Pavlik (1991); (1993); Brenzel (2012); Stuart and Sawyer (2001); Lanner (2002); Sibley (2003); Baldwin et al. (2012); Calflora (2022); CDFW (2022b,c); NatureServe 2022; and University of California at Berkeley (2022a,b).

3.3. MAPPING AND OTHER ANALYSES

The locations of any special-status species or vegetation communities sighted were marked on aerial photographs and/or georeferenced with a geographic positioning system (GPS) receiver. Vegetation community types occurring in the Survey 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. Locations of any species' occurrences and sensitive natural community boundaries detected within the Project Area were digitized to produce the final maps. Geographic analyses were performed using geographical information system software (ArcGIS 11, 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). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2022), Calflora (2022); CDFW (2022a,b,c); and University of California at Berkeley (2022a,b).

3.4. Previous Studies

The following previous studies have been performed:

- Natural Investigations Co. 2020. Biological Resources Regulatory Constraints Analysis for Potential Cannabis Cultivation on Property at 10535 High Valley Road, Clearlake Oaks, California.
- Graening and Associates, LLC. 2024. Biological Resources Assessment for the Poverty Flats Ranch Cultivation Project at 10535 High Valley Road, Clearlake Oaks, California.



3.5. List of Sensitive Natural Communities with Potential to Occur in the Region

No critical habitat for any federally-listed plant species occurs within the Project Areas or the surrounding Property. The CNDDB reported no special-status habitats within the Project Areas or surrounding Property. Within the surrounding region (County-level), the CNDDB has mapped the following special-status habitats: Serpentine Bunchgrass; Northern Volcanic Ash Vernal Pool; Coastal and Valley Freshwater Marsh; Northern Basalt Flow Vernal Pool; Northern Volcanic Ash Vernal Pool; Northern Interior Cypress Forest; and Northern Vernal Pool.

3.6. List of Special Status Plants with Potential to Occur in the Region

A list of special-status plant species with potential to occur in the region was compiled based upon the following:

- A spatial query of the CNDDB using a 10-mile buffer around the Property boundary.
- A 9-quadrangle query of the California Native Plant Society's database Inventory of Rare and Endangered Plants of California (online edition).

The databases were queried and any reported occurrences of special-status species were plotted in relation to the Project Area boundary using GIS software (see exhibits). The CNDDB reported no special-status species occurrences within the Project Area or the surrounding Property. Within a 10-mile buffer of the Property boundary, the CNDDB reported several special-status species occurrences, summarized 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 Property provides suitable habitat. The following listed species should be considered in the impact assessment:

• Burke's Goldfields Lasthenia burkei Endangered



4. RESULTS

4.1. LIST OF PLANT TAXA DETECTED DURING FIELD SURVEY(S)

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

Deposition locations of voucher specimens: n/a

4.2. LIST OF VEGETATION COMMUNITIES DETECTED DURING FIELD SUVERY(S)

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

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

Blue Oak Woodland: Tree-dominated habitats are found throughout the hills of the Property. Upland areas dominated by oaks can be further described as a blue oak woodland. The blue oak woodland consists of blue oak (*Quercus douglasii*) as the primary species in the canopy, along with gray pine (*Pinus sabiniana*). Additional trees found along the watercourses include interior live oak (Quercus wislizeni), California black oak (Quercus kelloggii) and California buckeye (Aesculus californicus). Shrubs commonly encountered within the woodland include common manzanita (Arctostaphylos manzanita ssp. manzanita), western redbud (*Cercis occidentalis*), toyon and poison oak (*Toxicodendron diversilobum*). The herbaceous understory is dominated by grasses such as dogtail grass (*Cynosurus echinoides*), blue wildrye (*Elymus glaucus*), wild oat (*Avena fatua*), purple needlegrass (*Stipa pulchra*) and bromes (*Bromus* spp.). This vegetation type can be classified as the Holland Type "Blue Oak Woodland" or as "71.020.00 Blue Oak Woodland" (CDFW 2020)".

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



During the field survey, the following sensitive natural communities were detected in small patches within the Project Areas:

- 71.000.00 Oak Woodlands and Forests
 - o 71.020.00 Blue oak woodland and forest

4.3. Adequacy of Botanical Field Survey(s)

Potential for a false negative botanical field survey: Unlikely since botanical surveys were performed in the spring and fall.

Did climatic conditions affect the botanical field survey results? There were no unusual climatic conditions.

Did the timing of botanical field surveys affect the comprehensiveness of botanical field surveys?

Unlikely since botanical surveys were performed in the spring and fall over different years.



5. POTENTIAL PROJECT IMPACTS

5.1. Special-status Plant Populations

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

5.2. Sensitive Natural Communities

The Project Area does contain small patches of one general sensitive natural community type: 71.000.00 Oak Woodlands and Forests, and specifically, 71.020.xx Blue Oak Woodland And Forest. Project implementation will have a less-than significant impact upon sensitive natural communities for numerous reasons. The majority of sensitive natural communities of the Property (especially those in channels) were avoided in project design of cultivation compound locations, including aquatic buffers of at least 100 feet. Although project implementation will disturb some oak woodland communities, the majority of oak woodland communities on the Property will not be disturbed or involved in the project. During the permitting process, Lake County requires mitigation for the removal of protected oak trees; typical mitigation is tree replacement at a ratio of 2:1 or 3:1. For these reasons, project implementation will have a less than significant impact (direct, indirect, and cumulative) upon sensitive natural communities.

No further botanical field surveys are deemed necessary.



6. QUALIFICATIONS OF BOTANICAL FIELD SURVEYORS AND REPORT AUTHORS

G.O. GRAENING, Ph.D., M.S.E.

Dr. Graening holds a PhD in Biological Sciences and a Master of Science in Biological and Agricultural Engineering. Dr. Graening was an adjunct Professor at California State University at Sacramento for 10 years, and was an active researcher in the area of conservation biology; his publication list is available online at http://www.csus.edu/indiv/g/graeningg/pubs.htm. Dr. Graening is also a Certified Arborist (ISA # WE-6725A). Dr. Graening has 24 years of experience in environmental assessment, including previous employment with The Nature Conservancy, Tetra Tech Inc., and CH2M Hill, Inc.

TIMOTHY R. D. NOSAL, M.S.

Mr. Nosal holds a B.S. and M.S. in Biological Sciences. Mr. Nosal has statewide experience performing sensitive plant and animal surveys in addition to terrestrial vegetation investigations. Mr. Nosal has over 25 years of experience in botanical surveys, environmental assessment, and teaching with employers that include California Department of Fish and Wildlife, State Water Resources Control Board, American River College, MTI College and Pacific Municipal Consultants. Mr. Nosal has intensive experience with the flora of the Pine Hill region, including leading numerous field trips exploring the botany of the region, co-authoring a fuel management plan for Pine Hill, and a Master's thesis on Stebbins's morning glory (*Calystegia stebbinsii*), an endangered plant of this region.



7. REFERENCES

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United States Fish and Wildlife Service. 2022. Wetlands Digital Data. National Wetlands Inventory Center. Digital maps downloaded from the Internet at https://www.fws.gov/wetlands/.



EXHIBITS



DIRECTIONS TO SITE: FROM CLEARLAKE OAKS, CA

-NORTHEAST ON SR-20E (0.3 MILES) TOWARDS LAKE

STREET/LAKELAND STREET -TURN LEFT AND TAKE HIGH VALLEY ROAD (5.4 MILES) -THE PRIVATE DRIVEWAY FOR 10535 HIGH VALLEY ROAD WILL BE

POVERTY FLATS RANCH PRELIMINARY GRADING PLANS

APN: 006-004-22

1860.2

<F> 100' BUFFER

APN: 006-004-22

<P> 10,000 SF

OUTDOOR CULTIVATION

<E> ACCESS ROAD

APN: 006-004-23 APN: 006-004-02 <P> SOLAR ARRAY APN: 006-004-19 GAL WATER TANK APN: 006-004-2

<E> ACCESS ROAD

<FS 100'

<P> 1-ACRE

CULTIVATION

OUTDOOR

<E> WEL

APN: 006-004-04

<P> 1-ACRF OUTDOOR

SEE SHEET C1

FOR DETAILS

<P> 3-ACRE OUTDOOR

<E> 100' BUFFER

CUI TIVATION

PROJECT INFORMATION:

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

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

APPLICANTS AGENT: NORTHPOINT CONSULTING GROUP INC ARCATA, CA 95521 (707) 798-6438

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

ZONING = RL

= PRIVATE SEWER = PRIVATE

PROPERTY SIZE

= ±196.70 ACRES APN: 006-004-22

TOTAL FILL = 1,250 CU.YD

TOTAL IMPORT (AGGREGATE)

TOTAL EXPORT = 0 CLLYD

GENERAL NOTES:

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

SITE GRADING NOTES:

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

void cutting undergrou utility lines. It's costly before you DIg I -800-227-260 UNDERGROUND SERVICE (USA)

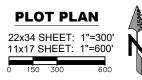
UNAUTHORIZED CHANGES & USES:

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

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

GENERAL CONSTRUCTION NOTES:

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



-2689 9"

APN: 006-004-11

SHEET INDEX:

- CO PLOT PLAN, VICINITY MAP, & PROJECT NOTES C1 EXISTING AND PROPOSED SITE PLAN C2 PROPOSED AREA 1 SITE PLAN & SECTIONS
- C2 PROPOSED AREA 1 SITE PLAN & SECTIONS
 C3 PROPOSED AREA 2 SITE PLAN & SECTIONS
- PROJECT DETAILS
- C5 EROSION CONTROL NOTES



PLANS

GRADING

PRELIMINARY

RANCH

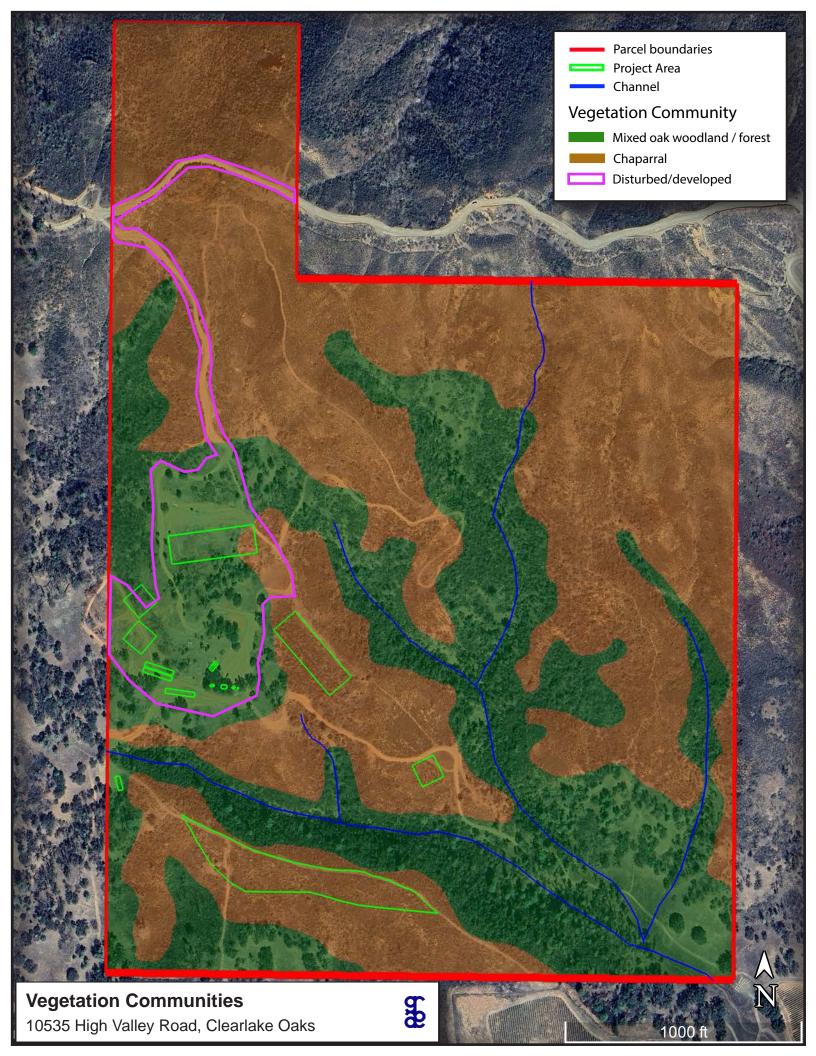
FLATS

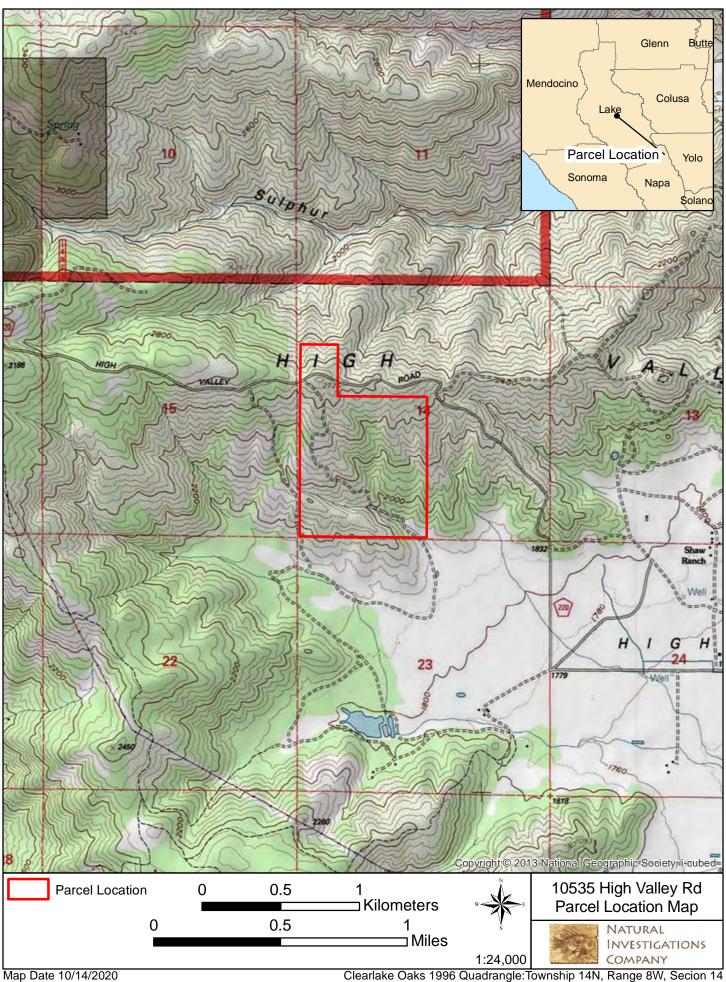
POVERTY

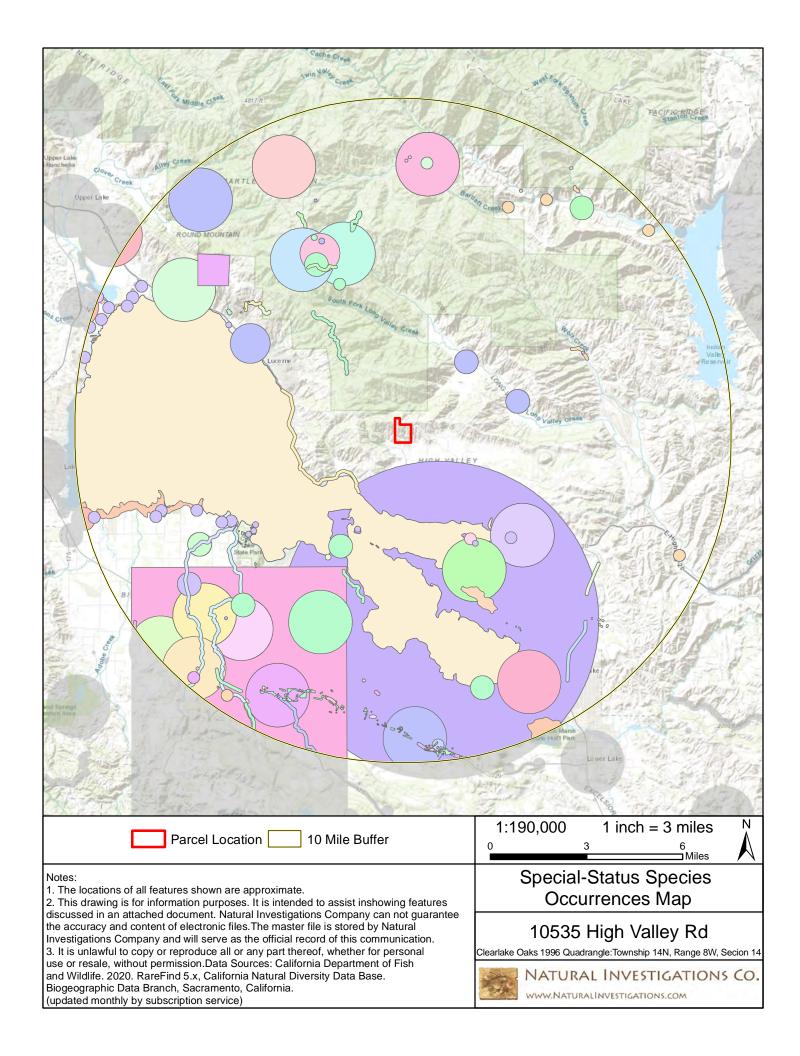
95423

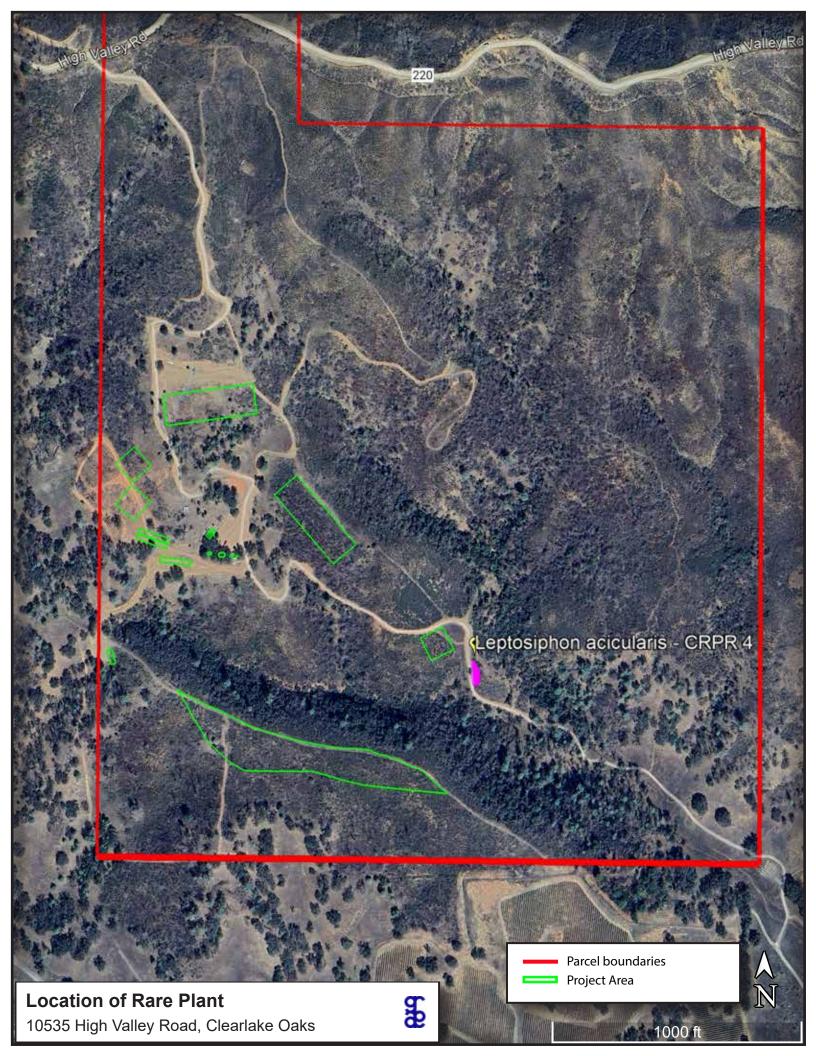
CA OAKS, PROJECT CLEARLAKE AND MAP, 80., VICINITY HIGH BALLEY PLAN, PLOT 10535

PROJ. MGR.: AD DRAWN BY: TJS 10/17/23 AS SHOWN SHEET

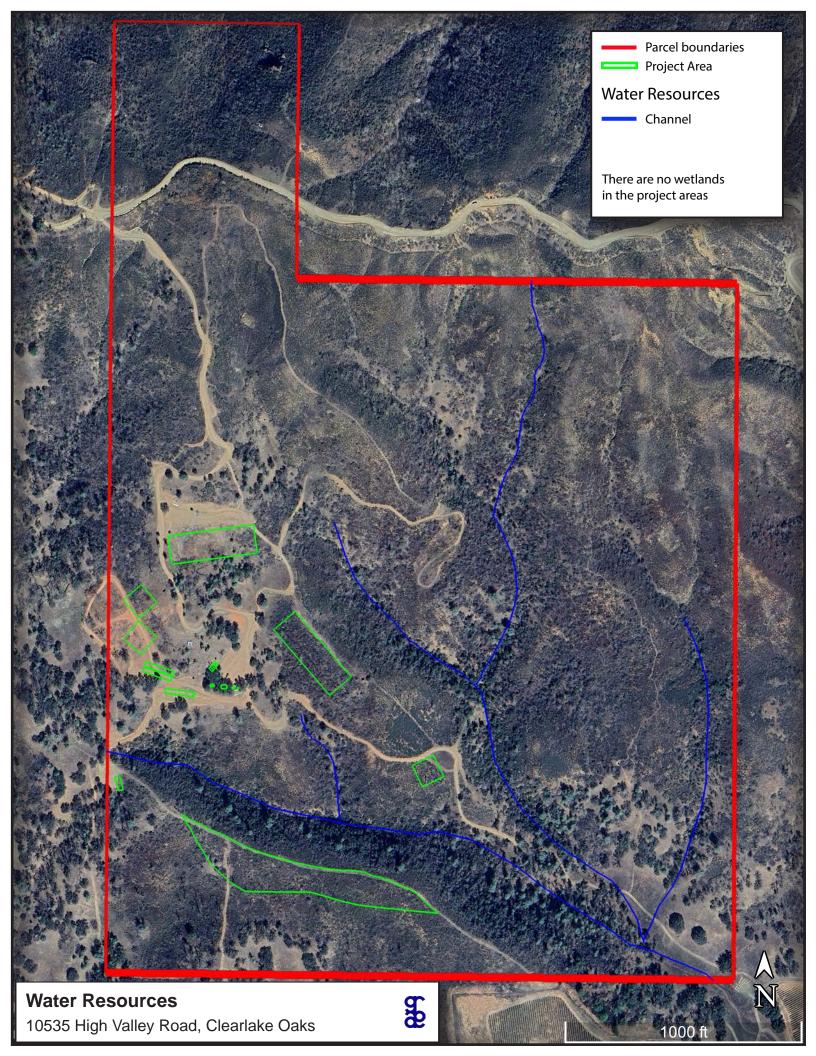












APPENDIX 1: USFWS SPECIES LIST





United States Department of the Interior



FISH AND WILDLIFE SERVICE

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

In Reply Refer To: 05/02/2024 17:04:44 UTC

Project Code: 2024-0085074

Project Name: Poverty Flats project

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Sacramento Fish And Wildlife Office

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

PROJECT SUMMARY

Project Code: 2024-0085074

Project Name: Poverty Flats project

Project Type: Field Crop Planting/Production

Project Description: cultivation project

Project Location:

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



Counties: Lake County, California

ENDANGERED SPECIES ACT SPECIES

Project code: 2024-0085074

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

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, 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.

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

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BIRDS

NAME STATUS

Northern Spotted Owl Strix occidentalis caurina

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/1123

REPTILES

NAME STATUS

Northwestern Pond Turtle Actinemys marmorata

No critical habitat has been designated for this species.

Threatened

Species profile: https://ecos.fws.gov/ecp/species/1111

INSECTS

NAME STATUS

Monarch Butterfly Danaus plexippus

Candidate

Proposed

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

FLOWERING PLANTS

NAME STATUS

Burke's Goldfields *Lasthenia burkei*

Endangered

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

CRITICAL HABITATS

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

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

Project code: 2024-0085074 05/02/2024 17:04:44 UTC

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: G.O. Graening

Address: 343 Carpenter Hill Road

City: Folsom State: CA Zip: 95630

Email ggraening@gmail.com

Phone: 9164525442

APPENDIX 2: CHECKLIST OF PLANTS DETECTED ON THE PROPERTY



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

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

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

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

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

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

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

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

APPENDIX 3: SITE PHOTOS









































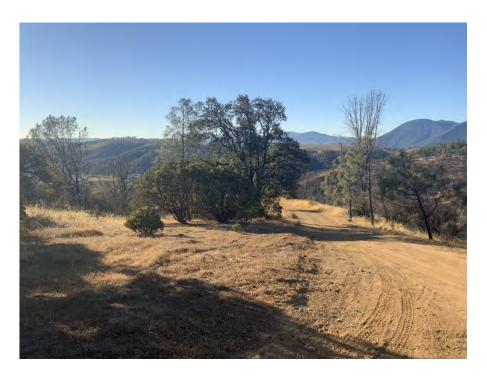
























APPENDIX 4: SPECIAL-STATUS SPECIES TABLE AND POTENTIAL TO OCCUR



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

Common Name	Status*	General Habitat**	Microhabitat**
Scientific Name			

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

An isopod	CSSC	Known from Lake, Napa, Marin, Santa	
Calasellus californicus	0000	Cruz and Santa Clara counties.	
Brownish dubiraphian riffle	CSSC	Aquatic; known only from the NE shore of	Inhabits exposed, wave-washed willow
beetle		Clear Lake, Lake County.	roots.
Dubiraphia brunnescens			
Obscure bumble bee	CSSC	Open grassy coastal prairies and Coast	Food plants include Ceanothus, Cirsium,
Bombus caliginosus		Range meadows. Nesting occurs	Clarkia, Keckiella, Lathyrus, Lotus,
Dombae cangmedae		underground as well as above ground in	Lupinus, Rhododendron, Trifolium, Rubus
		abandoned bird nests.	and Vaccinium.
Blennosperma vernal pool	CSSC	This bee is oligolectic on vernal pool	Bees nest in the uplands around vernal
andrenid bee		Blennosperma.	pools.
Andrena blennospermatis			Form
Borax Lake cuckoo wasp	CSSC	Endemic to central California. Only	External parasite of wasp and bee larva.
Hedychridium milleri		collection is from the type locality.	
ANIMALS			
<u> </u>	45.0		
Big-scale balsamroot	1B.2	Chaparral, valley and foothill grassland,	Sometimes on serpentine. 90-1555 m.
Balsamorhiza macrolepis	47.0	cismontane woodland.	
Small-flowered calycadenia	1B.2	Chaparral, valley and foothill grassland,	Rocky talus or scree; sparsely vegetated
Calycadenia micrantha		meadows and seeps.	areas. Occasionally on roadsides;
	40.0		sometimes on serpentine. 5-1500 m.
Greene's narrow-leaved	1B.2	Chaparral.	Serpentine and volcanic substrates,
daisy			generally in shrubby vegetation. 80-1005
Erigeron greenei	FE/FE/AD		m.
Burke's goldfields	FE/FE/1B.	Vernal pools, meadows and seeps.	Most often in vernal pools and swales. 15-
Lasthenia burkei	1		600 m.
Colusa layia	1B.2	Chaparral, cismontane woodland, valley	Scattered colonies in fields and grassy
Layia septentrionalis		and foothill grassland.	slopes in sandy or serpentine soil. 145-
D (6 16111 1	40.0	0: 1	1095m.
Bent-flowered fiddleneck	1B.2	Cismontane woodland, valley and foothill	50-500m.
Amsinckia lunaris	00.0	grassland.	A south for the back of the back of the section of
Watershield	2B.3	Freshwater marshes and swamps.	Aquatic from water bodies both natural and
Brasenia schreberi	FE/FE/1B.	Valley and feethill arreadend warred needs	artificial in California.
Lake County stonecrop Sedella leiocarpa	1	Valley and foothill grassland, vernal pools, cismontane woodland.	Level areas that are seasonally wet and dry
Sedella lelocarpa	'	dismontane woodiand.	out in late spring; substrate usually of
Raiche's manzanita	1B.1	Chaparral, lower montane coniferous	volcanic origin. 365-790 m. Rocky, serpentine sites. Slopes and ridges.
Arctostaphylos stanfordiana	10.1	forest.	450-1000 m.
ssp. raichei		101631.	430-1000 III.
Konocti manzanita	1B.3	Chaparral, cismontane woodland, lower	Volcanic soils. 395-1615 m.
Arctostaphylos manzanita ssp.	10.0	montane coniferous forest.	voicanic sons. 030-1010 III.
elegans		montane connetous totest.	
Anthony Peak lupine	1B.2	Upper montane coniferous forest, lower	Open areas with surrounding forest; rocky
Lupinus antoninus	10.2	montane coniferous forest, lower	sites. 1220-2285 m.
Napa bluecurls	1B.2	Cismontane woodland, chaparral, valley	Often in open, sunny areas. Also has been
Trichostema ruygtii	10.2	and foothill grassland, vernal pools, lower	found in vernal pools. 30-590m.
monosioma raygui		montane coniferous forest.	iodina ili voitiai poolo. oo-oooiii.
Woolly meadowfoam	4.2	Chapparal, cismontane woodland, valley	Vernally wet areas, ditches, and ponds.
Limnanthes floccosa ssp.	7.4	and foothill grassland, vernal pools.	60-1335 m.
floccosa		and roomin gradorana, vortial pools.	50 1000 m.
Glandular western flax	1B.2	Chaparral, cismontane woodland, valley	Serpentine soils; generally found in
Hesperolinon adenophyllum	10.2	and foothill grassland.	serpentine soils, generally lound in serpentine chaparral. 150-1315 m.
Two-carpellate western flax	1B.2	Serpentine chaparral.	Serpentine barrens at edge of chaparral.
Hesperolinon bicarpellatum	10.2	Corporatio oraparrat.	60-1005 m.
Marsh checkerbloom	1B.2	Meadows and seeps, riparian forest.	Wet soil of streambanks, meadows. 1100-
Sidalcea oregana ssp.	15.2		2300 m.
hydrophila			200 111.
Brandegee's eriastrum	1B.1	Chaparral, cismontane woodland.	On barren volcanic soils; often in open
Eriastrum brandegeeae	15.1	Shaparrai, distributante woodiana.	areas. 425-840 m.
Tracy's eriastrum	CR/3.2	Chaparral, cismontane woodland.	Gravelly shale or clay; often in open areas.
Eriastrum tracyi	0170.2	onaparrai, dismontane woodiand.	315-760 m.
Liiasii ui ii acyi			010-100 III.

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

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

^{**}Copied verbatim from CNDDB, unless otherwise noted.