

Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

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January 10, 2023
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Subject: Biological Resources Letter Report for the Proposed Redlands Used-Car Retail Development Project Located in the City of Redlands, California

Chambers Group was retained by the City of Redlands (City) to conduct a literature review and biological reconnaissance-level survey for the proposed Used-Car Retail Development Project (Project). The purpose of this survey was to provide a habitat assessment for the Project. The survey consisted of documenting existing vegetation communities, identifying special status species with a potential to occur on the Project, mapping habitats that could support special status plant and wildlife species, identifying any potentially jurisdictional water features, and evaluating potential impacts of the Project to these resources.

Project Site Location and Description

The approximately 18.6-acre Project site is located within undeveloped parcels in the City, in San Bernardino County, west of New York Street at West Brockton Avenue and east of Interstate (I-) 210 between an existing home improvement retailer to the north and automobile dealership to the south (Project site). A channelized drainage is present between I-210 and the western boundary of the Project site. The Project site is located within the U.S. Geological Survey (USGS) Redlands California 7.5-minute topographic quadrangle. The Project site has relatively flat terrain with an elevation of approximately 1,290 feet above mean sea level (amsl). The site is vacant and regularly disced for weed abatement. The Project site is located within the East Valley Corridor Specific Plan (Specific Plan) at the following Assessor's Parcel Numbers: APN 0169-011-39 and APN 0169-011-38. A map of the Project location and Project vicinity is provided in Attachment 1: Figure 1 – Project Location and Vicinity Map.

The proposed Project is the amendment to the Specific Plan to permit the construction of a pre-owned automobile sales, refurbishing, and reconditioning facility with outdoor vehicle storage.

Literature Review

Prior to performing the biological reconnaissance survey, a literature review was conducted for soils, potential jurisdictional water features that contribute to hydrology, and special status species known to occur within approximately 5 miles of the Project site.

Soils

Prior to performing the biological reconnaissance survey, soil maps for the Project site were referenced in accordance with categories set forth by the U.S. Department of Agriculture (USDA) Soil Conservation Service and the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2023).

Hydrology

Prior to performing the biological reconnaissance survey, a database review of the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI; USFWS 2023a) and the USGS National Hydrography Dataset (NHD) blue line drainages was conducted (USGS 2023). A general assessment of waters potentially regulated by the U.S. Army Corps of



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

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Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) was conducted for the Project site. In addition, Google Earth aerial imagery was examined for any potentially jurisdictional features within or immediately adjacent to the Project Site.

Special Status Species and Habitats

The most recent records of the California Natural Diversity Database (CNDDDB) managed by CDFW (2023) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2023) were reviewed for the following California USGS 7.5-minute quadrangles containing and surrounding the Project within a 5-mile radius: *Redlands, San Bernardino North, San Bernardino South, Riverside East, Sunnymead, El Casco, Yucaipa, Keller Peak, and Harrison Mountain*. These databases contain records of reported occurrences of federal- or state- listed endangered or threatened species, California Species of Special Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project site (Attachment 1: Figure 2 – CNDDDB Occurrences Map). In addition, the USFWS's Information for Planning and Conservation (IPaC) site was searched for federally listed threatened and/or endangered species and critical habitat that could potentially be affected by the Project (USFWS 2023b) and the USFWS Critical Habitat WebGIS map was referenced to determine the proximity of the Project site to any USFWS Designated Critical Habitat (USFWS 2023c).

Results of the literature and database searches are included as Attachment 2.

Biological Reconnaissance Survey Methods

The biological reconnaissance survey was conducted on foot within the Project site. During the survey, the biologists identified and mapped all vegetation communities found within the site onto aerial photographs (Attachment 1: Figure 3 – Vegetation Communities Map). Plant communities were determined in accordance with the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Vascular Plants of California, Second Edition* (Baldwin et al. 2012). All wildlife and wildlife sign observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Notes were made on the general habitat types, species observed, and existing conditions of the Project site. All plant and wildlife species observed or detected within the Project site are included in Attachments 3 and 4, respectively. The Project site was field checked for the presence of riparian vegetation, definable channels, and other potentially jurisdictional features identified during the literature search. Site photographs were taken to document existing conditions at the time of the survey and are included in Attachment 5.

Biological Reconnaissance Survey Results

Chambers Group biologists Alisa Muniz and Austin Burke conducted the biological reconnaissance survey within the Project site to identify vegetation communities, the potential for occurrence of special status species, and/or habitats that could support special status wildlife species. The survey was conducted on foot between 0700 and 1200 hours on December 18, 2023. Weather conditions during the survey included temperatures ranging from 57 to 71 degrees Fahrenheit, wind speeds ranging from 0 to 3 miles per hour, approximately 70 percent cloud cover, and no precipitation.

Soils

According to the results from the USDA NRCS Web Soil Survey (USDA 2023), one soil type is known to occur within and immediately adjacent to the Project site. The soil type is described below.

- Tujunga loamy sand 0 to 5 percent slopes occurs throughout the entire Project site. The parent material is alluvium derived from granite. The available water storage is classified as low (approximately 4.2 inches) with a depth to the water table of more than 80 inches. Tujunga loamy sand is not a hydric soil (USDA 2023).



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

Hydrology

No potentially jurisdictional water features such as drainages were observed within the Project site (Attachment 1: Figure 4 – NWI and NHD Map) during the survey. The closest water features mapped by the NWI and NHD, both riverine, are over a half mile from the Project site: the Santa Ana River to the north, and the Mission Flood Control Ditch to the south. Because both features are located well outside of the Project site boundary and no work is anticipated to occur within or directly adjacent to either feature, no impacts to these features are anticipated to occur as a result of this Project.

A potentially jurisdictional drainage identified on aerial imagery during the literature search is located west (outside) of the Project site and east of I-210. This feature is a channelized, concrete-lined drainage that is located approximately 15 feet from the northwestern corner of the Project site at its closest point. The drainage begins west of New York Street just north of I-10 and continues for approximately 2 miles, generally paralleling I-210, before connecting to the Santa Ana River. The channel appears to transition from a concrete-lined channel to an earthen channel (the last approximately 0.45 mile before joining the Santa Ana River) near Domestic Avenue and becomes more vegetated at this point. The field survey confirmed the presence of this drainage west of the Project site. As the Project site is fenced on the west side, the biologists were not able to inspect the drainage feature up close, but noted that the feature was concrete lined and appeared to be dry. As mentioned, this drainage is outside of the Project site and would not be directly affected by the Project based on current Project design.

No riparian, wetland or vernal pool habitats were found within or adjacent to the Project site.

Vegetation Communities and Other Areas

One vegetation community and one land cover type were found within the Project site during the biological reconnaissance survey: Ruderal and Developed. The majority of the Project site is comprised of Ruderal vegetation with Developed areas bordering the eastern side. The community and land cover type are described in the following subsections.

Ruderal

Areas classified as Ruderal tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999). The soils in Ruderal areas are typically characterized as heavily compacted or frequently disturbed. Often, Ruderal areas are dominated by species of the *Centaurea*, *Brassica*, *Malva*, *Salsola*, *Amaranthus*, and *Atriplex* genera.

The majority of the Project site is classified as Ruderal (Attachment 1: Figure 3 – Vegetation Communities Map). This area contains evidence of disc-mowing and tire tracks and is dominated by disturbed soil and scattered non-native weed species. Non-native plant species found on the Project site typical of this vegetation community include tumbling pigweed (*Amaranthus albus*), riggut grass (*Bromus diandrus*), cheeseweed (*Malva parviflora*), red-stemmed filaree (*Erodium cicutarium*), London rocket (*Sysimbrium irio*), Sahara mustard (*Brassica tournefortii*), and Russian-thistle (*Salsola australis*). Though very scarce, native plants typical of this vegetation community within the Project site include common fiddleneck (*Amsinckia menziesii*) and jimson weed (*Datura wrightii*). There are approximately 18.52 acres of Ruderal areas on the Project site.

Developed

Developed areas are those that have been altered by humans and now display man-made structures such as houses, paved roads, sidewalks, buildings, parks, and other maintained areas.

A small Developed area (i.e., a sidewalk) is present along the eastern border of the Project site (Attachment 1: Figure 3 – Vegetation Communities Map). There is approximately 0.11 acre of Developed areas on the Project site.



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

General Plants

A total of 16 plant species were observed within the Project site during the biological reconnaissance survey (Attachment 3: Plant Species Observed). Plant species observed during the survey were representative of the existing Project site conditions. No special status plant species were observed during the survey.

General Wildlife

A total of eight wildlife species were observed within the Project site during the biological reconnaissance survey (Attachment 4: Wildlife Species Observed or Detected). Wildlife species observed or detected during the survey were characteristic of the existing Project site conditions. No special status wildlife species were observed or detected during the survey.

Special Status Species and Habitats

The following information is a list of abbreviations used to help determine the potential for occurrence of special status biological resources at the Project site.

CNPS California Rare Plant Rank (CRPR)

- 1A = Plants presumed extinct in California.
- 1B = Plants rare and endangered in California and throughout their range.
- 2 = Plants rare, threatened or endangered in California but more common elsewhere in their range.
- 3 = Plants about which we need more information, a review list.
- 4 = Plants of limited distribution; a watch list.

CRPR Extensions

- 0.1 = Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
- 0.2 = Fairly endangered in California (20 to 80 percent occurrences threatened).
- 0.3 = Not very endangered in California (less than 20 percent of occurrences threatened).

Federal

- FE = Federally listed; Endangered
- FT = Federally listed; Threatened

State

- ST = State listed; Threatened
- SE = State listed; Endangered
- FP = State Fully Protected
- SC = State Candidate for Listing
- RARE = State listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
- SSC = State Species of Special Concern

The criteria used to evaluate the potential for occurrence of special status species within the Project site are outlined in Table 1.



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands



Table 1: Criteria for Evaluating Special Status Species Potential for Occurrence (PFO)

PFO*	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Project site.
Low:	Historical records for this species do not exist within the vicinity (approximately 5 miles) of the Project site, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the vicinity of the Project site (approximately 5 miles) and marginal habitat exists on the Project site, or the habitat requirements or environmental conditions associated with the species occur within the Project site, but no historical records exist within 5 miles of the Project site.
High:	Both a historical record exists of the species within the Project site or its immediate vicinity (approximately 1 mile), and the habitat requirements and environmental conditions associated with the species occur within the Project site.
Present:	Species were detected within the Project site at the time of the survey.

*PFO: Potential for Occurrence

Factors used to determine the potential for a species to occur included the quality of habitat (elevation; soil type(s) present; the presence of roosting, nesting, or foraging habitat; or a permanent water source), the known geographical distribution of the species, and the results of the reconnaissance survey. In addition, the location of prior CNDDDB records of occurrence were used as additional data, but because the CNDDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors.

Special Status Plant Species

Database searches (CDFW 2023; CNPS 2023) resulted in a list of 54 federal- and/or state-listed threatened, endangered, or otherwise special status plant species documented to historically occur within the vicinity of Project site (Attachment 1: Figure 2 – CNDDDB Occurrences Map). Of the 54 special status plant species identified in the literature review, all 54 of the plants are considered absent within the Project site. No special status plant species were found during the biological reconnaissance survey.

The following 54 plant species are considered **Absent** from the Project site. These species grow in habitats which do not occur on the Project site (i.e., pinyon and juniper woodland, chaparral, cismontane woodland, coniferous forest, riparian woodland, coastal scrub, coastal dunes, coastal prairie, alluvial fans, desert scrub, playas, desert dunes, pebble plains, valley and foothill grasslands, meadows, seeps, vernal pools, marshes, and swamps) and/or occur outside of the elevational range of the Project site.

- Alvin Meadow bedstraw (*Galium californicum* ssp. *primum*) – CRPR 1B.2
- ash-gray paintbrush (*Castilleja cinerea*) – FT, CRPR 1B.2
- Bear Valley checkerbloom (*Sidalcea malviflora* ssp. *dolosa*) – CRPR 1B.2
- bird-foot checkerbloom (*Sidalcea pedata*) – FE, SE, CRPR 1B.1
- black bog-rush (*Schoenus nigricans*) – CRPR 2B.2



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

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- Brand's star phacelia (*Phacelia stellaris*) – CRPR 1B.1
- bristly sedge (*Carex comosa*) – CRPR 2B.1
- California satintail (*Imperata brevifolia*) – CRPR 2B.1
- chaparral ragwort (*Senecio aphanactis*) – CRPR 2B.2
- chaparral sand-verbena (*Abronia villosa* var. *aurita*) – CRPR 1B.1
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) – CRPR 1B.1
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) – CRPR 1B.2
- Gambel's water cress (*Nasturtium gambelii*) – **FE, ST**, CRPR 1B.1
- Hall's monardella (*Monardella macrantha* ssp. *hallii*) – CRPR 1B.3
- Horn's milk-vetch (*Astragalus hornii* var. *hornii*) – CRPR 1B.1
- hot springs fimbriostylis (*Fimbristylis thermalis*) – CRPR 2B.2
- Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*) – CRPR 1B.1
- La Panza mariposa-lily (*Calochortus simulans*) – CRPR 1B.3
- lemon lily (*Lilium parryi*) – CRPR 1B.2
- Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*) – CRPR 1A
- marsh sandwort (*Arenaria paludicola*) – **FE, SE**, CRPR 1B.1
- mesa horkelia (*Horkelia cuneata* var. *puberula*) – CRPR 1B.1
- Mt. Pinos onion (*Allium howellii* var. *clokeyi*) – CRPR 1B.3
- mud nama (*Nama stenocarpa*) – CRPR 2B.2
- Nevin's barberry (*Berberis nevinii*) – **FE, SE**, CRPR 1B.2
- Palmer's mariposa-lily (*Calochortus palmeri* var. *palmeri*) – CRPR 1B.2
- Parish's alumroot (*Heuchera parishii*) – CRPR 1B.3
- Parish's bush-mallow (*Malacothamnus parishii*) – CRPR 1A
- Parish's checkerbloom (*Sidalcea hickmanii* ssp. *parishii*) – **RARE**, CRPR 1B.2
- Parish's desert-thorn (*Lycium parishii*) – CRPR 2B.3
- Parish's gooseberry (*Ribes divaricatum* var. *parishii*) – CRPR 1A
- Parish's yampah (*Perideridia parishii* ssp. *parishii*) – CRPR 2B.2
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – CRPR 1B.1
- Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*) – CRPR 2B.2
- prairie wedge grass (*Sphenopholis obtusata*) – CRPR 2B.2
- Pringle's monardella (*Monardella pringlei*) – CRPR 1A
- salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*) – **FE, SE**, CRPR 1B.2
- salt spring checkerbloom (*Sidalcea neomexicana*) – CRPR 2B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR 1B.2
- San Bernardino Mountains monkeyflower (*Erythranthe exigua*) – CRPR 1B.2
- San Bernardino Mountains owl's-clover (*Castilleja lasiorhyncha*) – CRPR 1B.2
- San Bernardino ragwort (*Packera bernardina*) – CRPR 1B.2
- San Diego ambrosia (*Ambrosia pumila*) – **FE**, CRPR 1B.1



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

CHAMBERS
GROUP

- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) – **FE**, CRPR 1B.1
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) – **FE, SE**, CRPR 1B.1
- silver-haired ivesia (*Ivesia argyrocoma* var. *argyrocoma*) – CRPR 1B.2
- slender-horned spineflower (*Dodecahema leptoceras*) – **FE, SE**, CRPR 1B.1
- smooth tarplant (*Centromadia pungens* ssp. *laevis*) – CRPR 1B.1
- Sonoran maiden fern (*Pelazoneuron puberulum* var. *sonorense*) – CRPR 2B.2
- southern jewelflower (*Streptanthus campestris*) – CRPR 1B.3
- thread-leaved brodiaea (*Brodiaea filifolia*) – **FT, SE**, CRPR 1B.1
- white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) – CRPR 1B.2
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) – CRPR 2B.1
- Yucaipa onion (*Allium marvinii*) – CRPR 1B.2

Special Status Wildlife Species

Database searches (CDFW 2023; USFWS 2023b) resulted in a list of 48 federal- and/or state-listed endangered or threatened, state SSC, or otherwise special status wildlife species documented to occur within the Project site (Attachment 1: Figure 2 – CNDDDB Occurrences Map). After a literature review and the assessment of the various habitat types within the Project site, it was determined that 47 special status wildlife species are considered absent and 1 has a low potential to occur within the Project site. No special status wildlife species were found during the biological reconnaissance survey.

The following 47 wildlife species are considered **Absent** from the Project site due to the absence of suitable habitat present within the site:

- American badger (*Taxidea taxus*) – SSC
- arroyo chub (*Gila orcuttii*) – SSC
- bald eagle (*Haliaeetus leucocephalus*) – **SE**, FP
- California black rail (*Laterallus jamaicensis coturniculus*) – **ST**, FP
- California glossy snake (*Arizona elegans occidentalis*) – SSC
- California red-legged frog (*Rana draytonii*) – **FT**, SSC
- coast horned lizard (*Phrynosoma blainvillii*) – SSC
- coast patch-nosed snake (*Salvadora hexalepis virgulata*) – SSC
- coastal California gnatcatcher (*Polioptila californica californica*) – **FT**, SSC
- coastal whiptail (*Aspidoscelis tigris stejnegeri*) – SSC
- Crotch bumble bee (*Bombus crotchii*) – SC
- Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) – **FE**
- golden eagle (*Aquila chrysaetos*) – FP
- least Bell's vireo (*Vireo bellii pusillus*) – **FE, SE**
- lesser long-nosed bat (*Leptonycteris yerbabuena*) – SSC
- loggerhead shrike (*Lanius ludovicianus*) – SSC
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) – SSC
- pallid bat (*Antrozous pallidus*) – SSC
- pocketed free-tailed bat (*Nyctinomops femorosaccus*) – SSC



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

CHAMBERS
GROUP

- quino checkerspot butterfly (*Euphydryas editha quino*) – FE
- red-diamond rattlesnake (*Crotalus ruber*) – SSC
- Riverside fairy shrimp (*Streptocephalus woottoni*) – FE
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*) – SSC
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*) – FE, SE, SSC
- San Diego banded gecko (*Coleonyx variegatus abbotti*) – SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) – SSC
- Santa Ana speckled dace (*Rhinichthys osculus* ssp. 8) – SSC
- Santa Ana sucker (*Catostomus santaanae*) – FT
- Southern California legless lizard (*Anniella stebbinsi*) – SSC
- southern grasshopper mouse (*Onychomys torridus ramona*) – SSC
- southern mountain yellow-legged frog (*Rana muscosa*) – FE, SE
- southern rubber boa (*Charina umbratica*) – ST
- southwestern willow flycatcher (*Empidonax traillii extimus*) – FE, SE
- steelhead - southern California DPS (*Oncorhynchus mykiss irideus* pop. 10) – FE, SE
- Stephens' kangaroo rat (*Dipodomys stephensi*) – FT, ST
- Swainson's hawk (*Buteo swainsoni*) – ST
- tricolored blackbird (*Agelaius tricolor*) – ST, SSC
- two-striped gartersnake (*Thamnophis hammondi*) – SSC
- western mastiff bat (*Eumops perotis californicus*) – SSC
- western pond turtle (*Emys marmorata*) – SSC
- western spadefoot (*Spea hammondi*) – SSC
- western yellow bat (*Lasiurus xanthinus*) – SSC
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) – FT, SE
- white-eared pocket mouse (*Perognathus alticola alticola*) – SSC
- white-tailed kite (*Elanus leucurus*) – FP
- yellow warbler (*Setophaga petechia*) – SSC
- yellow-breasted chat (*Icteria virens*) – SSC

The analysis of the CNDDDB search and field survey resulted in one species with a low potential to occur within the Project site. This species is described below.

Burrowing Owl (*Athene cunicularia*) SSC

The burrowing owl (BUOW) is a California SSC. The BUOW breeds in open plains from western Canada and the western United States, Mexico through Central America, and into South America to Argentina (Klute et al. 2003). This species inhabits dry, open, native, or non-native grasslands, deserts, and other arid environments with low-growing and low-density vegetation (Ehrlich et al. 1988). It may occupy golf courses, cemeteries, road rights-of-way, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows (TLMA 2006). BUOWs typically use burrows made by mammals such as California ground squirrels (*Otospermophilus beecheyi*), foxes (*Vulpes* sp.), or badgers (*Mustelidae* sp.) (Trulio 1997). When burrows are scarce, the BUOW may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes (TLMA 2006). Ground squirrel burrows were observed on the Project site but due to recent tilling and mowing activities, most of these burrows were



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands



collapsed. If ground disturbance becomes infrequent and species are able to create burrows (and those burrows persist), it may create a habitat that could support BUOW. BUOW have also been recorded within 4.44 miles of the Project site (CDFW 2023). Therefore, this species has a low potential to occur.

USFWS Critical Habitat

USFWS Critical Habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated Critical Habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated Critical Habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Designated Critical Habitat delineates all suitable habitat, occupied or not, that is essential to the survival and recovery of the species. According to the USFWS Critical Habitat WebGIS map, the Project site does not fall within Designated Critical Habitat (USFWS 2023c). The closest USFWS Designated Critical Habitat is for San Bernardino kangaroo rat and occurs approximately 1.25 miles north of the Project site (Attachment 1: Figure 5 – San Bernardino Kangaroo Rat Critical Habitat).

Special Status Habitats

Database searches (CDFW 2023; CNPS 2023) resulted in a list of four special status habitats documented historically occur within the vicinity (approximately 5 miles) of the Project site (Attachment 1: Figure 2 - CNDDDB Occurrences Map), including Riversidian Alluvial Fan Sage Scrub, Southern Mixed Riparian Forest, Southern Riparian Scrub, and Southern Sycamore Alder Riparian Woodland. After the literature review and the assessment of the habitat types within the Project site, it was determined that none of these communities were present within the Project site.

Conclusions and Recommendations

Hydrology

No potentially jurisdictional or non-jurisdictional hydrological features occur within the Project site, nor do any riparian, wetland, or vernal pool habitats occur within the Project site.

A potentially jurisdictional drainage identified on aerial imagery during the literature search is located west of the Project site and east of I-210. As mentioned, this drainage is located outside of the Project site and would not be directly affected by the Project. However, due to the proximity of the drainage to the Project site (within approximately 15 feet at the northwest corner and within approximately 30 feet at the southwest corner), it is recommended that Best Management Practices (BMPs) including fencing of the Project limits and erosion control measures be employed during construction to prevent sediment from entering the channelized drainage and to protect water quality.

As no work will occur outside of the Project boundaries, no impacts to waters of the United States or waters of the state are anticipated to occur because of the Project. If it is determined that the channelized drainage west of the Project site is unavoidable due design changes or other circumstances, a USACE 404 permit, RWQCB 401 certification and/or a CDFW Streambed Alteration Agreement may be required for project authorization.

Special Status Plant Species

After conducting the literature review and field assessment of the habitat types within the Project site, it was determined that all 54 special status plant species known to historically occur within the vicinity of the Project site are absent from the Project site due to a lack of suitable habitat for these species. No special status species were observed during the field survey. As such, no further plant surveys are recommended.

Special Status Wildlife Species

Following the literature review and field assessment of the habitat types within the Project site, it was determined that 47 of the 48 special status wildlife species known to historically occur within the Project site are considered absent due



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands



to a lack of suitable habitat for these species. One species, BUOW, is considered to have low potential to occur within the Project site. Although no BUOW or sign (burrows with whitewash, pellets, feathers etc.) were observed during the survey, the following measures are recommended in accordance with CDFW's Staff Report on Burrowing Owl Mitigation: a preconstruction BUOW survey shall be conducted no less than 14 days prior to initiating ground disturbance (including clearing, grubbing, grading), and a final survey within 24 hours prior to ground disturbance, to determine whether BUOW or BUOW burrows are present within or adjacent to the Project site, and to avoid negative impacts and direct take of BUOW (CDFW 2012). If BUOW are confirmed on-site, avoidance measures will be developed and implemented in compliance with and in coordination with CDFW.

Nesting Birds

To avoid the destruction of active nests and to protect the reproductive success of birds protected under the Migratory Bird Treaty Act (MBTA), construction activities should take place outside nesting season (typically February 1 to August 31) to the greatest extent practicable. If construction activities occur during nesting season, a preconstruction nesting bird survey should be conducted within seven days prior to initiation of ground-disturbing activities (including any clearing, grubbing, or grading), or according to the survey timing in the Project permits. If an active nest is identified, a minimum avoidance buffer around the active nest should be determined and implemented by a qualified biologist to avoid impacts to the active nest. The buffer should be maintained during physical ground-disturbing activities. Once the qualified biologist has determined that nesting has ceased, and the nestlings have fledged and are no longer using the nest, the buffer may be removed. Biological monitoring should be conducted as needed during the nesting season to monitor the status of any active nests, survey for any new nests, and to refresh nesting bird surveys after any periods of construction inactivity.

Please contact me at (949) 261-5414 or jmayfield@chambersgroupinc.com if you have any questions or concerns regarding this letter report.

Sincerely,

CHAMBERS GROUP, INC.

A handwritten signature in black ink that reads "J. Mayfield".

Jackelyn Mayfield

Biologist

jmayfield@chambersgroupinc.com



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

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Attachments

- Attachment 1:** Figure 1 – Project Location and Vicinity Map
- Figure 2 – CNDDDB Occurrences Map
- Figure 3 – Vegetation Communities Map
- Figure 4 – NWI and NHD Map
- Figure 5 – San Bernardino Kangaroo Rat Critical Habitat Map
- Attachment 2:** Literature Searches
- Attachment 3:** Plant Species Observed
- Attachment 4:** Wildlife Species Observed
- Attachment 5:** Site Photographs



Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

City of Redlands

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Biological Resources Letter Report for the Redlands Used-Car Retail Development Project

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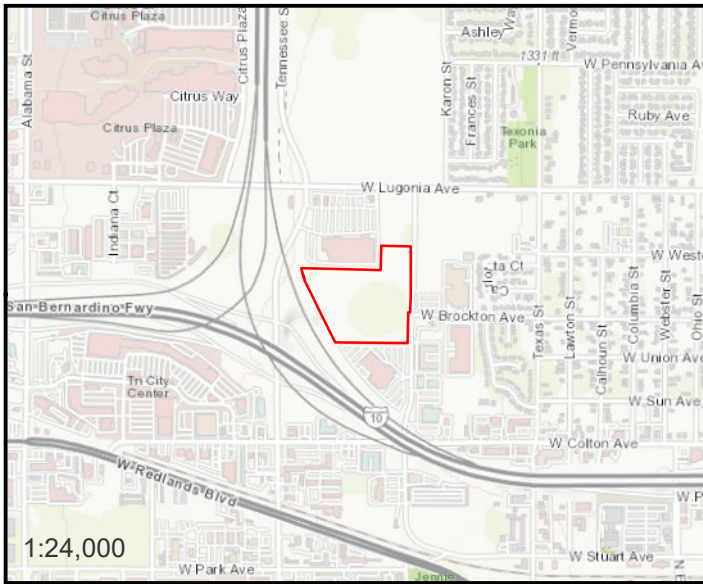
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ATTACHMENT 1 – FIGURES





 Project Location

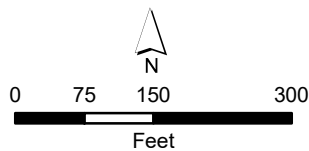
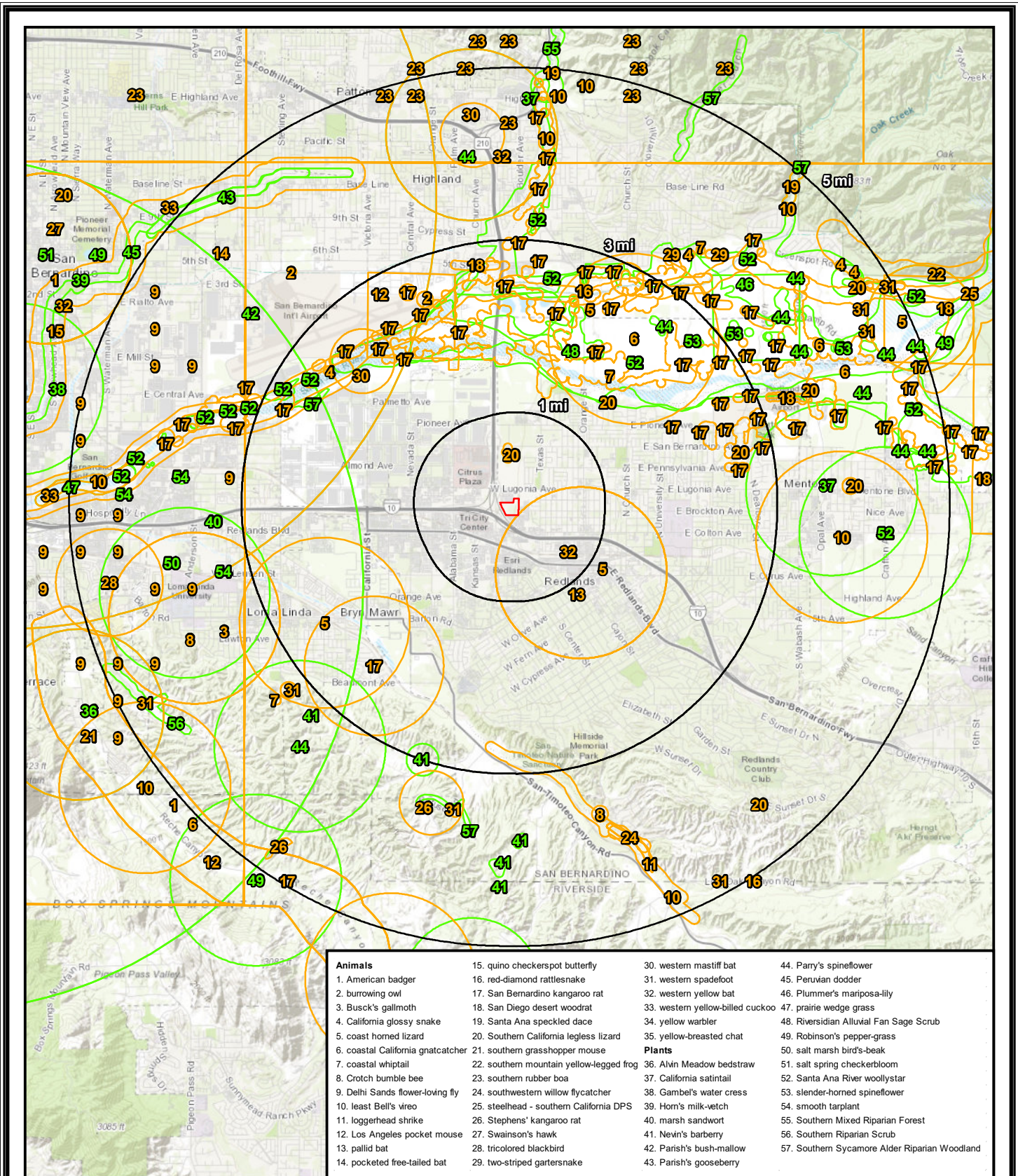


Figure 1
Used-Car Retail Development Project
Project Location and Vicinity



- | | | | |
|-----------------------------------|--|----------------------------------|---|
| Animals | 15. quino checkerspot butterfly | 30. western mastiff bat | 44. Pary's spinneflower |
| 1. American badger | 16. red-diamond rattlesnake | 31. western spadefoot | 45. Peruvian dodder |
| 2. burrowing owl | 17. San Bernardino kangaroo rat | 32. western yellow bat | 46. Plummer's mariposa-lily |
| 3. Busck's gallmoth | 18. San Diego desert woodrat | 33. western yellow-billed cuckoo | 47. prairie wedge grass |
| 4. California glossy snake | 19. Santa Ana speckled dace | 34. yellow warbler | 48. Riversidian Alluvial Fan Sage Scrub |
| 5. coast horned lizard | 20. Southern California legless lizard | 35. yellow-breasted chat | 49. Robinson's pepper-grass |
| 6. coastal California gnatcatcher | 21. southern grasshopper mouse | Plants | 50. salt marsh bird's-beak |
| 7. coastal whiptail | 22. southern mountain yellow-legged frog | 36. Alvin Meadow bedstraw | 51. salt spring checkerbloom |
| 8. Crotch bumble bee | 23. southern rubber boa | 37. California satintail | 52. Santa Ana River woollystar |
| 9. Delhi Sands flower-loving fly | 24. southwestern willow flycatcher | 38. Gambel's water cress | 53. slender-horned spinneflower |
| 10. least Bell's vireo | 25. steelhead - southern California DPS | 39. Horn's milk-vetch | 54. smooth tarplant |
| 11. loggerhead shrike | 26. Stephens' kangaroo rat | 40. marsh sandwort | 55. Southern Mixed Riparian Forest |
| 12. Los Angeles pocket mouse | 27. Swainson's hawk | 41. Nevin's barberry | 56. Southern Riparian Scrub |
| 13. pallid bat | 28. tricolored blackbird | 42. Parish's bush-mallow | 57. Southern Sycamore Alder Riparian Woodland |
| 14. pocketed free-tailed bat | 29. two-striped gartersnake | 43. Parish's gooseberry | |

Project Location

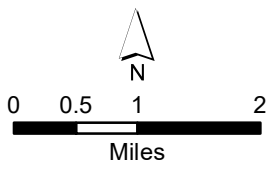


Figure 2
Used-Car Retail Development Project
CNDDDB Occurrences



- Project Location
- Vegetation Communities**
- Developed (0.11 ac)
- Ruderal (18.52 ac)

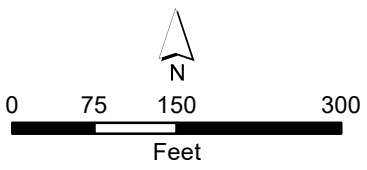
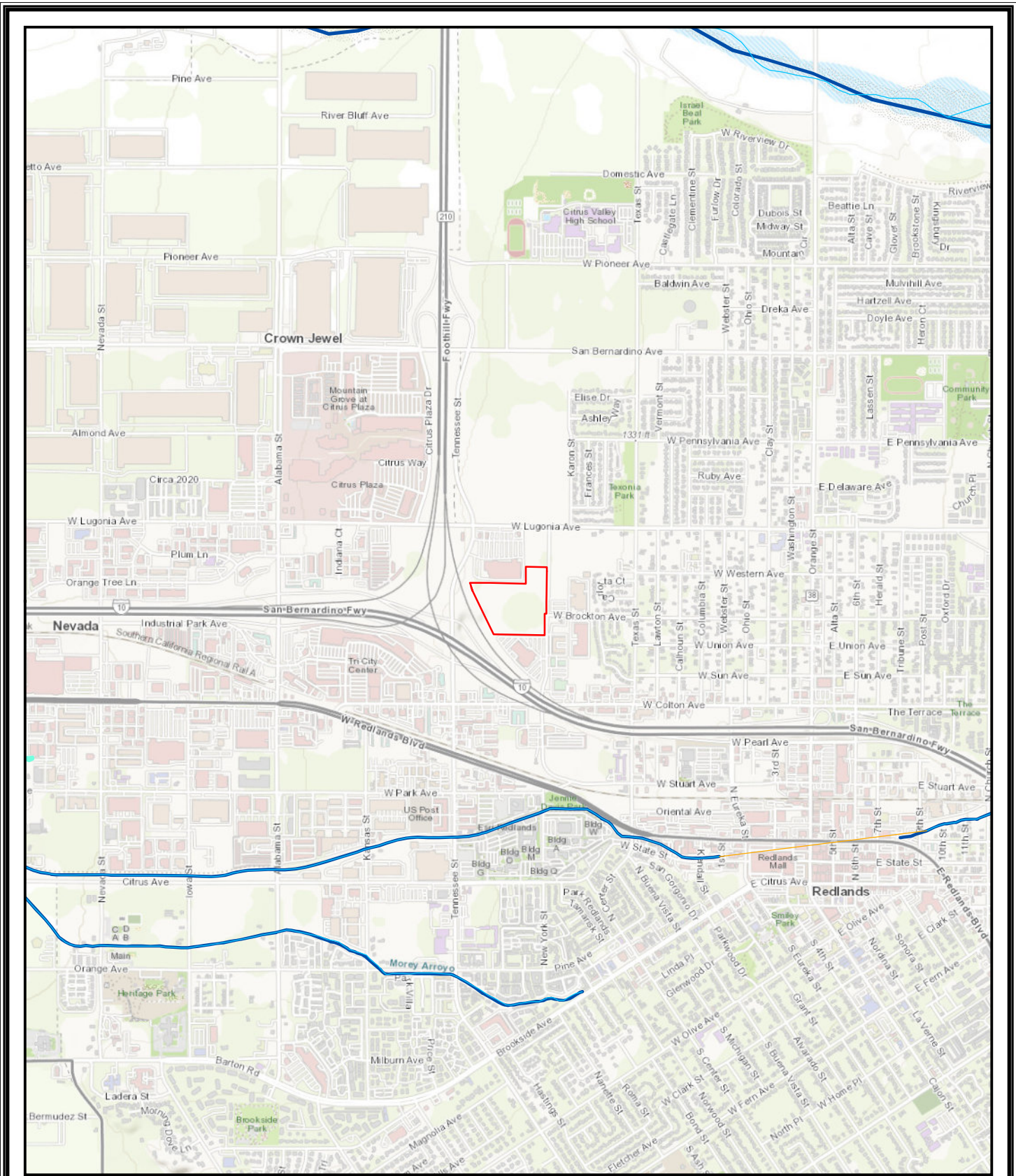


Figure 3
Used-Car Retail Development Project
Vegetation Communities



- Project Location
- NWI**
- Freshwater Pond Riverine
- NHD**
- Connector Stream/River

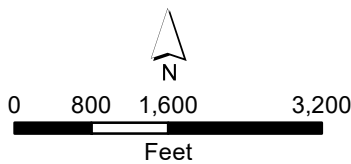
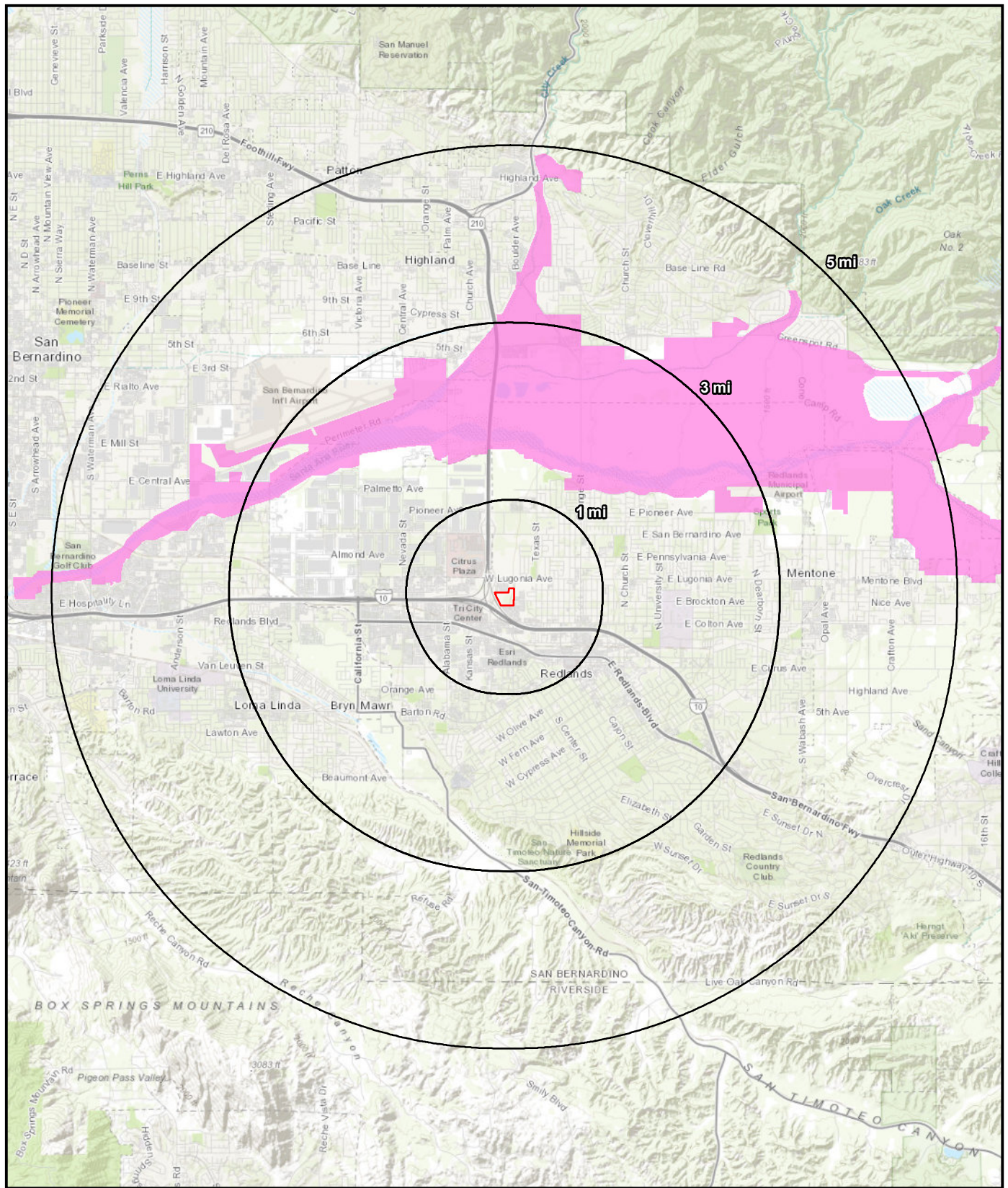


Figure 4
Used-Car Retail Development Project
NWI and NHD



- Project Location
- USFWS Critical Habitat**
- San Bernardino Kangaroo Rat

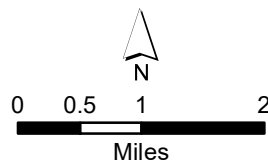


Figure 5
Used-Car Retail Development Project
San Bernardino Kangaroo Rat Critical Habitat

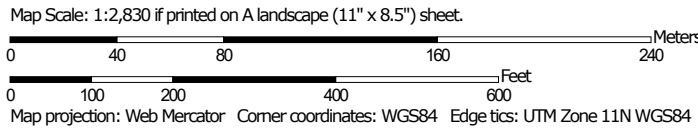
ATTACHMENT 2 – LITERATURE SEARCHES



Soil Map—San Bernardino County Southwestern Part, California



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 15, Aug 30, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2022—Jun 12, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
TuB	Tujunga loamy sand, 0 to 5 percent slopes	19.6	100.0%
Totals for Area of Interest		19.6	100.0%

San Bernardino County Southwestern Part, California

TuB—Tujunga loamy sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2sx6y

Elevation: 650 to 3,110 feet

Mean annual precipitation: 10 to 25 inches

Mean annual air temperature: 62 to 65 degrees F

Frost-free period: 325 to 365 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Tujunga, loamy sand, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tujunga, Loamy Sand

Setting

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from granite

Typical profile

A - 0 to 6 inches: loamy sand

C1 - 6 to 18 inches: loamy sand

C2 - 18 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: R019XG912CA - Sandy Fan

Hydric soil rating: No

Minor Components

Tujunga, gravelly loamy sand

Percent of map unit: 10 percent

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Hanford, sandy loam

Percent of map unit: 5 percent

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

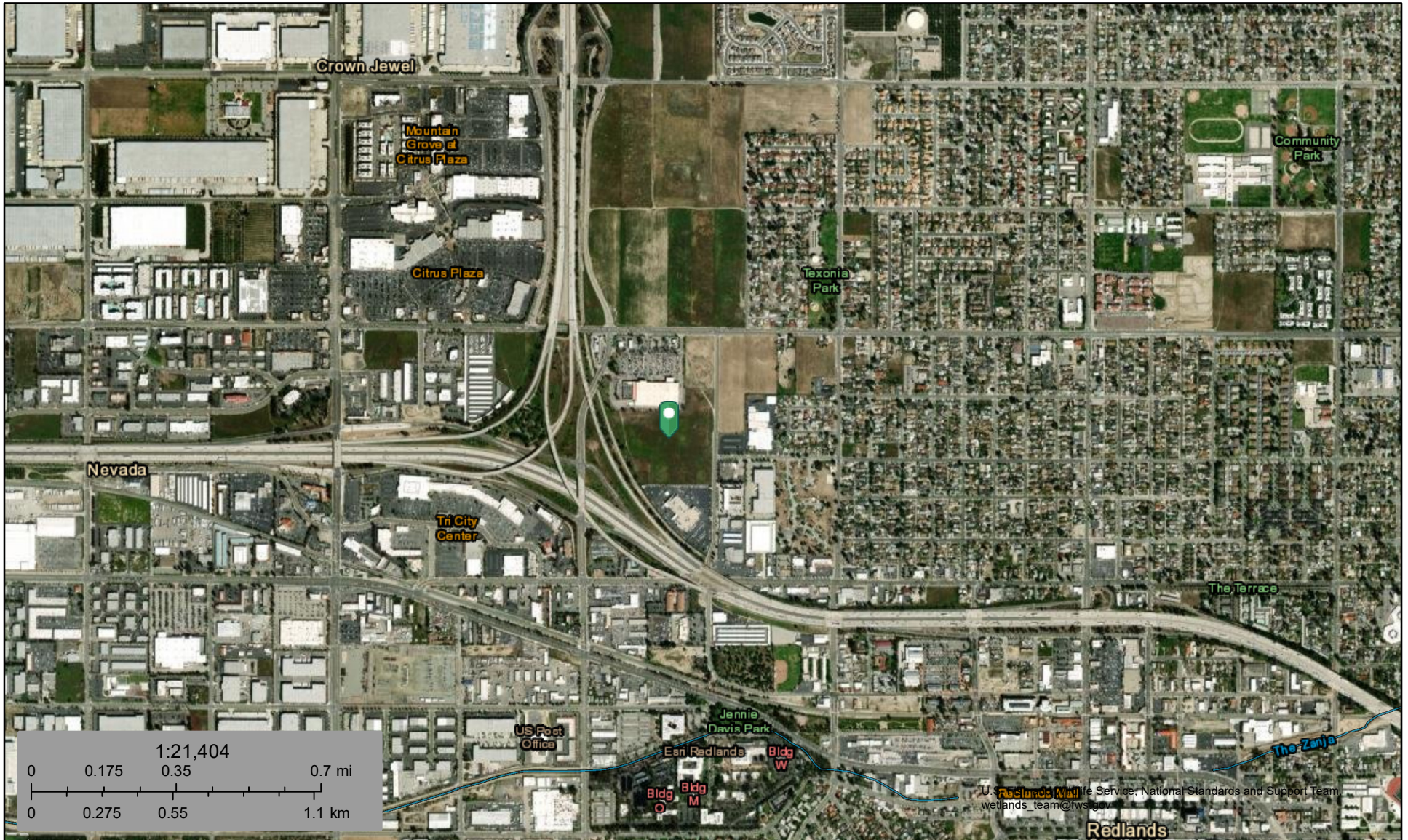
Across-slope shape: Linear

Hydric soil rating: No

Data Source Information

Soil Survey Area: San Bernardino County Southwestern Part, California

Survey Area Data: Version 15, Aug 30, 2023



December 17, 2023

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
|  | Freshwater Pond |  | |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Redlands (3411712)) OR Yucaipa (3411711) OR Keller Peak (3411721) OR Harrison Mtn. (3411722) OR San Bernardino North (3411723) OR San Bernardino South (3411713) OR Riverside East (3311783) OR Sunnymead (3311782) OR El Casco (3311781))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Accipiter cooperii</i> Cooper's hawk	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	790 1,680	118 S:3	0	1	1	0	0	1	2	1	3	0	0
<i>Agelaius tricolor</i> tricolored blackbird	G1G2 S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC-Birds of Conservation Concern	778 1,960	957 S:9	1	0	0	0	1	7	6	3	8	0	1
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	G5T3 S4	None None	CDFW_WL-Watch List	1,130 2,515	235 S:18	0	8	1	0	0	9	5	13	18	0	0
<i>Allium howellii</i> var. <i>clokeyi</i> Mt. Pinos onion	G4T2 S2	None None	Rare Plant Rank - 1B.3 SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	5,100 5,100	25 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Allium marvinii</i> Yucaipa onion	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	2,365 2,645	47 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Anniella stebbinsi</i> Southern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	851 5,488	427 S:34	0	8	9	4	3	10	12	22	31	3	0
<i>Antrozous pallidus</i> pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	1,360 1,360	420 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Aquila chrysaetos</i> golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern	2,300 2,300	326 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Arenaria paludicola</i> marsh sandwort	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_SBBG-Santa Barbara Botanic Garden	1,000 1,000	19 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Arizona elegans occidentalis</i> California glossy snake	G5T2 S2	None None	CDFW_SSC-Species of Special Concern	900 2,737	260 S:11	0	0	0	0	0	11	7	4	11	0	0
<i>Artemisiospiza belli belli</i> Bell's sparrow	G5T2T3 S3	None None	CDFW_WL-Watch List	1,100 2,120	61 S:2	0	1	0	0	0	1	1	1	2	0	0
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	G5 S2S3	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFS_S-Sensitive	900 2,244	369 S:24	0	2	2	2	0	18	17	7	23	1	0
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	G5T5 S3	None None	CDFW_SSC-Species of Special Concern	1,060 2,859	148 S:15	0	6	2	1	0	6	2	13	15	0	0
<i>Astragalus hornii var. hornii</i> Horn's milk-vetch	GUT1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	1,000 1,000	28 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Athene cunicularia</i> burrowing owl	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,090 1,700	2011 S:13	0	3	0	0	1	9	4	9	12	0	1
<i>Atriplex coronata var. notatior</i> San Jacinto Valley crownscale	G4T1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	130 1,430	16 S:5	1	1	0	0	1	2	1	4	4	1	0
<i>Atriplex serenana var. davidsonii</i> Davidson's saltscale	G5T1 S1	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,430 1,430	26 S:1	0	0	0	0	0	1	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Batrachoseps gabrieli</i> San Gabriel slender salamander	G2G3 S2S3	None None	IUCN_DD-Data Deficient USFS_S-Sensitive	3,200 3,200	8 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Berberis nevinii</i> Nevin's barberry	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	1,020 5,200	32 S:5	0	0	0	2	1	2	4	1	4	0	1
<i>Bombus crotchii</i> Crotch bumble bee	G2 S2	None Candidate Endangered	IUCN_EN-Endangered	900 5,000	437 S:16	0	0	0	0	0	16	8	8	16	0	0
<i>Bombus morrisoni</i> Morrison bumble bee	G3 S1S2	None None	IUCN_VU-Vulnerable	5,100 5,100	86 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus pensylvanicus</i> American bumble bee	G3G4 S2	None None	IUCN_VU-Vulnerable	1,075 1,502	285 S:2	0	0	1	0	0	1	2	0	2	0	0
<i>Brodiaea filifolia</i> thread-leaved brodiaea	G2 S2	Threatened Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	1,900 1,900	141 S:2	0	0	1	0	0	1	1	1	2	0	0
<i>Buteo regalis</i> ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	1,936 1,936	107 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S4	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	1,000 2,600	2561 S:2	0	0	0	0	2	0	2	0	0	2	0
<i>Calochortus palmeri var. palmeri</i> Palmer's mariposa-lily	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	1,700 6,450	111 S:4	0	0	0	0	0	4	2	2	4	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Calochortus plummerae</i> Plummer's mariposa-lily	G4 S4	None None	Rare Plant Rank - 4.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,200 5,000	230 S:24	0	5	0	0	1	18	15	9	23	1	0
<i>Canyon Live Oak Ravine Forest</i> Canyon Live Oak Ravine Forest	G3 S3.3	None None		3,400 3,400	50 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Carex comosa</i> bristly sedge	G5 S2	None None	Rare Plant Rank - 2B.1 IUCN_LC-Least Concern	1,000 1,000	31 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Castilleja cinerea</i> ash-gray paintbrush	G1G2 S1S2	Threatened None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	6,800 6,800	53 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Castilleja lasiorhyncha</i> San Bernardino Mountains owl's-clover	G2? S2?	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	6,000 7,300	46 S:7	0	2	0	1	0	4	3	4	7	0	0
<i>Catostomus santaanae</i> Santa Ana sucker	G1 S1	Threatened None	AFS_TH-Threatened IUCN_EN-Endangered	838 2,600	28 S:3	0	1	1	0	0	1	1	2	3	0	0
<i>Centromadia pungens ssp. laevis</i> smooth tarplant	G3G4T2 S2	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,000 2,221	137 S:17	1	1	3	0	1	11	9	8	16	0	1
<i>Ceratochrysis longimala</i> Desert cuckoo wasp	G1 S1	None None		900 900	2 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	G5T3T4 S3S4	None None		1,150 2,200	101 S:25	0	8	4	4	0	9	20	5	25	0	0
<i>Charina umbratica</i> southern rubber boa	G2G3 S2	None Threatened	IUCN_VU-Vulnerable USFS_S-Sensitive	5,000 7,300	94 S:22	1	3	0	0	0	18	14	8	22	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Chloropyron maritimum ssp. maritimum</i> salt marsh bird's-beak	G4?T1 S1	Endangered Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank SB_SBBG-Santa Barbara Botanic Garden	1,000 1,000	26 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Chorizanthe parryi var. parryi</i> Parry's spineflower	G3T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,000 3,280	150 S:29	1	2	3	0	1	22	18	11	28	1	0
<i>Chorizanthe xanti var. leucotheca</i> white-bracted spineflower	G4T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	2,480 2,480	59 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive USFS_S-Sensitive	900 1,690	165 S:3	0	1	0	0	2	0	3	0	1	1	1
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	G5T5 S1S2	None None	CDFW_SSC-Species of Special Concern	1,075 1,075	8 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Crotalus ruber</i> red-diamond rattlesnake	G4 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	900 2,280	192 S:9	0	1	2	0	0	6	6	3	9	0	0
<i>Cuscuta obtusiflora var. glandulosa</i> Peruvian dodder	G5T4? SH	None None	Rare Plant Rank - 2B.2		6 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	G5T2T3 S2?	None None	USFS_S-Sensitive	3,137 4,797	14 S:3	1	2	0	0	0	0	1	2	3	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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<i>Diplectrona californica</i> California diplectronan caddisfly	G1G2 S1	None None		3,444 3,444	2 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	G5T1 S1	Endangered Candidate Endangered	CDFW_SSC-Species of Special Concern	1,055 2,388	81 S:28	1	5	6	0	5	11	10	18	23	5	0
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	G2 S3	Threatened Threatened	IUCN_VU-Vulnerable	1 2,500	226 S:35	1	6	11	8	4	5	30	5	31	1	3
<i>Dodecahema leptoceras</i> slender-horned spineflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,280 1,600	42 S:9	0	1	1	0	3	4	8	1	6	1	2
<i>Elanus leucurus</i> white-tailed kite	G5 S3S4	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	2,005 2,760	184 S:3	0	0	1	0	0	2	0	3	3	0	0
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	G5T2 S3	Endangered Endangered		790 3,400	70 S:5	1	1	1	0	0	2	2	3	5	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	Proposed Threatened None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	1,716 1,716	1522 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Eremophila alpestris actia</i> California horned lark	G5T4Q S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	1,100 2,430	94 S:4	0	0	1	2	0	1	3	1	4	0	0
<i>Eriastrum densifolium ssp. sanctorum</i> Santa Ana River woollystar	G4T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	820 2,300	31 S:25	2	4	8	4	1	6	10	15	24	1	0
<i>Euchloe hyantis andrewsi</i> Andrew's marble butterfly	G4G5T1 S2	None None		4,800 6,000	6 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Eugnosta busckana</i> Busck's gallmoth	G1G3 S2S3	None None		1,160 1,815	15 S:3	0	2	0	0	0	1	1	2	3	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	1,380 2,470	296 S:6	0	0	0	1	0	5	6	0	6	0	0



Summary Table Report

California Department of Fish and Wildlife California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
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<i>Euphydryas editha quino</i> quino checkerspot butterfly	G4G5T1T2 S1S2	Endangered None		1,050 5,000	186 S:2	0	0	0	0	2	0	2	0	0	0	2
<i>Falco columbarius</i> merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	964 1,713	37 S:2	1	0	1	0	0	0	0	2	2	0	0
<i>Fimbristylis thermalis</i> hot springs fimbristylis	G4 S1S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	1,900 1,900	19 S:1	0	0	0	1	0	0	0	1	1	0	0
<i>Galium californicum ssp. primum</i> Alvin Meadow bedstraw	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive		12 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Gila orcuttii</i> arroyo chub	G2 S2	None None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	838 880	49 S:2	0	0	1	1	0	0	2	0	2	0	0
<i>Glaucomys oregonensis californicus</i> San Bernardino flying squirrel	G5T1T2 S1S2	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	4,600 5,300	12 S:5	1	0	2	0	0	2	4	1	5	0	0
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	5,150 5,200	333 S:3	0	0	1	0	0	2	2	1	3	0	0
<i>Helianthus nuttallii ssp. parishii</i> Los Angeles sunflower	G5TX SX	None None	Rare Plant Rank - 1A	1,000 1,000	7 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Heuchera parishii</i> Parish's alumroot	G3 S3	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	5,600 6,600	70 S:5	0	0	0	0	0	5	5	0	5	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
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<i>Horkelia cuneata var. puberula</i> mesa horkelia	G4T1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive		103 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Icteria virens</i> yellow-breasted chat	G5 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,460 2,064	101 S:3	0	2	0	0	0	1	2	1	3	0	0
<i>Imperata brevifolia</i> California satintail	G3 S3	None None	Rare Plant Rank - 2B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	1,480 3,800	32 S:4	0	0	0	1	0	3	3	1	4	0	0
<i>Ivesia argyrocoma var. argyrocoma</i> silver-haired ivesia	G2T2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	5,620 5,620	41 S:1	0	0	0	1	0	0	0	1	1	0	0
<i>Lanius ludovicianus</i> loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	1,460 2,596	110 S:3	0	1	0	0	0	2	3	0	3	0	0
<i>Lasiurus xanthinus</i> western yellow bat	G4G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,050 2,600	58 S:8	0	0	0	0	0	8	8	0	8	0	0
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	1,420 1,460	111 S:7	2	1	0	0	0	4	1	6	7	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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<i>Laterallus jamaicensis coturniculus</i> California black rail	G3T1 S2	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_EN-Endangered	900 1,070	303 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Lepidium virginicum var. robinsonii</i> Robinson's pepper-grass	G5T3 S3	None None	Rare Plant Rank - 4.3	850 2,100	142 S:9	0	0	0	0	0	9	8	1	9	0	0
<i>Leptonycteris yerbabuenae</i> lesser long-nosed bat	G3 S1	Delisted None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	2,600 2,600	2 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	G5T3T4 S3S4	None None		1,060 2,745	103 S:12	0	3	8	0	0	1	2	10	12	0	0
<i>Lilium parryi</i> lemon lily	G3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	5,450 7,915	160 S:16	1	0	1	2	0	12	7	9	16	0	0
<i>Lycium parishii</i> Parish's desert-thorn	G4 S1	None None	Rare Plant Rank - 2B.3 SB_CRES-San Diego Zoo CRES Native Gene Seed Bank		21 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Malacothamnus parishii</i> Parish's bush-mallow	GXQ SX	None None	Rare Plant Rank - 1A	1,250 1,250	1 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Monardella macrantha ssp. hallii</i> Hall's monardella	G5T3 S3	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,500 5,000	41 S:5	0	5	0	0	0	0	3	2	5	0	0
<i>Monardella pringlei</i> Pringle's monardella	GX SX	None None	Rare Plant Rank - 1A	1,000 1,000	2 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Nama stenocarpa</i> mud nama	G4G5 S1S2	None None	Rare Plant Rank - 2B.2	1,400 1,400	22 S:1	0	0	0	0	0	1	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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<i>Nasturtium gambelii</i> Gambel's water cress	G1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	1,000 1,000	13 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Neolarra alba</i> white cuckoo bee	GH SH	None None		1,400 1,800	8 S:2	0	0	0	0	1	1	2	0	1	1	0
<i>Neotamias speciosus speciosus</i> lodgpole chipmunk	G4T3T4 S2	None None		6,800 7,300	24 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	G5T3T4 S3S4	None None	CDFW_SSC-Species of Special Concern	1,200 1,630	132 S:5	0	2	2	1	0	0	3	2	5	0	0
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,200 1,600	90 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Oncorhynchus mykiss irideus pop. 10</i> steelhead - southern California DPS	G5T1Q S1	Endangered Candidate Endangered	AFS_EN-Endangered	108 108	19 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Onychomys torridus ramona</i> southern grasshopper mouse	G5T3 S3	None None	CDFW_SSC-Species of Special Concern	1,180 2,000	28 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Packera bernardina</i> San Bernardino ragwort	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	7,000 7,000	35 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Pelazoneuron puberulum var. sonorensis</i> Sonoran maiden fern	G5T3 S2	None None	Rare Plant Rank - 2B.2 USFS_S-Sensitive	2,000 2,000	27 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Perideridia parishii ssp. parishii</i> Parish's yampah	G4T3T4 S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	5,600 7,480	37 S:8	0	0	1	0	0	7	2	6	8	0	0



Summary Table Report

California Department of Fish and Wildlife California Natural Diversity Database



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<i>Perognathus alticola alticola</i> white-eared pocket mouse	G2TH SH	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	5,500 6,153	3 S:3	0	0	0	0	3	0	3	0	0	3	0
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	G5T2 S1S2	None None	CDFW_SSC-Species of Special Concern	1,000 2,000	70 S:18	1	4	5	1	0	7	15	3	18	0	0
<i>Phrynosoma blainvillii</i> coast horned lizard	G4 S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,000 4,600	784 S:23	1	8	0	0	2	12	20	3	21	0	2
<i>Plegadis chihi</i> white-faced ibis	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	1,425 1,425	20 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Polioptila californica californica</i> coastal California gnatcatcher	G4G5T3Q S2	Threatened None	CDFW_SSC-Species of Special Concern	1,100 2,180	1087 S:14	1	3	2	0	1	7	11	3	13	0	1
<i>Rana draytonii</i> California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	2,600 2,600	1764 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Rana muscosa</i> southern mountain yellow-legged frog	G1 S2	Endangered Endangered	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive	1,800 6,700	186 S:5	0	1	0	0	3	1	4	1	2	1	2
<i>Rhaphiomidas terminatus abdominalis</i> Delhi Sands flower-loving fly	G1T1 S1	Endangered None		925 1,164	36 S:20	0	8	1	2	7	2	10	10	13	1	6
<i>Rhinichthys osculus ssp. 8</i> Santa Ana speckled dace	G5T1 S1	None None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern USFS_S-Sensitive	1,525 2,080	13 S:3	0	3	0	0	0	0	3	0	3	0	0
<i>Ribes divaricatum var. parishii</i> Parish's gooseberry	G5TX SX	None None	Rare Plant Rank - 1A	1,080 1,080	5 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Riversidian Alluvial Fan Sage Scrub</i> Riversidian Alluvial Fan Sage Scrub	G1 S1.1	None None		1,300 2,900	30 S:4	0	1	1	0	1	1	4	0	3	0	1
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	G5T4 S3	None None	CDFW_SSC-Species of Special Concern	1,672 2,533	34 S:2	0	0	1	0	0	1	0	2	2	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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<i>Schoenus nigricans</i> black bog-rush	G4 S2	None None	Rare Plant Rank - 2B.2 IUCN_LC-Least Concern USFS_S-Sensitive	1,950 1,950	13 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Senecio aphanactis</i> chaparral ragwort	G3 S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	2,300 2,300	98 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Setophaga petechia</i> yellow warbler	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,460 2,122	78 S:3	0	0	1	0	0	2	1	2	3	0	0
<i>Sidalcea hickmanii ssp. parishii</i> Parish's checkerbloom	G3T1 S1	None Rare	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	4,600 4,600	24 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Sidalcea malviflora ssp. dolosa</i> Bear Valley checkerbloom	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive		18 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Sidalcea neomexicana</i> salt spring checkerbloom	G4 S2	None None	Rare Plant Rank - 2B.2 USFS_S-Sensitive	1,050 1,500	30 S:4	0	0	0	0	1	3	3	1	3	1	0
<i>Sidalcea pedata</i> bird-foot checkerbloom	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	6,040 6,040	24 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Southern Coast Live Oak Riparian Forest</i> Southern Coast Live Oak Riparian Forest	G4 S4	None None		1,780 1,820	246 S:2	0	0	0	0	0	2	2	0	2	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	G3 S3.2	None None		860 2,840	111 S:3	0	0	0	0	0	3	3	0	3	0	0
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	G2 S2.1	None None		1,980 1,980	14 S:1	0	0	0	0	0	1	1	0	1	0	0
Southern Riparian Forest Southern Riparian Forest	G4 S4	None None		2,160 2,160	20 S:1	0	0	0	0	0	1	1	0	1	0	0
Southern Riparian Scrub Southern Riparian Scrub	G3 S3.2	None None		1,360 1,840	56 S:2	0	0	0	0	0	2	2	0	2	0	0
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	G4 S4	None None		1,100 3,000	230 S:16	0	0	0	0	0	16	16	0	16	0	0
Southern Willow Scrub Southern Willow Scrub	G3 S2.1	None None		2,200 2,200	45 S:1	0	0	0	0	0	1	1	0	1	0	0
Spea hammondi western spadefoot	G2G3 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	1,007 2,525	1444 S:38	0	6	8	3	0	21	10	28	38	0	0
Sphenopholis obtusata prairie wedge grass	G5 S2	None None	Rare Plant Rank - 2B.2	800 1,000	19 S:2	0	0	0	0	0	2	2	0	2	0	0
Spinus lawrencei Lawrence's goldfinch	G3G4 S4	None None	IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,690 1,690	4 S:1	0	1	0	0	0	0	1	0	1	0	0
Streptanthus bernardinus Laguna Mountains jewelflower	G3G4 S3S4	None None	Rare Plant Rank - 4.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	5,990 7,100	22 S:7	0	3	1	0	0	3	7	0	7	0	0
Streptanthus campestris southern jewelflower	G3 S3	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	4,000 7,345	73 S:4	0	0	0	1	0	3	2	2	4	0	0



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	G1G2 S2	Endangered None	IUCN_EN-Endangered	1,520 1,540	83 S:2	0	0	0	0	2	0	2	0	0	1	1
<i>Symphotrichum defoliatum</i> San Bernardino aster	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	2,000 2,000	102 S:3	0	0	0	0	1	2	3	0	2	0	1
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,040 5,200	645 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Thamnophis hammondi</i> two-striped gartersnake	G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	1,352 3,460	184 S:10	2	2	2	2	1	1	5	5	9	1	0
<i>Trichocoronis wrightii var. wrightii</i> Wright's trichocoronis	G4T3 S1	None None	Rare Plant Rank - 2B.1	1,420 1,420	12 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S3	Endangered Endangered		680 2,020	505 S:29	3	4	5	0	0	17	5	24	29	0	0



CNPS Rare Plant Inventory

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
▲ SCIENTIFIC NAME	COMMON NAME	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK	GENERAL HABITATS	MICROHABITATS	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	CA ENDEMIC	DATE ADDED	PHOTO
<i>Abronia villosa</i> <i>var. aurita</i>	chaparral sand-verbena	annual herb	(Jan)Mar-Sep	None	None	1B.1	Chaparral, Coastal scrub, Desert dunes	Sandy	245	5250		2001-01-01	 © 2011 Aaron E. Sims
<i>Acanthoscyphus parishii</i> <i>var. parishii</i>	Parish's oxythea	annual herb	Jun-Sep	None	None	4.2	Chaparral, Lower montane coniferous forest	Gravelly (sometimes), Sandy (sometimes)	4005	8530	Yes	2007-04-05	 © 2014 Keir Morse
<i>Allium howellii</i> <i>var. clokeyi</i>	Mt. Pinos onion	perennial bulbiferous herb	Apr-Jun	None	None	1B.3	Great Basin scrub, Meadows and seeps (edges), Pinyon and juniper woodland		4265	6070	Yes	1974-01-01	 © 2016 Keir Morse
<i>Allium marvinii</i>	Yucaipa onion	perennial bulbiferous herb	Apr-May	None	None	1B.2	Chaparral (clay, openings)		2495	3495	Yes	2001-01-01	 © 2013 Keir Morse
<i>Androsace elongata</i> <i>ssp. acuta</i>	California androsace	annual herb	Mar-Jun	None	None	4.2	Chaparral, Cismontane woodland,		490	4280		1994-01-01	





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Aaron
Schusteff


Coastal
scrub,
Meadows
and seeps,
Pinyon and
juniper
woodland,
Valley and
foothill
grassland


<i>Arenaria paludicola</i>	marsh sandwort	perennial stoloniferous herb	May-Aug	FE	CE	1B.1	Marshes and swamps (brackish, freshwater)	Openings, Sandy	10	560		1984-01-01	No Photo Available
<i>Artemisia palmeri</i>	San Diego sagewort	perennial deciduous shrub	(Feb)May-Sep	None	None	4.2	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland	Mesic, Sandy	15	3000		1974-01-01	No Photo Available
<i>Asplenium vespertinum</i>	western spleenwort	perennial rhizomatous herb	Feb-Jun	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub	Rocky	590	3280		1974-01-01	No Photo Available
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch	annual herb	May-Oct	None	None	1B.1	Meadows and seeps, Playas	Alkaline, Lake Margins	195	2790		2006-12-01	No Photo Available
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger's milk-vetch	perennial shrub	Dec-Jun	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Rocky (sometimes), Sandy (sometimes)	1200	3200	Yes	1994-01-01	No Photo Available
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto Valley crownscale	annual herb	Apr-Aug	FE	None	1B.1	Playas, Valley and foothill grassland (mesic), Vernal pools	Alkaline	455	1640	Yes	1988-01-01	 © 2008 Larry Sward
<i>Atriplex</i>	Davidson's	annual herb	Apr-Oct	None	None	1B.2	Coastal bluff	Alkaline	35	655		1994-	

<i>serenana</i> var. <i> davidsonii</i>	saltscale						scrub, Coastal scrub					01-01	No Photo Available
<i>Berberis nevini</i>	Nevin's barberry	perennial evergreen shrub	(Feb)Mar- Jun	FE	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub	Gravelly (sometimes), Sandy (sometimes)	230	2705	Yes	1980- 01-01	No Photo Available
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	perennial bulbiferous herb	Mar-Jun	FT	CE	1B.1	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools	Clay (often)	80	3675	Yes	1974- 01-01	 © 2016 Keir Morse
<i>Calochortus catalinae</i>	Catalina mariposa lily	perennial bulbiferous herb	(Feb)Mar- Jun	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland		50	2295	Yes	1974- 01-01	No Photo Available
<i>Calochortus palmeri</i> var. <i> palmeri</i>	Palmer's mariposa-lily	perennial bulbiferous herb	Apr-Jul	None	None	1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps	Mesic	2330	7840	Yes	1994- 01-01	No Photo Available
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	perennial bulbiferous herb	May-Jul	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	Granitic, Rocky	330	5580	Yes	1994- 01-01	No Photo Available
<i>Calochortus simulans</i>	La Panza mariposa-lily	perennial bulbiferous herb	Apr-Jun	None	None	1B.3	Chaparral, Cismontane woodland, Lower	Granitic (often), Sandy, Serpentinite	1065	3775	Yes	1980- 01-01	 © 2011 Aaron E.

							montane (sometimes) coniferous forest, Valley and foothill grassland						Sims
<i>Carex comosa</i>	bristly sedge	perennial rhizomatous herb	May-Sep	None	None	2B.1	Coastal prairie, Marshes and swamps (lake margins), Valley and foothill grassland	0	2050		1994- 01-01		Dean Wm. Taylor 1997
<i>Castilleja cinerea</i>	ash-gray paintbrush	perennial herb (hemiparasitic)	Jun-Aug	FT	None	1B.2	Meadows and seeps, Mojavean desert scrub, Pebble (Pavement) plain, Pinyon and juniper woodland, Upper montane coniferous forest (clay, openings)	5905	9710	Yes	1974- 01-01	No Photo Available	
<i>Castilleja lasiorhyncha</i>	San Bernardino Mountains owl's-clover	annual herb (hemiparasitic)	May-Aug	None	None	1B.2	Chaparral, Mesic Meadows and seeps, Pebble (Pavement) plain, Riparian woodland, Upper montane coniferous forest	4265	7840	Yes	1980- 01-01	No Photo Available	
<i>Castilleja montigena</i>	Heckard's paintbrush	perennial herb (hemiparasitic)	May-Aug	None	None	4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper	6400	9185	Yes	1974- 01-01	No Photo Available	

							montane coniferous forest						
<i>Caulanthus simulans</i>	Payson's jewelflower	annual herb	(Feb)Mar- May(Jun)	None	None	4.2	Chaparral, Coastal scrub	Granitic, Sandy	295	7220	Yes	1974- 01-01	No Photo Available
<i>Centromadia pungens ssp. laevis</i>	smooth tarplant	annual herb	Apr-Sep	None	None	1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland	Alkaline	0	2100	Yes	1994- 01-01	No Photo Available
<i>Chloropyron maritimum ssp. maritimum</i>	salt marsh bird's-beak	annual herb (hemiparasitic)	May- Oct(Nov)	FE	CE	1B.2	Coastal dunes, Marshes and swamps (coastal salt)		0	100		1974- 01-01	No Photo Available
<i>Chorizanthe leptotheca</i>	Peninsular spineflower	annual herb	May-Aug	None	None	4.2	Chaparral, Coastal scrub, Lower montane coniferous forest	Granitic	985	6235		1994- 01-01	No Photo Available
<i>Chorizanthe parryi var. parryi</i>	Parry's spineflower	annual herb	Apr-Jun	None	None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Openings, Rocky (sometimes), Sandy (sometimes)	900	4005	Yes	1994- 01-01	 © 2012 Keir Morse
<i>Chorizanthe xanti var. leucotheca</i>	white-bracted spineflower	annual herb	Apr-Jun	None	None	1B.2	Coastal scrub (alluvial fans), Mojavean desert scrub, Pinyon and juniper woodland	Gravelly (sometimes), Sandy (sometimes)	985	3935	Yes	1994- 01-01	No Photo Available
<i>Convolvulus simulans</i>	small- flowered morning- glory	annual herb	Mar-Jul	None	None	4.2	Chaparral (openings), Coastal scrub, Valley	Clay, Seeps, Serpentinite	100	2430		1994- 01-01	No Photo Available

							and foothill grassland							
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	annual vine (parasitic)	Jul-Oct	None	None	2B.2	Marshes and swamps (freshwater)		50	920		2011-08-24	No Photo Available	
<i>Deinandra paniculata</i>	paniculate tarplant	annual herb	(Mar)Apr-Nov	None	None	4.2	Coastal scrub, Valley and foothill grassland, Vernal pools	Sandy (sometimes), Vernal Mesic (usually)	80	3085		2001-01-01	No Photo Available	
<i>Diplacus clevelandii</i>	Cleveland's bush monkeyflower	perennial rhizomatous herb	Apr-Jul	None	None	4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	Disturbed areas (often), Gabbroic, Openings, Rocky	1475	6560		1980-01-01	 © 2020 W. Juergen Schrenk	
<i>Dodecahema leptoceras</i>	slender-horned spineflower	annual herb	Apr-Jun	FE	CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub (alluvial fans)	Sandy	655	2495	Yes	1980-01-01	No Photo Available	
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	perennial herb	Apr-Sep	FE	CE	1B.1	Chaparral, Coastal scrub (alluvial fans)	Gravelly (sometimes), Sandy (sometimes)	300	2000	Yes	1980-01-01	No Photo Available	
<i>Eriophyllum lanatum</i> var. <i>obovatum</i>	southern Sierra woolly sunflower	perennial herb	Jun-Jul	None	None	4.3	Lower montane coniferous forest, Upper montane coniferous forest	Loam, Sandy	3655	8205	Yes	1974-01-01	No Photo Available	
<i>Erythranthe exigua</i>	San Bernardino Mountains monkeyflower	annual herb	May-Jul	None	None	1B.2	Meadows and seeps, Pebble (Pavement) plain, Upper montane coniferous forest	Clay, Mesic	5905	7595		1974-01-01	No Photo Available	
<i>Fimbristylis thermalis</i>	hot springs fimbristylis	perennial rhizomatous herb	Jul-Sep	None	None	2B.2	Meadows and seeps (alkaline, near hot springs)		360	4395		1980-01-01	No Photo Available	

<i>Frasera neglecta</i>	pine green-gentian	perennial herb	May-Jul	None	None	4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest		4595	8205	Yes	1980-01-01	No Photo Available
<i>Fritillaria pinetorum</i>	pine fritillary	perennial bulbiferous herb	May-Jul(Sep)	None	None	4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest	Granitic (sometimes), Metamorphic (sometimes)	5695	10825	Yes	2001-01-01	 © 2008 Steve Matson
<i>Galium californicum</i> ssp. <i>primum</i>	Alvin Meadow bedstraw	perennial herb	May-Jul	None	None	1B.2	Chaparral, Lower montane coniferous forest	Granitic, Sandy	4430	5580	Yes	1974-01-01	 © 2013 Keir Morse
<i>Galium johnstonii</i>	Johnston's bedstraw	perennial herb	Jun-Jul	None	None	4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland		4005	7545	Yes	1974-01-01	 © 2015 Keir Morse
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles sunflower	perennial rhizomatous herb	Aug-Oct	None	None	1A	Marshes and swamps (freshwater, coastal salt)		35	5005	Yes	1974-01-01	No Photo Available
<i>Heuchera caespitosa</i>	urn-flowered alumroot	perennial rhizomatous herb	May-Aug	None	None	4.3	Cismontane woodland, Lower	Rocky	3790	8695	Yes	1974-01-01	 © 2015

							montane coniferous forest, Riparian forest (montane), Upper montane coniferous forest						Keir Morse
<i>Heuchera parishii</i>	Parish's alumroot	perennial rhizomatous herb	Jun-Aug	None	None	1B.3	Alpine boulder and rock field, Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest	Carbonate (sometimes), Rocky	4920	12470	Yes	1974-01-01	 © 2015 Keir Morse
<i>Hordeum intercedens</i>	vernal barley	annual herb	Mar-Jun	None	None	3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland (depressions, saline flats), Vernal pools		15	3280		1994-01-01	No Photo Available
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	perennial herb	Feb-Jul(Sep)	None	None	1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub	Gravelly (sometimes), Sandy (sometimes)	230	2660	Yes	2001-01-01	 © 2008 Tony Morosco
<i>Hulsea vestita</i> ssp. <i>parryi</i>	Parry's sunflower	perennial herb	Apr-Aug	None	None	4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest	Carbonate (sometimes), Granitic (sometimes), Openings, Rocky	4495	9500	Yes	1994-01-01	 © 2015 Keir Morse


<i>Imperata brevifolia</i>	California satintail	perennial rhizomatous herb	Sep-May	None	None	2B.1	Chaparral, Coastal scrub, Meadows and seeps (often alkali), Mojavean desert scrub, Riparian scrub	Mesic	0	3985		2006-12-26	 © 2020 Matt C. Berger
<i>Ivesia argyrocoma</i> var. <i>argyrocoma</i>	silver-haired ivesia	perennial herb	Jun-Aug	None	None	1B.2	Meadows and seeps (alkaline), Pebble (Pavement) plain, Upper montane coniferous forest		4800	9710	Yes	1974-01-01	 © 2015 Keir Morse
<i>Juglans californica</i>	Southern California black walnut	perennial deciduous tree	Mar-Aug	None	None	4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland		165	2955	Yes	1994-01-01	 © 2020 Zoya Akulova
<i>Juncus duranii</i>	Duran's rush	perennial rhizomatous herb	Jul-Aug	None	None	4.3	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest	Mesic	5800	9200	Yes	1974-01-01	 © 2017 Keir Morse
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	annual herb	Feb-Jun	None	None	1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools		5	4005		1994-01-01	 © 2013 Keir Morse
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	annual herb	Jan-Jul	None	None	4.3	Chaparral, Coastal scrub		5	2905		1994-01-01	 © 2015 Keir Morse
<i>Lilium</i>	ocellated	perennial	Mar-	None	None	4.2	Chaparral, Openings		100	5905	Yes	1980-	

<i>humboldtii</i> ssp. <i>ocellatum</i>	Humboldt lily	bulbiferous herb	Jul(Aug)				Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland					01-01	© 2008 Thomas Stoughton
<i>Lilium parryi</i>	lemon lily	perennial bulbiferous herb	Jul-Aug	None	None	1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest	Mesic	4005	9005		1974-01-01	 © 2009 Thomas Stoughton
<i>Lycium parishii</i>	Parish's desert-thorn	perennial shrub	Mar-Apr	None	None	2B.3	Coastal scrub, Sonoran desert scrub		445	3280		1980-01-01	No Photo Available
<i>Malacothamnus parishii</i>	Parish's bush-mallow	perennial deciduous shrub	Jun-Jul	None	None	1A	Chaparral, Coastal scrub		1000	1495	Yes	1974-01-01	 © 2021 Keir Morse
<i>Monardella macrantha</i> ssp. <i>hallii</i>	Hall's monardella	perennial rhizomatous herb	Jun-Oct	None	None	1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland		2395	7200	Yes	1974-01-01	No Photo Available
<i>Monardella pringlei</i>	Pringle's monardella	annual herb	May-Jun	None	None	1A	Coastal scrub (sandy)		985	1310	Yes	1974-01-01	No Photo Available
<i>Muhlenbergia californica</i>	California muhly	perennial rhizomatous	Jun-Sep	None	None	4.3	Chaparral, Coastal	Mesic, Seeps, Streambanks	330	6560	Yes	1994-01-01	No Photo

		herb					scrub, Lower montane coniferous forest, Meadows and seeps					Available
<i>Muilla coronata</i>	crowned muilla	perennial bulbiferous herb	Mar-Apr(May)	None	None	4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland	2200	6430		1988-01-01	No Photo Available
<i>Nama stenocarpa</i>	mud nama	annual/perennial herb	Jan-Jul	None	None	2B.2	Marshes and swamps (lake margins, riverbanks)	15	1640		1994-01-01	No Photo Available
<i>Nasturtium gambelii</i>	Gambel's water cress	perennial rhizomatous herb	Apr-Oct	FE	CT	1B.1	Marshes and swamps (brackish, freshwater)	15	1085		1980-01-01	No Photo Available
<i>Packera bernardina</i>	San Bernardino ragwort	perennial herb	May-Jul	None	None	1B.2	Meadows and seeps (mesic, sometimes alkaline), Pebble (Pavement) plain, Upper montane coniferous forest	5905	7545	Yes	1974-01-01	No Photo Available
<i>Pelazoneuron puberulum</i> var. <i>sonorense</i>	Sonoran maiden fern	perennial rhizomatous herb	Jan-Sep	None	None	2B.2	Meadows and seeps (seeps, streams)	165	2000		1994-01-01	No Photo Available
<i>Perideridia parishii</i> ssp. <i>parishii</i>	Parish's yampah	perennial herb	Jun-Aug	None	None	2B.2	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous	4805	9845		1974-01-01	No Photo Available

forest													
<i>Phacelia mohavensis</i>	Mojave phacelia	annual herb	Apr-Aug	None	None	4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland	Gravelly (sometimes), Sandy (sometimes)	4595	8205	Yes	1994-01-01	No Photo Available
<i>Phacelia stellaris</i>	Brand's star phacelia	annual herb	Mar-Jun	None	None	1B.1	Coastal dunes, Coastal scrub		5	1310		1994-01-01	No Photo Available
<i>Piperia leptopetala</i>	narrow-petaled rein orchid	perennial herb	May-Jul	None	None	4.3	Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest		1245	7300	Yes	2001-01-01	No Photo Available
<i>Quercus engelmannii</i>	Engelmann oak	perennial deciduous tree	Mar-Jun	None	None	4.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland		165	4265		1988-01-01	No Photo Available
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's gooseberry	perennial deciduous shrub	Feb-Apr	None	None	1A	Riparian woodland		215	985	Yes	1988-01-01	No Photo Available
<i>Romneya coulteri</i>	Coulter's matilija poppy	perennial rhizomatous herb	Mar-Jul(Aug)	None	None	4.2	Chaparral, Coastal scrub	Burned areas (often)	65	3935		1974-01-01	No Photo Available
<i>Rupertia rigida</i>	Parish's rupertia	perennial herb	Jun-Aug	None	None	4.3	Chaparral, Cismontane woodland, Lower montane coniferous forest, Meadows and seeps,		2295	8205		1974-01-01	No Photo Available

							Pebble (Pavement) plain, Valley and foothill grassland						
<i>Schoenus nigricans</i>	black bog-rush	perennial herb	Aug-Sep	None	None	2B.2	Marshes and swamps (often alkaline)	490	6560		2001-01-01	No Photo Available	
<i>Senecio aphanactis</i>	chaparral ragwort	annual herb	Jan-Apr(May)	None	None	2B.2	Chaparral, Cismontane woodland, Coastal scrub	50	2625		1994-01-01	No Photo Available	
<i>Senecio astephanus</i>	San Gabriel ragwort	perennial herb	May-Jul	None	None	4.3	Chaparral, Coastal bluff scrub	1310	4920	Yes	2006-12-21	No Photo Available	
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	Parish's checkerbloom	perennial herb	(May)Jun-Aug	None	CR	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest	3280	8200	Yes	1974-01-01	No Photo Available	
<i>Sidalcea malviflora</i> ssp. <i>dolosa</i>	Bear Valley checkerbloom	perennial herb	May-Aug	None	None	1B.2	Lower montane coniferous forest (meadows, seeps), Meadows and seeps, Riparian woodland, Upper montane coniferous forest (meadows, seeps)	4905	8810	Yes	2012-06-13	No Photo Available	
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	perennial herb	Mar-Jun	None	None	2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas	50	5020		1994-01-01	No Photo Available	

<i>Sidalcea pedata</i>	bird-foot checkerbloom	perennial herb	May-Aug	FE	CE	1B.1	Meadows and seeps (mesic), Pebble (Pavement) plain		5250	8205	Yes	1974- 01-01	No Photo Available
<i>Sidotheca caryophylloides</i>	chickweed oxytheca	annual herb	Jul- Sep(Oct)	None	None	4.3	Lower montane coniferous forest (sandy)		3655	8530	Yes	1980- 01-01	 ©2021 Keir Morse
<i>Sphenopholis obtusata</i>	prairie wedge grass	perennial herb	Apr-Jul	None	None	2B.2	Cismontane woodland, Meadows and seeps	Mesic	985	6560		1974- 01-01	No Photo Available
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	perennial herb	May-Aug	None	None	4.3	Chaparral, Lower montane coniferous forest		2200	8205	Yes	1980- 01-01	No Photo Available
<i>Streptanthus campestris</i>	southern jewelflower	perennial herb	(Apr)May- Jul	None	None	1B.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland	Rocky	2955	7545		1994- 01-01	No Photo Available
<i>Symphotrichum defoliatum</i>	San Bernardino aster	perennial rhizomatous herb	Jul-Nov	None	None	1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland (vernally mesic)	Streambanks	5	6695	Yes	2004- 01-01	No Photo Available
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's trichocoronis	annual herb	May-Sep	None	None	2B.1	Marshes and swamps, Meadows	Alkaline	15	1425		1988- 01-01	No Photo Available

							and seeps, Riparian forest, Vernal pools					
<i>Trichostema micranthum</i>	small- flowered bluecurls	annual herb	Jun-Sep	None	None	4.3	Lower montane coniferous forest, Meadows and seeps	Mesic	5005	7545	1974- 01-01	No Photo Available

Showing 1 to 87 of 87 entries

Suggested Citation:

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CONTACT US

Send questions and comments to rareplants@cnps.org.

[Development Team](#)

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- [The California Lichen Society](#)
- [California Natural Diversity Database](#)
- [The Jepson Flora Project](#)
- [The Consortium of California Herbaria](#)
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IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Bernardino County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📅 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
<p>San Bernardino Merriam's Kangaroo Rat <i>Dipodomys merriami parvus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2060</p>	Endangered
<p>Stephens' Kangaroo Rat <i>Dipodomys stephensi</i> (incl. <i>D. cascus</i>) Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3495</p>	Threatened

Birds

NAME	STATUS
<p>Coastal California Gnatcatcher <i>Polioptila californica californica</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8178</p>	Threatened
<p>Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945</p>	Endangered

Reptiles

NAME	STATUS
------	--------

Southwestern Pond Turtle *Actinemys pallida*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4768>

Fishes

NAME

STATUS

Santa Ana Sucker *Catostomus santaanae*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
<https://ecos.fws.gov/ecp/species/3785>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Flowering Plants

NAME

STATUS

Nevin's Barberry *Berberis nevinii*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
<https://ecos.fws.gov/ecp/species/8025>

San Diego Ambrosia *Ambrosia pumila*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
<https://ecos.fws.gov/ecp/species/8287>

Slender-horned Spineflower *Dodecahema leptoceras*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4007>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below.

Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

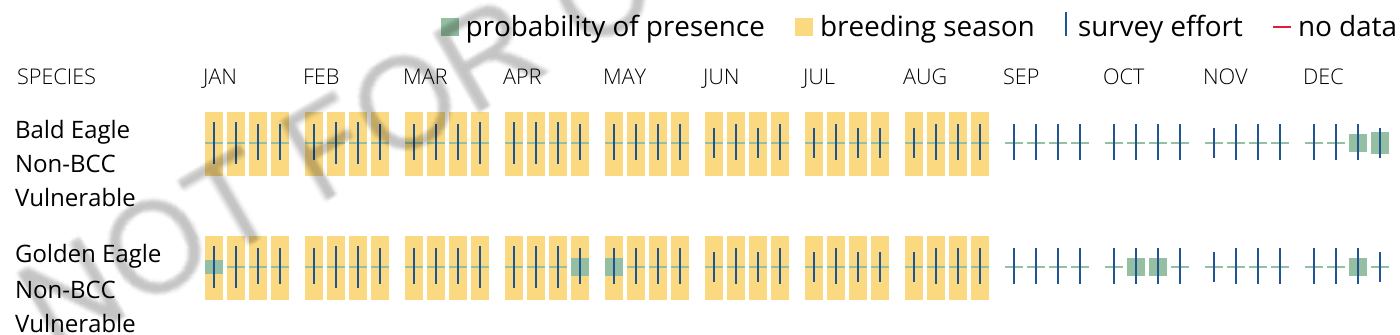
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Allen's Hummingbird *Selasphorus sasin*

Breeds Feb 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Belding's Savannah Sparrow *Passerculus sandwichensis*

Breeds Apr 1 to Aug 15

beldingi

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8>

Bullock's Oriole *Icterus bullockii*

Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull *Larus californicus*

Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

- California Thrasher** *Toxostoma redivivum* Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
- Cassin's Finch** *Carpodacus cassinii* Breeds May 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9462>
- Clark's Grebe** *Aechmophorus clarkii* Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
- Common Yellowthroat** *Geothlypis trichas sinuosa* Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/2084>
- Golden Eagle** *Aquila chrysaetos* Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
<https://ecos.fws.gov/ecp/species/1680>
- Lawrence's Goldfinch** *Carduelis lawrencei* Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9464>
- Nuttall's Woodpecker** *Picoides nuttallii* Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/9410>
- Oak Titmouse** *Baeolophus inornatus* Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

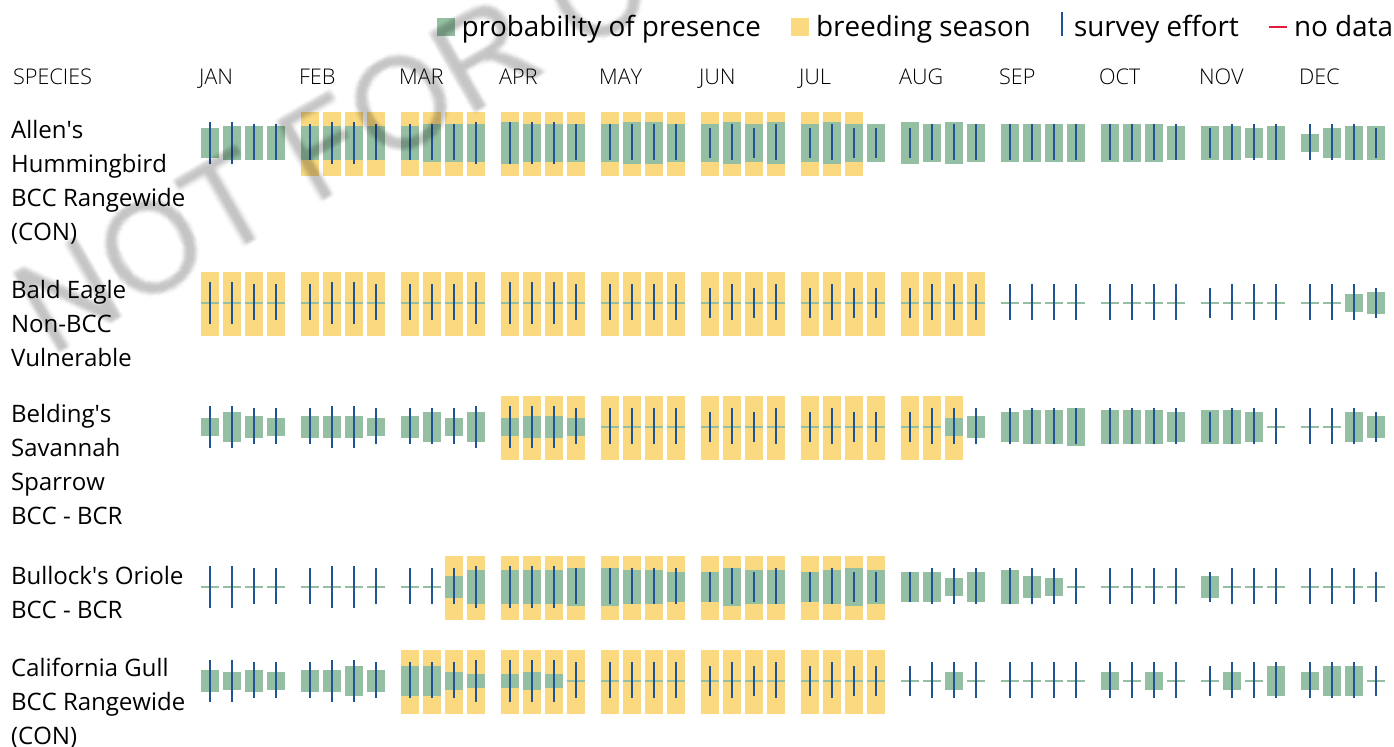
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

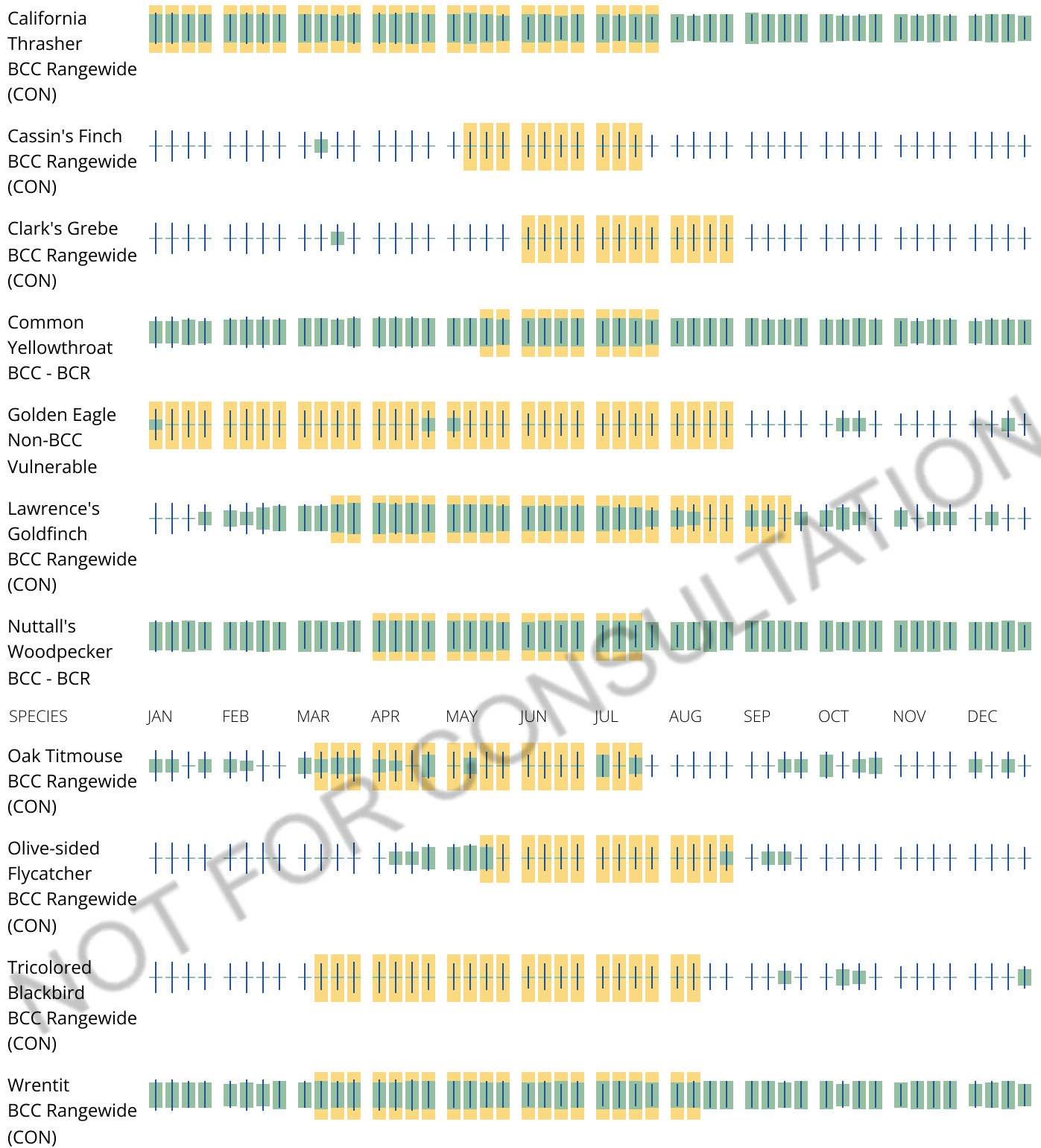
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in

offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT 3 – PLANT SPECIES OBSERVED



ATTACHMENT 3 – PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
AMARANTHACEAE	AMARANTH FAMILY
<i>Amaranthus albus*</i>	tumbling pigweed
ASTERACEAE	SUNFLOWER FAMILY
<i>Erigeron bonariensis*</i>	flax-leaved horseweed
BORAGINACEAE	BORAGE FAMILY
<i>Amsinckia menziesii</i>	common fiddleneck
BRASSICACEAE	MUSTARD FAMILY
<i>Brassica fruticulosa*</i>	Mediterranean cabbage
<i>Brassica tournefortii*</i>	Sahara mustard
<i>Sisymbrium irio*</i>	London rocket
CHENOPODIACEAE	GOOSEFOOT FAMILY
<i>Salsola australis*</i>	Russian-thistle
GERANIACEAE	GERANIUM FAMILY
<i>Erodium cicutarium*</i>	red-stemmed filaree
MALVACEAE	MALLOW FAMILY
<i>Malva parviflora*</i>	cheeseweed
MYRTACEAE	MYRTLE FAMILY
<i>Eucalyptus sp.*</i>	gum tree
SOLANACEAE	NIGHTSHADE FAMILY
<i>Datura wrightii</i>	jimson weed
URTICACEAE	NETTLE FAMILY
<i>Urtica urens*</i>	dwarf nettle
ANGIOSPERMS (MONOCOTS)	
POACEAE	GRASS FAMILY
<i>Bromus diandrus*</i>	ripgut grass
<i>Cynodon dactylon*</i>	Bermuda grass
<i>Hordeum murinum*</i>	glaucous foxtail barley
<i>Schismus barbatus*</i>	Mediterranean schismus

*Non-Native Species

ATTACHMENT 4 – WILDLIFE SPECIES OBSERVED



ATTACHMENT 4 – WILDLIFE SPECIES OBSERVED OR DETECTED

Scientific Name	Common Name
CLASS AVES	BIRDS
CORVIDAE	JAYS & CROWS
<i>Corvus corax</i>	common raven
CHARADRIIDAE	PLOVERS
<i>Charadrius vociferus</i>	killdeer
PARULIDAE	WOOD WARBLERS
<i>Setophaga coronata</i>	yellow-rumped warbler
TYRANNIDAE	TYRANT FLYCATCHERS
<i>Sayornis nigricans</i>	black phoebe
COLUMBIDAE	PIGEONS & DOVES
<i>Zenaida macroura</i>	mourning dove
ACCIPITRIDAE	HAWKS, KITES, EAGLES
<i>Buteo jamaicensis</i>	red-tailed hawk
MIMIDAE	MOCKINGBIRDS, THRASHERS
<i>Mimus polyglottos</i>	northern mockingbird
MOTACILLIDAE	PIPITS
<i>Anthus rubescens</i>	American pipit

ATTACHMENT 5 – SITE PHOTOGRAPHS



ATTACHMENT 5 – SITE PHOTOGRAPHS



Photo 1.

Photo depicting the disturbed disc-mowed soils and tire tracks that were observed throughout the Project site. Photo was taken along the eastern border facing west.



Photo 2.

Overview of the Project site taken from the southeast corner facing northwest. Site is comprised of primarily Ruderal areas.



Photo 3.

Overview of the Project site taken from the southwest corner facing northeast. Site is comprised of primarily Ruderal areas.



Photo 4.

Overview of the Project site taken from the northwest corner facing southeast. Site is comprised of primarily Ruderal areas.



Photo 5.

Overview of the Project site taken from the northeast corner facing southwest. Site is comprised of primarily Ruderal areas.



Photo 6.

Overview of the Project site taken from the center facing west. Site is comprised of primarily Ruderal areas.



Photo 7.

Overview of the Project site taken from the center facing east. The site is comprised of primarily Ruderal vegetation. A small area of Developed sidewalk is present along the eastern border of the Project site.