Huffman-Broadway Group, Inc.
ENVIRONMENTAL REGULATORY CONSULTANTS

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January 13, 2020

Infinity Cannabis Growth, LLC
11020 Sky Hig Ridge Road
Lower Lake, CA 95457

Subject: Biological Resources Report for a Cannabis Cultivation Project at 11020 Sky High Ridge Road, Lower Lake, Lake County, California

Dear Infinity Cannabis Growth, LLC:

Huffman-Broadway Group, Inc. (HBG) has completed a Biological Resources Report related to licensing of a cannabis cultivation operation under the CalCannabis Cultivation Program within an 21.39-acre site at 11020 Sky High Ridge Road (APN 122-300-01) near Lower Lake, Lake County, California.

The objective of this study was to provide a determination of the potential for the Study Area and, in particular, the proposed cultivation sites and operations areas to support sensitive habitats as defined by state or federal regulation and/or pursuant to the California Environmental Quality Act (CEQA) including habitat suitable to support special status species of flora and fauna, and to evaluate whether the cultivation of cannabis as proposed would result in significant impacts to these resources. Our analysis included: (1) a review of the habitat characteristics of the site and species of plants and animals expected to utilize the site; (2) review of the California Natural Diversity Data Base (CNDDB) to determine if any populations of endangered, threatened, or rare species have occurred historically or are currently known to exist in the project vicinity; (3) a field survey of the site by an HBG biologist, and (4) an evaluation of whether the proposed project has the potential to result in impacts to sensitive habitats or special status species. The study included a general reconnaissance of the site by HBG Senior Environmental Scientist Gary Deghi on January 8, 2020.

PROPOSED PROJECT

The subject property is a 21.39-acre site located on Sky High Ridge Road near Lower Lake, Lake County, California. The subject property is Lake County Assessor Parcel No. 122-300-01 owned by James Hopkins and Kochagorn Sinsukthaworn. The Project Area is accessed by taking Morgan Valley Road east approximately four miles from the community of Lower Lake and taking Sky High Ridge Road approximately 0.5 mile north from Morgan Valley Road. The undeveloped site consists of forested woodland, chaparral slopes, an artificially-created

wetland, and a previously-disturbed and graded area where project facilities are proposed. Portions of the site were burned in the Rocky Fire that swept through the area in August of 2015. The Rocky Fire affected portions of Lake, Yolo and Colusa Counties.

The applicant plans to develop a cannabis cultivation operation at the project site. Site plans prepared by Thomas Billeter, Civil Engineer, and dated January 6, 2020 for the Kochagorn Sinsukthaworn Commercial Cannabis Project have been submitted to Lake County under separate cover. The applicant has selected an approximately 0.5-acre previously-disturbed and graded area with little vegetation as the area for cultivation of cannabis in raised planter beds within greenhouses. The applicant anticipates the installation of six approximately 100-foot x 30-foot greenhouses for purposes of cannabis cultivation. The project also proposes minor improvements to the existing driveway to the site off of Sky High Ridge Road, a turnaround along with several parking spaces near the greenhouses, and other ancillary facilities such as storage areas, a small security office, and bathroom. The cultivation area is nearly completely surrounded by a berm left over from previous clearing and grading operations. The cultivation operation will draw water from an existing residential water supply, although plans include installation of a new water tank as a tank previously present on the site was destroyed by the Rocky Fire.

EXISTING BIOLOGICAL SETTING

The description of the biological setting for the property is based on a field visit to the site by HBG Senior Environmental Scientist Gary Deghi on January 8, 2020. The survey on this date included observations of the composition and distribution of plant species, wildlife observations, identification of sensitive habitats and a comparison of site characteristics for similarity to sites known to support special status species within the area.

The project site is in a rural location of Lake County northeast of the unincorporated community of Lower in Lake County, California. The property is located approximately five miles northeast of Lower Lake on Sky High Ridge Road which can be accessed from Morgan Valley Road. Most of the site is forested woodland (some of which was burned in the Rocky Fire), but habitats also include some chaparral slopes and an artificially-created wetland. The 0.5-acre area proposed for cannabis cultivation in greenhouses is a previously-disturbed and level area mostly surrounded by a higher elevation berm. Given that the area is surrounded by a higher elevation berm, perhaps the site was at some point used as a borrow area for fill used for construction purposes nearby.

Elevations on the property range from about 1,756 feet msl near the proposed cultivation area near center of the site to about 1,346 feet msl near Soda Creek at the southwestern edge of the property near Sky High Ridge Road. Several ephemeral drainages east of the proposed greenhouse area flow down the hillslope to the southeast through an artificially-created area of marsh vegetation and then beyond into Soda Creek. The marsh is within an area behind a man-made berm that was originally intended to store water within a pond. The berm has been breached by the drainage so water no longer ponds, but enough water is held back to form a small seasonally wet area with wetland vegetation. An additional ephemeral drainage found

within the western portion of the property is not near any of the proposed facilities. These drainages are shown on Sheet C1.3 of the January 6, 2020 site plans prepared by Thomas Billeter, Civil Engineer, that were submitted under separate cover by the applicant. A review of the Natural Resource Conservation Service (NRCS) Soil Survey map for Lake County (NRCS 1985) indicates that four soil types are found on the property: Maymen-Hopland-Estel association, 15 to 50 percent slopes (14.8 acres of the site); Skyhigh-Millsholm loams, 15 to 50 percent slopes (5.0 acres); Skyhigh-Sleeper-Millsholm association, 1 to 35 percent slopes, MLRA 15 (0.8 acres); and Maymen-Etsel-Snook complex, 30 to 75 percent slopes, low ffd (0.9 acres).

Like other portions of northern California, Lower Lake experiences a Mediterranean climate characterized by warm, dry summers and cool, wet winters. Average annual precipitation in the Lower Lake area is slightly less than 40 inches, with most rain occurring in the winter "rainy season" (November through March).

Plant Communities

Vegetation communities are assemblages of plant species growing in an area of similar biological and environmental factors. Vegetation communities and habitats at the project site were identified based on the currently accepted List of Vegetation Alliances and Associations (or Natural Communities List) (CDFW 2010). The list is based on A Manual of California Vegetation, Second Edition (Sawyer and Keeler-Wolf 2009), which is the National Vegetation Classification applied to California. The project area contains three habitat types according to the Natural Communities List: Blue Oak/California Foothill Pine Woodland, California Chaparral, and Coastal and Valley Freshwater Marsh within a small artificially-created wetland.

The 0.5-acre area proposed for cannabis cultivation is a previously-disturbed area mostly surrounded by a higher elevation berm that contains little vegetation. Vegetation in this previously-disturbed area consists of sparse growth of non-native grasses and herbaceous plants such as yellow star-thistle (*Centaurea solstitialis*), wild oats (*Avena fatua*), rip-gut brome (*Bromus diandrus*) and hare barley (*Hordeum murinum leporinum*). Scattered shrubs are found mostly along the edges of this area and include coyote brush (*Baccharis pilularis*), common manzanita (*Arctostaphylos manzanita*), and yerba santa (*Eriodictyon californicum*).

Beyond this previously-disturbed area, plant communities are Blue Oak/California Foothill Pine Woodland mixed with areas of Chaparral. Dominant trees in the woodland are blue oak (*Quercus douglasii*) and California foothill pine (*Pinus sabaniana*), although other trees present in smaller numbers include interior live oak (*Quercus wislizeni*), valley oak (*Quercus lobata*) (several were present near the wet area at the lower elevation end of the property), and California buckeye (*Aesculus californica*). Areas sloping away from the disturbed area consist of chaparral habitats with vegetation including shrubs such as common manzanita, coyote brush, buckbrush (*Ceonothus* sp.), toyon (*Heteromoles arbutifolia*), leather oak (*Quercus durata),* poison oak (*Toxicodendron diversoloba*), non-native French broom (*Genista monspessulana*), and others. Some of these shrubs are found in the understory of the Blue Oak/California Foothill Pine woodland as well as a number of non-native grasses. A Freshwater Marsh area has formed within a drainage that flows towards Soda Creek. The drainage has breached a

constructed berm at the lower elevation portion of the site southeast of and downslope from the proposed cultivation area, but water collecting behind the berm forms a small area of wetland vegetation. Vegetation within this pond is primarily rabbitsfoot grass (*Polypogon monspeliensis*), a species known to occur in wetlands. This pond is as close as about 275 feet from the edge of the area of proposed cannabis cultivation.

Animal Populations

The habitats on site and in the immediately surrounding area support a number of wildlife species, mostly those typically found in forested habitats and chaparral in this part of Lake County. Trees and other vegetation on the property provide nesting and roosting sites for birds, and cover and foraging habitat for species of birds, mammals, reptiles and amphibians. A number of wildlife species were documented at the site during a biological reconnaissance conducted on January 8, 2020. All species documented are common to abundant in the region and would be expected in the habitats present at the site.

Birds documented in the forested woodland at the site during the January 8, 2020 field review included white-tailed kite (*Elanus leucurus*), red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), acorn woodpecker (*Melanerpes formicivorus*), Northern flicker (*Colaptes auratus*), common raven (*Corvus corax*), oak titmouse (*Baeolophus inornatus*), and dark-eyed Junco (*Junco hyemalis).* Species noted on the chaparral slopes included wrentit (*Chamaea fasciata*) and rufous-crowned sparrow (*Aimophila ruficeps*). These species are all common to abundant species that are expected in the forested and chaparral habitats and open areas found at the site.

Amphibians may be present, especially near the pond area, and would be expected to include species such as Pacific tree frog (*Pseudacris regilla*), California slender salamander (*Batrachoseps attenuatus*), western toad (*Bufo boreas*), and arboreal salamander (*Aneides lugubris*), among others. Reptiles would likely include western fence lizard (*Sceloperus occidentalis*), southern alligator lizard (*Elgaria multicarinatus*), ringneck snake (*Diadophus punctatus*), gopher snake (*Pituophis melanoleucus)* and common garter snake (*Thamnophis sirtalis).* Dens of Botta's pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), and California ground squirrel (*Otospermophilus beecheyi*) were noted during the field review. Other mammals would be expected to include Virginia opossum (*Didelphis virginiana*), deer mouse (*Peromyscus crinitus*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), mule deer (*Odocoileus hemionus*), and probably bobcat (*Felis rufus*) and coyote (*Canis latrans*), among others.

Sensitive Habitats

Regulatory Requirements

Sensitive habitats are those habitats which have been identified by local, state, or federal agencies as areas which provided special functions or values. These habitats are subject to regulation under various local, state, and federal regulations such as the following:

Waters of the United States. The Department of the Army, acting through the U.S. Army Corps of Engineers (Corps), has the authority to permit the discharge of dredge or fill material in waters of the U.S. under Section 404 of the Clean Water Act (CWA). Waters of the U.S. include both wetlands and "other waters of the U.S." Wetlands and other waters of the U.S. are described by U.S. Environmental Protection Agency (US EPA) and Corps regulations (40 CFR § 230.3(s) and 33 CFR § 328.3(a), respectively). US EPA and the Corps define 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" (US EPA regulations at 40 CFR § 230.3(t); Corps' regulations at 33 CFR § 328.3(b)). Both natural and manmade wetlands and other waters (not vegetated by a dominance of rooted emergent vegetation) are subject to regulation. The geographic extent of wetlands is defined by the collective presence of a dominance of wetland vegetation, wetland hydrology conditions, and wetland soil conditions as determined following the Corps' 1987 Wetlands Delineation Manual (1987 Manual); the Corps' 2008 Regional Supplement to Corps of Engineers Wetland Delineation Manual: Arid West, Version 2.0 (Arid West Regional Supplement); and supporting guidance documents. The geographic extent of other waters of the U.S. is defined by an ordinary high water mark (OHWM) in non-tidal waters (33 CFR. §328.3(e)) and by the High Tide Line within tidal waters (33 CFR. §328.3(d)).

Waters of the State. Waters of the State are defined more broadly than "waters of the US" to mean "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code section 13050(e)). Examples include, but are not limited to, rivers, streams, lakes, bays, marshes, mudflats, unvegetated seasonally ponded areas, drainage swales, sloughs, wet meadows, natural ponds, vernal pools, diked baylands, seasonal wetlands, and riparian woodlands. Waters of the State include all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels. They include all "waters of the United States"; all surface waters that are not "waters of the United States, e.g. non-jurisdictional wetlands; groundwater; and the territorial seas. The State Water Quality Control Board (SWQCB) and its Regional Boards, including the Central Valley Regional Water Quality Control Board (CVRWQCB), routinely rely on the Corps/US EPA jurisdictional determinations as they have no adopted methodology for the identification and delineation of wetlands or other waters of the State. However, as a matter of policy the SWQCB/CVRWQCB consider wetlands and waters determined non-jurisdictional by the Corps/USEPA under SWANCC or Rapanos guidance to remain jurisdictional as waters of the State subject to SWQCB/CVRWQCB jurisdiction.

California Department of Fish and Wildlife Regulations. The California Department of Fish and Wildlife (CDFW) regulates lakes and streams under Section of 1602 of the California Fish and Game Code (FGC). CDFW's regulations implementing the FGC define the relevant rivers, streams and lakes over which the agency has jurisdiction to constitute "all rivers, streams, lakes, and streambeds in the State of California, including all rivers, streams and streambeds which have intermittent flows of water." (Title 14 *California Code of Regulations* [CCR] § 720). The CDFW takes jurisdiction under its Lake and Streambed Alteration Agreement Program for

any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. The CDFW does not have a methodology for the identification and delineation of the jurisdictional limits of streams except for the general guidance provided in *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607 California Fish and Game Code* (CDFG 1994). In making jurisdictional determinations, CDFW staff typically rely on field observation of physical features that provide evidence of water flow through a bed and channel such as observed flowing water, sediment deposits and drift deposits and that the stream supports fish or other aquatic life. Riparian habitat is not specifically defined by the FGC but CDFW takes jurisdiction over areas within the flood plain of a body of water where the vegetation (grass, sedges, rushes, forbs, shrubs, and trees) is supported by the surface or subsurface flow.

Sensitive plant communities are those natural plant communities identified in local or regional plans, policies, ordinances, regulations, or by the CDFW which provide special functions or values. The CDFW natural plant communities considered sensitive are those CDFW ranks as 'threatened' or 'very threatened' and keeps records of occurrences of these sensitive communities in the CNDDB. All known occurrences of sensitive habitats are mapped onto 7.5 minute USGS topographic quadrangle maps maintained by the CNDDB. Sensitive plant communities are also identified by CDFW on their List of California Natural Communities Recognized by the CNDDB. Impacts to sensitive natural communities must be considered and evaluated under CEQA.

California Department of Food and Agriculture. The California Department of Food and Agriculture (CDFA), through its CalCannabis Cultivation Licensing Program, ensures public safety and environmental protection by licensing and regulating commercial cannabis cultivators in California. CalCannabis also manages the state's track-and-trace system, which tracks all commercial cannabis and cannabis products from cultivation to sale. CDFA adopted final regulations for state cannabis cultivation licensing on January 16, 2019. With relevance to biological concerns, the regulations currently limit outdoor cannabis cultivation to a maximum of 1.0 acre. Regulations also address sensitive habitats, special status species, water sources, outdoor lighting, noise and human presence, and other items.

Lake County Requirements. The Open Space, Conservation and Recreation Chapter (Chapter 9) of the Lake County General Plan contains goals, policies, and programs designed to address biological resources, along with other resources in the County. The purpose of the Biological Resources section (Section 9.1) is to preserve and protect environmentally sensitive significant habitats, enhance biodiversity, and promote healthy ecosystems throughout the County. Policies commit the County to protect resources such as rare and endangered species, environmentally sensitive habitats, riparian corridors, and wetlands.

Lake County's regulations regarding the commercial cultivation of cannabis are found in Chapter 21, Article 27 of the Lake County Code (the Zoning Ordinance) provides guidance related to cultivation in the vicinity of environmentally sensitive habitats: "Outdoor cultivation, including any topsoil, Pesticide Managements, or fertilizers use for the cultivation of medical

marijuana shall not be located within 100 feet of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. For purposes of determining the edge of Clear Lake, the setback shall be measured from the full lake level of 7.79 feet on the Rumsey Gauge."

Sensitive Habitat Findings

On January 8, 2020, Gary Deghi of HBG conducted an initial reconnaissance investigation of the study area for the presence of wetlands and other "waters of the U.S." that could be potentially subject to federal jurisdiction under the Clean Water Act or state jurisdiction under the Porter-Cologne Act. The review was guided by the Code of Federal Regulations (CFR) definitions of jurisdictional waters; the Corps' 1987 *Wetlands Delineation Manual* (1987 Manual); the Corps' 2008 *Regional Supplement to Corps of Engineers Wetland Delineation Manual: Arid West, Version 2.0* (Arid West Regional Supplement); and supporting guidance documents. The review consisted of a preliminary review of the area proposed for cultivation and surrounding areas for wetlands/waters considering existing land forms, vegetation and evidence of wetland hydrology. A detailed delineation of wetlands/waters preformed pursuant Section 404 of the federal Clean Water Act or state of California Porter-Cologne Act criteria was not conducted.

No areas were found within the proposed cultivation area that would potentially be subject to wetland/waters jurisdiction of the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act, the Porter-Cologne Act jurisdiction of the CVRWQCB, or the Fish and Game Code jurisdiction of CDFW. An area behind a constructed berm at a lower elevation portion of the site contains wetland vegetation but is located approximately 275 feet from the edge of the proposed cultivation area where the greenhouses will be installed and ancillary facilities will be constructed. Several drainages on hillsides to the east of the cultivation site direct water off of the hillsides toward this small potential wetland area and beyond to Soda Creek. The closest drainage is about 225 feet from the edge of the cultivation area; all of these drainages are more than 100 feet from the proposed cultivation site. An additional ephemeral drainage found within the western portion of the property is not near any of the proposed facilities. These drainages are shown on Sheet C1.3 of the January 6, 2020 site plans prepared by Thomas Billeter, Civil Engineer, that were submitted under separate cover by the applicant. The nearest blue line stream on the Lower Lake USGS quadrangle map is Soda Creek, which runs through the southwestern part of the parcel near Sky High Ridge Road.

Special Status Species

Sensitive species include those species listed by the federal and state governments as endangered, threatened, or rare or candidate species for these lists. Endangered or threatened species are protected by the federal Endangered Species Act of 1973 as amended, the California Native Plant Protection Act of 1977, and the California Endangered Species Act of 1970. The California Environmental Quality Act (CEQA) provides additional protection for unlisted species that meet the "rare" or "endangered" criteria defined in Title 14, California Code of Regulations Section 15380.

CDFW maintains records for the distribution and known occurrences of sensitive species and habitats in the California Natural Diversity Database (CNDDB). The CNDDB is organized into map areas based on 7.5-minute topographic maps produced by the U.S. Geological Survey. All known occurrences of sensitive species and important natural communities are mapped on the quadrangle maps. The database gives further detailed information on each occurrence, including specific location of the individual, population, or habitat (if possible) and the presumed current state of the population or habitat. The project site is located in the southeastern portion of the Lower Lake 7.5-minute quadrangle. A search of the CNDDB for records of occurrence of special status animals and plants and natural communities within a 5 mile radius indicated that a number of special status species have been known known to occur in the general area of the project site, but none have been documented on the site itself.

Tables 1 and 2, respectively, present a lists of special status plants and animals that have been reported within 5 miles of the project site. The table includes an evaluation of the potential for sensitive species to occur at the site.

Special Status Plant Species

A list of special status plants with potential to occur on the property was developed from the CDFW's California Natural Diversity Data Base. A complete list of special status plant species occurring in the vicinity of the property is included in Table 1. The table includes all plant species mentioned in the CNDDB within approximately 5 miles of the site. Special status plant species include: (i) species that are listed or proposed for listing as threatened or endangered under the federal Endangered Species Act; (ii) species that are listed, or proposed for listing by the state of California as threatened or endangered under the California Endangered Species Act; (iii) plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered in California and elsewhere; and (iv) plant species that meet the definition of rare or endangered under CEQA.

Although some of the rare plants noted in Table 1 may be possible in the surrounding area, the plant species included in Table 1 require habitat conditions that are not found on the portion of the property where cannabis operations are proposed. The habitat types likely to support rare plant species (e.g., serpentine soils and rock outcrops, wet meadows and seeps, vernal pools, riparian forest, native grasslands, etc.) are not found on the property.

Special Status Animal Species

Animal species noted in the CNDDB as occurring within a 5 mile radius of the site, or that are known to occur in the general vicinity based on the knowledge of HBG biologists, are discussed in Table 2. White-tailed kite, a California Fully Protected Species, was noted as a wintering species passing through the site. It is unknown whether this species nests in the project vicinity, but no trees that would support nesting are found on or in the immediate vicinity of the cultivation area. None of the other animal species discussed in the table have the potential to occur on the site. This finding is made based on the habitat requirements of species listed in the table and is based on field review of habitats present at the site and the immediate vicinity and an evaluation of the suitability of on-site habitats to support these species.

BIOLOGICAL IMPACTS

Standards of Significance

According to CEQA Guidelines (Appendix G), the project would be considered to have a significant impact on biological resources if it would:

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

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

c) 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.

d) 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.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts

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

The proposed project would not result in any significant adverse impacts on special status plant or animal species. None of the plant species discussed in Table 1 have the potential to occur within the cultivation site, which is comprised of a previously-disturbed and graded area with little vegetation. The project would not impact special status plant species.

Although a California Fully Protected white-tailed kite was observed passing through the site during the field survey, the species would not nest on or in the immediate vicinity of the

cultivation area as there are no trees in the area that would provide suitable substrate for nesting by this species. None of the animal species discussed in Table 2 have the potential to inhabit the cultivation site or the immediate vicinity, so the project would not substantially reduce the number or restrict the range of a rare, endangered or threatened species of fauna. Therefore, no impacts to special status species of plant or animal would occur due to implementation of the project.

2) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?
No areas were found in the vicinity of cultivation site where greenhouses would be installed that would potentially be subject to federal wetland/waters jurisdiction of the Corps under Section 404 of the Clean Water Act (CWA), state jurisdiction of the CVRWQCB under the Porter-Cologne Act, or CDFW jurisdiction under the state Fish and Game Code. Several drainages running down the hillside to the east of the cultivation site and an area behind a man-made berm with wetland vegetation downhill from and to the southeast of the cultivation site could be determined to be regulated by state or federal regulatory agencies, but these features are distant from the area of proposed cultivation and are clearly more than 100 feet from any of the proposed greenhouses and cultivation facilities.

In addition, irrigation water for the cultivation will be from an existing, permitted groundwater well, so no water will be extracted from surface streams.

3) Would the project 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?
No areas were found within or in close proximity to the proposed cultivation area that would be potentially be subject to wetland/waters jurisdiction of the Corps under Section 404 of the Clean Water Act or that would potentially be subject to the Porter-Cologne Act jurisdiction of the CVRWQCB or Fish and Game Code jurisdiction of CDFW. Cannabis cultivation within the approximately 0.5-acre cultivation area would not result in filling or direct impacts to any area that would be subject to federal jurisdiction of the Corps or the state regulatory jurisdiction of the CVRWQCB or CDFW. No permits would be required from the U.S. Army Corps of Engineers under the Clean Water Act, the CVRWQCB under 401 of the CWA and/or Porter-Cologne Act, or CDFW under Fish and Game Code Section 1602.

4) Would 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?
The approximately 0.5-acre area proposed for cannabis cultivation is within a previously-disturbed area that has been graded level containing very little vegetation. Construction of greenhouses in this area would result minor removal of non-native vegetation of little value as wildlife habitat. No trees would need to be removed to accommodate the proposed cultivation areas. As the proposed cultivation would occur within previously-disturbed areas of the

property with limited value as habitat for wildlife, impacts to wildlife species would not be considered significant.

Although a number of wildlife species, including a variety of bird species, were observed on the property during the field survey, the establishment of the proposed greenhouses within a previously-disturbed portion of the site would not significantly impact wildlife habitats. Extensive areas of onsite habitat will be available for use by wildlife species that may currently occupy the approximately 0.5-acre cultivation area proposed for installation of greenhouses and construction of ancillary facilities. The project would not result in substantial change in animal populations at the site. The project will not cause a fish or wildlife population to drop below self-sustaining levels.

Additionally, the project applicant is enrolled (CVRWQCB #WDID 5S17CC422708) in the State Water Board's Waste Discharge Requirements for Cannabis Cultivation Order WQ 2019-001-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, inspections and reporting, and regulatory oversight. Small quantities of organic pesticides are the only chemicals to be utilized by this cultivation operation. In addition, the cultivation area is surrounded almost entirely by a berm that will help prevent water from flowing offsite and into downstream areas of habitat for fish or wildlife. This berm may be the result of the site at one time possibly being used as a borrow site where fill material was off-hauled for construction or other uses in the area before the area was leveled. There are locations where water will likely sheet flow from portions of the cultivation area, but the area to the east, where drainages leading to Soda Creek can be found some distance down the hillside, is fully protected by the berm which would prevent water flow and hence movement of sediments or other contaminants offsite towards Soda Creek.

The project will not create new light sources, so no night lighting impacts on nocturnal wildlife will occur, and the project will be in compliance with all lighting requirements of the CalCannabis Licensing Program. Primary use of gas or diesel-powered generators, which are not allowed under the CalCannabis Licensing Program, are not proposed for use. Noise levels would be consistent with the rural environment of the project area and the cultivation will not result in adverse impacts for wildlife populations. Rodenticides, which can have secondary effects with respect to non-target species that prey on rodents, will not be used in the cultivation, in compliance with Cal Cannabis licensing requirements.

5) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

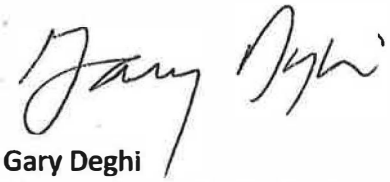
Wetlands, ephemeral drainages or other sensitive habitats protected by County Zoning Ordinance would not be affected by the proposed project. No tree removal is necessary to establish the cultivation areas so tree preservation policies or ordinances would not apply to the project.

6) Would 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?
There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan applicable to the project site.

Summary. As a result of this Biological Resources Report, we find that the proposed cannabis cultivation project will not result in any potentially significant adverse biological impacts.

If you have any questions regarding this Biological Resources Report for APN 122-300-01 at 11020 Sky High Ridge Road near Lower Lake in Lake County, California, please call either me or Dr. Terry Huffman at 415-925-2000.

Sincerely,



Gary Deghi
Vice President/Senior Environmental Scientist

REFERENCES

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Tables

Table 1. Special Status Plants Known to Occur in the Vicinity of the Project Area, Lake County, California

Table 2. Special Status Animal Species That Have Been Reported in the Vicinity of the Project Area, Lake County, California

Table 1. Special Status Plants Known to Occur in the Vicinity of the Project Area, Lake County, California

SCIENTIFIC NAME	STATUS[2] FED/STATE/CNPS	HABITAT/RANGE	OCCURRENCE
Bent-flowered fiddleneck (*Amsinckia lunaris*)	--/--/1B.2	Cismontane woodland and valley and foothill grassland. 50-500m.	Not present. Suitable habitat is not present at the site.
Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*)	--/--/1B.2	Commonly found on serpentine in grassland or openings in chaparral and also cismontane woodland, valley and foothill grassland. 175-1005 m.	Not present. Suitable habitat is not present at the site.
Snow Mountain buckwheat (*Eriogonum nervulosum*)	--/--/1B.2	Dry serpentine outcrops, balds, and barrens in chaparral. 445-2105 m.	Not present. Suitable habitat is not present at the site.
Adobe-lily (*Fritillaria pluriflora*)	--/--/1B.2	Found in clay soils, sometimes serpentine in chaparral, cismontane woodland, valley and foothill grassland. 45-945 m.	Not present. Suitable habitat is not present at the site.
Bogg's Lake hedge hyssop (*Gratiola heterosepala*)	--/CE/1B.2	Inhabits vernal pools and margins of vernal lakes. 10-2375m.	Not present. Suitable habitat is not present at the site.
Hall's harmonia (*Harmonia hallii*)	--/--/1B.2	Serpentine hills and ridges, open rocky areas within chaparral. 335-930 m.	Not present. Suitable habitat is not present at the site.
Congested-headed hayfield tarplant *(Hemizonia congesta ssp. congesta)*	--/--/1B.2	Grassy valleys and hills in Coastal scrub, valley and foothill grassland. Often in fallow fields. 25-200m.	Not present. Suitable habitat is not present at the site.
Drymaria-like western flax *(Hesperolinon drymarioides)*	--/--/1B.2	Serpentine soils in closed-cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland. Mostly within chaparral. 395-2000 m.	Not present. Suitable habitat is not present at the site.
Sharsmith's western flax (*Hesperolinon sharsmithiae*)	--/--/1B.2	Serpentine substrates in chaparral. 180-670 m.	Not present. Suitable habitat is not present at the site.

SCIENTIFIC NAME	STATUS[2] FED/STATE/CNPS	HABITAT/RANGE	OCCURRENCE
Two-carpellate western flax (*Hesperolinon bicarpellatum*)	--/--/1B.2	Serpentine barrens at the edge of chaparral. 175-825 m.	Not present. Suitable habitat is not present at the site.
Burke's goldfields (*Lasthenia burkei*)	FE/CE/1B.1	Found in vernal pools, meadows and seeps, most often in vernal pools and swales. 15-600m.	Not present. Suitable habitat is not present at the site.
Colusa layia *(Layia septentrionalis)*	--/--/1B.2	Found in scattered colonies in fields and grassy slopes in sandy or serpentine soils in chaparral, cismontane woodland and valley and foothill grassland. 15-1100 m.	Not present. Suitable habitat is not present at the site.
Legenere (*Legenere limosa*)	--/--/1B.1	Inhabits the beds of vernal pools. 1-880m.	Not present. Suitable habitat is not present at the site.
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 at 5-1740m.	Not present. Suitable habitat is not present at the site.
Few-flowered navarretia (*Navarretia leucocephala ssp. pauciflora*)	FE/CT/1B.1	Inhabits volcanic ash flows and volcanic substrates in vernal pools. 400-855m.	Not present. Suitable habitat is not present at the site.
Many-flowered navarretia *(Navarretia leucocephala ssp. Plieantha)*	FE/CE/1B.2	Volcanic ash flow vernal pools. 30-915m.	Not present. Suitable habitat is not present at the site.
Slender Orcutt grass (*Orcuttia tenuis*)	FT/CE/1B.1	Vernal pools. Often found in gravelly pools. 35-1760 m.	Not present. Suitable habitat is not present at the site.
Eel-grass pondweed *(Potamogeton zosteriformis)*	--/--/2B.2	Marshes and swamps, ponds, lakes, streams. 90-2135 m.	Not present. Suitable habitat is not present at the site.

SCIENTIFIC NAME	STATUS[2] FED/STATE/CNPS	HABITAT/RANGE	OCCURRENCE
Lake County stonecrop (*Sedella leiocarpa*)	FE/CE/1B.1	Valley and foothill grassland, vernal pools, cismontane woodland. Found in level areas that are seasonally wet and dry out in late spring. Substrate usually of volcanic origin. 515-640 m.	Not present. Suitable habitat is not present at the site.
Freed's jewelflower (*Streptanthus brachiatus* spp. *hoffmanii*)	--/--/1B.2	Primarily in geothermal development areas with chaparral, cismontane woodland and serpentine rock outcrops. 485-1040 m.	Not present. Suitable habitat is not present at the site.

1. Source: California Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Wildlife for the Lower Lake 7.5 Minute Quadrangle Map and surrounding areas, information December 2019.

2. Status Codes:

FE	Federal-listed Endangered
FT	Federal-listed Threatened
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
CE	California State-listed Endangered
CT	California State-listed Threatened
CR	California Rare
FP	California Fully Protected
CSC	California Species of Special Concern

California Rare Plant Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.
California Rare Plant Rank 1B: Plants rare, threatened, or endangered in California and elsewhere.
California Rare Plant Rank 2A: Plants presumed extirpated in California, but more common elsewhere.
California Rare Plant Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere.

California Rare Plant Rank 3: Plants about which more information is needed – a review list.
California Rare Plant Rank 4: Plants of limited distribution – a watch list.
CNPS Threat Ranks
0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Table 2. Special Status Animal Species that have been Reported in the Vicinity of the Project Area, Lake County, California

SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE ON THE PROJECT SITE
INVERTEBRATES			
Wilbur Springs shorebug (*Saldula usingeri)*	--/--	Found only on wet sbustrate of spring outflows. Requires springs/creeks with high concentrations of sodium, chlorine and lithium.	Not present. Suitable habitat is not present at the site.
AMPHIBIANS			
Red-bellied newt *(Taricha rivularis)*	--/CSC	Found in coastal drainages from Humboldt County south to Sonoma County and inland to Lake County. Lives in terrestrial habitats. Juveniles are generally found underground; adults are active at the surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean rocky substrate.	Not present. Suitable habitat is not present at the site.
Foothill yellow-legged frog (*Rana boylii*)	--/CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying.	Not present. Suitable habitat is not present at the site.
REPTILES			
Western pond turtle (*Emmys marmorata*)	--/CSC	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests found up to 0.5 miles from water.	Not present. Suitable habitat is not present at the site.
BIRDS			

SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE ON THE PROJECT SITE
Northern Harrier (*Circus cyaneus*) [nesting]	--/CSC	Coastal salt marsh and freshwater marsh; nests and forages in grasslands; nests on ground in shrubby vegetation, usually at marsh edge.	Not present. Suitable habitat is not present at the site.
White-tailed kite (*Elanus caeruleus*) [nesting]	--/FP	Open grassland and agricultural areas throughout Central California.	Not present. Species may winter in the area, and one was observed at the site during field review. No suitable nest trees are found at or near the site of proposed cannabis operations.
Sharp-shinned hawk (*Accipiter striatus*) [nesting]	--/WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. All habitats except alpine, open prairie, and bare desert used in winter.	Not present as a nesting species. Suitable nesting habitat is not present at the site. May forage at the site.
Cooper's hawk (*Accipiter cooperii*) [nesting]	--/WL	Nests primarily in deciduous riparian forests; forages in open woodlands.	Not present as a nesting species. Suitable nesting habitat is not present at the site. One was observed foraging at the site.
Bald eagle *(Haliaeetus leucocephalus)* (nesting and wintering)	Delisted,BCC/CE,FP	In winter, maybe be found throughout most of California at lakes, reservoirs, rivers and some rangelands and coastal wetlands. California's breeding habitats are mainly located in mountains and foothill forests near permanent water sources.	Not present. Suitable habitat is not present at the site.

SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE ON THE PROJECT SITE
Golden eagle (*Aquila chrysaetos*) [nesting and wintering]	BCC/FP,WL	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Not present. Suitable habitat is not present at the site.
American peregrine falcon (*Falco peregrinus anatum*)	Delisted,BCC/Delisted, FP	Nests in woodland, forest and coastal habitats, on cliffs or banks, and usually near wetlands, lakes, rivers, sometimes on human-made structure. In non-breeding seasons found in riparian areas and coastal and inland wetlands.	Not present. Suitable habitat is not present at the site.
Prairie falcon (*Falco mexicanus*)(Nesting)	BCC/WL	Associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields and desert scrub. Permanent resident and migrant along inner coast and ranges.	Not present. Suitable habitat is not present at the site.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FC,BCC/CE	Nests in riparian forests along the broad, lower flood-bottoms of larger river systems. Requires willows, cottonwoods with lower story of blackberry, nettles or wild grape.	Not present. Suitable habitat is not present at the site.
Yellow warbler (*Setophaga petechia*) [nesting]	BCC/CSC	Breeds in deciduous riparian woodlands, widespread during fall mitigation.	Not present. Suitable nesting habitat is not present at the site. May occur as a fall migrant.
MAMMALS			
Townsend's big-eared bat *(Corynorhinus townsendii)*	--/CCT,CSC	Found in desert scrub and coniferous forests. Roost in caves or abandoned mines and occasionally are found to roost in buildings.	Not present. Suitable habitat is not present at the site.

SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE ON THE PROJECT SITE
Pallid bat *(Antrozous pallidus)*	--/CSC	Found in deserts, grasslands, shrub lands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in rocky areas primarily in oak woodland and ponderosa pine habitats; forages in open areas.	Not present. Suitable habitat is not present at the site.

1. Source: California Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Wildlife for the Lower Lake 7.5-Minute Quadrangle Map and surrounding areas, information dated December 2019.

2. Status Codes:

FE Federal-listed Endangered
FT Federal-listed Threatened
FPE Federally Proposed Endangered
FPT Federally Proposed Threatened
FC Federal Candidate
BCC USFWS Bird Species of Conservation Concern

CE California State-listed Endangered
CCE Candidate for CA State-listed Endangered
CT California State-listed Threatened
CR California Rare
FP California Fully Protected
CSC CDFW Species of Special Concern
WL CDFW Watch List Species

State of California
Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Biogeographic Data Branch
California Natural Diversity Database (CNDDB)

STATE AND FEDERALLY LISTED ENDANGERED, THREATENED, AND RARE PLANTS OF CALIFORNIA

October 3, 2019

This document contains a list of California plant taxa that have been officially classified as Endangered, Threatened, or Rare by the California Fish & Game Commission (FGC; state listed) or by the U.S. Secretary of the Interior or the U.S. Secretary of Commerce (federally listed). This list also includes taxa that are official Candidates for state or federal listing, or have been officially Proposed for federal listing, as well as taxa that were once listed but have since been delisted.

State listing is pursuant to the Native Plant Protection Act of 1977 (Fish and Game Code Chapter 10, §§1900-1913) and the California Endangered Species Act of 1984 (CESA; California Code of Regulations, Title 14, Chapter 6, §§783.0-787.9; Fish and Game Code Chapter 1.5, §§ 2050-2115.5). The official California listing of Endangered and Threatened species is contained in the California Code of Regulations, Title 14, §670.5.

Federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (16 USC §§1531-1544; 50 CFR §§17.1-17.108). The federal agencies responsible for listing are the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The official federal listing of Endangered and Threatened species is published in the Federal Register, 50 CFR §17.11.

Abbreviation	Designation	Totals
SE	State Listed - Endangered	136
ST	State Listed - Threatened	22
SR	State Listed - Rare	64
SC	State Candidate for Listing	0
SCD	State Candidate for Delisting	0
SDR	State Delisted (Recovered)	0
SDE	State Delisted (Extinct)	0
FE	Federally Listed - Endangered	134
FT	Federally Listed - Threatened	52
FPE	Federally Proposed - Endangered	0
FPT	Federally Proposed - Threatened	0
FC	Federal Candidate for Listing	1
FPDE	Federally Proposed for Delisting (currently Endangered)	0
FPDT	Federally Proposed for Delisting (currently Threatened)	0
FDR	Federally Delisted (Recovered)	3
FDE	Federally Delisted (Extinct)	0
	# Plant Taxa State-Listed Only	100
	# Plant Taxa Federally-Listed Only	64
	# Plant Taxa State- AND Federally-Listed	122
	Total # State-Listed Taxa (SE, ST, SR, SCD)	222
	Total # Federally-Listed Taxa (FE, FPDE, FT, FPDT)	186
	Total Number of Listed Plant Taxa	286

(Totals include subspecies or varieties when listed separately. Note that CNDDB does not currently track *Pinus albicaulis* or *Carex albida*, so counts generated from RareFind may differ from those above.)

Common and scientific names are shown as they are in current usage, typically based on the NatureServe Natural Heritage Network, unless otherwise noted. If current nomenclature differs from that in state and federal listing documents, the nomenclature at the time of listing is provided in the notes. Synonyms are included when state, federal, and/or CNDDB usage differs; name changes and other clarifying points are also noted. Where state and federal listings apply to different ranges, subspecies, or populations, each taxa will be listed separately, and statuses that apply to only a portion of the taxon, or that also encompass other taxa, will be shown in parentheses. Where state and federal listings differ in name, but represent the same biological unit, the common name will be listed using the California state listing; the federal name will be listed in the notes.

The "List Date" for **final** federal listing is the date the listing became effective. This is typically not the date of publication of the rule in the Federal Register; it is usually about 30 days after publication, but may be longer.

If a plant was previously listed and no longer has any listing status, the entry text is grey. For taxa having more than one status entry, the **current status is in bold and underlined**. All dates are in the "YYYYMMDD" format.

Abbreviations

CCR: California Code of Regulations
CDFW: California Department of Fish and Wildlife (previously Department of Fish and Game (DFG))
CESA: California Endangered Species Act
ESA: Endangered Species Act (Federal)
FGC: California Fish and Game Commission
NMFS: National Marine Fisheries Service
NOAA: National Oceanic and Atmospheric Administration
USFWS: United States Fish and Wildlife Service

Additional Resources

The California Fish and Game Commission publishes notices relating to changes to Title 14 of the California Code of Regulations: www.fgc.ca.gov

Title 14 of the California Code of Regulations can be accessed through The Office of Administrative Law: www.oal.ca.gov

The U.S. Fish and Wildlife Service is responsible for protecting Endangered and Threatened species, and conserving candidate species and at-risk species so that ESA listing is not necessary: www.fws.gov/Endangered

NOAA's National Marine Fisheries Service, Office of Protected Resources is responsible for protecting marine mammals and Endangered and Threatened marine life: www.fisheries.noaa.gov/about/office-protected-resources

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Abronia alpina	Ramshaw Meadows abronia					FC on 20040504; removed from FC list on 20151008.
Acanthomintha duttonii	San Mateo thorn-mint	SE	197907XX	FE	19850918	Scientific name at time of listing: *Acanthomintha obovata* ssp. *duttonii*
Acanthomintha ilicifolia	San Diego thorn-mint	SE	198201XX	FT	19981013	
Acanthoscyphus parishii var. *goodmaniana*	Cushenbury oxytheca			FE	19940824	Scientific name at time of listing: *Oxytheca parishii* var. *goodmaniana*
Acmispon argophyllus var. *adsurgens*	San Clemente Island bird's-foot trefoil	SE	197911XX			Scientific name at time of listing: *Lotus argophyllus* var. *adsurgens*
Acmispon argophyllus var. *niveus*	Santa Cruz Island bird's-foot trefoil	SE	198108XX			Scientific name at time of listing: *Lotus argophyllus* var. *niveus*
Acmispon dendroideus var. *traskiae*	San Clemente Island lotus	SE	198204XX	FT FE	20130726 19770912	Scientific name at time of listing: *Lotus dendroideus* var. *traskiae*
Agrostis blasdalei var. *marinensis*	Blasdale's bent grass	Delisted SR	200804XX 197811XX			Current taxonomic treatment no longer recognizes varieties within *A. blasdalei*.
Allium munzii	Munz's onion	ST	199001XX	FE	19981013	
Allium yosemitense	Yosemite onion	SR	198207XX			
Alopecurus aequalis var. *sonomensis*	Sonoma alopecurus			FE	19971022	
Ambrosia pumila	San Diego ambrosia			FE	20020702	
Amsinckia grandiflora	large-flowered fiddleneck	SE	198204XX	FE	19850508	
Arabis mcdonaldiana	McDonald's rockcress	SE	197907XX	FE	19780929	
Arctostaphylos bakeri ssp. *bakeri*	Baker's manzanita	SR	197909XX			Listing status includes the entire species, *A. bakeri*.
Arctostaphylos bakeri ssp. *sublaevis*	The Cedars manzanita	SR	197909XX			Listing status includes the entire species, *A. bakeri*.
Arctostaphylos confertiflora	Santa Rosa Island manzanita			FE	19970731	
Arctostaphylos densiflora	Vine Hill manzanita	SE	198108XX			
Arctostaphylos edmundsii var. *parvifolia*	Little Sur manzanita	Delisted SR	200804XX 198108XX			Current taxonomic treatment no longer recognizes varieties within *A. edmundsii*.
Arctostaphylos franciscana	Franciscan manzanita			FE	20121005	
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita			FE	19961007	
Arctostaphylos hookeri ssp. *hearstiorum*	Hearsts' manzanita	SE	197909XX			
Arctostaphylos imbricata	San Bruno Mountain manzanita	SE	197909XX			
Arctostaphylos montana ssp. *ravenii*	Presidio manzanita	SE	197811XX	FE	19791129	Scientific name at time of listing: *Arctostaphylos hookeri* var. *ravenii*
Arctostaphylos morroensis	Morro manzanita			FT	19941215	
Arctostaphylos myrtifolia	Ione manzanita			FT	19990526	

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Arctostaphylos pacifica	Pacific manzanita	SE	197909XX			
Arctostaphylos pallida	pallid manzanita	SE	197911XX	FT	19980422	
Arenaria paludicola	marsh sandwort	SE	199002XX	FE	19930803	
Astragalus agnicidus	Humboldt milk-vetch	SE	198204XX			
Astragalus albens	Cushenbury milk-vetch			FE	19940824	
Astragalus brauntonii	Braunton's milk-vetch			FE	19970129	
Astragalus claranus	Clara Hunt's milk-vetch	ST	199001XX	FE	19971022	Scientific name at time of listing: *Astragalus clarianus*
Astragalus jaegerianus	Lane Mountain milk-vetch			FE	19981006	
Astragalus johannis-howellii	Long Valley milk-vetch	SR	198207XX			
Astragalus lentiginosus var. *coachellae*	Coachella Valley milk-vetch			FE	19981006	
Astragalus lentiginosus var. *piscinensis*	Fish Slough milk-vetch			FT	19981006	
Astragalus lentiginosus var. *sesquimetralis*	Sodaville milk-vetch	SE	197909XX			
Astragalus magdalenae var. *peirsonii*	Peirson's milk-vetch	SE	197911XX	FT	19981006	
Astragalus monoensis	Mono milk-vetch	SR	198207XX			
Astragalus pycnostachyus var. *lanosissimus*	Ventura Marsh milk-vetch	SE	200004XX	FE	20010521	
Astragalus tener var. *titi*	coastal dunes milk-vetch	SE	198202XX	FE	19980812	
Astragalus traskiae	Trask's milk-vetch	SR	197911XX			
Astragalus tricarinatus	triple-ribbed milk-vetch			FE	19981006	
Atriplex coronata var. *notatior*	San Jacinto Valley crownscale			FE	19981013	
Atriplex tularensis	Bakersfield smallscale	SE	198701XX			
Baccharis vanessae	Encinitas baccharis	SE	198701XX	FT	19961007	
Bensoniella oregona	bensoniella	SR	198207XX			
Berberis nevinii	Nevin's barberry	SE	198701XX	FE	19981013	
Berberis pinnata ssp. *insularis*	island barberry	SE	197911XX	FE	19970731	
Blennosperma bakeri	Sonoma sunshine	SE	199202XX	FE	19911202	
Blennosperma nanum var. *robustum*	Point Reyes blennosperma	SR	197811XX			
Bloomeria humilis	dwarf goldenstar	SR	197811XX			
Boechera hoffmannii	Hoffmann's rockcress			FE	19970731	Scientific name at time of listing: *Arabis hoffmannii*
Brodiaea filifolia	thread-leaved brodiaea	SE	198201XX	FT	19981013	
Brodiaea insignis	Kaweah brodiaea	SE	197911XX			
Brodiaea pallida	Chinese Camp brodiaea	SE	197811XX	FT	19981014	

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Brodiaea rosea	Indian Valley brodiaea	SE	197909XX			Scientific name at time of listing: *Brodiaea coronaria* ssp. *rosea*
Calamagrostis foliosa	leafy reed grass	SR	197911XX			
Calochortus dunnii	Dunn's mariposa-lily	SR	197911XX			
Calochortus persistens	Siskiyou mariposa-lily	SR	198207XX			FC on 20040504; removed from FC list on 20151008.
Calochortus tiburonensis	Tiburon mariposa-lily	ST	198705XX	FT	19950203	
Calyptridium pulchellum	Mariposa pussypaws			FT	19981014	
Calystegia stebbinsii	Stebbins' morning-glory	SE	198108XX	FE	19961018	
Camissonia benitensis	San Benito evening-primrose			FT	19850212	
Carex albida	white sedge	SE	197911XX	FE	19971022	Current taxonomic treatment considers *Carex albida* as a synonym of *Carex lemmonii*, a common taxon. No longer tracked by CNDDB.
Carex tompkinsii	Tompkins' sedge	SR	197911XX			
Carpenteria californica	tree-anemone	ST	199001XX			
Castilleja affinis var. *neglecta*	Tiburon paintbrush	ST	199001XX	FE	19950203	Scientific name at time of listing: *Castilleja affinis* ssp. *neglecta*
Castilleja campestris var. *succulenta*	succulent owl's-clover	SE	197909XX	FT	19970326	Scientific name at time of listing: *Castilleja campestris* ssp. *succulenta*
Castilleja cinerea	ash-gray paintbrush			FT	19981014	
Castilleja gleasoni	Mt. Gleason paintbrush	SR	198207XX			
Castilleja grisea	San Clemente Island paintbrush	SE	198204XX	**FT** FE	20130726 19770912	
Castilleja mollis	soft-leaved paintbrush			FE	19970731	
Castilleja uliginosa	Pitkin Marsh paintbrush	SE	197811XX			
Caulanthus californicus	California jewel-flower	SE	198701XX	FE	19900719	
Caulanthus stenocarpus	slender-pod jewel-flower	**Delisted** SR	200804XX 197911XX			Current taxonomic treatment considers *Caulanthus stenocarpus* as a synonym of *Caulanthus heterophyllus*, a common taxon.
Ceanothus ferrisiae	Coyote ceanothus			FE	19950203	Scientific name at time of listing: *Ceanothus ferrisae*
Ceanothus hearstiorum	Hearsts' ceanothus	SR	198108XX			
Ceanothus maritimus	maritime ceanothus	SR	197811XX			
Ceanothus masonii	Mason's ceanothus	SR	197811XX			
Ceanothus ophiochilus	Vail Lake ceanothus	SE	199401XX	FT	19981013	
Ceanothus roderickii	Pine Hill ceanothus	SR	198207XX	FE	19961018	
Cercocarpus traskioe	Catalina Island mountain-mahogany	SE	198204XX	FE	19970808	
Chlorogalum purpureum var. *purpureum*	Santa Lucia purple amole			FT	20000320	USFWS listed the entire species, *Chlorogalum purpureum*.

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Chlorogalum purpureum var. *reductum*	Camatta Canyon amole	SR	197811XX	FT	20000320	USFWS listed the entire species, *Chlorogalum purpureum* .
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	SE	197907XX	FE	19781029	Scientific name at time of listing: *Cordylanthus maritimus* ssp. *maritimus*
Chloropyron molle ssp. *molle*	soft bird's-beak	SR	197907XX	FE	19971120	Scientific name at time of listing: *Cordylanthus mollis* ssp. *mollis* . Synonym: soft salty bird's-beak.
Chloropyron palmatum	palmate-bracted bird's-beak	SE	198405XX	FE	19860701	Scientific name at time of listing: *Cordylanthus palmatus* . Synonym: palmate salty bird's-beak.
Chorizanthe howellii	Howell's spineflower	ST	198701XX	FE	19920622	
Chorizanthe orcuttiana	Orcutt's spineflower	SE	197911XX	FE	19961007	
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	SE	200108XX			FC on 20040504, reclassified as FPT on 20160915, Proposed Rule withdrawn on 20180315.
Chorizanthe pungens var. *hartwegiana*	Ben Lomond spineflower			FE	19940204	
Chorizanthe pungens var. *pungens*	Monterey spineflower			FT	19940204	
Chorizanthe robusta var. *hartwegii*	Scotts Valley spineflower			FE	19940204	
Chorizanthe robusta var. *robusta*	robust spineflower			FE	19940204	
Chorizanthe valida	Sonoma spineflower	SE	199001XX	FE	19920622	
Cirsium ciliolatum	Ashland thistle	SE	198209XX			
Cirsium fontinale var. *fontinale*	fountain thistle	SE	197907XX	FE	19950203	Synonym: Crystal Springs fountain thistle
Cirsium fontinale var. *obispoense*	Chorro Creek bog thistle	SE	199306XX	FE	19941215	Synonym: San Luis Obispo fountain thistle
Cirsium hydrophilum var. *hydrophilum*	Suisun thistle			FE	19971120	
Cirsium rhothophilum	surf thistle	ST	199002XX			
Cirsium scariosum var. *loncholepis*	La Graciosa thistle	ST	199002XX	FE	20000320	Scientific name at time of listing: *Cirsium loncholepis*
Clarkia franciscana	Presidio clarkia	SE	197811XX	FE	19950203	
Clarkia imbricata	Vine Hill clarkia	SE	197811XX	FE	19971022	
Clarkia lingulata	Merced clarkia	SE	198701XX			
Clarkia speciosa ssp. *immoculata*	Pismo clarkia	SR	197811XX	FE	19941215	
Clarkia springvillensis	Springville clarkia	SE	197909XX	FT	19981014	
Cordylanthus nidularius	Mt. Diablo bird's-beak	SR	197811XX			
Cordylanthus rigidus ssp. *littoralis*	seaside bird's-beak	SE	198201XX			
Cordylanthus tenuis ssp. *capillaris*	Pennell's bird's-beak	SR	197811XX	FE	19950203	
Croton wigginsii	Wiggins' croton	SR	198201XX			
Cryptantha roosiorum	bristlecone cryptantha	SR	198207XX			
Dedeckera eurekensis	July gold	SR	197811XX			
Deinandra arida	Red Rock tarplant	SR	198207XX			Scientific name at time of listing: *Hemizonia arida*

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Deinandra bacigalupii	Livermore tarplant	SE	20171001			
Deinandra conjugens	Otay tarplant	SE	197911XX	FT	19981013	Scientific name at time of listing: *Hemizonia conjugens*
Deinandra increscens ssp. *villosa*	Gaviota tarplant	SE	199001XX	FE	20000320	Scientific name at time of listing: *Hemizonia increscens* ssp. *villosa*
Deinandra minthornii	Santa Susana tarplant	SR	197811XX			Scientific name at time of listing: *Hemizonia minthornli*
Deinandra mohavensis	Mojave tarplant	SE	198108XX			Scientific name at time of listing: *Hemizonia mohavensis*
Delphinium bakeri	Baker's larkspur	SE	200704XX	FE	20000126	
Delphinium hesperium ssp. *cuyamacae*	Cuyamaca larkspur	SR	198207XX			
Delphinium luteum	golden larkspur	SR	197909XX	FE	20000126	
Delphinium variegatum ssp. *kinkiense*	San Clemente Island larkspur	SE	197909XX	FE	19770912	
Dieteria asteroides var. *lagunensis*	Mount Laguna aster	SR	197909XX			Scientific name at time of listing: *Machaeranthera asteroides* var. *lagunensis*
Diplacus vandenbergensis	Vandenberg monkeyflower			FE	20140925	Scientific name when proposed as a Federal Candidate: *Mimulus fremontii* var. *vandenbergensis*
Dithyrea maritima	beach spectaclepod	ST	199002XX			
Dodecahema leptoceras	slender-horned spineflower	SE	198201XX	FE	19870928	
Downingia concolor var. *brevior*	Cuyamaca Lake downingia	SE	198202XX			
Dudleya abramsii ssp. *setchellii*	Santa Clara Valley dudleya			FE	19950203	Scientific name at time of listing: *Dudleya setchellii*
Dudleya brevifolia	short-leaved dudleya	SE	198201XX			
Dudleya cymosa ssp. *agourensis*	Agoura Hills dudleya			FT	19970129	USFWS listed the more encompassing *Dudleya cymosa* ssp. *ovatifolia* from which ssp. *agourensis* was split.
Dudleya cymosa ssp. *marcescens*	marcescent dudleya	SR	197811XX	FT	19970129	
Dudleya cymosa ssp. *ovatifolia*	Santa Monica dudleya			FT	19970129	
Dudleya nesiotica	Santa Cruz Island dudleya	SR	197911XX	FT	19970731	
Dudleya parva	Conejo dudleya			FT	19970129	Scientific name at time of listing: *Dudleya abramsii* ssp. *parva*
Dudleya stolonifera	Laguna Beach dudleya	ST	198701XX	FT	19981013	
Dudleya traskiae	Santa Barbara Island dudleya	SE	197911XX	FE	19780527	
Dudleya verityi	Verity's dudleya			FT	19970129	
Enceliopsis nudicaulis var. *corrugata*	Ash Meadows daisy			FT	19850520	
Eremalche kernensis	Kern mallow			FE	19900719	
Eremogone ursina	Big Bear Valley sandwort			FT	19981014	Scientific name at time of listing: *Arenaria ursina*
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	SE	198701XX	FE	19870928	

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Eriastrum hooveri	Hoover's woolly-star			FDR	20031007	
Eriastrum tracyi	Tracy's eriastrum	SR	198207XX			
Erigeron parishii	Parish's daisy			FT	19940824	
Eriodictyon altissimum	Indian Knob mountainbalm	SE	197907XX	FE	19941215	
Eriodictyon capitatum	Lompoc yerba santa	SR	197909XX	FE	20000320	
Eriogonum alpinum	Trinity buckwheat	SE	197907XX			
Eriogonum apricum var. *apricum*	Ione buckwheat	SE	198108XX	FE	19990526	USFWS listed the entire species, *Eriogonum apricum* .
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	SE	198701XX	FE	19990526	USFWS listed the entire species, *Eriogonum apricum* .
Eriogonum butterworthianum	Butterworth's buckwheat	SR	197911XX			
Eriogonum crocatum	conejo buckwheat	SR	197909XX			
Eriogonum giganteum var. *compactum*	Santa Barbara Island buckwheat	SR	197911XX			
Eriogonum grande var. *timorum*	San Nicolas Island buckwheat	SE	197911XX			Scientific name at time of listing: *Eriogonum grande* ssp. *timorum* . CCR lists common name as San Nicholas Island buckwheat.
Eriogonum kelloggii	Kellogg's buckwheat	SE	198204XX			FC on 20040504; removed from FC list on 20140918.
Eriogonum kennedyi var. *austromontanum*	southern mountain buckwheat			FT	19981014	
Eriogonum ovalifolium var. *vineum*	Cushenbury buckwheat			FE	19940824	
Eriogonum thornei	Thorne's buckwheat	SE	197909XX			Scientific name at time of listing: *Eriogonum ericifolium* var. *thornei*
Eriogonum twisselmannii	Twisselmann's buckwheat	SR	198207XX			
Eriophyllum congdonii	Congdon's woolly sunflower	SR	198207XX			
Eriophyllum latilobum	San Mateo woolly sunflower	SE	199206XX	FE	19950203	
Eryngium aristulatum var. *parishii*	San Diego button-celery	SE	197907XX	FE	19930803	
Eryngium constancei	Loch Lomond button-celery	SE	198701XX	FE	19870122	Emergency FE listing 19850801; formal FE status on 19870122. Synonym: Loch Lomond coyote thistle.
Eryngium racemosum	Delta button-celery	SE	198108XX			
Erysimum capitatum var. *angustatum*	Contra Costa wallflower	SE	197811XX	FE	19780527	
Erysimum menziesii	Menzies' wallflower	SE	198409XX	FE	19920622	USFWS separately listed three subspecies as endangered; *E. menziesii* ssp. *eurekense* , *E. menziesii* ssp. *menziesii* , and *E. menziesii* ssp. *yadonii* . Current taxonomic treatment no longer recognizes subspecies within *E. menziesii* .
Erysimum teretifolium	Santa Cruz wallflower	SE	198108XX	FE	19940204	
Euphorbia hooveri	Hoover's spurge			FT	19970326	Scientific name at time of listing: *Chamaesyce hooveri*

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Fremontodendron decumbens	Pine Hill flannelbush	SR	197907XX	FE	19961018	Scientific name at time of listing: *Fremontodendron californicum* ssp. *decumbens*
Fremontodendron mexicanum	Mexican flannelbush	SR	198207XX	FE	19981013	
Fritillaria gentneri	Gentner's fritillary			FE	19991210	
Fritillaria roderickii	Roderick's fritillary	SE	197911XX			
Fritillaria striata	striped adobe-lily	ST	198701XX			
Galium angustifolium ssp. *borregoense*	Borrego bedstraw	SR	197909XX			
Galium buxifolium	box bedstraw	SR	197911XX	FE	19970731	
Galium californicum ssp. *sierrae*	El Dorado bedstraw	SR	197911XX	FE	19961018	
Galium catalinense ssp. *acrispum*	San Clemente Island bedstraw	SE	198204XX			
Gilia tenuiflora ssp. *arenaria*	sand gilia	ST	198701XX	FE	19920622	Synonym: Monterey gilia
Gilia tenuiflora ssp. *hoffmannii*	Hoffmann's slender-flowered gilia			FE	19970731	
Gratiola heterosepala	Boggs Lake hedge-hyssop	SE	197811XX			
Grindelia fraxinipratensis	Ash Meadows gumplant			FT	19850520	Scientific name at time of listing: *Grindelia fraxino-pratensis*
Hazardia orcuttii	Orcutt's hazardia	ST	200208XX			FC on 20040504; removed from FC list on 20131122.
Helianthemum greenei	island rush-rose			FT	19970731	
Helianthus niveus ssp. *tephrodes*	Algodones Dunes sunflower	SE	197911XX			
Hesperocyparis abramsiana var. *abramsiana*	Santa Cruz cypress	SE	197911XX	FT FE	20160321 19870108	USFWS listed the entire species, *Cupressus abramsiana* , as FE on 19870108; reclassified as FT on 20160321.
Hesperocyparis abramsiana var. *butanoensis*	Butano Ridge cypress	SE	197911XX	FT FE	20160321 19870108	USFWS listed the entire species, *Cupressus abramsiana* , as FE on 19870108; reclassified as FT on 20160321.
Hesperocyparis goveniana	Gowen cypress			FT	19980812	Scientific name at time of listing: *Cupressus goveniana* ssp. *goveniana*
Hesperolinon congestum	Marin western flax	ST	199206XX	FT	19950203	
Hesperolinon didymocarpum	Lake County western flax	SE	198108XX			
Holmgrenanthe petrophila	rock lady	SR	198207XX			Scientific name at time of listing: *Maurandya petrophila*
Holocarpha macradenia	Santa Cruz tarplant	SE	197909XX	FT	20000320	
Howellia aquatilis	water howellia			FT	19940714	
Ivesia callida	Tahquitz ivesia	SR	198207XX			
Ivesia webberi	Webber's ivesia			FT	20140703	FC on 20040504; moved to FPT on 20130802.
Lasthenia burkei	Burke's goldfields	SE	197909XX	FE	19911202	
Lasthenia conjugens	Contra Costa goldfields			FE	19970618	
Layia carnosa	beach layia	SE	199001XX	FE	19920622	
Leptosiphon croceus	coast yellow leptosiphon	SE	20190401			

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Lessingia germanorum	San Francisco lessingia	SE	199001XX	FE	19970619	Synonym: *Lessingia germanorum* var. *germanorum*
Lewisia congdonii	Congdon's lewisia	SR	198207XX			
Lilaeopsis masonii	Mason's lilaeopsis	SR	197911XX			
Lilium occidentale	western lily	SE	198201XX	FE	19940817	
Lilium pardalinum ssp. *pitkinense*	Pitkin Marsh lily	SE	197811XX	FE	19971022	
Limnanthes alba ssp. *parishii*	Parish's meadowfoam	SE	197907XX			Scientific name at time of listing: *Limnanthes gracilis* var. *parishii*
Limnanthes bakeri	Baker's meadowfoam	SR	197811XX			
Limnanthes douglasii ssp. *sulphurea*	Point Reyes meadowfoam	SE	198204XX			
Limnanthes floccosa ssp. *californica*	Butte County meadowfoam	SE	198202XX	FE	19920608	
Limnanthes vinculans	Sebastopol meadowfoam	SE	197911XX	FE	19911202	
Lithophragma maximum	San Clemente Island woodland star	SE	198202XX	FE	19970808	
Lupinus citrinus var. *deflexus*	Mariposa lupine	ST	199001XX			
Lupinus constancei	The Lassics lupine	SE	20190401			
Lupinus milo-bakeri	Milo Baker's lupine	ST	198701XX			
Lupinus nipomensis	Nipomo Mesa lupine	SE	198701XX	FE	20000320	
Lupinus padre-crowleyi	Father Crowley's lupine	SR	198108XX			
Lupinus tidestromii	Tidestrom's lupine	SE	198701XX	FE	19920622	Federally listed at the species level; state listed as *Lupinus tidestromii* var. *tidestromii* (plants of *L. tidestromii* from Monterey County only)
Mahonia sonnei	Truckee barberry	Delisted SE	200804XX 197907XX	Delisted FE	20031001 19791106	Synonym: *Berberis sonnei*. Current taxonomic treatment considers *B. sonnei* as a form of the common *B. aquifolium* var. *repens*, and not a separate taxon.
Malacothamnus clementinus	San Clemente Island bush-mallow	SE	198202XX	FE	19770912	
Malacothamnus fasciculatus var. *nesioticus*	Santa Cruz Island bush-mallow	SE	197911XX	FE	19970731	
Malacothrix indecora	Santa Cruz Island malacothrix			FE	19970731	
Malacothrix squalida	island malacothrix			FE	19970731	
Monardella viminea	willowy monardella	SE	197911XX	FE	19981013	Scientific name at time of listing: *Monardella linoides* ssp. *viminea*
Monolopia congdonii	San Joaquin woollythreads			FE	19900719	Synonym: *Lembertia congdonii*
Nasturtium gambelii	Gambel's water cress	ST	199001XX	FE	19930803	Scientific name at time of listing: *Rorippa gambellii*
Navarretia fossalis	spreading navarretia			FT	19981013	
Navarretia leucocephala ssp. *pauciflora*	few-flowered navarretia	ST	199001XX	FE	19970618	Synonym: *Navarretia pauciflora*
Navarretia leucocephala ssp. *plieantha*	many-flowered navarretia	SE	197911XX	FE	19970618	

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Nemacladus twisselmannii	Twisselmann's nemacladus	SR	198207XX			
Neostapfia colusana	Colusa grass	SE	197911XX	FT	19970326	
Nitrophila mohavensis	Amargosa nitrophila	SE	197911XX	FE	19850520	
Noccaea fendleri ssp. californica	Kneeland Prairie pennycress			FE	20000209	Scientific name at time of listing: *Thlapsi californicum*
Nolina interrata	Dehesa nolina	SE	197911XX			
Oenothera californica ssp. *eurekensis*	Eureka Dunes evening-primrose	SR	197811XX	**FDR** FE	20180329 19780527	Scientific name at time of listing: *Oenothera avita* ssp. *eurekensis*. FE on 19780527; removed from FE list on 20180329.
Oenothera deltoides ssp. *howellii*	Antioch Dunes evening-primrose	SE	197811XX	FE	19780527	
Opuntia basilaris var. *treleasei*	Bakersfield cactus	SE	199001XX	FE	19900719	Scientific name at time of listing: *Opuntia treleasei*
Orcuttia californica	California Orcutt grass	SE	197909XX	FE	19930803	
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	SE	197909XX	FT	19970326	
Orcuttia pilosa	hairy Orcutt grass	SE	197909XX	FE	19970326	
Orcuttia tenuis	slender Orcutt grass	SE	197909XX	FT	19970326	
Orcuttia viscida	Sacramento Orcutt grass	SE	197907XX	FE	19970326	
Ornithostaphylos oppositifolia	Baja California birdbush	SE	200105XX			
Packera ganderi	Gander's ragwort	SR	198207XX			Scientific name at time of listing: *Senecio ganderi*
Packera layneae	Layne's ragwort	SR	197911XX	FT	19961018	Scientific name at time of listing: *Senecio layneae*
Panicum acuminatum var. *thermale*	Geysers panicum	SE	197809XX			Scientific name at time of listing: *Dichanthelium lanuginosum* var. *thermale*
Pedicularis dudleyi	Dudley's lousewort	SR	197909XX			
Pentachaeta bellidiflora	white-rayed pentachaeta	SE	199206XX	FE	19950203	
Pentachaeta lyonii	Lyon's pentachaeta	SE	199001XX	FE	19970129	
Phacelia insularis var. *insularis*	northern Channel Islands phacelia			FE	19970731	Synonym: island phacelia
Phacelia stellaris	Brand's star phacelia					FC on 20040504; removed from FC list on 20131122.
Phlox hirsuta	Yreka phlox	SE	198701XX	FE	20000203	
Physaria kingii ssp. *bernardina*	San Bernardino Mountains bladderpod			FE	19940824	Scientific name at time of listing: *Lesquerella kingii* ssp. *bernardina*
Pinus albicaulis	whitebark pine			FC	20100720	Not tracked by CNDDB.
Piperia yadonii	Yadon's rein orchid			FE	19980812	
Plagiobothrys diffusus	San Francisco popcornflower	SE	197909XX			
Plagiobothrys strictus	Calistoga popcornflower	ST	199001XX	FE	19971022	
Pleuropogon hooverianus	North Coast semaphore grass	ST	200208XX			
Poa atropurpurea	San Bernardino blue grass			FE	19981014	
Poa napensis	Napa blue grass	SE	197907XX	FE	19971022	
Pogogyne abramsii	San Diego mesa mint	SE	197907XX	FE	19781029	
Pogogyne clareana	Santa Lucia mint	SE	197911XX			

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Pogogyne nudiuscula	Otay Mesa mint	SE	198701XX	FE	19930803	
Polygonum hickmanii	Scotts Valley polygonum	SE	200410XX	FE	20030408	
Potentilla basaltica	Black Rock potentilla					FC on 20040504; removed from FC list on 20130802
Potentilla hickmanii	Hickman's cinquefoil	SE	197909XX	FE	19980812	
Pseudobahia bahiifolia	Hartweg's golden sunburst	SE	198108XX	FE	19970206	
Pseudobahia peirsonii	San Joaquin adobe sunburst	SE	198701XX	FT	19970206	
Rorippa subumbellata	Tahoe yellow cress	SE	198204XX			FC on 20040504; removed from FC list on 20151008.
Rosa minutifolia	small-leaved rose	SE	198910XX			
Sanicula maritima	adobe sanicle	SR	198108XX			
Sanicula saxatilis	rock sanicle	SR	198207XX			
Sedella leiocarpa	Lake County stonecrop	SE	199001XX	FE	19970618	Scientific name at time of listing: *Parvisedum leiocarpum*
Sedum laxum ssp. *eastwoodiae*	Red Mountain stonecrop					Scientific name at time of listing: *Sedum eastwoodiae* . FC on 20040504; removed from FC list on 20140918.
Sibara filifolia	Santa Cruz Island winged-rockcress			FE	19970808	
Sidalcea covillei	Owens Valley checkerbloom	SE	197907XX			
Sidalcea hickmanii ssp. *anomala*	Cuesta Pass checkerbloom	SR	197911XX			
Sidalcea hickmanii ssp. *parishii*	Parish's checkerbloom	SR	197911XX			
Sidalcea keckii	Keck's checkerbloom			FE	20000216	
Sidalcea oregana ssp. *valida*	Kenwood Marsh checkerbloom	SE	198201XX	FE	19971022	
Sidalcea pedata	bird-foot checkerbloom	SE	198201XX	FE	19840831	
Sidalcea stipularis	Scadden Flat checkerbloom	SE	198201XX			
Silene campanulata ssp. *campanulata*	Red Mountain catchfly	SE	198204XX			
Streptanthus albidus ssp. *albidus*	Metcalf Canyon jewel-flower			FE	19950203	
Streptanthus glandulosus ssp. *niger*	Tiburon jewel-flower	SE	199002XX	FE	19950203	Scientific name at time of listing: *Streptanthus niger*
Suaeda californica	California seablite			FE	19941215	
Swallenia alexandrae	Eureka Valley dune grass	SR	198108XX	FT FE	20180329 19780527	FE on 19780527; reclassified as FT on 20180329
Taraxacum californicum	California dandelion			FE	19981014	
Thelypodium stenopetalum	slender-petaled thelypodium	SE	198202XX	FE	19840831	
Thermopsis macrophylla	Santa Ynez false lupine	SR	198108XX			Scientific name at time of listing: *Thermopsis macrophylla* var. *agnina*
Thysanocarpus conchuliferus	Santa Cruz Island fringepod			FE	19970731	
Trichostema austromontanum ssp. *compactum*	Hidden Lake bluecurls			FDR FT	20180702 19981014	
Trifolium amoenum	showy rancheria clover			FE	19971022	

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Trifolium polyodon	Pacific Grove clover	SR	197909XX			
Trifolium trichocalyx	Monterey clover	SE	197911XX	FE	19980812	
Tuctoria greenei	Greene's tuctoria	SR	197909XX	FE	19970326	
Tuctoria mucronata	Crampton's tuctoria or Solano grass	SE	197907XX	FE	19780929	
Verbena californica	Red Hills vervain	ST	199408XX	FT	19981014	
Verbesina dissita	big-leaved crownbeard	ST	199001XX	FT	19961007	

State of California
Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Biogeographic Data Branch
California Natural Diversity Database (CNDDB)

STATE AND FEDERALLY LISTED ENDANGERED AND THREATENED ANIMALS OF CALIFORNIA

August 7, 2019

This document contains a list of animal taxa found within California or off the coast of the State that have been classified as Endangered or Threatened by the California Fish & Game Commission (FGC; state listed) or by the U.S. Secretary of the Interior or the U.S. Secretary of Commerce (federally listed). This list also includes taxa that are official Candidates for state or federal listing, or have been officially Proposed for federal listing, as well as taxa that were once listed but have since been delisted.

State listing is pursuant to the California Endangered Species Act of 1984 (CESA; California Code of Regulations, Title 14, Chapter 6, §§783.0-787.9; Fish and Game Code Chapter 1.5, §§ 2050-2115.5). The designations "Endangered" and "Rare" were first established in 1970 by the original California Endangered Species Act, and taxa with a state list date of June 27, 1971 were protected under this regulation. In 1984, CESA was amended, at which time the "Rare" designation was changed to "Threatened," and on January 1, 1985, all animal species previously designated as "Rare" were reclassified as "Threatened." The official California listing of Endangered and Threatened animals is contained in the California Code of Regulations, Title 14, §670.5.

Federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (16 USC §§1531-1544; 50 CFR §§17.1-17.108). The federal agencies responsible for listing are the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Prior federal regulations include the Endangered Species Conservation Act of 1969, and the Endangered Species Preservation Act of 1966, under which all species with a federal list date of March 11, 1967 were listed. The official federal listing of Endangered and Threatened animals is published in the Federal Register, 50 CFR §17.11

Abbreviation	Designation	Totals
SE	State Listed - Endangered	49
ST	State Listed - Threatened	40
SC	State Candidate for Listing	8
SCD	State Candidate for Delisting	0
SDR	State Delisted (Recovered)	2
SDE	State Delisted (Extinct)	2
FE	Federally Listed - Endangered	86
FT	Federally Listed - Threatened	41
FPE	Federally Proposed - Endangered	0
FPT	Federally Proposed - Threatened	1
FC	Federal Candidate for Listing	2
FPDE	Federally Proposed for Delisting (currently Endangered)	1
FPDT	Federally Proposed for Delisting (currently Threatened)	1
FDR	Federally Delisted (Recovered)	12
FDE	Federally Delisted (Extinct)	2
	# Animal Taxa State-Listed Only (SE, ST, SCD)	39
	# Animal Taxa Federally-Listed Only (FE, FPDE, FT, FPDT)	79
	# Animal Taxa State- AND Federally-Listed	50
	Total # State-Listed Taxa (SE, ST, SCD)	89
	Total # Federally-Listed Taxa (FE, FPDE, FT, FPDT)	129
	Total Number of Listed Animal Taxa	168

(Totals include subspecies, distinct population segments, and ecologically significant units when listed separately)

Common and scientific names are shown as they are in current usage, typically based on the NatureServe Natural Heritage Network, unless otherwise noted. If current nomenclature differs from that in state and federal listing documents, the nomenclature at the time of listing is provided in the notes. Synonyms, name changes, and other clarifying points are also noted. Where state and federal listings apply to different ranges, subspecies, or populations, each taxa will be listed separately, and statuses that apply to only a portion of the taxon, or that also encompass other taxa, will be shown in parentheses. Where state and federal listings differ in name, but represent the same biological unit, the common name will be listed using the California state listing; the federal name will be listed in the notes.

The "List Date" for final federal listing is the date the listing became effective. This is typically not the date of publication of the rule in the Federal Register; it is usually about 30 days after publication, but may be longer.

If an animal was previously listed and no longer has any listing status, the entry text is grey. If an animal was previously proposed or a candidate for listing, but the listing was not warranted or was revoked, the record has been removed from the table.

For taxa having more than one status entry, the current status is in bold and underlined. All dates are in the "YYYYMMDD" format.

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ABBREVIATIONS

CCR: California Code of Regulations
CDFW: California Department of Fish and Wildlife (previously Department of Fish and Game (DFG))
CESA: California Endangered Species Act
DPS: Distinct population segment
ESA: Endangered Species Act (Federal)
ESU: Evolutionarily significant unit
FGC: California Fish and Game Commission
NMFS: National Marine Fisheries Service
NOAA: National Oceanic and Atmospheric Administration
USFWS: United States Fish and Wildlife Service

ADDITIONAL RESOURCES

The California Fish and Game Commission publishes notices relating to changes to Title 14 of the California Code of Regulations: www.fgc.ca.gov

Title 14 of the California Code of Regulations can be accessed through The Office of Administrative Law: www.oal.ca.gov

The U.S. Fish and Wildlife Service is responsible for protecting Endangered and Threatened species, and conserving candidate species and at-risk species so that ESA listing is not necessary: www.fws.gov/Endangered

NOAA's National Marine Fisheries Service, Office of Protected Resources is responsible for protecting marine mammals and Endangered and Threatened marine life: www.fisheries.noaa.gov/about/office-protected-resources

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Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
			INVERTEBRATES			
GASTROPODA	**Snails, slugs, & abalone**					
Haliotis cracherodii	Black abalone			FE	20110413 20090213	Listed by NMFS in 2009 and by USFWS in 2011.
Haliotis sorenseni	White abalone			FE	20051116 20010628	Listed by NMFS in 2001 and by USFWS in 2005.
Helminthoglypta walkeriana	Morro shoulderband (=banded dune) snail			FE	19950117	The 2006 five year review should be consulted to better understand the status of this species.
Monadenia infumata setosa	Trinity bristle snail	ST	19801002			Listed by the State of California as *Monadenia setosa*.
CRUSTACEA - ANOSTRACA	**Fairy Shrimp**					
Branchinecta conservatio	Conservancy fairy shrimp			FE	19940919	
Branchinecta longiantenna	Longhorn fairy shrimp			FE	19940919	
Branchinecta lynchi	Vernal pool fairy shrimp			FT	19940919	
Branchinecta sandiegonensis	San Diego fairy shrimp			FE	19970203	
Streptocephalus woottoni	Riverside fairy shrimp			FE	19930803	
CRUSTACEA - NOTOSTRACA	**Tadpole shrimp**					
Lepidurus packardi	Vernal pool tadpole shrimp			FE	19940919	
CRUSTACEA - DECAPODA	**Crayfish & shrimp**					
Pacifastacus fortis	Shasta crayfish	SE ST	19880226 19801002	FE	19880930	
Syncaris pacifica	California freshwater shrimp	SE	19801002	FE	19881031	
INSECTA - ORTHOPTERA	**Grasshoppers, katydids, & crickets**					
Trimerotropis infantilis	Zayante band-winged grasshopper			FE	19970224	
INSECTA - COLEOPTERA	**Beetles**					
Cicindela ohlone	Ohlone tiger beetle			FE	20011003	
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle			FT	19800915	
Dinacoma caseyi	Casey's June beetle			FE	20111024	
Elaphrus viridis	Delta green ground beetle			FT	19800915	
Polyphylla barbata	Mount Hermon June beetle			FE	19970224	
INSECTA - LEPIDOPTERA	**Butterflies & moths**					
Apodemia mormo langei	Lange's metalmark butterfly			FE	19760608	
Callophrys mossii bayensis	San Bruno elfin butterfly			FE	19760608	Synonymous with *Incisalia fotis bayensis* and *Callophrys fotis bayensis*.
Euphilotes battoides allyni	El Segundo blue butterfly			FE	19760608	

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Euphilotes enoptes smithi	Smith's blue butterfly			FE	19760608	Synonymous with *Philotes enoptes smithi* and *Shijimiaeoides enoptes smithi*.
Euphydryas editha bayensis	Bay checkerspot butterfly			FT	19871019	
Euphydryas editha quino	Quino checkerspot butterfly			FE	19970116	Synonymous with *Euphydryas editha wrighti*
Eupraserpinus euterpe	Kern primrose sphinx moth			FT	19800509	
Glaucopsyche lygdamus palosverdesensis	Palos Verdes blue butterfly			FE	19800801	
Lycaena hermes	Hermes copper butterfly			FC	20110414	
Plebejus icarioides missionensis	Mission blue butterfly			FE	19760608	Synonymous with *Icaricia icarioides missionensis*.
Plebejus idas lotis	Lotis blue butterfly			FE	19760608	Synonymous with *Plebejus anna lotis* and *Lycaeides argyrognomon lotis*.
Pseudocopaeodes eunus obscurus	Carson wandering skipper			FE	20020807	
Pyrgus ruralis lagunae	Laguna Mountains skipper			FE	19970116	
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly			FE	19930923	
Speyeria callippe callippe	Callippe silverspot butterfly			FE	19971205	
Speyeria zerene behrensii	Behren's silverspot butterfly			FE	19971205	
Speyeria zerene hippolyta	Oregon silverspot butterfly			FT	19801015	
Speyeria zerene myrtleae	Myrtle's silverspot butterfly			FE	19920622	The USFWS and others have not yet determined if the taxonomic expansion by Emmel and Emmel (1998) into *S. z. myrtleae* and *S. z. puntareyes* is warranted. *Speyereia zerene* along the coast of Marin and Sonoma counties are Federally Endangered under the subspecies concept in the 1992 listing.
INSECTA - HYMENOPTERA	**Ants, bees, & wasps**					
Bombus crotchii	Crotch bumble bee	SC	20190618			
Bombus franklini	Franklin's bumble bee	SC	20190618			
Bombus occidentalis	western bumble bee	SC	20190618			
Bombus suckleyi	Suckley's cuckoo bumble bee	SC	20190618			
FISHES						
ACIPENSERIDAE	**Sturgeon**					
Acipenser medirostris	Green sturgeon [southern DPS]			FT	20060606	Includes all spawning populations south of the Eel River.
CYPRINIDAE	**Minnows & carp**					
Gila crassicauda	thicktail chub	SDE SE	19801002 19740110			Extinct
Gila elegans	Bonytail	**SE** ST	19740110 19710627	FE	19800523	Federal common name: bonytail chub.
Lavinia exilicauda chi	Clear Lake hitch	ST	20140806			

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Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Ptychocheilus lucius	Colorado pikeminnow	SE	19710627	FE	19670311	
Siphateles bicolor mohavensis	Mohave tui chub	SE	19710627	FE	19701013	Listed by the State of California as *Gila bicolor mohavensis*.
Siphateles bicolor snyderi	Owens tui chub	SE	19740110	FE	19850904	Listed by the State of California as *Gila bicolor snyderi*.
CATOSTOMIDAE	**Suckers**					
Catostomus microps	Modoc sucker	**SE** ST	19801002 19740110	**FDR** FE	20160107 19850711	Recovered
Catostomus santaanae	Santa Ana sucker			FT	20000512	Populations in the Los Angeles, San Gabriel, and Santa Ana River basins.
Chasmistes brevirostris	Shortnose sucker	**SE** ST	19740110 19710627	FE	19880817	
Deltistes luxatus	Lost River sucker	**SE** ST	19740110 19710627	FE	19880817	
Xyrauchen texanus	Razorback sucker	**SE** ST	19740110 19710627	FE	19911122	
OSMERIDAE	**Smelt**					
Hypomesus transpacificus	Delta smelt	**SE** ST	20100120 19931209	FT	19930305	20161202 USFWS Annual Notification of Findings indicates uplisting to Federally Endangered (original uplisting petition received 20060308) is "warranted-but-precluded," with a Listing Priority Number of 2.
Spirinchus thaleichthys	Longfin smelt	ST	20090405	FC	20120402	Federal candidacy is only for San Francisco Bay-Delta distinct population segment.
Thaleichthys pacificus	Pacific eulachon [southern DPS]			FT	20110413 20100517	Eulachon was listed as Threatened by NMFS in 2010 and by USFWS in 2011.
SALMONIDAE	**Trout & salmon**					
Oncorhynchus clarkii henshawi	Lahontan cutthroat trout			**FT** FE	19750716 19701013	Early Federal Register notices spelled "*clarkii*" with only one "i"
Oncorhynchus clarkii seleniris	Paiute cutthroat trout			**FT** FE	19750716 19670311	
Oncorhynchus kisutch	Coho salmon [south of Punta Gorda (Humboldt County), California]	SE	20050330	**FE** FT	20050829 19961130	The Federal listing is for the Central California Coast Coho ESU and includes populations from Punta Gorda south to, and including, the San Lorenzo River as well as populations in tributaries to San Francisco Bay, excluding the Sacramento-San Joaquin River system. Coho south of San Francisco Bay were state listed in 1995. In February 2004 the Fish and Game Commission determined that coho from San Francisco to Punta Gorda should also be listed as Endangered. This change was finalized by the Office of Administrative Law on 20050330. NMFS completed a comprehensive status review in 2005 reaffirming the status, and uplisting the Central Coast ESU from threatened to endangered. NMFS reaffirmed the FE status again 20140723.

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Oncorhynchus kisutch	Coho salmon [from Punta Gorda (Humboldt County), California to the northern border of California]	ST	20050330	FT	19970605	The Federal listing is for the Southern Oregon-Northern California Coast ESU, and includes populations in coastal streams between Cape Blanco, Oregon and Punta Gorda, California. The Fish and Game Commission determined that coho from Punta Gorda to the Oregon border should be listed as Threatened on 20040225. This determination was finalized by the Office of Administrative Law on 20050330. NMFS completed a comprehensive status review 20050829 reaffirming the status.
Oncorhynchus mykiss irideus	Steelhead [Southern California DPS]			FE	19971017	Coastal basins from the Santa Maria River (inclusive), south to the U.S.-Mexico Border. NMFS completed a comprehensive status review 20060206 reaffirming the status.
Oncorhynchus mykiss irideus	Steelhead [South Central California Coast DPS]			FT	19971017	Coastal basins from the Pajaro River (inclusive) south to, but not including, the Santa Maria River. NMFS completed a comprehensive status review 20060206 reaffirming the status.
Oncorhynchus mykiss irideus	Steelhead [California Central Valley DPS]			FT	19980518	The Sacramento and San Joaquin Rivers and their tributaries. NMFS completed a comprehensive status review 20060206 reaffirming the status.
Oncorhynchus mykiss irideus	Steelhead [Central California Coast DPS]			FT	19971017	Coastal streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (commonly referred to as Red Top Creek), exclusive of the Sacramento-San Joaquin River Basin of the California Central Valley. NMFS completed a comprehensive status review 20060206 reaffirming the status.
Oncorhynchus mykiss irideus	Steelhead [Northern California DPS]			FT	20000807	Naturally spawned populations residing below impassable barriers in coastal basins from Redwood Creek in Humboldt County to, and including, the Gualala River in Mendocino County. NMFS completed a comprehensive status review 20060206 reaffirming the status.

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Oncorhynchus mykiss irideus	Steelhead [summer-run]	SC	20190618			CNDDB-tracked taxa includes northern California coastal streams south to Middle Fork Eel River, within range of Klamath Mountains Province DPS and Northern California DPS. Proposed CESA listing status applies only to Northern California DPS summer-run steelhead.
Oncorhynchus mykiss whitei	Little Kern golden trout			FT	19780515	Originally listed as *Salmo aguabonita whitei* . The genus *Salmo* was reclassified as *Oncorhynchus* changing the name to *Oncorhynchus aguabonita whitei* . However, recent studies indicate this is a subspecies of rainbow trout, therefore *Oncorhynchus mykiss whitei* .
Oncorhynchus tshawytscha	Chinook salmon [winter run]	SE	19890922	FE FT	19940323 19901130	The federal designation is for the Sacramento River winter-run ESU, and described as winter-run populations in the Sacramento River and its tributaries in California. NMFS completed a comprehensive status review 20050829 reaffirming the status.
Oncorhynchus tshawytscha	Chinook salmon [Upper Klamath-Trinity River Spring ESU]	SC	20190212			Spring-run Chinook salmon in the Trinity River and the Klamath River upstream of the mouth of the Trinity River.
Oncorhynchus tshawytscha	Chinook salmon [California Coastal ESU]			FT	19991115	Rivers and streams south of the Klamath River to the Russian River. NMFS completed a comprehensive status review 20050829 reaffirming the status.
Oncorhynchus tshawytscha	Chinook salmon [spring-run of the Sacramento River drainage]	ST	19990205	FT	19991115	The State listing is for "Spring-run chinook salmon (*Oncorhynchus tshawytscha*) of the Sacramento River drainage." The Federal listing is for the Central Valley spring-run ESU, and includes populations of spring-run Chinook salmon in the Sacramento River and its tributaries including the Feather River. NMFS completed a comprehensive status review 20050829 reaffirming the status.
Salvelinus confluentus	Bull trout	SE	19801002	FT	19991201	Considered to be extirpated in California.
CYPRINODONTIDAE	**Killifishes**					
Cyprinodon macularius	Desert pupfish	SE	19801002	FE	19860430	
Cyprinodon nevadensis calidae	Tecopa pupfish	SDE SE	19870609 19710627	FDE Fe	19820216 19701013	Extinct
Cyprinodon radiosus	Owens pupfish	SE	19710627	FE	19670311	
Cyprinodon salinus milleri	Cottonball Marsh pupfish	ST	19740110			
GASTEROSTEIDAE	**Sticklebacks**					
Gasterosteus aculeatus williamsoni	Unarmored threespine stickleback	SE	19710627	FE	19701013	
COTTIDAE	**Sculpins**					

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Cottus asperrimus	Rough sculpin	ST	19740110			
GOBIIDAE	**Gobies**					
Eucyclogobius newberryi	Tidewater goby			FE	19940307	See Federal Register 79(49):14340-14362, 20140313, for down-listing proposed rule.
			AMPHIBIANS			
AMBYSTOMATIDAE	**Mole salamanders**					
Ambystoma californiense	California tiger salamander	ST	20100819	(FE), (FT)		The State listing applies to the species as a whole throughout its range; federal statuses apply to Distinct Population Segments (see below).
Ambystoma californiense	California tiger salamander [Central California DPS]	(ST)		FT	20040903	The 2004 federal Threatened status originally applied to the species throughout its range; subsequent legal action resulted in reclassification of other DPSs to Endangered; the central California DPS remained listed as Threatened.
Ambystoma californiense	California tiger salamander [Santa Barbara County DPS]	(ST)		FE	20000915	In 2004 the California tiger salamander was federally listed as Threatened statewide. The Santa Barbara County and Sonoma County Distinct Vertebrate Population Segments (DPS), formerly listed as Endangered, were reclassified to Threatened. On 20050819 U.S. District court vacated the down-listing of the Sonoma and Santa Barbara populations from Endangered to Threatened. Therefore, the Sonoma & Santa Barbara populations were once again listed as Endangered.
Ambystoma californiense	California tiger salamander [Sonoma County DPS]	(ST)		FE	20030319	In 2004 the California tiger salamander was federally listed as Threatened statewide. The Santa Barbara County and Sonoma County Distinct Vertebrate Population Segments (DPS), formerly listed as Endangered, were reclassified to Threatened. On 20050819 U.S. District court vacated the down-listing of the Sonoma and Santa Barbara populations from Endangered to Threatened. Therefore, the Sonoma & Santa Barbara populations were once again listed as Endangered.
Ambystoma macrodactylum croceum	Santa Cruz long-toed salamander	SE	19710627	FE	19670311	
PLETHODONTIDAE	**Lungless salamanders**					
Batrachoseps major aridus	Desert slender salamander	SE	19710627	FE	19730604	Listed by the State of California as *Batrachoseps aridus* and originally listed by the USFWS as *B. aridus* . USFWS 5-year review refers to *B. major aridus* .

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Batrachoseps simatus	Kern Canyon slender salamander	ST	19710627			
Batrachoseps stebbinsi	Tehachapi slender salamander	ST	19710627			
Hydramantes shastae	Shasta salamander	ST	19710627			
Hydromantes brunus	Limestone salamander	ST	19710627			
Plethodon asupak	Scott Bar salamander	ST	19710627			As recognized by the FGC, the Scott Bar salamander is currently protected under the CESA as a sub-population of the Siskiyou Mountains salamander (*Plethodon stormi*) (Calif. Regulatory Notice Register, No. 21-Z, p. 916, 20070525).
Plethodon stormi	Siskiyou Mountains salamander	ST	19710627			The common name is spelled incorrectly in Title 14 of the CCR as "Siskiyou mountain salamander." Was a State Candidate for Delisting on 20050930. No action was taken by the FGC after the CDFW presented a Department report on 20061103; SMS was tabled at the 20070503 FGC meeting, and there was nothing to report regarding the Department's environmental documents at the 20071011 meeting. Therefore, with respect to Fish & Game Code 2075, it is assumed that this is no longer a candidate for delisting.
BUFONIDAE	**True toads**					
Anaxyrus californicus	Arroyo toad			FE	19950117	At the time of listing, arroyo toad was known as *Bufo microscaphus californicus*, a subspecies of southwestern toad. In 2001, it was determined to be its own species, *Bufo californicus*. Since then, many species in the genus *Bufo* were changed to the genus *Anaxyrus*, and now arroyo toad is known as *Anaxyrus californicus*.
Anaxyrus canorus	Yosemite toad			FT	20140630	
Anaxyrus exsul	Black toad	ST	19710627			Listed by the State of California as *Bufo exsul*.
RANIDAE	**True frogs**					
Rana boylii	Foothill yellow-legged frog	SC	20170627			Date of FGC vote to advance to candidacy was 20170621.
Rana cascadae	Cascades frog	SC	20171017			Date of FGC vote to advance to candidacy was 20171011.
Rana draytonii	California red-legged frog			FT	19960624	Synonymous with *Rana aurora draytonii*.

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Rana muscosa	Southern mountain yellow-legged frog	SE	20130401	(FE)		Though the scientific name *Rana muscosa* is not disputed, the State uses this common name, whereas the USFWS listing refers to two distinct population segments. This species is also known by the common name Sierra Madre yellow-legged frog (Vredenburg et al. 2007).
Rana muscosa	Mountain yellow-legged frog [Southern California DPS]	(SE)		FE	20020801	San Gabriel, San Jacinto, and San Bernardino Mountains only.
Rana muscosa	Mountain yellow-legged frog [Northern California DPS]	(SE)		FE	20140630	North of the Tehachapi Mountains from the Monarch Divide to portions of the Kern River drainage.
Rana pretiosa	Oregon spotted frog			FT	20140929	
Rana sierrae	Sierra Nevada yellow-legged frog	ST	20130401	FE	20140630	
			REPTILES			
CHELONIIDAE	**Sea turtles**					
Caretta caretta	Loggerhead sea turtle [North Pacific DPS]			FE FT	20111024 19780728	The 1978 listing was for the worldwide range of the species. The 20111024 final rule is for the North Pacific DPS (north of the equator & south of 60 degrees north latitude).
Chelonia mydas	Green turtle			FT FT FE	20160506 19780728 19701013	Alternate common name: green sea turtle. Current FT status refers to East Pacific DPS.
Lepidochelys olivacea	Olive (=Pacific) ridley sea turtle			FT	19780728	
DERMOCHELYIDAE	**Leatherback turtles**					
Dermochelys coriacea	Leatherback sea turtle			FE	19700602	
TESTUDINIDAE	**Land tortoises**					
Gopherus agassizii	Desert tortoise	ST	19890803	FT	19900402	
GEKKONIDAE	**Geckos**					
Coleonyx switaki	Barefoot gecko	ST	19801002			Alternate common names: Switak's banded gecko, barefoot banded gecko.
CROTAPHYTIDAE	**Collared & leopard lizards**					
Gambelia sila	Blunt-nosed leopard lizard	SE	19710627	FE	19670311	Synonymous with *Gambelia silus* . Originally listed under the ESA as *Crotaphytus wislizenil silus* .
PHRYNOSOMATIDAE	**Spiny lizards**					
Uma inornata	Coachella Valley fringe-toed lizard	SE	19801002	FT	19801027	
XANTUSIIDAE	**Night lizards**					
Xantusia riversiana	Island night lizard			PDR FT	20140501 19770811	Recovered
BOIDAE	**Boas**					
Charina umbratica	Southern rubber boa	ST	19710627			Synonymous with *Charina bottae umbratica* .
COLUBRIDAE	**Egg-laying snakes**					

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Masticophis lateralis euryxanthus	Alameda whipsnake	ST	19710627	FT	19971205	Synonymous with *Coluber lateralis euryxanthus* .
NATRICIDAE	**Live-bearing snakes**					
Thamnophis gigas	Giant garter snake	ST	19710627	FT	19931119	Listed by State of California as *Thamnophis couchi gigas* .
Thamnophis sirtalis tetrataenia	San Francisco garter snake	SE	19710627	FE	19670311	
			BIRDS			
ANATIDAE	**Ducks, geese, & swans**					
Branta hutchinsii leucopareia	Cackling (=Aleutian Canada) goose			FDR FT FE	20010320 19910111 19670311	Recovered. At time of federal listing, known as *Branta canadensis leucopareia* .
DIOMEDEIDAE	**Albatross**					
Phoebastria albatrus	Short-tailed albatross			**FE** FE	20000830 19700602	Synonymous with *Diomedea albatrus* . Listed as Endangered in one of the original species lists, but "due to an inadvertent oversight" when the 1973 ESA repealed the 1969 Act, short-tailed albatross was effectively delisted. Proposed listing to fix this error in 1980, with final rule in 2000.
PELECANIIDAE	**Pelicans**					
Pelecanus occidentalis californicus	California brown pelican	SDR SE	20090603 19710627	FDR FE	20091217 19701013	Recovered. Federal nomenclature: Brown pelican (*Pelecanus occidentalis*).
CATHARTIDAE	**New World vultures**					
Gymnogyps californianus	California condor	SE	19710627	FE	19670311	
ACCIPITRIDAE	**Hawks, kites, harriers, & eagles**					
Buteo swainsoni	Swainson's hawk	ST	19830417			
Haliaeetus leucocephalus	Bald eagle	**SE** (rev) SE	19801002 19710627	**FDR** FT FE (rev) FE	20070808 19950811 19780316 19670311	The Post-delisting Monitoring Plan will monitor the status of the bald eagle over a 20 year period with sampling events held once every 5 years.
FALCONIDAE	**Falcons**					
Falco peregrinus anatum	American peregrine falcon	SDR SE	20091104 19710627	FDR FE	19990825 19700602	Recovered
Falco peregrinus tundrius	Arctic peregrine falcon			FDR FT FE	19941005 19840419 19700602	Recovered
RALLIDAE	**Rails, coots, & gallinules**					
Laterallus jamaicensis coturniculus	California black rail	ST	19710627			
Rallus obsoletus levipes	Light-footed Ridgway's rail	SE	19710627	FE	19701013	Formerly light-footed clapper rail, *Rallus longirostris levipes*
Rallus obsoletus obsoletus	California Ridgway's rail	SE	19710627	FE	19701013	Formerly California clapper rail, *Rallus longirostris obsoletus*
Rallus obsoletus yumanensis	Yuma Ridgway's rail	**ST** SE	19780222 19710627	FE	19670311	Formerly Yuma clapper rail, *Rallus longirostris yumanensis*
GRUIDAE	**Cranes**					
Grus canadensis tabida	Greater sandhill crane	ST	19830417			
CHARADRIIDAE	**Plovers & relatives**					

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Charadrius nivosus nivosus	Western snowy plover			FT	19930405	Synonymous with *Charadrius alexandrinus nivosus*. Federal status applies only to the Pacific coastal population.
LARIDAE	**Gulls & terns**					
Sternula antillarum browni	California least tern	SE	19710627	FE	19700602	Listed by the State of California and federal government as *Sterna antillarum browni*.
ALCIDAE	**Auklets, puffins, & relatives**					
Brachyramphus marmoratus	Marbled murrelet	SE	19920312	FT	19920928	
Synthliboramphus scrippsi	Scripps's murrelet (=Xantus's murrelet)	ST	20041222			At the time of listing, this species was known as the Xantus's Murrelet (*Synthliboramphus hypoleucus*, with California breeding populations ascribed to *Synthliboramphus hypoleucus subsp. scrippsi*).
Synthliboramphus hypoleucus	Guadalupe murrelet (=Xantus's murrelet)	ST	20041222			At the time of listing, this species was known as the Xantus's Murrelet (*Synthliboramphus hypoleucus*, with breeding populations from Baja California ascribed to *Synthliboramphus hypoleucus subsp. hypoleucus*).
CUCULIDAE	**Cuckoos & relatives**					
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	SE ST	19880326 19710627	FT	20141103	Federal listing is for the Western DPS of *Coccyzus americanus*.
STRIGIDAE	**Owls**					
Micrathene whitneyi	Elf owl	SE	19801002			
Strix nebulosa	Great gray owl	SE	19801002			
Strix occidentalis caurina	Northern spotted owl	ST	20190318	FT	19900723	
PICIDAE	**Woodpeckers**					
Colaptes chrysoides	Gilded (=Gilded northern) flicker	SE	19880317			Listed by the State of California as *Colaptes auratus chrysoides*.
Melanerpes uropygialis	Gila woodpecker	SE	19880317			
TYRANNIDAE	**Tyrant flycatchers**					
Empidonax traillii	Willow flycatcher	SE	19910102			State listing includes all subspecies.
Empidonax traillii extimus	Southwestern willow flycatcher	(SE)		FE	19950329	
LANIIDAE	**Shrikes**					
Lanius ludovicianus mearnsi	San Clemente loggerhead shrike			FE	19770912	
VIREONIDAE	**Vireos**					
Vireo bellii arizonae	Arizona Bell's vireo	SE	19880317			
Vireo bellii pusillus	Least Bell's vireo	SE	19801002	FE	19860602	
HIRUNDINIDAE	**Swallows**					
Riparia riparia	Bank swallow	ST	19890611			
POLIOPTILIDAE	**Gnatcatchers**					
Polioptila californica californica	Coastal California gnatcatcher			FT	19930330	
EMBERIZIDAE	**Sparrows, buntings, warblers, & relatives**					

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Artemisiospiza belli clementeae	San Clemente sage sparrow			FT	19770912	Federal nomenclature at time of listing: *Amphispiza belli clementeae* .
Melospiza melodia graminea	Santa Barbara song sparrow			FDE FE	19831012 19730604	Extinct. This status refers specifically to the Santa Barbara song sparrow, which was later reclassified as a subspecies (Channel Islands song sparrow) with the same scientific name, but which also combined two additional groups formerly classified as their own subspecies.
Melozone crissalis eremophilus	Inyo California towhee	SE	19801002	FPD FT	20131104 19870902	Listed by the State of California and federal government as *Pipllo crissalis eremophilus* .
Passerculus sandwichensis beldingi	Belding's savannah sparrow	SE	19740110			Listed by the State of California as *Passerculus sandwichensis beldingii*
ICTERIDAE	**Blackbirds**					
Agelaius tricolor	Tricolored blackbird	ST	20190318			
			MAMMALS			
SORICIDAE	**Shrews**					
Sorex ornatus relictus	Buena Vista Lake ornate shrew			FE	20020405	
PHYLLOSTOMIDAE	**Leaf-nosed bats**					
Leptonycteris yerbabuenae	Lesser long-nosed bat			FDR FE	20180518 19881031	Recovered.
LEPORIDAE	**Rabbits & hares**					
Sylvilagus bachmani riparius	Riparian brush rabbit	SE	19940529	FE	20000324	
APLODONTIDAE	**Mountain beavers**					
Aplodontia rufa nigra	Point Arena mountain beaver			FE	19911212	
SCIURIDAE	**Squirrels & relatives**					
Ammospermophilus nelsoni	Nelson's (=San Joaquin) antelope squirrel	ST	19801002			
Xerospermophilus mohavensis	Mohave ground squirrel	ST	19710627			Listed by the State of California as *Spermophilus mohavensis* .
HETEROMYIDAE	**Kangaroo rats, pocket mice, & kangaroo mice**					
Dipodomys heermanni morroensis	Morro Bay kangaroo rat	SE	19710627	FE	19701013	
Dipodomys ingens	Giant kangaroo rat	SE	19801002	FE	19870105	
Dipodomys merriami parvus	San Bernardino kangaroo rat			FE	19980924	Federal nomenclature: San Bernardino Merriam's kangaroo rat.
Dipodomys nitratoides exilis	Fresno kangaroo rat	SE ST	19801002 19710627	FE	19850301	
Dipodomys nitratoides nitratoides	Tipton kangaroo rat	SE	19890611	FE	19880808	
Dipodomys stephensi	Stephens' kangaroo rat	ST	19710627	FE	19881031	
Perognathus longimembris pacificus	Pacific pocket mouse			FE	19940926	
MURIDAE	**Mice, rats, & voles**					

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Microtus californicus scirpensis	Amargosa vole	SE	19801002	FE	19841217	
Neotoma fuscipes riparia	Riparian woodrat			FE	20000324	
Reithrodontomys raviventris	Salt-marsh harvest mouse	SE	19710627	FE	19701013	
CANIDAE	**Foxes, wolves, & coyotes**					
Canis lupus	Gray wolf	SE	20170101	FPD FE	20130613 19780410	
Urocyon littoralis	Island fox	ST	19710627	(FE)		State listing includes all 6 subspecies on all 6 islands. Federal listing is for only 4 subspecies on 4 islands.
Urocyon littoralis catalinae	Santa Catalina Island Fox	(ST)		FT FE	20160912 20040405	
Urocyon littoralis littoralis	San Miguel Island Fox	(ST)		FDR FE	20160912 20040405	
Urocyon littoralis santacruzae	Santa Cruz Island Fox	(ST)		FDR FE	20160216 20040405	
Urocyon littoralis santarosae	Santa Rosa Island Fox	(ST)		FDR FE	20160216 20040405	
Vulpes macrotis mutica	San Joaquin kit fox	ST	19710627	FE	19670311	
Vulpes vulpes necator	Sierra Nevada red fox	ST	19801002			
MUSTELIDAE	**Weasels & relatives**					
Enhydra lutris nereis	Southern sea otter			FT	19770114	
Gulo gulo	North American wolverine	ST	19710627	FPT	20130204	Listed by the State of California as *Gula gulo* . Federal proposed listing is for the distinct population segment of the North American wolverine (*Gulo gulo luscus*) occurring in the contiguous U.S. Federal List Date refers to the original date proposed for listing. A USFWS ruling withdrawing the proposed listing on 20140813 was ordered to be revisited under a US District Court Ruling on 20160404.
Martes caurina humboldtensis	Humboldt (=Coastal) marten	SE	20190318			
Pekania [=Martes] pennanti	Pacific fisher [Southern Sierra Nevada ESU]	ST	20190318			California listing is under *Martes pennanti* and common name Pacific fisher, whereas the USFWS refers to *Martes pennanti* and common name fisher. Previous USFWS candidacy referred to the West Coast DPS in California, Oregon, and Washington. On 20190318, the Southern Sierra ESU (defined as California south of the Merced River) was officially listed as Threatened under CESA.
OTARIIDAE	**Sea lions & fur seals**					
Arctocephalus townsendi	Guadalupe fur seal	ST	19710627	FT FE	19860115 19670311	Not currently tracked by CNDDB.

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Eumetopias jubatus	Steller sea lion [Eastern DPS]			FDR FT	20131204 19970604	Recovered. Delisted by NMFS. On 19901204, the Steller sea lion was listed as federally Threatened throughout its entire range. In 1997, NMFS reclassified Steller sea lions into two distinct population segments: the Western DPS (west of 144 degrees longitude) was listed as Endangered; the Eastern DPS (east of 144 degrees longitude) was listed as Threatened, and subsequently delisted in 2013.
BOVIDAE	**Sheep & relatives**					
Ovis canadensis nelsoni	Peninsular bighorn sheep [Peninsular CA DPS]	ST	19710627	FE	19980318	Listed by the State of California as *Ovis canadensis cremnobates* . The subspecies *O.c. cremnobates* has been synonymized with *O.c. nelsoni* . The desert bighorn sheep in the Peninsular Ranges, the Peninsular bighorn sheep, is now considered to be a Distinct Population Segment of *O.c. nelsoni* .
Ovis canadensis sierrae	Sierra Nevada (= California) bighorn sheep	SE ST	19990827 19710627	FE	20000103	Listed by the State of California as California bighorn sheep (*Ovis canadensis californiana*).
CETACEA	**Whales & dolphins**					
Balaenoptera borealis	Sei whale			FE	19700602	Not currently tracked by CNDDB.
Balaenoptera musculus	Blue whale			FE	19700602	Not currently tracked by CNDDB.
Balaenoptera physalus	Fin whale			FE	19700602	Not currently tracked by CNDDB.
Eubalaena japonica	North Pacific right whale			FE FE	20080407 19700602	Originally listed as part of the northern right whale (*Eubalaena glacialis*) species concept under the federal ESA. Taxonomy and nomenclature were updated and clarified in the Federal Register Vol. 68, No. 69, 20030410.In 2006, NMFS completed a status review of right whales in the N. Pacific and N. Atlantic Oceans and in 2008, reclassified the previously Endangered northern right whale (*Eubalaena* spp.) as two separate Endangered species: North Pacific right whale (*E. japonica*) and North Atlantic right whale (*E. glacialis*). Not currently tracked by CNDDB.
Eschrichtius robustus	Gray whale [Eastern North Pacific DPS]			FDR FE	19940616 19700602	Recovered. NMFS delisted the California population (Eastern North Pacific DPS), while keeping the Western North Pacific DPS as Endangered.

State and Fed[illegible]lly Listed Endangered and Threatened Anim[illegible]f California
Last updated 20190807

Taxon	Common Name	State Status	State List Date	Federal Status	Federal List Date	Notes
Megaptera novaeangliae	Humpback whale [Central America DPS]			FE FE	20161011 19700602	Also known as Hump-backed whale. 2016 ruling by NMFS established 14 Distinct Population Segments, and revised listing status by DPS. Both the Mexico DPS and Central America DPS feed and travel off the coast of California. Not currently tracked by CNDDB.
Megaptera novaeangliae	Humpback whale [Mexico DPS]			FT FE	20161011 19700602	Also known as Hump-backed whale. 2016 ruling by NMFS established 14 Distinct Population Segments, and revised listing status by DPS. Both the Mexico DPS and Central America DPS feed and travel off the coast of California. Not currently tracked by CNDDB.
Orcinus orca	Killer whale [Southern Resident DPS]			FE	20070404 20060216	The Southern Resident DPS of killer whale was listed as Endangered by NMFS on 20060216 and by USFWS on 20070404. Not currently tracked by CNDDB.
Physeter macrocephalus	Sperm whale			FE	19700602	Federal nomenclature at time of listing: *Physeter catodon* . Not currently tracked by CNDDB.

CNDDB County Species List 212 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	County Name	Data Status	Taxonomic Sort
Animals - Amphibians	Ambystoma californiense	California tiger salamander	AAAAA01180	Threatened	Threatened	WL	-	Lake	Unprocessed	Animals - Amphibians - Ambystomatidae - Ambystoma californiense
Animals - Amphibians	Dicamptodon ensatus	California giant salamander	AAAAH01020	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Amphibians - Dicamptodontidae - Dicamptodon ensatus
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	Lake	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	Lake	Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	Lake	Mapped	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Birds - Accipitridae - Ac r gentilis
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP, WL	-	Lake	Mapped and Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	Lake	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	Lake	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	Lake	Mapped and Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Branta hutchinsii leucopareia	cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	WL	-	Lake	Unprocessed	Animals - Birds - Anatidae - Branta hutchinsii leucopareia
Animals - Birds	Ardea alba	great egret	ABNGA04040	None	None	-	-	Lake	Unprocessed	Animals - Birds - Ardeidae - Ardea alba
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Egretta thula	snowy egret	ABNGA06030	None	None	-	-	Lake	Unprocessed	Animals - Birds - Ardeidae - Egret ula
Animals - Birds	Nycticorax nycticorax	black-crowned night heron	ABNGA11010	None	None	-	-	Lake	Unprocessed	Animals - Birds - Ardeidae - Nycticorax nycticorax
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	Lake	Mapped	Animals - Birds - Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Falco mexicanus	prairie falcon	ABNKD06090	None	None	WL	-	Lake	Mapped and Unprocessed	Animals - Birds - Falconidae - Falco mexicanus
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	FP	-	Lake	Unprocessed	Animals - Birds - Falconidae - Falco peregrinus anatum
Animals - Birds	Progne subis	purple martin	ABPAU01010	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Birds - Hirundinidae - Progne subis
Animals - Birds	Agelaius tricolor	tricolored blackbird	ABPBXB0020	None	Threatened	SSC	-	Lake	Mapped	Animals - Birds - Icteridae - Agelaius tricolor
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	Lake	Mapped and Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus

Animals - Birds	Baeolophus inornatus	oak titmouse	ABPAW01100	None	None	-	-	Lake	Unprocessed	Animals - Birds - Paridae - Baeolophus inornatus
Animals - Birds	Setophaga petechia	yellow warbler	ABPBX03010	None	None	SSC	-	Lake	Unprocessed	Animals - Birds - Parulidae - Setophaga petechia
Animals - Birds	Artemisiospiza belli belli	Bell's sage sparrow	ABPBX97021	None	None	WL	-	Lake	Mapped and Unprocessed	Animals - Birds - Passerellidae - Artemisiospiza belli belli
Animals - Birds	Pelecanus erythrorhynchos	American white pelican	ABNFC01010	None	None	SSC	-	Lake	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus erythrorhynchos
Animals - Birds	Phalacrocorax auritus	double-crested cormorant	ABNFD01020	None	None	WL	-	Lake	Mapped and Unprocessed	Animals - Birds - Phalacrocoracidae - Phalacrocorax auritus
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	Lake	Unprocessed	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Strix occidentalis caurina	Northern Spotted Owl	ABNSB12011	Threatened	Threatened	-	-	LAKE	Mapped	Animals - Birds - Strigidae - Strix occidentalis caurina
Animals - Crustaceans	Calasellus californicus	An isopod	ICMAL34010	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Crustaceans - Asellidae - Calasellus californicus
Animals - Crustaceans	Linderiella occidentalis	California linderiella	ICBRA06010	None	None	-	-	Lake	Unprocessed	Animals - Crustaceans - Linderiellidae - Linderiella occidentalis
Animals - Fish	Archoplites interruptus	Sacramento perch	AFCQB07010	None	None	SSC	-	Lake	Mapped	Animals - Fish - Centrarchidae - Archoplites interruptus
Animals - Fish	Lavinia exilicauda chi	Clear Lake hitch	AFCJB19011	None	Threatened	-	-	Lake	Mapped and Unprocessed	Animals - Fish - Cyprinidae - Lavinia exilicauda chi
Animals - Fish	Lavinia symmetricus ssp. 4	Clear Lake - Russian River roach	AFCJB19029	None	None	SSC	-	Lake	Unprocessed	Animals - Fish - Cyprinidae - Lavinia symmetricus ssp. 4
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	Lake	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16
Animals - Fish	Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	AFCHA0209G	Threatened	None	-	-	Lake	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 8
Animals - Insects	Andrena blennospermatis	Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	-	-	Lake	Mapped	Animals - Insects - Andrenidae - Andrena blennospermatis
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	Lake	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	Candidate Endangered	-	-	Lake	Mapped and Unprocessed	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Trachykele hartmani	serpentine cypress wood-boring beetle	IICOLX6010	None	None	-	-	Lake	Mapped	Animals - Insects - Buprestidae - Trachykele hartmani
Animals - Insects	Hedychridium milleri	Borax Lake cuckoo wasp	IIHYM68020	None	None	-	-	Lake	Mapped	Animals - Insects - Chrysididae - Hedychridium milleri
Animals - Insects	Dubiraphia brunnescens	brownish dubiraphian riffle beetle	IICOL5A010	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Insects - Elmidae - Dubiraphia brunnescens
Animals - Insects	Hydrochara ricksecker	Ricksecker's water scavenger beetle	IICOL5V010	None	None	-	-	Lake	Mapped	Animals - Insects - Hydrophilidae - Hydrochara ricksecker
Animals - Insects	Saldula usingeri	Wilbur Springs shorebug	IIHEM07010	None	None	-	-	Lake	Mapped	Animals - Insects - Saldidae - Saldula usingeri
Animals - Mammals	Erethizon dorsatum	North American porcupine	AMAFJ01010	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Mammals - Erethizontidae - Erethizon dorsatum

Animals - Mammals	Perognathus inornatus	San Joaquin Pocket Mouse	AMAFD01060	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Mammals - Heteromyidae - Perognathus inornatus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	Lake	Unprocessed	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	Lake	Unprocessed	Animals - Mammals - Muridae - Arborimus pomo
Animals - Mammals	Gulo gulo	California wolverine	AMAJF03010	Proposed Threatened	Threatened	FP	-	Lake	Mapped	Animals - Mammals - Mustelidae - Gulo gulo
Animals - Mammals	Martes caurina humboldtensis	Humboldt marten	AMAJF01012	None	Endangered	SSC	-	Lake	Mapped	Animals - Mammals - Mustelidae - Martes caurina humboldtensis
Animals - Mammals	Pekania pennanti	fisher - West Coast DPS	AMAJF01021	None	Threatened	SSC	-	Lake	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Pekania pennanti
Animals - Mammals	Taxidea taxus	American badger	AMAJF04010	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Mammals - Mustelidae - Taxidea taxus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	Lake	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis evotis	long-eared myotis	AMACC01070	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Myotis evotis
Animals - Mammals	Myotis lucifugus	little brown bat	AMACC01010	None	None	-	-	Lake	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis lucifugus
Animals - Mammals	Myotis thysanodes	fringed myotis	AMACC01090	None	None	-	-	Lake	Mapped and Unprocessed	Animals - Mammals - Vespertilionidae - Myotis thysanodes
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-	Lake	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Pyrgulopsis ventricosa	Clear Lake pyrg	IMGASJ0F40	None	None	-	-	Lake	Mapped	Animals - Mollusks - Hydrobiidae - Pyrgulopsis ventricosa
Animals - Mollusks	Lanx klamathensis	scale lanx	IMGASL7020	None	None	-	-	Lake	Unprocessed	Animals - Mollusks - Lymnaeidae - Lanx klamathensis
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-	Lake	Unprocessed	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Anodonta oregonensis	Oregon floater	IMBIV04110	None	None	-	-	Lake	Unprocessed	Animals - Mollusks - Unionidae - Anodonta oregonensis
Animals - Mollusks	Gonidea angulata	western ridged mussel	IMBIV19010	None	None	-	-	Lake	Unprocessed	Animals - Mollusks - Unionidae - Gonidea angulata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	Lake	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Community - Aquatic	Central Valley Drainage Rainbow Trout/Cyprinid Stream	Central Valley Drainage Rainbow Trout/Cyprinid Stream	CARA2422CA	None	None	-	-	Lake	Mapped	Community - Aquatic - Central Valley Drainage Rainbow Trout/Cyprinid Stream

Community - Aquatic	Clear Lake Drainage Cyprinid/Catostomid Stream	Clear Lake Drainage Cyprinid/Catostomid Stream	CARA2530CA	None	None	-	-	Lake	Mapped	Community - Aquatic - Clear Lake Drainage Cyprinid/Catostomid Stream
Community - Aquatic	Clear Lake Drainage Resident Trout Stream	Clear Lake Drainage Resident Trout Stream	CARA2520CA	None	None	-	-	Lake	Mapped	Community - Aquatic - Clear Lake Drainage Resident Trout Stream
Community - Aquatic	Clear Lake Drainage Seasonal Lakefish Spawning Stream	Clear Lake Drainage Seasonal Lakefish Spawning Stream	CARA2550CA	None	None	-	-	Lake	Mapped	Community - Aquatic - Clear Lake Drainage Seasonal Lakefish Spawning Stream
Community - Terrestrial	Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Coastal and Valley Freshwater Marsh
Community - Terrestrial	Great Valley Mixed Riparian Forest	Great Valley Mixed Riparian Forest	CTT61420CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Great Valley Mixed Riparian Forest
Community - Terrestrial	Northern Basalt Flow Vernal Pool	Northern Basalt Flow Vernal Pool	CTT44131CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Northern Basalt Flow Vernal Pool
Community - Terrestrial	Northern Interior Cypress Forest	Northern Interior Cypress Forest	CTT83220CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Northern Interior Cypress Forest
Community - Terrestrial	Northern Vernal Pool	Northern Vernal Pool	CTT44100CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Northern Vernal Pool
Community - Terrestrial	Northern Volcanic Ash Vernal Pool	Northern Volcanic Ash Vernal Pool	CTT44133CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Northern Volcanic Ash Vernal Pool
Community - Terrestrial	Serpentine Bunchgrass	Serpentine Bunchgrass	CTT42130CA	None	None	-	-	Lake	Mapped	Community - Terrestrial - Serpentine Bunchgrass
Plants - Bryophytes	Plagiobryoides vinosula	wine-colored tufa moss	NBMUS0Y090	None	None	-	4.2	Lake	Unprocessed	Plants - Bryophytes - Bryaceae - Plagiobryoides vinosula
Plants - Bryophytes	Trichodon cylindricus	cylindrical trichodon	NBMUS7N020	None	None	-	2B.2	Lake	Mapped	Plants - Bryophytes - Ditrichaceae - Trichodon cylindricus
Plants - Bryophytes	Grimmia torenii	Toren's grimmia	NBMUS32330	None	None	-	1B.3	Lake	Mapped	Plants - Bryophytes - Grimmiaceae - Grimmia torenii
Plants - Bryophytes	Mielichhoferia elongata	elongate copper moss	NBMUS4Q022	None	None	-	4.3	Lake	Mapped and Unprocessed	Plants - Bryophytes - Mielichhoferiaceae - Mielichhoferia elongata
Plants - Bryophytes	Didymodon californicus	California beard-moss	NBMUS2C0N0	None	None	-	4.2	Lake	Unprocessed	Plants - Bryophytes - Pottiaceae - Didymodon californicus
Plants - Bryophytes	Tortella alpicola	alpine crisp-moss	NBMUS7K090	None	None	-	2B.3	Lake	Mapped	Plants - Bryophytes - Pottiaceae - Tortella alpicola
Plants - Vascular	Chlorogalum pomeridianum var. minus	dwarf soaproot	PMLIL0G042	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Agavaceae - Chlorogalum pomeridianum var. minus
Plants - Vascular	Allium fimbriatum var. purdyi	Purdy's onion	PMLIL020Y7	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Alliaceae - Allium fimbriatum var. purdyi
Plants - Vascular	Eryngium constancei	Loch Lomond button-celery	PDAPI0Z0W0	Endangered	Endangered	-	1B.1	Lake	Mapped	Plants - Vascular - Apiaceae - Eryngium constancei
Plants - Vascular	Lomatium hooveri	Hoover's lomatium	PDAPI1B2K0	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Apiaceae - Lomatium hooveri
Plants - Vascular	Lomatium repostum	Napa lomatium	PDAPI1B1M0	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Apiaceae - Lomatium repostum
Plants - Vascular	Asclepias solanoana	serpentine milkweed	PDASC021R0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Apocynaceae - Asclepias solanoana
Plants - Vascular	Anisocarpus scabridus	scabrid alpine tarplant	PDASTDU020	None	None	-	1B.3	Lake	Mapped	Plants - Vascular - Asteraceae - Anisocarpus scabridus

Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Balsamorhiza macrolepis
Plants - Vascular	Calycadenia micrantha	small-flowered calycadenia	PDAST1P0C0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Calycadenia micrantha
Plants - Vascular	Centromadia parryi ssp. parryi	pappose tarplant	PDAST4R0P2	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Centromadia parryi ssp. parryi
Plants - Vascular	Centromadia parryi ssp. rudis	Parry's rough tarplant	PDAST4R0P3	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Asteraceae - Centromadia parryi ssp. rudis
Plants - Vascular	Erigeron greenei	Greene's narrow-leaved daisy	PDAST3M5G0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Erigeron greenei
Plants - Vascular	Harmonia hallii	Hall's harmonia	PDAST650A0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Harmonia hallii
Plants - Vascular	Harmonia nutans	nodding harmonia	PDAST650D0	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Asteraceae - Harmonia nutans
Plants - Vascular	Harmonia stebbinsii	Stebbins' harmonia	PDAST650K0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Harmonia stebbinsii
Plants - Vascular	Helianthus exilis	serpentine sunflower	PDAST4N1J0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Asteraceae - Helianthus exilis
Plants - Vascular	Hemizonia congesta ssp. calyculata	Mendocino tarplant	PDAST4R063	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. calyculata
Plants - Vascular	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	PDAST4R065	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Hemizonia congesta ssp. congesta
Plants - Vascular	Lasthenia burkei	Burke's goldfields	PDAST5L010	Endangered	Endangered	-	1B.1	Lake	Mapped	Plants - Vascular - Asteraceae - Lasthenia burkei
Plants - Vascular	Layia septentrionalis	Colusa layia	PDAST5N0F0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Asteraceae - Layia septentrionalis
Plants - Vascular	Micropus amphibolus	Mt. Diablo cottonweed	PDAST6D030	None	None	-	3.2	Lake	Unprocessed	Plants - Vascular - Asteraceae - Micropus amphibolus
Plants - Vascular	Senecio clevelandii var. clevelandii	Cleveland's ragwort	PDAST8H0R1	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Asteraceae - Senecio clevelandii var. clevelandii
Plants - Vascular	Tracyina rostrata	beaked tracyina	PDAST9D010	None	None	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Tracyina rostrata
Plants - Vascular	Azolla microphylla	Mexican mosquito fern	PPAZO01030	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Azollaceae - Azolla microphylla
Plants - Vascular	Amsinckia lunaris	bent-flowered fiddleneck	PDBOR01070	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Boraginaceae - Amsinckia lunaris
Plants - Vascular	Cryptantha dissita	serpentine cryptantha	PDBOR0A0H2	None	None	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Boraginaceae - Cryptantha dissita
Plants - Vascular	Hackelia amethystina	amethyst stickseed	PDBOR0G010	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Boraginaceae - Hackelia amethystina
Plants - Vascular	Plagiobothrys lithocaryus	Mayacamas popcornflower	PDBOR0V0P0	None	None	-	1A	Lake	Mapped	Plants - Vascular - Boraginaceae - Plagiobothrys lithocaryus
Plants - Vascular	Arabis blepharophylla	coast rockcress	PDBRA06040	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Brassicaceae - Arabis blepharophylla
Plants - Vascular	Arabis modesta	modest rockcress	PDBRA06180	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Brassicaceae - Arabis modesta

Plants - Vascular	Boechera ultraalsa	Snow Mountain rockcress	PDBRA40140	None	None	-	1B.1	Lake	Mapped	Plants - Vascular - Brassicaceae - Boechera ultraalsa
Plants - Vascular	Streptanthus barbiger	bearded jewelflower	PDBRA2G040	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Brassicaceae - Streptanthus barbiger
Plants - Vascular	Streptanthus brachiatus ssp. brachiatus	Socrates Mine jewelflower	PDBRA2G072	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Brassicaceae - Streptanthus brachiatus ssp. brachiatus
Plants - Vascular	Streptanthus brachiatus ssp. hoffmanii	Freed's jewelflower	PDBRA2G071	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Brassicaceae - Streptanthus brachiatus ssp. hoffmanii
Plants - Vascular	Streptanthus glandulosus ssp. hoffmanii	Hoffman's bristly jewelflower	PDBRA2G0J4	None	None	-	1B.3	Lake	Mapped	Plants - Vascular - Brassicaceae - Streptanthus glandulosus ssp. hoffmanii
Plants - Vascular	Streptanthus hesperidis	green jewelflower	PDBRA2G510	None	None	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Brassicaceae - Streptanthus hesperidis
Plants - Vascular	Streptanthus morrisonii ssp. elatus	Three Peaks jewelflower	PDBRA2G0S1	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Brassicaceae - Streptanthus morrisonii ssp. elatus
Plants - Vascular	Streptanthus morrisonii ssp. kruckebergii	Kruckeberg's jewelflower	PDBRA2G0S4	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Brassicaceae - Streptanthus morrisonii ssp. kruck gii
Plants - Vascular	Streptanthus vernalis	early jewelflower	PDBRA2G120	None	None	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Brassicaceae - Streptanthus vernalis
Plants - Vascular	Brasenia schreberi	watershield	PDCAB01010	None	None	-	2B.3	Lake	Mapped	Plants - Vascular - Cabombaceae - Brasenia schreberi
Plants - Vascular	Downingia willamettensis	Cascade downingia	PDCAM060E0	None	None	-	2B.2	Lake	Mapped	Plants - Vascular - Campanulaceae - Downingia willamettensis
Plants - Vascular	Legenere limosa	legenere	PDCAM0C010	None	None	-	1B.1	Lake	Mapped	Plants - Vascular - Campanulaceae - Legenere limosa
Plants - Vascular	Viburnum ellipticum	oval-leaved viburnum	PDCPR07080	None	None	-	2B.3	Lake	Mapped	Plants - Vascular - Caprifoliaceae - Viburnum ellipticum
Plants - Vascular	Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	PDCON04032	None	None	-	4.2	Lake	Mapped and Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia collina ssp. oxyphylla
Plants - Vascular	Calystegia collina ssp. tridactylosa	three-fingered morning-glory	PDCON04036	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Convolvulaceae - Calystegia collina ssp. tridactylosa
Plants - Vascular	Calystegia collina ssp. venusta	South Coast Range morning-glory	PDCON04034	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Convolvulaceae - Calystegia collina ssp. venusta
Plants - Vascular	Cuscuta jepsonii	Jepson's dodder	PDCUS011T0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Convolvulaceae - Cuscuta jepsonii
Plants - Vascular	Sedella leiocarpa	Lake County stonecrop	PDCRA0F020	Endangered	Endangered	-	1B.1	Lake	Mapped	Plants - Vascular - Crassulaceae - Sedella leiocarpa
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	Lake	Mapped	Plants - Vascular - Cyperaceae - Carex comosa
Plants - Vascular	Carex hystericina	porcupine sedge	PMCYP036D0	None	None	-	2B.1	Lake	Mapped	Plants - Vascular - Cyperaceae - Carex hystericina
Plants - Vascular	Carex klamathensis	Klamath sedge	PMCYP03L70	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Cyperaceae - Carex klamathensis
Plants - Vascular	Carex praticola	northern meadow sedge	PMCYP03B20	None	None	-	2B.2	Lake	Mapped	Plants - Vascular - Cyperaceae - Carex praticola
Plants - Vascular	Arctostaphylos manzanita ssp. elegans	Konocti manzanita	PDERI04271	None	None	-	1B.3	Lake	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos manzanita ssp. elegans

Plants - Vascular	Arctostaphylos stanfordiana ssp. raichei	Raiche's manzanita	PDERI041G2	None	None	-	1B.1	Lake	Mapped	Plants - Vascular - Ericaceae - Arctostaphylos stanfordiana ssp. raichei
Plants - Vascular	Amorpha californica var. napensis	Napa false indigo	PDFAB08012	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Fabaceae - Amorpha californica var. napensis
Plants - Vascular	Astragalus breweri	Brewer's milk-vetch	PDFAB0F1J0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Fabaceae - Astragalus breweri
Plants - Vascular	Astragalus clevelandii	Cleveland's milk-vetch	PDFAB0F250	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Fabaceae - Astragalus clevelandii
Plants - Vascular	Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	PDFAB0F7E1	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Fabaceae - Astragalus rattanii var. jepsonianus
Plants - Vascular	Lupinus antoninus	Anthony Peak lupine	PDFAB2B0C0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Fabaceae - Lupinus antoninus
Plants - Vascular	Lupinus sericatus	Cobb Mountain lupine	PDFAB2B3J0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Fabaceae - Lupinus sericatus
Plants - Vascular	Trifolium hydrophilum	saline clover	PDFAB400R5	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Fabaceae - Trifolium hydrophilum
Plants - Vascular	Monardella viridis	green monardella	PDLAM180Q2	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Lamiaceae - Monardella viridis
Plants - Vascular	Trichostema ruygtii	Napa bluecurls	PDLAM220H0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Lamiaceae - Trichostema ruygtii
Plants - Vascular	Calochortus uniflorus	pink star-tulip	PMLIL0D1F0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Liliaceae - Calochortus uniflorus
Plants - Vascular	Erythronium helenae	St. Helena fawn lily	PMLIL0U060	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Liliaceae - Erythronium helenae
Plants - Vascular	Fritillaria glauca	Siskiyou fritillaria	PMLIL0V090	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria glauca
Plants - Vascular	Fritillaria pluriflora	adobe-lily	PMLIL0V0F0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Liliaceae - Fritillaria pluriflora
Plants - Vascular	Fritillaria purdyi	Purdy's fritillary	PMLIL0V0H0	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Liliaceae - Fritillaria purdyi
Plants - Vascular	Limnanthes floccosa ssp. floccosa	woolly meadowfoam	PDLIM02043	None	None	-	4.2	Lake	Mapped and Unprocessed	Plants - Vascular - Limnanthaceae - Limnanthes floccosa ssp. floccosa
Plants - Vascular	Hesperolinon adenophyllum	glandular western flax	PDLIN01010	None	None	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Linaceae - Hesperolinon adenophyllum
Plants - Vascular	Hesperolinon bicarpellatum	two-carpellate western flax	PDLIN01020	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Linaceae - Hesperolinon bicarpellatum
Plants - Vascular	Hesperolinon didymocarpum	Lake County western flax	PDLIN01070	None	Endangered	-	1B.2	Lake	Mapped	Plants - Vascular - Linaceae - Hesperolinon didymocarpum
Plants - Vascular	Hesperolinon drymarioides	drymaria-like western flax	PDLIN01090	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Linaceae - Hesperolinon drymarioides
Plants - Vascular	Hesperolinon sharsmithiae	Sharsmith's western flax	PDLIN010E0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Linaceae - Hesperolinon sharsmithiae
Plants - Vascular	Iliamna bakeri	Baker's globe mallow	PDMAL0K010	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Malvaceae - Iliamna bakeri
Plants - Vascular	Malacothamnus helleri	Heller's bush-mallow	PDMAL0Q0G0	None	None	-	3.3	Lake	Unprocessed	Plants - Vascular - Malvaceae - Malacothamnus helleri

Plants - Vascular	Sidalcea hickmanii ssp. pillsburiensis	Lake Pillsbury checkerbloom	PDMAL110A5	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Malvaceae - Sidalcea hickmanii ssp. pillsburiensis
Plants - Vascular	Sidalcea keckii	Keck's checkerbloom	PDMAL110D0	Endangered	None	-	1B.1	Lake	Mapped	Plants - Vascular - Malvaceae - Sidalcea keckii
Plants - Vascular	Sidalcea oregana ssp. hydrophila	marsh checkerbloom	PDMAL110K2	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Malvaceae - Sidalcea oregana ssp. hydrophila
Plants - Vascular	Toxicoscordion fontanum	marsh zigadenus	PMLIL28050	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Melanthiaceae - Toxicoscordion fontanum
Plants - Vascular	Calyptridium quadripetalum	four-petaled pussypaws	PDPOR09080	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Montiaceae - Calyptridium quadripetalum
Plants - Vascular	Lewisia stebbinsii	Stebbins' lewisia	PDPOR040G0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Montiaceae - Lewisia stebbinsii
Plants - Vascular	Clarkia gracilis ssp. tracyi	Tracy's clarkia	PDONA050J4	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Onagraceae - Clarkia gracilis ssp. tracyi
Plants - Vascular	Epilobium nivium	Snow Mountain willowherb	PDONA060M0	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Onagraceae - Epilobium nivium
Plants - Vascular	Ophioglossum pusillum	northern adder's-tongue	PPOPH020F0	None	None	-	2B.2	Lake	Mapped	Plants - Vascular - Ophioglossaceae - Ophioglossum pusillum
Plants - Vascular	Piperia leptopetala	narrow-petaled rein orchid	PMORC1X100	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Orchidaceae - Piperia leptopetala
Plants - Vascular	Piperia michaelii	Michael's rein orchid	PMORC1X110	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Orchidaceae - Piperia michaelii
Plants - Vascular	Castilleja rubicundula var. rubicundula	pink creamsacs	PDSCR0D482	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Orobanchaceae - Castilleja rubicundula var. rubicundula
Plants - Vascular	Cordylanthus tenuis ssp. brunneus	serpentine bird's-beak	PDSCR0J0S1	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Orobanchaceae - Cordylanthus tenuis ssp. brunneus
Plants - Vascular	Orobanche valida ssp. howellii	Howell's broomrape	PDORO040G1	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Orobanchaceae - Orobanche valida ssp. howellii
Plants - Vascular	Erythranthe nudata	bare monkeyflower	PDSCR1B200	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe nudata
Plants - Vascular	Antirrhinum subcordatum	dimorphic snapdragon	PDSCR2S070	None	None	-	4.3	Lake	Mapped	Plants - Vascular - Plantaginaceae - Antirrhinum subcordatum
Plants - Vascular	Antirrhinum virga	twig-like snapdragon	PDSCR2S090	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Plantaginaceae - Antirrhinum virga
Plants - Vascular	Gratiola heterosepala	Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Plantaginaceae - Gratiola heterosepala
Plants - Vascular	Penstemon newberryi var. sonomensis	Sonoma beardtongue	PDSCR1L483	None	None	-	1B.3	Lake	Mapped	Plants - Vascular - Plantaginaceae - Penstemon newberryi var. sonomensis
Plants - Vascular	Calamagrostis ophitidis	serpentine reed grass	PMPOA170V0	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Poaceae - Calamagrostis ophitidis
Plants - Vascular	Imperata brevifolia	California satintail	PMPOA3D020	None	None	-	2B.1	Lake	Mapped	Plants - Vascular - Poaceae - Imperata brevifolia
Plants - Vascular	Orcuttia tenuis	slender Orcutt grass	PMPOA4G050	Threatened	Endangered	-	1B.1	Lake	Mapped	Plants - Vascular - Poaceae - Orcuttia tenuis
Plants - Vascular	Panicum acuminatum var. thermale	Geysers panicum	PMPOA24028	None	Endangered	-	1B.2	Lake	Mapped	Plants - Vascular - Poaceae - Panicum acuminatum var. thermale

Plants - Vascular	Puccinellia simplex	California alkali grass	PMPOA53110	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Poaceae - Puccinellia simplex
Plants - Vascular	Stipa lemmonii var. pubescens	pubescent needle grass	PMPOA5X0F2	None	None	-	3.2	Lake	Unprocessed	Plants - Vascular - Poaceae - Stipa lemmonii var. pubescens
Plants - Vascular	Collomia diversifolia	serpentine collomia	PDPLM02020	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Collomia diversifolia
Plants - Vascular	Eriastrum brandegeeae	Brandegee's eriastrum	PDPLM03020	None	None	-	1B.1	Lake	Mapped	Plants - Vascular - Polemoniaceae - Eriastrum brandegeeae
Plants - Vascular	Eriastrum tracyi	Tracy's eriastrum	PDPLM030C0	None	Rare	-	3.2	Lake	Mapped and Unprocessed	Plants - Vascular - Polemoniaceae - Eriastrum tracyi
Plants - Vascular	Leptosiphon acicularis	bristly leptosiphon	PDPLM09010	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon acicularis
Plants - Vascular	Leptosiphon grandiflorus	large-flowered leptosiphon	PDPLM090K0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon grandiflorus
Plants - Vascular	Leptosiphon jepsonii	Jepson's leptosiphon	PDPLM09140	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Polemoniaceae Leptosiphon jepsonii
Plants - Vascular	Leptosiphon latisectus	broad-lobed leptosiphon	PDPLM09150	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon latisectus
Plants - Vascular	Leptosiphon rattanii	Rattan's leptosiphon	PDPLM09110	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Leptosiphon rattanii
Plants - Vascular	Navarretia cotulifolia	cotula navarretia	PDPLM0C040	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia cotulifolia
Plants - Vascular	Navarretia jepsonii	Jepson's navarretia	PDPLM0C0D0	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia jepsonii
Plants - Vascular	Navarretia leucocephala ssp. bakeri	Baker's navarretia	PDPLM0C0E1	None	None	-	1B.1	Lake	Mapped and Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia leucocephala ssp. bakeri
Plants - Vascular	Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	PDPLM0C0E4	Endangered	Threatened	-	1B.1	Lake	Mapped	Plants - Vascular - Polemoniaceae - Navarretia leucocephala ssp. pauciflora
Plants - Vascular	Navarretia leucocephala ssp. plieantha	many-flowered navarretia	PDPLM0C0E5	Endangered	Endangered	-	1B.2	Lake	Mapped and Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia leucocephala ssp. plieantha
Plants - Vascular	Navarretia linearifolia ssp. pinnatisecta	pinnate-leaved navarretia	PDPLM04211	None	None	-	4.3	Lake	Unprocessed	Plants - Vascular - Polemoniaceae - Navarretia linearifolia ssp. pinnatis
Plants - Vascular	Navarretia myersii ssp. deminuta	small pincushion navarretia	PDPLM0C0X2	None	None	-	1B.1	Lake	Mapped	Plants - Vascular - Polemoniaceae - Navarretia myersii ssp. deminuta
Plants - Vascular	Navarretia paradoxinota	Porter's navarretia	PDPLM0C160	None	None	-	1B.3	Lake	Mapped	Plants - Vascular - Polemoniaceae - Navarretia paradoxinota
Plants - Vascular	Eriogonum nervulosum	Snow Mountain buckwheat	PDPGN08440	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Polygonaceae - Eriogonum nervulosum
Plants - Vascular	Eriogonum tripodum	tripod buckwheat	PDPGN085Y0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Polygonaceae - Eriogonum tripodum
Plants - Vascular	Potamogeton zosteriformis	eel-grass pondweed	PMPOT03160	None	None	-	2B.2	Lake	Mapped	Plants - Vascular - Potamogetonaceae - Potamogeton zosteriformis
Plants - Vascular	Delphinium uliginosum	swamp larkspur	PDRAN0B1V0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Ranunculaceae - Delphinium uliginosum
Plants - Vascular	Myosurus minimus ssp. apus	little mousetail	PDRAN0H031	None	None	-	3.1	Lake	Unprocessed	Plants - Vascular - Ranunculaceae - Myosurus minimus ssp. apus

Plants - Vascular	Ranunculus lobbii	Lobb's aquatic buttercup	PDRAN0L1J0	None	None	-	4.2	Lake	Unprocessed	Plants - Vascular - Ranunculaceae - Ranunculus lobbii
Plants - Vascular	Ceanothus confusus	Rincon Ridge ceanothus	PDRHA04220	None	None	-	1B.1	Lake	Mapped	Plants - Vascular - Rhamnaceae - Ceanothus confusus
Plants - Vascular	Ceanothus divergens	Calistoga ceanothus	PDRHA04240	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Rhamnaceae - Ceanothus divergens
Plants - Vascular	Ceanothus sonomensis	Sonoma ceanothus	PDRHA04420	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Rhamnaceae - Ceanothus sonomensis
Plants - Vascular	Horkelia bolanderi	Bolander's horkelia	PDROS0W011	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Rosaceae - Horkelia bolanderi
Plants - Vascular	Brodiaea leptandra	narrow-anthered brodiaea	PMLIL0C022	None	None	-	1B.2	Lake	Mapped	Plants - Vascular - Themidaceae - Brodiaea leptandra
Plants - Vascular	Brodiaea rosea	Indian Valley brodiaea	PMLIL0C0K3	None	Endangered	-	3.1	Lake	Mapped and Unprocessed	Plants - Vascular - Themidaceae - Brodiaea rosea

Avoidance and Protection Measures

The following activities or preventative measures were recommended in the Biological Site Assessment and will be implemented to minimize adverse impacts to fish and wildlife resources

- Implement a noxious weed management program;
- Closely monitor the cannabis cultivation operation and adjacent areas for wildlife presence, especially during rain events. Do not attempt to move or otherwise relocate any wildlife species should they appear on site. Allow all wildlife to return to their habitat without assistance;
- Avoid impacting areas with large gopher activity or ground squirrel dens
- Avoid allowing pesticide to drift into areas beyond the cannabis cultivation operations;
- Maintain installed erosion control measures;
- Maintain well vegetated riparian buffers;
- All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in trash containers with an adequate lid or cover and contain trash. All food waste should be placed in a securely-covered bin and removed from the site on a weekly basis to avoid attracting animals;
- Vehicles and equipment will be parked on existing roads and/or developed areas, or approved work areas. Vehicles will be confined to public roadways and pre-approved access routes (e.g., private paved and unpaved roads, and overland routes), previously disturbed and unvegetated roadsides, and work areas. Access routes and construction work areas will be limited to the minimum access necessary.